



**Product Guide 2025**



## ***The company***

**Giordano Riello, founder of Aermec, assisted by his son Alessandro and daughter Raffaella, has solidly associated the Company name with precise values:**

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### *Respect for the environment*

By using new eco-friendly refrigerants as well as innovative installations using water as the carrier fluid.

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### *Energy saving*

The great challenge of the Third Millennium, with the development of combined heating and air conditioning systems where appliances are used only as and when necessary.

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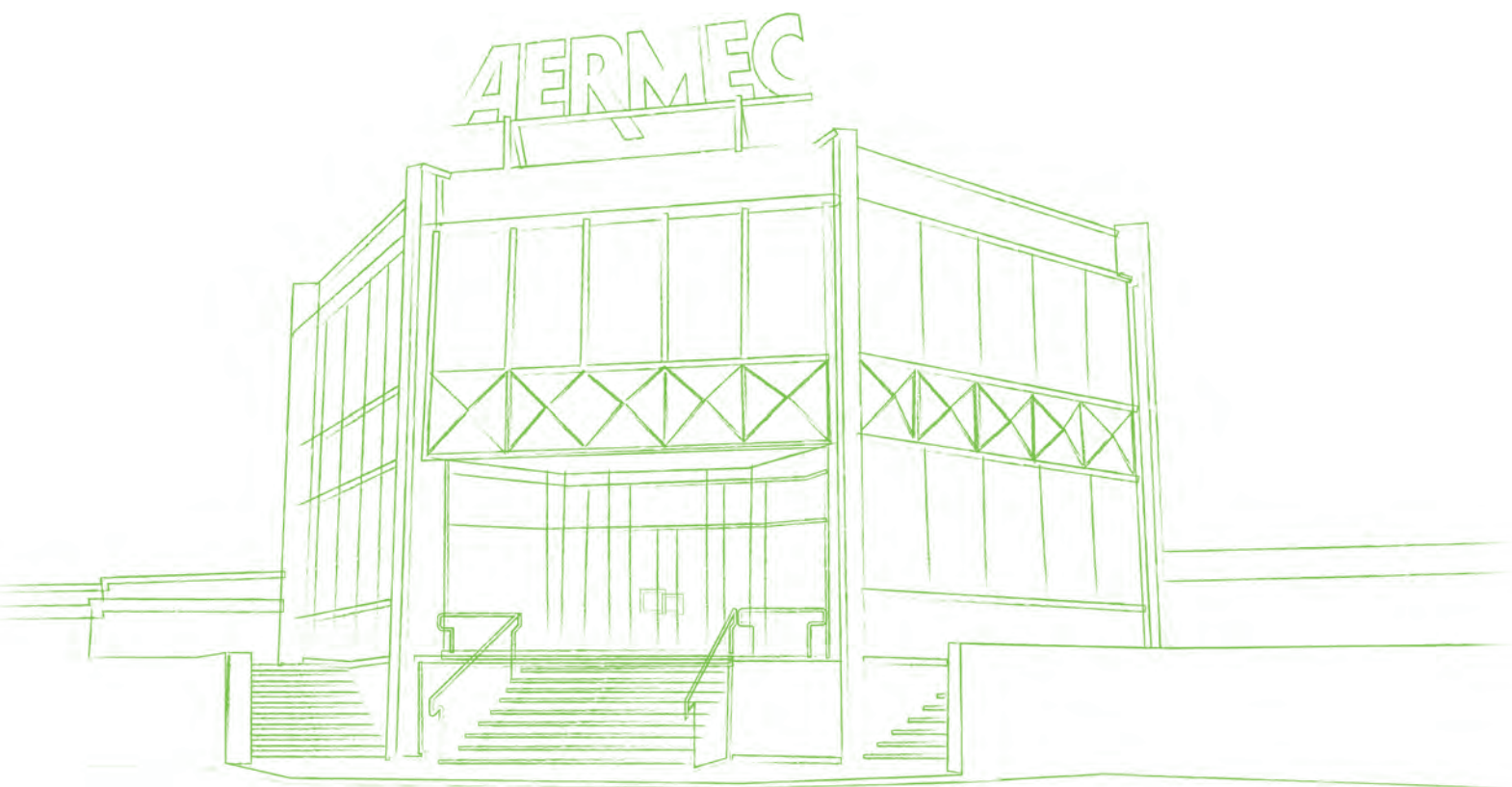
### *Noise pollution control*

With low-noise emission products, which undergo scrupulous testing before being put on the market.

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### *Health care*

With special filters that hold back the smallest suspension particles, the Cold Plasma Generator system that guarantees effective air purification (making for a healthier environment), and the new photocatalytic device, this air purification system is ideal for places where the highest degree of hygiene is required.



# History

## 1961

Giordano Riello sets up Riello Condizionatori, initially producing for contractors only. The story begins.

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## 1963

The Aermec brand is born and marks all future company products designed and manufactured on site. The brand name gains a stronghold as a major product name in Italy and throughout Europe.

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## 1970

Aermec can already supply fresh and warm air. Aermec presents the first dual section conditioner: the first "split-system". Fancoil production starts.

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## 1973

Aermec receives European Award Gold Mercury.

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## 1980

The Eighties sees the development of water chillers and air handling units.

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## 1990

The Nineties mark the definitive consolidation of the company on the market. The Aermec brand is associated with advanced technology and high quality design.

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## 1998

The name makes the company. From 1 January Aermec becomes the company name as well as product brand.

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## 2002

Design and technology: Aermec launched Omnia a new generation of fancoils, designed for domestic applications. OMNIA is the result of co operation with a worldwide prestigious designer.

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## 2003

Aermec UK was acquired.

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## 2004

The international market ask for number and Aermec answer. Giordano Riello make the producing system more technological.

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## 2008

Aermec responds with more and more efficient units to the world challenge of energy saving with a special attention for our environment.

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## 2011

Aermec turns 50. The company has developed and enlarged, always willing to understand and anticipate the needs of the market. Promoter of "integrated design" between designer and architect.

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## 2012

Aermec Polska was acquired.

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## 2015

The news Europe's largest test facility for air conditioning applications was inaugurated.

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## 2017

Aermec receives Innovation Award from the US Organizations ASHRAE, AHRI and AHR. Aermec receives "Prime Company" certificate for the economic strength and commercial reliability from the Dun & Bradstreet. Aermec Deutschland was acquired.

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## 2018

Aermec awards first prize in "RAC Cooling Industry Award 2018" in London by an Internationally qualified Jury.

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## 2019

Aermec receives the prizes: "NATIONAL ACR & HEAT PUMPS AWARDS 2019" in the category of Data Centre Rooftop Chiller installation, "H&V News Awards 2019" attributed by a HVAC technical jury the United Kingdom.

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## 2020

For the second year in a row, Aermec receives the prize ACR NEWS AWARDS for Data Centers category in the UK.

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## 2021

Aermec turns 60.

Aermec's 60th anniversary coincides with the Covid 19 pandemic.

The company opens a vaccination hub available not only to its own employees but to the entire population of the area.

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## 2022

Aermec breaks through the barrier of 300 million turnover. The Raffaello Riello Research and Training Centre was inaugurated on 12 May.

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## 2023

Founder Giordano Riello leaves us on May 14.

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## 2024

The Spanish companies Airlan and Airlan Industrial were acquired. The holding company Aermec North America that controls Aermec USA and Aermec Canada for the distribution of products in the North American continent was established.

## LOGO INDEX:

### CERTIFICATIONS:



CE marking

### REFRIGERANT:



R290 refrigerant



R32 refrigerant



R1234ze refrigerant



R134a refrigerant



R410A refrigerant



XP10 refrigerant

### OPERATIONAL TYPES:



Evaporating unit



Cooling and heating



Cooling only



DHW



Condensing unit



Free-Cooling



Heating only



Multipurpose



For four pipes plants



For three pipes plants



For two pipes plants

### INSTALLATION TYPES:



Cassette installation



Ceiling installation



Ducted installation



Floor installation



Wall installation



Air indoor unit



Air outdoor unit



Water indoor unit

### KINDS OF EXCHANGERS :



Heat recovery



Plate exchanger



Pump kit



Shell and tube exchanger



Water tank

### KINDS OF COMPRESSORS:



Centrifugal compressor



Inverter centrifugal compressor



Rotary compressor



Inverter rotary compressor



Scroll compressor



Inverter scroll compressor



Twin screw compressor



Inverter twin screw compressor

### KINDS OF FANS:



Axial fan



Inverter axial fan



Centrifugal fan



Inverter centrifugal fan



EC fan



Inverter EC fan



Plug fan



Inverter plug fan

### EXTRA:



Inverter device



Compatible with ModBus protocol



Cold Plasma device



Touch control



Compatible with VMF system (Variable Multi Flow)



Aermec is one of the companies belonging to Giordano Riello International Group and takes part to Eurovent programme for NCD series.



Aermec takes part to EUROVENT Programmes: FCH - FCHP for fan coil series.  
Aermec is involved in EUROVENT Programme: LCP for chiller range.  
The products involved appear on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



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FACILITY

# I N D E X

| FAN COILS  |                  |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|--|------------------|--|-------------------------|--------------------|--------------------|------|
| With cabinet; universal installation                             |                  |  |                         |                    |                    |      |
|  | FCZ              | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 12   |
|  | FCZI             | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 25   |
|  | FCZ-D            | On/Off   | 140-720                 | 0,89-4,25          | 2,02-8,50          | 34   |
|  | FCZI-D           | Inverter   | 140-720                 | 0,89-4,25          | 2,02-8,50          | 39   |
|  | FCZ-H            | On/Off   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 44   |
|  | FCZI-H           | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 50   |
| new  | FCZ-ASW          | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 56   |
|  | Omnia UL         | On/Off   | 80-460                  | 0,53-2,79          | 1,06-5,94          | 57   |
|  | Omnia ULI        | Inverter   | 110-460                 | 0,69-2,79          | 0,76-5,94          | 61   |
|  | Omnia Radiant    | On/Off o inverter with radiant panel                       | 190-460                 | 1,42-2,83          | 2,89-5,94          | 65   |
| new  | Omnia ULSI_B     | Inverter   | 46-427                  | 0,37-3,00          | 0,35-5,73          | 70   |
| Without cabinet; concealed installation with low static pressure |                  |  |                         |                    |                    |      |
|  | FCY              | On/Off   | 148-1050                | 0,93-5,80          | 1,05-12,09         | 74   |
|  | FCYI             | Inverter   | 123-799                 | 0,80-4,70          | 0,90-10,15         | 85   |
|  | FCZ P - PO       | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 95   |
|  | FCZI P           | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 111  |
|  | Omnia UL P       | On/Off   | 80-460                  | 0,53-2,79          | 0,52-5,94          | 123  |
|  | Omnia ULI P      | Inverter   | 110-460                 | 0,69-2,79          | 0,76-5,94          | 127  |
| new  | Omnia ULSI_P     | Inverter   | 46-427                  | 0,37-3,00          | 0,35-5,73          | 130  |
| Without cabinet; duct installation with high static pressure     |                  |  |                         |                    |                    |      |
|  | VED 030-340      | On/Off with static pressure 21-66Pa                        | 161-775                 | 0,97-5,26          | 0,90-10,95         | 134  |
|  | VED 030I-340I    | Inverter with static pressure 21-66Pa                      | 161-775                 | 0,98-5,27          | 0,90-10,95         | 140  |
|  | VED 430-741      | On/Off with static pressure 24-75Pa                        | 750-2358                | 4,54-16,10         | 5,20-31,71         | 146  |
|  | VED 530I-741I    | Inverter with static pressure 32-69Pa                      | 1060-2358               | 6,05-16,08         | 6,70-31,71         | 152  |
|  | VDCA-D           | Fan coil unit for ducted installations                     | 260-2800                | 0,79-12,81         | 1,57-16,67         | 158  |
|  | VDCB-D           | Fan coil unit for ducted installations                     | 200-3200                | 0,53-14,32         | 1,04-18,63         | 165  |
|  | MZC              | Plenum with motor-driven dampers for channelling fan coils | -                       | -                  | -                  | 173  |
| Cassette; ceiling installation                                   |                  |  |                         |                    |                    |      |
|  | VEC              | On/Off with coanda effect                                  | 130-613                 | 0,80-4,28          | 0,95-9,18          | 177  |
|  | VEC-I            | Inverter with coanda effect                                | 130-613                 | 0,80-4,28          | 0,95-9,18          | 181  |
|  | FCL              | On/Off   | 300-1750                | 1,14-10,83         | 1,74-21,75         | 185  |
|  | FCLI             | Inverter   | 300-1750                | 1,15-10,87         | 1,10-21,75         | 192  |
| Wall installation  |                  |  |                         |                    |                    |      |
|  | FCW              | On/Off   | 280-1082                | 1,37-7,00          | 1,42-14,00         | 199  |
|  | FCW I            | Inverter   | 280-1082                | 1,37-7,00          | 1,42-14,00         | 203  |
|  |                  |  |                         |                    |                    |      |
|  | Ventilcassaforma | Template for recessed installation of fancoils in the wall | -                       | -                  | -                  | 206  |
|  | Control panels   | Range of control panels for fan coils                      | -                       | -                  | -                  | 209  |
|  | VMF              | Variable Multi Flow system for plant management            | -                       | -                  | -                  | 213  |

| HEAT RECOVERY UNITS |   | Air flow rate<br>(m3/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---------------------|---|-------------------------|--------------------|--------------------|------|
| RPS                 | Counter-current flow heat recovery unit with inverter motor               | 800                     | -                  | -                  | 224  |
| REPURO              | With cross-flow exchanger   | 100-650                 | -                  | -                  | 229  |
| TRS                 | Heat recovery unit with enthalpy exchanger                                | 250-1300                | -                  | -                  | 235  |
| RPLI                | Counter-current flow heat recovery unit with inverter motor               | 200-3900                | -                  | -                  | 237  |
| RTD                 | Thermodynamic recovery unit with integrated heat pump                     | 1100-3200               | -                  | -                  | 242  |
| RPF                 | High performance heat recovery unit with cross-current recuperator        | 790-4250                | -                  | -                  | 246  |
| URX-CF              | With cross-flow exchanger and refrigerant circuit                         | 750-3300                | -                  | -                  | 250  |
| URHE-CF             | High efficiency version with cross-flow exchanger and refrigerant circuit | 1000-3300               | -                  | -                  | 254  |
| ERSR                | High-efficiency heat recovery with rotary recovery unit                   | 1000-30000              | -                  | -                  | 258  |

| AIR HANDLING UNITS                |                                  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-----------------------------------|----------------------------------|-------------------------|--------------------|--------------------|------|
| <b>Compact air handling units</b> |                                  |                         |                    |                    |      |
| TVS                               | Air flow rate 800÷5200 m³/h      | 800-5200                | 4,40-27,80         | 10,50-66,40        | 264  |
| TVH                               | Air flow rate 800÷5200 m³/h      | 800-5200                | 4,70-29,30         | 11,60-73,90        | 273  |
| TS                                | Air flow rate 810÷4225 m³/h      | 810-4225                | 4,39-24,93         | 8,89-52,44         | 282  |
| TA                                | Air flow rate 800÷5000 m³/h      | 800-5000                | 4,2-39,6           | 3,9-72,8           | 286  |
| TN                                | Air flow rate 3000÷23000 m³/h    | 3000-23000              | 12,6-127,8         | 14,7-277,3         | 291  |
| <b>Modular air handling units</b> |                                  |                         |                    |                    |      |
| NCD                               | Air handling units               | 1134-79475              | -                  | -                  | 298  |
| SPL 025-130                       | For wellness areas               | 4000-13000              | -                  | -                  | 301  |
| SPL 160-250                       | For wellness areas               | 16000-25000             | -                  | -                  | 305  |
| <b>Packaged ROOF-TOP units</b>    |                                  |                         |                    |                    |      |
| new RTG 060X-125X                 | For medium crowding applications | -                       | 57,7-128,1         | 58,1-124,6         | 308  |
| RTX N1-N8                         | For medium crowding applications | -                       | 12,70-49,95        | 13,50-50,79        | 314  |
| RTX 09-16                         | For medium crowding applications | -                       | 50-135             | 49-141             | 319  |
| RTX 17-23                         | For medium crowding applications | -                       | 151-307            | 152-310            | 325  |
| RTY 01-10                         | For high crowding applications   | -                       | 30,2-133,6         | 29,3-137,9         | 330  |

| AIR / WATER CHILLERS AND HEAT PUMPS       |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---|--|-------------------------|--------------------|--------------------|------|
| <b>Units with scroll compressors</b>      |  |                         |                    |                    |      |
| ANKI 020-080                              | Reversible heat pumps inverter                                   | -                       | 5,8-24,8           | 6,1-20,8           | 336  |
| HMI                                       | Reversible air/water heat pump                                   | -                       | 3,0-14,5           | 4,0-15,5           | 342  |
| new HMI 180T-220T                         | Reversible air/water heat pump                                   | -                       | 17,5-21,0          | 18,0-22,0          | 349  |
| BHP                                       | Air/Water split type reversible heat pump                        | -                       | 3,2-11,5           | 4,0-16,0           | 354  |
| HMG                                       | Reversible air/water heat pump                                   | -                       | 32-60              | 35-65              | 367  |
| HMG_P                                     |  | -                       | 33-60              | 36-65              |      |
| ANLI                                      | Reversible heat pumps inverter                                   | -                       | 29,0-42,3          | 31,4-33,3          | 375  |
| ANK 020-150                               | Reversible air/water heat pump optimised for use in heating mode | -                       | 6,8-39,8           | 8,0-35,3           | 381  |
| new SHW                                   | Heat pump water heater   | -                       | -                  | -                  | 388  |
| MIC                                       | Air-water chiller  | -                       | 3                  | -                  | 391  |
| ANL 021-202                               | Air-water chiller  | -                       | 5,7-43,3           | -                  | 396  |
| ANL 021H-203H                             | Reversible air/water heat pump                                   | -                       | 5,7-49,1           | 6,2-43,3           | 402  |
| NRK 0090-0150                             | Reversible air/water heat pump optimised for use in heating mode | -                       | 18,4-31,0          | 20,8-34,4          | 410  |
| NRK 0200-0700                             | Reversible air/water heat pump optimised for use in heating mode | -                       | 35,5-148,0         | 42,3-175,0         | 414  |
| NRV 0550                                  | Air-water chiller  | -                       | 108,3              | -                  | 420  |
| new PRM 0504                              | Air-cooled reversible modular heat pump                          | -                       | 95,6               | 101,7              | 425  |
| new PRG-0282H-0654H                       | Reversible air/water heat pump                                   | -                       | 49-143             | 51-143             | 432  |
| NRB 0282-0754                             | Air-water chiller  | -                       | 56-202             | -                  | 441  |
| NRB 0282H-0754H                           | Reversible air/water heat pump                                   | -                       | 52-261             | 57-193             | 451  |
| NRG 0282-0804                             | Air-water chiller  | -                       | 55,8-224,6         | -                  | 459  |
| NRG 0282H-0804H                           | Reversible air/water heat pump                                   | -                       | 52,5-212,0         | 56,6-214,4         | 468  |
| NRGI 151-602                              | Air-water chiller  | -                       | 31,0-132,2         | -                  | 476  |
| NRGI 151H-602H                            | Reversible air/water heat pump                                   | -                       | 28,9-123,7         | 31,6-133,9         | 481  |
| NRL 0280-0350                             | Air-water chiller  | -                       | 56,0-82,0          | -                  | 487  |
| NRL 0280H-0350H                           | Reversible air/water heat pump                                   | -                       | 51,0-76,0          | 58,0-86,0          | 492  |
| NRG 0800-3600                             | Air-water chiller  | -                       | 225,7-725,0        | -                  | 497  |
| NRG 0800H-3600H                           | Reversible air/water heat pump                                   | -                       | 194,9-962,3        | 209,6-991,9        | 506  |
| NRB 0800-2406                             | Air-water chiller (plate heat exchanger)                         | -                       | 216,9-716,9        | -                  | 515  |
| NRB 0800-2406 Q                           | Air-water chiller (shell and tube heat exchanger)                | -                       | 216,9-716,9        | -                  | 524  |
| NRB 0800H-2406H                           | Reversible air/water heat pump (plate heat exchanger)            | -                       | 196,4-647,7        | 209,8-683,9        | 533  |
| NRB 0800W-2406W                           | Reversible air/water heat pump (shell and tube heat exchanger)   | -                       | 196,4-647,7        | 209,8-683,9        | 542  |
| CL 025-200                                | Air-water chiller with Plug Fan                                  | -                       | 5,8-41,0           | -                  | 550  |
| CL 025H-200H                              | Reversible air/water heat pump with Plug Fan                     | -                       | 6,5-50,9           | 7,7-44,8           | 555  |
| NLC 0280-1250                             | Air-water chiller with Plug Fan                                  | -                       | 53-322             | -                  | 561  |
| NLC 0280H-1250H                           | Reversible air/water heat pump with Plug Fan                     | -                       | 53-322             | 55-342             | 568  |
| <b>Units with screw compressors</b>       |  |                         |                    |                    |      |
| NSM 1402-9603                             | Air-water chiller  | -                       | 302-2100           | -                  | 573  |
| NSMI 1251-6102                            | Chiller with Inverter screw compressors                          | -                       | 285,6-1342,6       | -                  | 587  |
| NSH                                       | Reversible air/water heat pump                                   | -                       | 251-731            | 281-786            | 591  |
| NSG                                       | Air-water chiller (with R1234ze)                                 | -                       | 228-1580           | -                  | 597  |
| <b>Units with centrifugal compressors</b> |  |                         |                    |                    |      |
| TBA 1300-4325                             | Air-water chiller  | -                       | 328-1404           | -                  | 609  |
| TBG 1230-4310                             | Air-water chiller  | -                       | 200-1165           | -                  | 614  |

| AIR / WATER CHILLERS WITH FREECOOLING |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---------------------------------------|--|-------------------------|--------------------|--------------------|------|
| <b>Units with scroll compressors</b>  |  |                         |                    |                    |      |
| NRG 0282-0754 F                       | Air-water chiller with free-cooling                                | -                       | 58-190             | -                  | 622  |
| NRG 0800-2400-F                       | Air-water chiller with free-cooling                                | -                       | 224-717            | -                  | 627  |
| NRG 0800-2400-B                       | Air-water chiller with free-cooling glycol free                    | -                       | 224-717            | -                  | 634  |
| NRB 0800-2406 F                       | Air-water chiller with free-cooling                                | -                       | 211-680            | -                  | 641  |
| NRB 0800-2406 B                       | Air-water chiller with free-cooling glycol free                    | -                       | 211-680            | -                  | 649  |
| NRV 0550 F                            | Air-water chiller with free-cooling                                | -                       | 99,9-105,4         | -                  | 656  |
| <b>Units with screw compressors</b>   |  |                         |                    |                    |      |
| NSM 1402-9603 F                       | Air-water chiller with free-cooling                                | -                       | 306-2028           | -                  | 660  |
| NSM 1402-9603 B                       | Air-water chiller with free-cooling glycol free                    | -                       | 305,8-2028,1       | -                  | 673  |
| NSM-HWT-1402-9603-F                   | Air-water chiller with free-cooling                                | -                       | 306-2001           | -                  | 684  |
| NSM-HWT-1402-9603-B                   | Air-water chiller with free-cooling glycol free                    | -                       | 306-1991           | -                  | 693  |
| NSMI 1251-6102 F                      | Air-water chiller with free-cooling and Inverter screw compressors | -                       | 286-1280           | -                  | 702  |
| TBA 1300-3350 F                       | Air-water chiller with free-cooling                                | -                       | 317,2-1223,6       | -                  | 707  |
| TBG 1230-4310 F                       | Air-water chiller with free-cooling                                | -                       | 238-1110           | -                  | 712  |

| WATER / WATER CHILLERS AND HEAT PUMPS     |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---|--|-------------------------|--------------------|--------------------|------|
| <b>Units with scroll compressors</b>      |  |                         |                    |                    |      |
| VENICE-H                                  | Reversible water-cooled heat pump, gas side  | -                       | 6,9-9,7            | 8,3-11,7           | 720  |
| WRL 026H-161H                             | Reversible water-cooled heat pump, gas side  | -                       | 6,0-40,0           | 8,0-48,0           | 723  |
| WRL 026-161                               | Water cooled heat pump reversible water side | -                       | 6,6-44,2           | 7,5-48,0           | 730  |
| WRL 180H-650H                             | Reversible water-cooled heat pump, gas side  | -                       | 44,9-157,4         | 53,0-183,3         | 736  |
| WRL 180-650                               | Water cooled heat pump reversible water side | -                       | 49,0-174,0         | 55,0-192,0         | 740  |
| WRK                                       | Reversible water-cooled heat pump, gas side  | -                       | 38,9-165,9         | 48,5-207,7         | 745  |
| WWB 0300-0900                             | Water-water heat pumps only                  | -                       | -                  | 56,7-265,9         | 753  |
| new WWBG                                  | Water-water heat pumps only                  | -                       | -                  | 77,2-138,2         | 758  |
| WWM                                       | Water cooled heat pump reversible water side | -                       | 96                 | 110                | 763  |
| NXW 0503-1654                             | Water cooled heat pump reversible water side | -                       | 111-511            | 127-582            | 769  |
| NXW 0503H - 1654H                         | Reversible water-cooled heat pump, gas side  | -                       | 106-477            | 125-565            | 774  |
| new NGW-0500-2600                         | Water cooled heat pump reversible water side | -                       | 116,3-790,2        | 131,3-904,6        | 779  |
| new NGW-0350H-2600H                       | Reversible water-cooled heat pump, gas side  | -                       | 107,0-746,4        | 126,3-879,3        | 784  |
| <b>Units with screw compressors</b>       |  |                         |                    |                    |      |
| WS 0601-2802                              | Water cooled heat pump reversible water side | -                       | 147-700            | 164-778            | 790  |
| HWS 0601 - 2802                           | Water cooled heat pump reversible water side | -                       | 147-369            | 165-778            | 794  |
| HWSG                                      | Water cooled heat pump reversible water side | -                       | 110-396            | 122-595            | 799  |
| WSH                                       | Reversible water-cooled heat pump, gas side  | -                       | 165,8-269,7        | 183,3-300,3        | 803  |
| WFGI                                      | Water cooled heat pump reversible water side | -                       | 217-1765           | 243-1960           | 807  |
| WFGN                                      | Water cooled heat pump reversible water side | -                       | 136-1727           | 153-1921           | 817  |
| WFI                                       | Water cooled heat pump reversible water side | -                       | 291-2406           | 326-2664           | 824  |
| WFN                                       | Water cooled heat pump reversible water side | -                       | 182-2349           | 205-2610           | 833  |
| <b>Units with centrifugal compressors</b> |  |                         |                    |                    |      |
| WMX                                       | Water/water chiller (with R134a)             | -                       | 280,1-324,2        | -                  | 841  |
| WMG                                       | Water/water chiller (with R1234ze)           | -                       | 282,3-312,4        | -                  | 844  |
| WTX                                       | Water/water chiller                          | -                       | 222,9-1958,4       | -                  | 847  |
| WTG                                       | Water/water chiller (with R1234ze)           | -                       | 246,6-1959,4       | -                  | 852  |

| MULTI-PURPOSE |   | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---------------|---|-------------------------|--------------------|--------------------|------|
| NRP 0200-0750 | Air-water multipurpose (plate heat exchanger)                 | -                       | 43-185             | 46-205             | 858  |
| NRP 0804-2406 | Air-water multipurpose (plate heat exchanger)                 | -                       | 207-639            | 208-662            | 865  |
| NPG 0800-3600 | Air-water multipurpose (plate heat exchanger)                 | -                       | 206,5-657,8        | 212,0-670,8        | 872  |
| CPS           | Multifunction unit with multiple temperature level capability | -                       | 164-491            | 176-505            | 882  |
| NXP 0500-1650 | Water-water multipurpose (plate heat exchanger)               | -                       | 108-502            | 122-549            | 887  |

| PRECISION AIR CONDITIONING |   | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|----------------------------|---|-------------------------|--------------------|--------------------|------|
| P 10-932                   | Direct expansion (air or water cooled); chilled water | -                       | 7-160              | -                  | 896  |
| G 070-1342                 | Direct expansion (air or water cooled); chilled water | -                       | 50-222             | -                  | 901  |
| R 20-361                   | Direct expansion (air or water cooled); chilled water | -                       | 10-37              | -                  | 905  |

| ROOM AIR CONDITIONERS |                               | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-----------------------|-------------------------------|-------------------------|--------------------|--------------------|------|
| <b>Monobloc</b>       |                               |                         |                    |                    |      |
| FK                    | Monobloc window               | -                       | 2,7-3,6            | -                  | 912  |
| CMP (COMPACT)         | Monobloc without outdoor unit | -                       | 2,35               | 2,36               | 915  |
| new PST               | Portable air conditioner      | -                       | 3,5                | 2,9                | 918  |
| <b>Monosplit</b>      |                               |                         |                    |                    |      |
| SPG                   | Monosplit                     | -                       | 2,5-6,2            | 2,8-6,5            | 921  |
| SGE                   | Monosplit                     | -                       | 2,8-5,9            | 2,9-6,0            | 926  |
| SCG_1                 | Monosplit                     | -                       | 7,2-12,5           | 7,9-14,5           | 930  |
| CKG                   | Monosplit                     | -                       | 2,7-6,6            | 2,9-6,8            | 934  |
| LPG                   | Monosplit                     | -                       | 3,5-16,0           | 4,0-17,0           | 940  |
| MVAS                  | Monosplit high head duct      | -                       | 22,4-28,0          | 24,0-30,0          | 949  |
| <b>Multisplit</b>     |                               |                         |                    |                    |      |
| MPG                   | Multisplit                    | -                       | 4,1-12,1           | 4,4-13,0           | 952  |
| MGE                   | Multisplit                    | -                       | 4,1-7,9            | 4,4-8,2            | 969  |
| new MGEHW             | Multisplit                    | -                       | 7,91               | 8,21               | 979  |

| VRF SYSTEM              |   | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-------------------------|---|-------------------------|--------------------|--------------------|------|
| new MVBM - MVAS - MVBHR | Direct expansion variable refrigerant flow system VRF | -                       | 12,1-246,0         | 14,0-276,0         | 994  |

| COMPLEMENTARY PRODUCTS                 |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|--|--|-------------------------|--------------------|--------------------|------|
| <b>DHW Systems and solar kits</b>      |  |                         |                    |                    |      |
| GSA - KSA - CXS                        | DHW systems, solar kits with high efficiency panels and vacuum solar manifolds | -                       | -                  | -                  | 1022 |
| <b>Thermal Buffers tank</b>            |  |                         |                    |                    |      |
| SAF                                    | Thermal Buffer tank kit with instantaneous Domestic Hot Water production       | -                       | -                  | -                  | 1026 |
| SAP                                    | Buffer tank with capacity from 75 to 3500 litres                               | -                       | -                  | -                  | 1028 |
| <b>Plug&amp;Play hydronic kit</b>      |  |                         |                    |                    |      |
| WST                                    | Hydronic kit plug & play   | -                       | 80-1500            | -                  | 1031 |
| <b>Cooling towers</b>                  |  |                         |                    |                    |      |
| TRA                                    | Cooling towers   | -                       | -                  | -                  | 1034 |
| <b>Remote condensers - Dry coolers</b> |  |                         |                    |                    |      |
| new Remote condensers - Dry Cooler     |  | -                       | 8-2200             | -                  | 1037 |
| <b>Water cooled condensing unit</b>    |  |                         |                    |                    |      |
| FW-R                                   | Water-cooled air conditioner   | -                       | 2,9-4,0            | 4,3-5,2            | 1043 |
| CWX-CWXM                               | Water motocondensing unit  | -                       | 2,7-7,1            | -                  | 1045 |
| <b>Dehumidifier</b>                    |  |                         |                    |                    |      |
| DMT                                    | Dehumidifier   | -                       | -                  | -                  | 1048 |
| DMH -DMV                               | Dehumidifier   | -                       | -                  | -                  | 1052 |





# BIM

## Building Information Modeling

3D digital information system

- Easy and intuitive downloading
- RFA (Autodesk Revit Family File) format



### DESCRIPTION

Aermec BIM models contain information that is useful in the MEP plant design phase. BIM technology offers multiple advantages such as: greater efficiency and productivity, fewer errors, lower costs, greater interoperability, maximum sharing of information, more timely and consistent control of units, overcoming the inefficiencies and inaccuracies of the design method that traditionally characterises conventional professional practices, allowing for full integration between the design and execution phases. Search and download HVAC products for heating, ventilation and air conditioning. Browse the library of BIM families to select the products to be used in your project.

### FEATURES

Aermec BIM models contain the following information:

- Performance in heating and cooling mode data
- Energy data
- Electrical data
- Sound data
- Features of the hydraulic connections
- Construction features
- Dimensional data

### COMPATIBILITY

Aermec BIM models are downloadable in rfa (Autodesk Revit Family File) format and on request also in .ifc interchange format to ensure maximum compatibility with all BIM software.

### MODELS AVAILABLE

- Fan coils
- Recovery units
- Air treatment units
- Air-to-water chillers and heat pumps
- Freecooling air/water chillers
- Water-to-water chillers and heat pumps
- Multipurpose
- Rooftop

By scanning the QR code below you can access the AERMEC download area where you can select and download the desired unit:





## FAN COILS

In this area of climate control, Aermec is real leader:

a major company in Italy and one of the top in Europe.

A leading position gained through long-standing experience that has gained ground year after year. Special attention to detail, quality materials state-of-the-art technology ensure optimal performance with virtually imperceptible noise levels, especially at low speed;

attention paid to dimensions and overall size, comparable to those of standard radiators, to enable installation in all residential and commercial environments;

exclusive design, anticipating trends and in harmony with interior design requirements;

new electronic control panel to enable automatic operation and achieve the most user-friendly climatiseurs to date.

Aermec fancoils boast all these features and more.

| FAN COILS  |                  |  | Air flow rate<br>(m3/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|--|------------------|--|-------------------------|--------------------|--------------------|------|
| With cabinet; universal installation                             |                  |  |                         |                    |                    |      |
|  | FCZ              | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 12   |
|  | FCZI             | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 25   |
|  | FCZ-D            | On/Off   | 140-720                 | 0,89-4,25          | 2,02-8,50          | 34   |
|  | FCZI-D           | Inverter   | 140-720                 | 0,89-4,25          | 2,02-8,50          | 39   |
|  | FCZ-H            | On/Off   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 44   |
|  | FCZI-H           | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 50   |
| new  | FCZ-ASW          | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 56   |
|  | Omnia UL         | On/Off   | 80-460                  | 0,53-2,79          | 1,06-5,94          | 57   |
|  | Omnia ULI        | Inverter   | 110-460                 | 0,69-2,79          | 0,76-5,94          | 61   |
|  | Omnia Radiant    | On/Off or inverter with radiant panel                      | 190-460                 | 1,42-2,83          | 2,89-5,94          | 65   |
| new  | Omnia ULSI_B     | Inverter   | 46-427                  | 0,37-3,00          | 0,35-5,73          | 70   |
| Without cabinet; concealed installation with low static pressure |                  |  |                         |                    |                    |      |
|  | FCY              | On/Off   | 148-1050                | 0,93-5,80          | 1,05-12,09         | 74   |
|  | FCYI             | Inverter   | 123-799                 | 0,80-4,70          | 0,90-10,15         | 85   |
|  | FCZ P - PO       | On/Off   | 110-1300                | 0,65-7,62          | 1,45-17,02         | 95   |
|  | FCZI P           | Inverter   | 140-1140                | 0,89-8,60          | 2,02-17,10         | 111  |
|  | Omnia UL P       | On/Off   | 80-460                  | 0,53-2,79          | 0,52-5,94          | 123  |
|  | Omnia ULI P      | Inverter   | 110-460                 | 0,69-2,79          | 0,76-5,94          | 127  |
| new  | Omnia ULSI_P     | Inverter   | 46-427                  | 0,37-3,00          | 0,35-5,73          | 130  |
| Without cabinet; duct installation with high static pressure     |                  |  |                         |                    |                    |      |
|  | VED 030-340      | On/Off with static pressure 21-66Pa                        | 161-775                 | 0,97-5,26          | 0,90-10,95         | 134  |
|  | VED 030I-340I    | Inverter with static pressure 21-66Pa                      | 161-775                 | 0,98-5,27          | 0,90-10,95         | 140  |
|  | VED 430-741      | On/Off with static pressure 24-75Pa                        | 750-2358                | 4,54-16,10         | 5,20-31,71         | 146  |
|  | VED 530I-741I    | Inverter with static pressure 32-69Pa                      | 1060-2358               | 6,05-16,08         | 6,70-31,71         | 152  |
|  | VDCA-D           | Fan coil unit for ducted installations                     | 260-2800                | 0,79-12,81         | 1,57-16,67         | 158  |
|  | VDCB-D           | Fan coil unit for ducted installations                     | 200-3200                | 0,53-14,32         | 1,04-18,63         | 165  |
|  | MZC              | Plenum with motor-driven dampers for channelling fan coils | -                       | -                  | -                  | 173  |
| Cassette; ceiling installation                                   |                  |  |                         |                    |                    |      |
|  | VEC              | On/Off with coanda effect                                  | 130-613                 | 0,80-4,28          | 0,95-9,18          | 177  |
|  | VEC-I            | Inverter with coanda effect                                | 130-613                 | 0,80-4,28          | 0,95-9,18          | 181  |
|  | FCL              | On/Off   | 300-1750                | 1,14-10,83         | 1,74-21,75         | 185  |
|  | FCLI             | Inverter   | 300-1750                | 1,15-10,87         | 1,10-21,75         | 192  |
| Wall installation  |                  |  |                         |                    |                    |      |
|  | FCW              | On/Off   | 280-1082                | 1,37-7,00          | 1,42-14,00         | 199  |
|  | FCW I            | Inverter   | 280-1082                | 1,37-7,00          | 1,42-14,00         | 203  |
|  |                  |  |                         |                    |                    |      |
|  | Ventilcassaforma | Template for recessed installation of fancoils in the wall | -                       | -                  | -                  | 206  |
|  | Control panels   | Range of control panels for fan coils                      | -                       | -                  | -                  | 209  |
|  | VMF              | Variable Multi Flow system for plant management            | -                       | -                  | -                  | 213  |

# FCZ

## Fan coil for universal and floor installation

Cooling capacity 0,65 ÷ 7,62 kW  
Heating capacity 1,45 ÷ 17,02 kW

- **Very quiet**
- **Touch controller mounted on-board.**  
allows remote control with smart devices



### DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

### FEATURES

#### Case

Metallic micro-perforated cabinet with rustproofing polyester paint RAL 9003. Head with plastic air distribution grille RAL 7047.

**Depending on the version, the distribution grille may be adjustable.**

#### Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.

The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.

Extractable shrouds for easy, effective cleaning

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Reversibility of the water connections during installation only for units with a standard or boosted main heat exchanger, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.**

#### Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

#### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

**In the APC version, air purification is guaranteed by the Cold Plasma purifier.**

The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

### VERSIONS

**A** High, with fixed air distribution grille and built-in command

**ACT** High, with air distribution grille and electronic thermostat

**AF** High, without built-in command but with front intake

**APC** High, with air distribution grille, electronic thermostat and Cold Plasma purifier

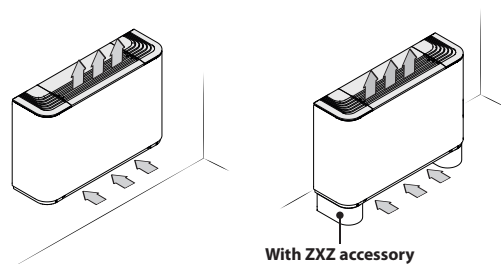
**AS** High, with air distribution grille without built-in command

**U** Universal, with adjustable air distribution grille but without built-in thermostat

**UA** Universal, with fixed air distribution grille but without built-in thermostat

**UF** Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

### Versions with fixed grille (high cabinet)



With ZXZ accessory

#### FCZ\_A

- With built-in selector.

#### FCZ\_AS

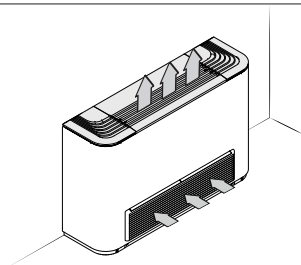
- Compatibility with VMF system.
- Without installed switch

#### FCZ\_ACT

- With electronic thermostat for 2-pipe systems only.

#### FCZ\_APC

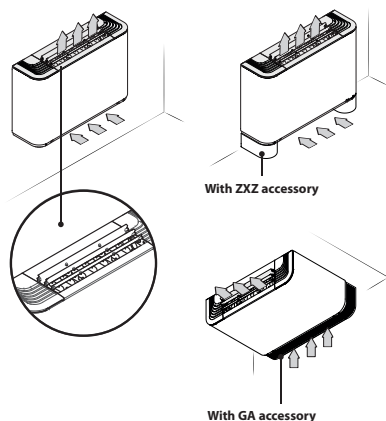
- With electronic thermostat for 2-pipe systems only.
- Cold Plasma purifier



#### FCZ\_AF

- Without installed switch
- Compatibility with VMF system.
- Front intake grille.

### Versions with adjustable and fixed grille (universal)



With ZXZ accessory

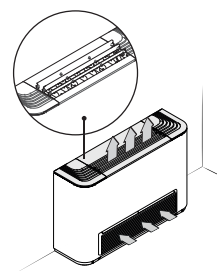
With GA accessory

#### FCZ\_U

- Compatibility with VMF system.
- Without installed switch
- Distribution grille with adjustable louvers. Sizes 1, 2 and 3 have a single grille, whereas sizes 4, 5, 6, 7, 8, 9 and 10 have three grilles fully independent of each other. When all the fins have closed, the unit switches off.
- Vertical and horizontal installation for 2-pipe and 4-pipe systems.

#### FCZ\_UA

- Compatibility with VMF system.
- Without installed switch
- Air distribution grille with fixed louvers.
- Vertical and horizontal installation for 2-pipe and 4-pipe systems.



#### FCZ\_UF

- Compatibility with VMF system.
- Without installed switch
- Air delivery grille with adjustable louvers.
- Front intake grille.

### GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field | Description   |
|-------|---|
| 1,2,3 | FCZ   |
| 4     | Size<br>1, 2, 3, 4, 5, 6, 7, 8, 9, 10   |
| 5     | main heat exchanger   |
| 0     | Standard  |
| 5     | Oversized   |
| 6     | Secondary heat exchanger  |
| 0     | Without exchanger   |
| 1     | Standard  |
| 2     | Oversized   |
| 7     | Version   |
|       | Only vertical installation.   |
| A     | High, with fixed air distribution grille and built-in command   |
| ACT   | High, with air distribution grille and electronic thermostat  |
| AF    | High, without built-in command but with front intake  |
| APC   | High, with air distribution grille, electronic thermostat and Cold Plasma purifier                              |
| AS    | Free standing without installed switch  |
|       | Vertical and horizontal installation.   |
| U     | Universal, with adjustable air distribution grille but without built-in thermostat                              |
| UA    | Universal, with fixed air distribution grille but without built-in thermostat                                   |
| UF    | Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille |

## SIZE AVAILABLE FOR VERSION

| Size                         | 100       | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| Versions produced (by size)  |           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| Versions available (by size) | A,AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    | *   | *   | *   |
|                              | ACT,APC   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | *    | *    | -   | -   | *   |
|                              | AF,UF     | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | *    | *    | -   | -   | *   |
| Size                         | 600       | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| Versions produced (by size)  |           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| Versions available (by size) | A,AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|                              | ACT,APC   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | *    | *    | -   |     |     |
|                              | AF,UF     | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | *   | -   | *   | *    | -    |     |     |     |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**DSKT:** Thermostat with an easy-to-read light display that provides clear information on room temperature, programming settings and more. Thanks to the ergonomic ring nut switch, adjusting the desired temperature is very easy. The knob allows precise and immediate adjustments, offering a classic but highly effective control mode. Not only functional, but also aesthetically pleasing. Our thermostat features a modern, compact design that fits perfectly in any environment, adding a touch of style to your home or office.

**PX2Z:** On-board electromechanical switch.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**T-TOUCH:** Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**TXB:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E2Z:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils

with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.

The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

#### (Heating only) additional coil

**BV:** Hot water heat exchanger with 1 row.

**RX:** Armoured electric coil with safety thermostat.

#### Installation accessories

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**DSCZ4:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**AMP:** Wall mounting kit

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver           | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 |
|--------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| DSKT         | AS            | *   | *   | *   | *   | *   | *   | *   | *   |
| PX2Z         | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AF,AS,UF      | *   |     |     | *   | *   |     |     | *   |
|              | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH (5)  | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (6)       | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| TXB (5)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (6)    | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (6)    | AF,AS,U,UA,UF | *   |     |     | *   | *   |     |     | *   |
| WMT16CV (6)  | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |
| Model        | Ver           | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| AERS03IR (1) | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| DSKT         | AS            | *   | *   | *   | *   | *   | *   | *   | *   |
| PX2Z         | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AF,AS,UF      | *   |     |     | *   | *   |     |     | *   |
|              | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH (5)  | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (6)       | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| TXB (5)      | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (6)    | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (6)    | AF,AS,U,UA,UF | *   |     |     | *   | *   |     |     | *   |
| WMT16CV (6)  | AF,UF         | *   |     |     | *   | *   |     |     | *   |
|              | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver     | 500 | 501 | 502 | 550 | 600 | 601 | 602 | 650 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| DSKT         | AS      | *   | *   | *   | *   | *   | *   | *   | *   |
| PX2Z         | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS      | *   |     |     | *   | *   | *   | *   | *   |
|              | U,UA    | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH (5)  | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (6)       | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| TXB (5)      | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (6)    | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (6)    | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U,UA | *   |     |     | *   | *   |     |     | *   |
| WMT16CV (6)  | AF,UF   | *   |     |     | *   |     |     |     |     |
|              | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver     | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| DSKT         | AS      | *   | *   | *   | *   | *   | *   | *   | *   |
| PX2Z         | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH (5)  | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (6)       | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| TXB (5)      | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (6)    | AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (6)    | AS,U,UA | *   |     |     | *   | *   |     |     | *   |
| WMT16CV (6)  | AS,U    | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver           | 900 | 901 | 950 | 1000 | 1001 |
|--------------|---------------|-----|-----|-----|------|------|
| AERS03IR (1) | AF,UF         |     |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| DSKT         | AS            | *   | *   | *   | *    | *    |
| PX2Z         | AF,UF         |     |     |     | *    |      |
|              | AS,U          | *   | *   | *   | *    | *    |
| SAS (2)      | AF,UF         |     |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| SIT3 (3)     | AF,UF         |     |     |     | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| SIT5 (4)     | AF,UF         |     |     |     | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| SW3 (2)      | AF,UF         |     |     | *   | *    |      |
|              | AS            | *   | *   | *   | *    |      |
|              | U,UA          | *   | *   | *   | *    | *    |
| SW5 (2)      | AF,UF         |     |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| T-TOUCH (5)  | AF,UF         | *   |     | *   | *    |      |
|              | AS,U          | *   | *   | *   | *    | *    |
| TX (6)       | AF,UF         |     |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| TXB (5)      | AF,UF         | *   |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| WMT10 (6)    | AF,UF         | *   |     | *   | *    |      |
|              | AS,U,UA       | *   | *   | *   | *    | *    |
| WMT16 (6)    | AF,AS,U,UA,UF | *   |     | *   | *    |      |

| Model       | Ver   | 900 | 901 | 950 | 1000 | 1001 |
|-------------|-------|-----|-----|-----|------|------|
| WMT16CV (6) | AF,UF | *   |     | *   | *    |      |
|             | AS,U  | *   | *   | *   | *    | *    |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Installation on the fan coil.

(6) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

## VMF system

For more information about VMF system, refer to the dedicated documentation.

### VMF system

| Model       | Ver           | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 |
|-------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24        | AF,AS,U,UA,UF | *   |     |     | *   | *   |     |     | *   | *   |     |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E19 (1) | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E2Z     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E3      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E4DX    | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E4X     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-IR      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-SW      | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-SW1     | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMHI        | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| Model       | Ver           | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
| DI24        | AF,AS,U,UA,UF |     | *   | *   |     |     | *   | *   |     |     | *   |
|             | AF,UF         |     | *   | *   |     |     | *   | *   |     |     | *   |
| VMF-E19 (1) | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E2Z     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E3      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E4DX    | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E4X     | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-IR      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-SW      | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-SW1     | AS,U          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMHI        | AS,U,UA       | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| Model       | Ver           | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 |
| DI24        | AF,AS,U,UA,UF | *   |     |     | *   | *   |     |     | *   | *   |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19 (1) | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS,UA         | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E2Z     | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-E3      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS,UA         | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX    | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS,UA         | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X     | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AF,UF         | *   |     |     | *   | *   |     |     | *   | *   |     |
| VMF-IR      | U,UA          | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS            | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW      | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS            | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1     | U             | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | AS            | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |



| Model       | Ver           | 600 | 601 | 602 | 650 | 700 | 701  | 702  | 750 | 800 | 801 |
|-------------|---------------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| VMHI        | AS,UA         | *   | *   | *   | *   | *   | *    | *    | *   | *   | *   |
|             | U             |     | *   | *   |     |     | *    | *    |     |     | *   |
|             |               |     |     |     |     |     |      |      |     |     |     |
| Model       | Ver           | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| DI24        | AF,AS,U,UA,UF |     | *   | *   |     | *   | *    |      |     |     |     |
| VMF-E19 (1) | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMF-E2Z     | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMF-E3      | AF            |     | *   | *   |     | *   |      |      |     |     |     |
|             | U,UA          | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | UF            |     | *   | *   |     | *   | *    |      |     |     |     |
| VMF-E4DX    | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMF-E4X     | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMF-IR      | AF            |     | *   | *   |     | *   |      |      |     |     |     |
|             | U,UA          | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | UF            |     | *   | *   |     | *   | *    |      |     |     |     |
| VMF-SW      | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS            | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMF-SW1     | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS            | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |
| VMHI        | AF,UF         |     |     |     |     | *   |      |      |     |     |     |
|             | AS,UA         | *   | *   | *   | *   | *   | *    | *    |     |     |     |
|             | U             | *   |     | *   | *   | *   | *    | *    | *   | *   |     |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

## Water valves

### 3 way valve kit

|                      | 100     | 101     | 102     | 150     | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   |
|                      | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       |
|                      | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       |
| Additional coil "BV" | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       |

|                      | 500     | 501     | 502     | 550     | 600     | 601     | 602     | 650     | 700     | 701     | 702     | 750     | 800     | 801     | 802     | 850     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   |
|                      | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       |
|                      | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       |
| Additional coil "BV" | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       |

|                      | 900     | 901     | 950     | 1000    | 1001    |
|----------------------|---------|---------|---------|---------|---------|
| Main coil            | VCZ43   | VCZ43   | VCZ43   | VCZ43   | VCZ43   |
|                      | VCZ4324 | VCZ4324 | VCZ4324 | VCZ4324 | VCZ4324 |
| Secondary coil       | -       | VCF45   | -       | -       | VCF45   |
|                      | -       | VCF4524 | -       | -       | VCF4524 |
| Additional coil "BV" | VCF45   | -       | -       | VCF45   | -       |
|                      | VCF4524 | -       | -       | VCF4524 | -       |

### 2 way valve kit

|                      | 100     | 101     | 102     | 150     | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|                      | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       |
|                      | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       |
| Additional coil "BV" | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       |

|           | 500     | 501     | 502     | 550     | 600     | 601     | 602     | 650     | 700     | 701     | 702     | 750     | 800     | 801     | 802     | 850     |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|           | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |

|                             | 100              | 101              | 102              | 150              | 200              | 201              | 202              | 250 | 300              | 301              | 302              | 350 | 400              | 401              | 402              | 450 |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----|------------------|------------------|------------------|-----|------------------|------------------|------------------|-----|
| <b>Secondary coil</b>       | -                | VCFD4<br>VCFD424 | VCFD4<br>VCFD424 | -                | -                | VCFD4<br>VCFD424 | VCFD4<br>VCFD424 | -   | -                | VCFD4<br>VCFD424 | VCFD4<br>VCFD424 | -   | -                | VCFD4<br>VCFD424 | VCFD4<br>VCFD424 | -   |
| <b>Additional coil "BV"</b> | VCFD4<br>VCFD424 | -                | -                | -                | VCFD4<br>VCFD424 | -                | -                | -   | VCFD4<br>VCFD424 | -                | -                | -   | VCFD4<br>VCFD424 | -                | -                | -   |
|                             | <b>900</b>       | <b>901</b>       | <b>950</b>       | <b>1000</b>      | <b>1001</b>      |                  |                  |     |                  |                  |                  |     |                  |                  |                  |     |
| <b>Main coil</b>            | VCZD3<br>VCZD324 | VCZD3<br>VCZD324 | VCZD3<br>VCZD324 | VCZD3<br>VCZD324 | VCZD3<br>VCZD324 |                  |                  |     |                  |                  |                  |     |                  |                  |                  |     |
| <b>Secondary coil</b>       | -                | VCFD4<br>VCFD424 | -                | -                | VCFD4<br>VCFD424 |                  |                  |     |                  |                  |                  |     |                  |                  |                  |     |
| <b>Additional coil "BV"</b> | VCFD4<br>VCFD424 | -                | -                | VCFD4<br>VCFD424 | -                |                  |                  |     |                  |                  |                  |     |                  |                  |                  |     |

#### Valve Kit for 4 pipe systems - Requires a thermostat with valve management

| Model       | Ver           | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|-------------|---------------|-----|-----|-----|------|------|-----|-----|-----|
| VCZ1X4L (1) | AF,AS,U,UA,UF | •   |     |     | •    | •    |     |     | •   |
| VCZ1X4R (1) | AF,AS,U,UA,UF | •   |     |     | •    | •    |     |     | •   |
| Model       | Ver           | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| VCZ2X4L (1) | AF,AS,U,UA,UF | •   |     |     | •    | •    |     |     | •   |
| VCZ2X4R (1) | AF,AS,U,UA,UF | •   |     |     | •    | •    |     |     | •   |
| Model       | Ver           | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| VCZ2X4L (1) | AF,UF         | •   |     |     | •    |      |     |     |     |
|             | AS,U,UA       | •   |     |     | •    | •    |     |     | •   |
| VCZ2X4R (1) | AF,UF         | •   |     |     | •    |      |     |     |     |
|             | AS,U,UA       | •   |     |     | •    | •    |     |     | •   |
| Model       | Ver           | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| VCZ2X4L (1) | AS,U,UA       | •   |     |     | •    | •    |     |     | •   |
| VCZ2X4R (1) | AS,U,UA       | •   |     |     | •    | •    |     |     | •   |
| Model       | Ver           | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| VCZ3X4L (1) | AF,AS,U,UA,UF | •   |     | •   | •    |      |     |     |     |
| VCZ3X4R (1) | AF,AS,U,UA,UF | •   |     | •   | •    |      |     |     |     |

(1) The valves can be combined with the units if there is a control panel for managing them.

#### Combined Adjustment and Balancing Valve Kit

| Model       | Ver     | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|-------------|---------|-----|-----|-----|------|------|-----|-----|-----|
| VJP060 (1)  | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| VJP060M (2) | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| Model       | Ver     | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| VJP060 (1)  | ACT,APC | •   |     |     | •    |      |     |     |     |
|             | AS,U,UA | •   | •   | •   | •    |      |     |     |     |
| VJP060M (2) | ACT,APC | •   |     |     | •    |      |     |     |     |
|             | AS,U,UA | •   | •   | •   | •    |      |     |     |     |
| VJP090 (1)  | ACT,APC |     |     |     |      | •    |     |     | •   |
|             | AS,U,UA |     |     |     |      | •    | •   | •   | •   |
| VJP090M (2) | ACT,APC |     |     |     |      | •    |     |     | •   |
|             | AS,U,UA |     |     |     |      | •    | •   | •   | •   |
| Model       | Ver     | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| VJP090 (1)  | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| VJP090M (2) | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| VJP150 (1)  | ACT,APC |     |     |     |      | •    |     |     | •   |
|             | AS,U,UA |     |     |     |      | •    | •   | •   | •   |
| VJP150M (2) | ACT,APC |     |     |     |      | •    |     |     | •   |
|             | AS,U,UA |     |     |     |      | •    | •   | •   | •   |
| Model       | Ver     | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| VJP150 (1)  | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| VJP150M (2) | ACT,APC | •   |     |     | •    | •    |     |     | •   |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   | •   |
| Model       | Ver     | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| VJP150 (1)  | ACT,APC | •   |     | •   | •    |      |     |     |     |
|             | AS,U,UA | •   | •   | •   | •    | •    | •   | •   |     |

| Model       | Ver     | 900 | 901 | 950 | 1000 | 1001 |
|-------------|---------|-----|-----|-----|------|------|
| VJP150M (2) | ACT,APC | .   |     | .   | .    |      |
|             | AS,U,UA | .   | .   | .   | .    | .    |

(1) 230V~50Hz

(2) 24V

### (Heating only) additional coil

#### Heating only additional coil

| Model      | Ver             | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|------------|-----------------|-----|-----|-----|------|------|-----|-----|-----|
| BV117 (1)  | A,AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| BV122 (1)  | A,AF,AS,U,UA,UF |     |     |     |      | .    |     |     |     |
| Model      | Ver             | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| BV132 (1)  | A,AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| BV142 (1)  | A,AF,AS,U,UA,UF |     |     |     |      | .    |     |     |     |
| Model      | Ver             | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| BV142 (1)  | A,AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| BVZ800 (1) | A,AS,U,UA       |     |     |     |      | .    |     |     |     |
| Model      | Ver             | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| BVZ800 (1) | A,AS,U,UA       | .   |     |     |      | .    |     |     |     |
| Model      | Ver             | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| BV162 (1)  | A,AF,AS,U,UA,UF | .   |     |     | .    |      |     |     |     |

(1) Not available for sizes with oversized main coil.

#### Electric coil - Requires a thermostat with heater management. Not available for sizes with an oversized main coil.

| Model      | Ver           | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|------------|---------------|-----|-----|-----|------|------|-----|-----|-----|
| RX17 (1)   | AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| RX22 (1)   | AF,AS,U,UA,UF |     |     |     |      | .    |     |     |     |
| Model      | Ver           | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| RX32 (1)   | AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| RX42 (1)   | AF,AS,U,UA,UF |     |     |     |      | .    |     |     |     |
| Model      | Ver           | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| RX52 (1)   | AF,AS,U,UA,UF | .   |     |     |      |      |     |     |     |
| RXZ800 (1) | AS,U,UA       |     |     |     |      | .    |     |     |     |
| Model      | Ver           | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| RXZ800 (1) | AS,U,UA       | .   |     |     |      | .    |     |     |     |
| Model      | Ver           | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RX62 (1)   | AF,AS,U,UA,UF | .   |     |     | .    | .    |     |     |     |

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 PCR2 or PCR1V appliance must also be provided depending on the unit.

### Installation accessories

#### Wall mounting kit

| Ver   | 100   | 101   | 102   | 150   | 200   | 201   | 202   | 250   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| U, UA | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 |
| UF    | AMP20 | -     | -     | AMP20 | AMP20 | -     | -     | AMP20 |
| Ver   | 300   | 301   | 302   | 350   | 400   | 401   | 402   | 450   |
| U, UA | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 |
| UF    | AMP20 | -     | -     | AMP20 | AMP20 | -     | -     | AMP20 |
| Ver   | 500   | 501   | 502   | 550   | 600   | 601   | 602   | 650   |
| U, UA | AMP20 | AMP20 | AMP20 | AMP20 | AMPZ  | AMPZ  | AMPZ  | AMPZ  |
| UF    | AMP20 | -     | -     | AMP20 | -     | -     | -     | -     |

The accessory cannot be fitted on the configurations indicated with -

| Ver   | 700  | 701  | 702  | 750  | 800  | 801  | 802  | 850  |
|-------|------|------|------|------|------|------|------|------|
| U, UA | AMPZ | AMPZ | AMPZ | AMPZ | AMPZ | AMPZ | AMPZ | AMPZ |
| Ver   | 900  | 901  | 950  | 1000 | 1001 |      |      |      |
| U, UA | AMPZ | AMPZ | AMPZ | AMPZ | AMPZ |      |      |      |

#### Condensate recirculation device

| Model     | Ver       | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 |
|-----------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| DSCZ4 (1) | A,AS,U,UA | .   | .   | .   | .   | .   | .   | .   | .   |
|           | ACT,APC   | .   |     |     | .   | .   |     |     | .   |
| Model     | Ver       | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| DSCZ4 (1) | A,AS,U,UA | .   | .   | .   | .   | .   | .   | .   | .   |
|           | ACT,APC   | .   |     |     | .   | .   |     |     | .   |
| Model     | Ver       | 500 | 501 | 502 | 550 | 600 | 601 | 602 | 650 |
| DSCZ4 (1) | A,AS,U,UA | .   | .   | .   | .   | .   | .   | .   | .   |
|           | ACT,APC   | .   |     |     | .   | .   |     |     | .   |

| Model     | Ver       | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
|-----------|-----------|-----|-----|-----|------|------|-----|-----|-----|
| DSCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|           | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model     | Ver       | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| DSCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    |     |     | *   |
|           | ACT,APC   | *   |     | *   | *    | *    |     |     |     |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

#### Condensate drip

| Model    | Ver       | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|----------|-----------|-----|-----|-----|------|------|-----|-----|-----|
| BCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| BCZ5 (2) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     | *   |
| Model    | Ver       | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| BCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| BCZ5 (2) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     | *   |
| Model    | Ver       | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| BCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| BCZ5 (2) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     | *   |
| Model    | Ver       | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| BCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| BCZ5 (2) | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     | *   |
| Model    | Ver       | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| BCZ4 (1) | A,AS,U,UA | *   | *   | *   | *    | *    |     |     | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     |     |
| BCZ6 (2) | A,AS,U,UA | *   | *   | *   | *    | *    |     |     | *   |
|          | ACT,APC   | *   |     | *   | *    | *    |     |     |     |

(1) For vertical installation.

(2) For horizontal installation.

#### Panel closing the rear of the unit

| Model   | Ver       | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|---------|-----------|-----|-----|-----|------|------|-----|-----|-----|
| PCZ100  | A,AS,U,UA | *   | *   | *   | *    |      |     |     |     |
|         | ACT,APC   | *   |     |     | *    |      |     |     |     |
| PCZ200  | A,AS,U,UA |     |     |     |      | *    | *   | *   | *   |
|         | ACT,APC   |     |     |     |      | *    |     |     | *   |
| Model   | Ver       | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| PCZ300  | A,AS,U,UA | *   | *   | *   | *    |      |     |     |     |
|         | ACT,APC   | *   |     |     | *    |      |     |     |     |
| PCZ500  | A,AS,U,UA |     |     |     |      | *    | *   | *   | *   |
|         | ACT,APC   |     |     |     |      | *    |     |     | *   |
| Model   | Ver       | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| PCZ500  | A,AS,U,UA | *   | *   | *   | *    |      |     |     |     |
|         | ACT,APC   | *   |     |     | *    |      |     |     |     |
| PCZ800  | A,AS,U,UA |     |     |     |      | *    | *   | *   | *   |
|         | ACT,APC   |     |     |     |      | *    |     |     | *   |
| Model   | Ver       | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| PCZ800  | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|         | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model   | Ver       | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| PCZ1000 | A,AS,U,UA | *   | *   | *   | *    | *    |     |     | *   |
|         | ACT,APC   | *   |     | *   | *    | *    |     |     |     |

#### Lower intake grille

| Model | Ver  | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| GA100 | U,UA | *   | *   | *   | *   |     |     |     |     |
| GA200 | U,UA |     |     |     |     | *   | *   | *   | *   |
| Model | Ver  | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| GA300 | U,UA | *   | *   | *   | *   |     |     |     |     |
| GA500 | U,UA |     |     |     |     | *   | *   | *   | *   |

| Model | Ver  | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
|-------|------|-----|-----|-----|------|------|-----|-----|-----|
| GA500 | U,UA | *   | *   | *   | *    |      |     |     |     |
| GA800 | U,UA |     |     |     |      | *    | *   | *   | *   |
| Model | Ver  | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| GA800 | U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
| Model | Ver  | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| GA800 | U,UA | *   | *   | *   | *    | *    |     |     |     |

#### Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

| Model    | Ver           | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|----------|---------------|-----|-----|-----|------|------|-----|-----|-----|
| FIKIT100 | A,AS,U,UA     | *   | *   | *   | *    |      |     |     |     |
|          | ACT,AF,APC,UF | *   |     |     | *    |      |     |     |     |
| FIKIT200 | A,AS,U,UA     |     |     |     |      | *    | *   | *   | *   |
|          | ACT,AF,APC,UF |     |     |     |      | *    |     |     | *   |
| Model    | Ver           | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| FIKIT300 | A,AS,U,UA     | *   | *   | *   | *    |      |     |     |     |
|          | ACT,AF,APC,UF | *   |     |     | *    |      |     |     |     |
| FIKIT500 | A,AS,U,UA     |     |     |     |      | *    | *   | *   | *   |
|          | ACT,AF,APC,UF |     |     |     |      | *    |     |     | *   |
| Model    | Ver           | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| FIKIT500 | A,AS,U,UA     | *   | *   | *   | *    |      |     |     |     |
|          | ACT,AF,APC,UF | *   |     |     | *    |      |     |     |     |
| FIKIT800 | A,AS,U,UA     |     |     |     |      | *    | *   | *   | *   |
|          | ACT,APC       |     |     |     |      | *    |     |     | *   |
| Model    | Ver           | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| FIKIT800 | ACT,APC       | *   |     |     | *    | *    |     |     | *   |
|          | U,UA          | *   | *   | *   | *    | *    | *   | *   | *   |
| Model    | Ver           | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| FIKIT800 | A,AS,U,UA     | *   | *   | *   | *    | *    |     |     | *   |
|          | ACT,AF,APC,UF | *   |     |     | *    | *    |     |     |     |

#### Pair of stylish structural feet

| Model | Ver       | 100 | 101 | 102 | 150  | 200  | 201 | 202 | 250 |
|-------|-----------|-----|-----|-----|------|------|-----|-----|-----|
| ZXZ   | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|       | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model | Ver       | 300 | 301 | 302 | 350  | 400  | 401 | 402 | 450 |
| ZXZ   | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|       | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model | Ver       | 500 | 501 | 502 | 550  | 600  | 601 | 602 | 650 |
| ZXZ   | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|       | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model | Ver       | 700 | 701 | 702 | 750  | 800  | 801 | 802 | 850 |
| ZXZ   | A,AS,U,UA | *   | *   | *   | *    | *    | *   | *   | *   |
|       | ACT,APC   | *   |     |     | *    | *    |     |     | *   |
| Model | Ver       | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| ZXZ   | A,AS,U,UA | *   | *   | *   | *    | *    |     |     | *   |
|       | ACT,APC   | *   |     |     | *    | *    |     |     |     |

## PERFORMANCE SPECIFICATIONS

## 2-pipe

|                                       | FCZ100    |   |   | FCZ150       |      |      | FCZ200 |      |      | FCZ250 |      |      | FCZ300 |      |      | FCZ350 |      |      | FCZ400 |      |      | FCZ450 |      |      | FCZ500 |      |      | FCZ550 |      |      |      |      |      |
|---------------------------------------|-----------|---|---|--------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|------|------|------|
|                                       | 1         | 2 | 3 | 1            | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    |      |      |      |
|                                       | L         | M | H | L            | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    |      |      |      |
| Heating performance 70 °C / 60 °C (1) |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Heating capacity                      | kW        |   |   | 1,45         | 2,00 | 2,40 | 1,55   | 2,19 | 2,65 | 2,02   | 2,95 | 3,70 | 2,20   | 3,18 | 4,05 | 3,47   | 4,46 | 5,50 | 3,77   | 4,92 | 6,15 | 4,32   | 5,74 | 7,15 | 4,57   | 6,29 | 7,82 | 5,27   | 7,31 | 8,50 | 5,82 | 8,34 | 9,75 |
| Water flow rate system side           | l/h       |   |   | 125          | 172  | 206  | 136    | 192  | 232  | 177    | 258  | 324  | 193    | 278  | 355  | 304    | 391  | 482  | 330    | 431  | 539  | 379    | 503  | 627  | 400    | 551  | 685  | 462    | 641  | 745  | 510  | 731  | 855  |
| Pressure drop system side             | kPa       |   |   | 4            | 7    | 9    | 5      | 9    | 12   | 6      | 12   | 18   | 7      | 15   | 23   | 7      | 12   | 18   | 8      | 14   | 20   | 9      | 16   | 24   | 6      | 11   | 16   | 12     | 21   | 28   | 10   | 20   | 26   |
| Heating performance 45 °C / 40 °C (2) |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Heating capacity                      | kW        |   |   | 0,72         | 0,99 | 1,19 | 0,77   | 1,09 | 1,31 | 1,00   | 1,46 | 1,84 | 1,09   | 1,58 | 2,01 | 1,72   | 2,21 | 2,73 | 1,87   | 2,44 | 3,06 | 2,14   | 2,85 | 3,55 | 2,27   | 3,12 | 3,88 | 2,62   | 3,63 | 4,22 | 2,89 | 4,14 | 4,85 |
| Water flow rate system side           | l/h       |   |   | 126          | 173  | 207  | 134    | 189  | 229  | 174    | 254  | 319  | 190    | 274  | 350  | 299    | 385  | 475  | 325    | 425  | 531  | 373    | 495  | 617  | 394    | 543  | 675  | 455    | 631  | 734  | 502  | 720  | 842  |
| Pressure drop system side             | kPa       |   |   | 4            | 7    | 10   | 5      | 9    | 12   | 6      | 12   | 18   | 8      | 15   | 22   | 8      | 12   | 18   | 8      | 14   | 20   | 10     | 16   | 24   | 6      | 11   | 16   | 12     | 21   | 28   | 10   | 20   | 26   |
| Cooling performance 7 °C / 12 °C      |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Cooling capacity                      | kW        |   |   | 0,65         | 0,84 | 1,00 | 0,80   | 1,06 | 1,27 | 0,89   | 1,28 | 1,60 | 1,06   | 1,55 | 1,94 | 1,68   | 2,17 | 2,65 | 1,89   | 2,46 | 3,02 | 2,20   | 2,92 | 3,60 | 2,41   | 3,21 | 4,03 | 2,68   | 3,69 | 4,25 | 2,91 | 4,13 | 4,79 |
| Sensible cooling capacity             | kW        |   |   | 0,51         | 0,69 | 0,83 | 0,57   | 0,80 | 0,97 | 0,71   | 1,05 | 1,33 | 0,79   | 1,20 | 1,52 | 1,26   | 1,65 | 2,04 | 1,33   | 1,76 | 2,18 | 1,59   | 2,14 | 2,67 | 1,69   | 2,30 | 2,90 | 1,94   | 2,73 | 3,18 | 2,07 | 2,98 | 3,49 |
| Water flow rate system side           | l/h       |   |   | 112          | 144  | 172  | 138    | 182  | 219  | 153    | 221  | 275  | 182    | 267  | 334  | 288    | 374  | 456  | 350    | 460  | 560  | 379    | 503  | 619  | 414    | 552  | 694  | 460    | 634  | 731  | 501  | 711  | 824  |
| Pressure drop system side             | kPa       |   |   | 4            | 6    | 8    | 6      | 12   | 13   | 6      | 12   | 18   | 8      | 17   | 25   | 8      | 13   | 18   | 11     | 18   | 25   | 10     | 16   | 24   | 9      | 15   | 22   | 13     | 22   | 29   | 12   | 22   | 28   |
| Fan                                   |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Type                                  | type      |   |   | Centrifugal  |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Fan motor                             | type      |   |   | Asynchronous |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Number                                | no.       |   |   | 1            |      |      | 1      |      |      | 1      |      |      | 1      |      |      | 2      |      |      | 2      |      |      | 2      |      |      | 2      |      |      | 2      |      |      | 2    |      |      |
| Air flow rate                         | m³/h      |   |   | 110          | 160  | 200  | 110    | 160  | 200  | 140    | 220  | 290  | 140    | 220  | 290  | 260    | 350  | 450  | 260    | 350  | 450  | 330    | 460  | 600  | 330    | 460  | 600  | 400    | 600  | 720  | 400  | 600  | 720  |
| Input power                           | W         |   |   | 19           | 29   | 35   | 19     | 29   | 35   | 25     | 29   | 33   | 25     | 29   | 33   | 25     | 33   | 44   | 25     | 33   | 44   | 30     | 43   | 57   | 30     | 43   | 57   | 38     | 52   | 76   | 38   | 52   | 76   |
| Electrical wiring                     |           |   |   | V1           | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1     | V2   | V3   | V1   | V2   | V3   |
| Fan coil sound data (3)               |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Sound power level                     | dB(A)     |   |   | 31,0         | 38,0 | 45,0 | 31,0   | 38,0 | 45,0 | 35,0   | 46,0 | 51,0 | 35,0   | 46,0 | 51,0 | 34,0   | 41,0 | 48,0 | 34,0   | 41,0 | 48,0 | 37,0   | 44,0 | 51,0 | 37,0   | 44,0 | 51,0 | 42,0   | 51,0 | 56,0 | 42,0 | 51,0 | 56,0 |
| Sound pressure level                  | dB(A)     |   |   | 23,0         | 30,0 | 37,0 | 23,0   | 30,0 | 37,0 | 27,0   | 38,0 | 43,0 | 27,0   | 38,0 | 43,0 | 26,0   | 33,0 | 40,0 | 26,0   | 33,0 | 40,0 | 29,0   | 36,0 | 43,0 | 29,0   | 36,0 | 43,0 | 34,0   | 43,0 | 48,0 | 34,0 | 43,0 | 48,0 |
| Diameter hydraulic fittings           |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Main heat exchanger                   | Ø         |   |   | 1/2"         |      |      | 1/2"   |      |      | 1/2"   |      |      | 1/2"   |      |      | 3/4"   |      |      | 3/4"   |      |      | 3/4"   |      |      | 3/4"   |      |      | 3/4"   |      |      | 3/4" |      |      |
| Power supply                          |           |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |
| Power supply                          | 230V~50Hz |   |   |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |      |      |      |

|                                       | FCZ600    |   |   | FCZ650       |      |       | FCZ700 |      |       | FCZ750 |      |       | FCZ800 |       |       | FCZ850 |       |       | FCZ900 |       |       | FCZ950 |       |       | FCZ1000 |       |       |       |       |       |
|---------------------------------------|-----------|---|---|--------------|------|-------|--------|------|-------|--------|------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|---------|-------|-------|-------|-------|-------|
|                                       | 1         | 2 | 3 | 1            | 2    | 3     | 1      | 2    | 3     | 1      | 2    | 3     | 1      | 2     | 3     | 1      | 2     | 3     | 1      | 2     | 3     | 1      | 2     | 3     | 1       | 2     | 3     | 1     | 2     | 3     |
|                                       | L         | M | H | L            | M    | H     | L      | M    | H     | L      | M    | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L       | M     | H     | L     | M     | H     |
| Heating performance 70 °C / 60 °C (1) |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Heating capacity                      | kW        |   |   | 6,50         | 8,10 | 10,00 | 7,19   | 9,15 | 11,50 | 8,10   | 9,80 | 11,00 | 9,10   | 11,30 | 12,50 | 9,80   | 10,80 | 12,00 | 11,30  | 12,35 | 14,00 | 10,77  | 13,35 | 15,14 | 11,20   | 14,42 | 17,10 | 12,53 | 15,24 | 17,02 |
| Water flow rate system side           | l/h       |   |   | 570          | 710  | 877   | 631    | 802  | 1008  | 710    | 860  | 964   | 798    | 991   | 1096  | 859    | 947   | 1052  | 991    | 1083  | 1227  | 945    | 1171  | 1328  | 982     | 1264  | 1500  | 1101  | 1337  | 1493  |
| Pressure drop system side             | kPa       |   |   | 12           | 18   | 26    | 14     | 21   | 31    | 17     | 24   | 29    | 10     | 15    | 18    | 22     | 27    | 32    | 17     | 20    | 25    | 12     | 17    | 22    | 16      | 24    | 33    | 22    | 32    | 38    |
| Heating performance 45 °C / 40 °C (2) |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Heating capacity                      | kW        |   |   | 3,32         | 4,03 | 4,97  | 3,57   | 4,55 | 5,72  | 4,03   | 4,87 | 5,47  | 4,52   | 5,62  | 6,21  | 4,87   | 5,37  | 5,97  | 5,62   | 6,14  | 6,96  | 5,35   | 6,64  | 7,53  | 5,57    | 7,17  | 8,50  | 6,24  | 7,58  | 8,46  |
| Water flow rate system side           | l/h       |   |   | 561          | 699  | 863   | 621    | 790  | 993   | 699    | 846  | 950   | 786    | 975   | 1079  | 846    | 932   | 1036  | 975    | 1066  | 1209  | 930    | 1152  | 1307  | 967     | 1245  | 1476  | 1084  | 1316  | 1469  |
| Pressure drop system side             | kPa       |   |   | 12           | 18   | 26    | 14     | 20   | 31    | 16     | 24   | 29    | 10     | 14    | 18    | 22     | 26    | 32    | 6      | 20    | 25    | 12     | 17    | 22    | 15      | 24    | 33    | 22    | 31    | 38    |
| Cooling performance 7 °C / 12 °C      |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Cooling capacity                      | kW        |   |   | 3,22         | 3,90 | 4,65  | 3,95   | 4,80 | 5,67  | 3,92   | 4,89 | 5,50  | 4,27   | 5,34  | 6,14  | 4,84   | 5,66  | 6,10  | 5,26   | 6,29  | 6,91  | 4,29   | 5,00  | 6,91  | 5,77    | 7,32  | 8,60  | 5,69  | 6,88  | 7,62  |
| Sensible cooling capacity             | kW        |   |   | 2,56         | 3,17 | 3,92  | 2,78   | 3,43 | 4,12  | 2,99   | 3,76 | 4,30  | 3,20   | 4,05  | 4,72  | 3,72   | 4,42  | 4,83  | 4,00   | 4,83  | 5,36  | 2,97   | 3,78  | 5,68  | 3,80    | 4,87  | 5,78  | 4,42  | 5,34  | 5,53  |
| Water flow rate system side           | l/h       |   |   | 554          | 671  | 800   | 595    | 825  | 975   | 675    | 841  | 946   | 734    | 918   | 1056  | 833    | 974   | 1049  | 904    | 1082  | 1189  | 738    | 860   | 1189  | 992     | 1259  | 1479  | 979   | 1183  | 1311  |
| Pressure drop system side             | kPa       |   |   | 14           | 19   | 26    | 15     | 21   | 28    | 16     | 24   | 30    | 10     | 14    | 18    | 20     | 26    | 30    | 14     | 20    | 23    | 10     | 12    | 22    | 15      | 22    | 30    | 22    | 31    | 36    |
| Fan                                   |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Type                                  | type      |   |   | Centrifugal  |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Fan motor                             | type      |   |   | Asynchronous |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Number                                | no.       |   |   | 3            |      |       | 3      |      |       | 3      |      |       | 3      |       |       | 3      |       |       | 3      |       |       | 3      |       |       | 3       |       |       | 3     |       |       |
| Air flow rate                         | m³/h      |   |   | 520          | 720  | 920   | 520    | 720  | 920   | 700    | 930  | 1140  | 700    | 930   | 1140  | 900    | 1120  | 1300  | 900    | 1120  | 1300  | 700    | 930   | 1140  | 700     | 930   | 1140  | 900   | 1120  | 1300  |
| Input power                           | W         |   |   | 38           | 60   | 91    | 38     | 60   | 91    | 59     | 80   | 106   | 59     | 80    | 106   | 80     | 100   | 131   | 80     | 100   | 131   | 59     | 80    | 106   | 59      | 80    | 106   | 80    | 100   | 131   |
| Electrical wiring                     |           |   |   | V1           | V2   | V3    | V1     | V2   | V3    | V1     | V2   | V3    | V1     | V2    | V3    | V1     | V2    | V3    | V1     | V2    | V3    | V1     | V2    | V3    | V1      | V2    | V3    | V1    | V2    | V3    |
| Fan coil sound data (3)               |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Sound power level                     | dB(A)     |   |   | 42,0         | 51,0 | 57,0  | 42,0   | 51,0 | 57,0  | 50,0   | 57,0 | 62,0  | 50,0   | 57,0  | 62,0  | 56,0   | 61,0  | 66,0  | 56,0   | 61,0  | 66,0  | 51,0   | 57,0  | 62,0  | 51,0    | 57,0  | 62,0  | 56,0  | 61,0  | 66,0  |
| Sound pressure level                  | dB(A)     |   |   | 34,0         | 43,0 | 49,0  | 34,0   | 43,0 | 49,0  | 42,0   | 49,0 | 54,0  | 42,0   | 49,0  | 54,0  | 48,0   | 53,0  | 58,0  | 48,0   | 53,0  | 58,0  | 43,0   | 49,0  | 54,0  | 43,0    | 49,0  | 54,0  | 48,0  | 53,0  | 58,0  |
| Diameter hydraulic fittings           |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Main heat exchanger                   | Ø         |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Power supply                          |           |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |
| Power supply                          | 230V~50Hz |   |   |              |      |       |        |      |       |        |      |       |        |       |       |        |       |       |        |       |       |        |       |       |         |       |       |       |       |       |

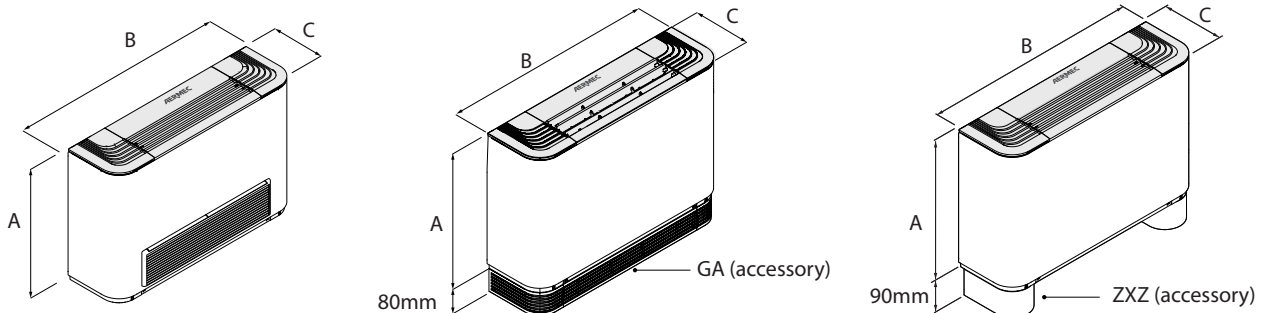
#### 4-pipe

|                                       | FCZ101    |   |              | FCZ201 |      |      | FCZ301 |      |      | FCZ401 |      |      | FCZ501 |      |      | FCZ601 |      |      | FCZ701 |      |      | FCZ801 |      |      | FCZ901 |      |      | FCZ1001 |      |      |      |      |      |  |  |
|---------------------------------------|-----------|---|--------------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|---------|------|------|------|------|------|--|--|
|                                       | 1         | 2 | 3            | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 3    | 1       | 2    | 3    |      |      |      |  |  |
|                                       | L         | M | H            | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L       | M    | H    |      |      |      |  |  |
| Heating performance 65 °C / 55 °C (1) |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Heating capacity                      | kW        |   | 0,75         | 1,01   | 1,17 | 1,02 | 1,35   | 1,60 | 1,80 | 2,18   | 2,56 | 2,21 | 2,65   | 3,12 | 2,59 | 3,34   | 3,73 | 2,96 | 3,67   | 4,36 | 3,66 | 4,29   | 4,94 | 4,20 | 4,79   | 5,35 | 4,73 | 5,63    | 5,72 | 4,85 | 5,56 | 6,08 |      |  |  |
| Water flow rate system side           | l/h       |   | 65           | 89     | 102  | 89   | 118    | 140  | 158  | 191    | 224  | 186  | 232    | 273  | 227  | 293    | 327  | 259  | 321    | 381  | 320  | 375    | 437  | 368  | 419    | 467  | 414  | 492     | 501  | 424  | 487  | 532  |      |  |  |
| Pressure drop system side             | kPa       |   | 2            | 4      | 4    | 4    | 8      | 10   | 16   | 23     | 30   | 4    | 6      | 8    | 6    | 8      | 10   | 8    | 12     | 16   | 11   | 14     | 18   | 16   | 20     | 24   | 8    | 12      | 12   | 10   | 14   | 16   |      |  |  |
| Cooling performance 7 °C / 12 °C      |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Cooling capacity                      | kW        |   | 0,65         | 0,84   | 1,00 | 0,89 | 1,28   | 1,60 | 1,68 | 2,17   | 2,65 | 2,20 | 2,92   | 3,60 | 2,68 | 3,69   | 4,25 | 3,22 | 3,90   | 4,65 | 3,92 | 4,89   | 5,50 | 4,84 | 5,66   | 6,10 | 4,29 | 5,00    | 6,91 | 5,69 | 6,88 | 7,62 |      |  |  |
| Sensible cooling capacity             | kW        |   | 0,51         | 0,69   | 0,83 | 0,71 | 1,05   | 1,33 | 1,26 | 1,65   | 2,04 | 1,59 | 2,14   | 2,67 | 1,94 | 2,73   | 3,18 | 2,56 | 3,17   | 3,92 | 2,99 | 3,76   | 4,30 | 3,72 | 4,42   | 4,83 | 2,97 | 3,78    | 5,68 | 4,42 | 5,34 | 5,53 |      |  |  |
| Water flow rate system side           | l/h       |   | 112          | 144    | 172  | 153  | 221    | 275  | 288  | 374    | 456  | 379  | 503    | 619  | 460  | 634    | 731  | 554  | 671    | 800  | 675  | 841    | 946  | 833  | 974    | 1049 | 738  | 860     | 1189 | 979  | 1183 | 1311 |      |  |  |
| Pressure drop system side             | kPa       |   | 4            | 6      | 8    | 6    | 12     | 18   | 8    | 13     | 18   | 10   | 16     | 24   | 13   | 22     | 29   | 14   | 19     | 26   | 16   | 24     | 30   | 20   | 26     | 30   | 10   | 12      | 22   | 22   | 31   | 36   |      |  |  |
| Fan                                   |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Type                                  | type      |   | Centrifugal  |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Fan motor                             | type      |   | Asynchronous |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Number                                | no.       |   | 1            | 1      | 2    | 2    | 2      | 3    | 3    | 3      | 3    | 3    | 3      | 3    | 3    | 3      | 3    | 3    | 3      | 3    | 3    | 3      | 3    | 3    | 3      | 3    | 3    | 3       | 3    | 3    | 3    |      |      |  |  |
| Air flow rate                         | m³/h      |   | 110          | 160    | 200  | 140  | 220    | 290  | 260  | 350    | 450  | 330  | 460    | 600  | 400  | 600    | 720  | 520  | 720    | 920  | 700  | 930    | 1140 | 900  | 1120   | 1300 | 700  | 930     | 1140 | 900  | 1120 | 1300 |      |  |  |
| Input power                           | W         |   | 19           | 29     | 35   | 25   | 29     | 33   | 25   | 33     | 44   | 30   | 43     | 57   | 38   | 52     | 76   | 38   | 60     | 91   | 59   | 80     | 106  | 80   | 100    | 131  | 59   | 80      | 106  | 80   | 100  | 131  |      |  |  |
| Electrical wiring                     |           |   | V1           | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2     | V3   | V1   | V2      | V3   | V1   | V2   | V3   |      |  |  |
| Fan coil sound data (2)               |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Sound power level                     | dB(A)     |   | 31,0         | 38,0   | 45,0 | 35,0 | 46,0   | 51,0 | 34,0 | 41,0   | 48,0 | 37,0 | 44,0   | 51,0 | 42,0 | 51,0   | 56,0 | 42,0 | 51,0   | 57,0 | 50,0 | 57,0   | 62,0 | 56,0 | 61,0   | 66,0 | 51,0 | 57,0    | 62,0 | 56,0 | 61,0 | 66,0 |      |  |  |
| Sound pressure level                  | dB(A)     |   | 23,0         | 30,0   | 37,0 | 27,0 | 38,0   | 43,0 | 26,0 | 33,0   | 40,0 | 29,0 | 36,0   | 43,0 | 34,0 | 43,0   | 48,0 | 34,0 | 43,0   | 49,0 | 42,0 | 49,0   | 54,0 | 48,0 | 53,0   | 58,0 | 43,0 | 49,0    | 54,0 | 48,0 | 53,0 | 58,0 |      |  |  |
| Diameter hydraulic fittings           |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Main heat exchanger                   | Ø         |   | 1/2"         |        |      | 1/2" |        |      | 3/4" |        |      | 3/4" |        |      | 3/4" |        |      | 3/4" |        |      | 3/4" |        |      | 3/4" |        |      | 3/4" |         |      | 3/4" |      |      | 3/4" |  |  |
| Secondary heat exchanger              | Ø         |   | 1/2"         |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Power supply                          |           |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |
| Power supply                          | 230V~50Hz |   |              |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |         |      |      |      |      |      |  |  |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

#### DIMENSIONS



|                        |    | FCZ100 | FCZ101 | FCZ102 | FCZ150 | FCZ200 | FCZ201 | FCZ202 | FCZ250 | FCZ300 | FCZ301  | FCZ302 | FCZ350 | FCZ400  | FCZ401 | FCZ402 | FCZ450 |
|------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|---------|--------|--------|--------|
| Dimensions and weights |    |        |        |        |        |        |        |        |        |        |         |        |        |         |        |        |        |
| A                      | mm | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486     | 486    | 486    | 486     | 486    | 486    | 486    |
| B                      | mm | 640    | 640    | 640    | 640    | 750    | 750    | 750    | 750    | 980    | 980     | 980    | 980    | 1200    | 1200   | 1200   | 1200   |
| C                      | mm | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220     | 220    | 220    | 220     | 220    | 220    | 220    |
| Empty weight           | kg | 13     | 14     | 14     | 14     | 15     | 15     | 16     | 16     | 17     | 18      | 19     | 19     | 33      | 23     | 23     | 24     |
|                        |    | FCZ500 | FCZ501 | FCZ502 | FCZ550 | FCZ600 | FCZ601 | FCZ602 | FCZ650 | FCZ700 | FCZ701  | FCZ702 | FCZ750 | FCZ800  | FCZ801 | FCZ802 | FCZ850 |
| Dimensions and weights |    |        |        |        |        |        |        |        |        |        |         |        |        |         |        |        |        |
| A                      | mm | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486    | 486     | 486    | 486    | 486     | 486    | 486    | 486    |
| B                      | mm | 1200   | 1200   | 1200   | 1200   | 1320   | 1320   | 1320   | 1320   | 1320   | 1320    | 1320   | 1320   | 1320    | 1320   | 1320   | 1320   |
| C                      | mm | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220    | 220     | 220    | 220    | 220     | 220    | 220    | 220    |
| Empty weight           | kg | 24     | 22     | 23     | 24     | 24     | 29     | 31     | 33     | 29     | 31      | 33     | 33     | 29      | 29     | 31     | 33     |
|                        |    | FCZ900 |        |        | FCZ901 |        |        | FCZ950 |        |        | FCZ1000 |        |        | FCZ1001 |        |        |        |
| Dimensions and weights |    |        |        |        |        |        |        |        |        |        |         |        |        |         |        |        |        |
| A                      | mm | 591    |        |        | 591    |        |        | 591    |        |        | 591     |        |        | 591     |        |        |        |
| B                      | mm | 1320   |        |        | 1320   |        |        | 1320   |        |        | 1320    |        |        | 1320    |        |        |        |
| C                      | mm | 220    |        |        | 220    |        |        | 220    |        |        | 220     |        |        | 220     |        |        |        |
| Empty weight           | kg | 34     |        |        | 34     |        |        | 34     |        |        | 34      |        |        | 34      |        |        |        |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## FCZI

## Fan coil for universal and floor installation

Cooling capacity 0,65 ÷ 7,62 kW  
Heating capacity 1,45 ÷ 17,02 kW

- **Very quiet**
- **Touch controller mounted on-board.** allows remote control with smart devices



### DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

### FEATURES

#### Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

**Depending on the version, the distribution grille may be adjustable.**

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

The plastic augers are extractable for easy and efficient cleaning.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Reversibility of the water connections during installation only for units with a standard or boosted main heat exchanger, or standard with BV accessory. Not reversible in all other configurations. In any**

**case, units with the coil water connections on the right are available at the time of ordering.**

#### Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

#### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

#### Versions

**ACT** High, with air distribution grille and electronic thermostat

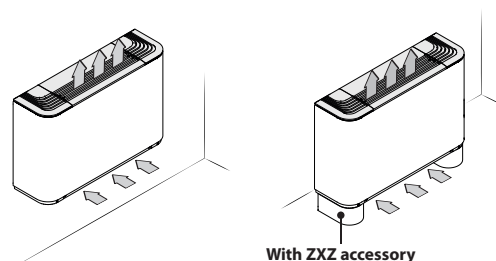
**AF** High, without built-in command but with front intake

**AS** Free standing without installed switch

**U** Universal, with adjustable air distribution grille but without built-in thermostat

**UF** Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

#### Versions with fixed grille (high cabinet)



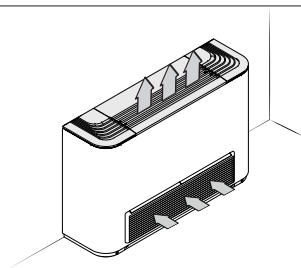
#### FCZI\_AS

- Compatibility with VMF system.
- Without installed switch

#### FCZI\_ACT

- With electronic thermostat for 2-pipe systems only.

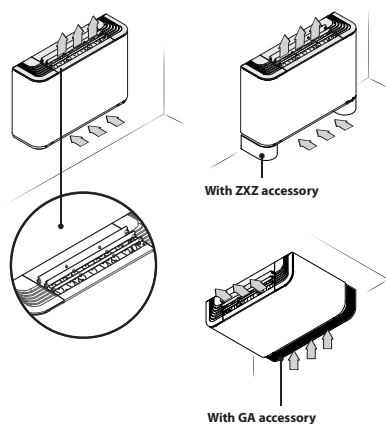




#### FCZI\_AF

- Without installed switch
- Compatibility with VMF system.
- Front intake grille.

#### Versions with adjustable and fixed grille (universal)



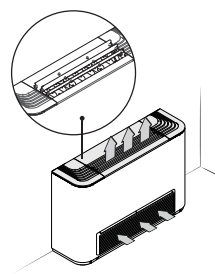
#### FCZI\_U

- Compatibility with VMF system.
- Without installed switch

#### SIZE AVAILABLE FOR VERSION

| Size                                | 200       | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-------------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Versions produced (by size)</b>  |           |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size)        | AS,ACT,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|                                     | AF,UF     | *   | -   | -   | *   | *   | -   | *   | *   | -   | -   | *   |
| <b>Versions produced (by size)</b>  |           |     |     |     |     |     |     |     |     |     |     |     |
| <b>Versions available (by size)</b> |           |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size)        | A,AS,U,UA | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|                                     | AF,UF     | *   | -   | -   | *   | -   | -   | -   | *   | -   | *   | *   |

- Distribution grille with adjustable fins. Sizes 2 and 3 have a single grille, whereas sizes 4, 5, 7 and 9 have three grilles fully independent of each other. When all the louvers have closed, the unit switches off.
- Vertical and horizontal installation for 2-pipe and 4-pipe systems.



#### FCZI\_UF

- Compatibility with VMF system.
- Without installed switch
- Air delivery grille with adjustable louvers.
- Vertical and horizontal installation.

#### GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field    | Description   |
|----------|---|
| 1,2,3,4  | FCZI  |
| 5,6,7    | Size<br>200, 201, 202, 250, 300, 301, 302, 350, 400, 401, 402, 450, 500, 501, 502, 550, 700, 701, 702, 750, 900, 901, 950 |
| 8        | main heat exchanger   |
| 9        | Secondary heat exchanger  |
| 10,11,12 | Version   |
| ACT      | High, with air distribution grille and electronic thermostat  |
| AF       | High, without built-in command but with front intake  |
| AS       | Free standing without installed switch  |
| U        | Universal, with adjustable air distribution grille but without built-in thermostat  |
| UF       | Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille           |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**T-TOUCH-I:** Touch control on board the machine, for controlling fan coils with brushless motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZI-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**TXBI:** On board thermostat for fan coils 2/4 pipes of the FCZI series with brushless motor, complete with water probe and air probe to be positioned in the dedicated housings. The thermostat in 2-pipe systems it can control standard fan coils or those equipped with electrical resistors, with purification devices (Cold Plasma and germicidal lamp) with the radiating plate or with double flow FCZI-D (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5

slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features: In systems with two pipes and a heating element - the latter can be activated as a complete replacement - allowing you to warm the environment exclusively with this accessory - Dualjet features are available in standard software and can be set via dip switch - Economy contact/presence sensor - Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory) - Serial RS485, ModBus RTU protocol, for centralised control - Possibility of inserting expansion boards for future developments. The VMF-E19 accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump - Compatibility with the VMF-IO accessory - Compatibility with VMF-LON expansion board. The thermostat is protected by a fuse.

**VMF-E22:** User interface on the fan coil, with two selectors, one for temperature and the other for speed control; to be combined with accessories VMF-E19 and VMF-E19I.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4X:** A wall-mounted user interface to be combined with VMF-E19, VMF-E19I, VMF-E24 and VMF-E24I accessories. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment temperature with a panel-mounted sensor probe (standard), or with the VMF-E19/E19I probe, or through mediated reading. It also enables the activation of an air purifier (Cold Plasma/ UV lamp) and a heating element. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFXN/M or GLLN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### Additional coil

**BV:** Hot water heat exchanger with 1 row.

## Installation accessories

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**DSCZ4:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**AMP:** Wall mounting kit

**ZXZ:** Pair of stylish and structural feet.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver   | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH-I    | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (3)       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TXBI (4)     | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver   | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| T-TOUCH-I    | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (3)       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TXBI (4)     | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

(4) Installation on the fan coil.

### VMF system

For more information about VMF system, refer to the dedicated documentation.

| Model        | Ver   | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24         | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19I (1) | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E2Z      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-I0       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-L0N      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1      | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver   | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VMHI         | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| Model        | Ver   | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| DI24         | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-E19I (1) | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-E2Z      | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-E3       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-E4X      | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-IO       | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-IR       | AF,UF | *   |     |     | *   | *   |     |     | *   | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-LON      | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-SW       | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMF-SW1      | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |
| VMHI         | AF,UF | *   |     |     | *   |     |     |     |     | *   |     | *   |     |
|              | AS,U  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |

(1) Mandatory accessory.

## Water valves

### 3 way valve kit

|                      | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   |
|                      | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       |
|                      |         | VCF4424 | VCF4424 |         |         | VCF4424 | VCF4424 |         |         | VCF4424 | VCF4424 |         |
| Additional coil "BV" | VCF44   |         |         |         | VCF44   |         |         |         | VCF44   |         |         |         |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 500     | 501     | 502     | 550     | 700     | 701     | 702     | 750     | 900     | 901     | 950     |         |
| Main coil            | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ43   | VCZ43   | VCZ43   |         |
|                      | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4324 | VCZ4324 | VCZ4324 |         |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF45   | -       |         |
|                      |         | VCF4424 | VCF4424 |         |         | VCF4424 | VCF4424 |         |         | VCF4524 |         |         |
| Additional coil "BV" | VCF44   |         |         |         | VCF44   |         |         |         | VCF45   |         |         |         |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4524 | -       | -       |         |

VCZ41 - 42 - 43; VCF44 - 45 (230V~50Hz)  
VCZ4124 - 4224 - 4324; VCF4224 - 4524 (24V)

### 2 way valve kit

|                      | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|                      | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       |
|                      |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |
| Additional coil “BV” | VCFD4   |         |         |         | VCFD4   |         |         |         | VCFD4   |         |         |         |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 500     | 501     | 502     | 550     | 700     | 701     | 702     | 750     | 900     | 901     | 950     |         |
| Main coil            | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD3   | VCZD3   | VCZD3   |         |
|                      | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD324 | VCZD324 | VCZD324 |         |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | -       |         |
|                      |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |         | VCFD424 |         |         |
| Additional coil “BV” | VCFD4   |         |         |         | VCFD4   |         |         |         | VCFD4   |         |         |         |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       |         |

VCZD1 - 2 - 3; VCFD4 (230V~50Hz)  
VCZD124 - 224 - 324; VCFD424 (24V)

### Valve Kit for 4 pipe systems

| Model       | Ver        | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ1X4L (1) | AF,AS,U,UF | *   |     |     | *   |     |     |     |     |     |     |     |     |
| VCZ1X4R (1) | AF,AS,U,UF | *   |     |     | *   |     |     |     |     |     |     |     |     |
| VCZ2X4L (1) | AF,AS,U,UF |     |     |     |     | *   |     |     | *   | *   |     |     | *   |
| VCZ2X4R (1) | AF,AS,U,UF |     |     |     |     | *   |     |     | *   | *   |     |     | *   |

| Model       | Ver        | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------------|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ2X4L (1) | AF,UF      | •   |     |     | •   |     |     |     |     |     |     |     |
|             | AS,U       | •   |     |     | •   | •   |     |     | •   |     |     |     |
| VCZ2X4R (1) | AF,UF      | •   |     |     | •   |     |     |     |     |     |     |     |
|             | AS,U       | •   |     |     | •   | •   |     |     | •   |     |     |     |
| VCZ3X4L (1) | AF,AS,U,UF |     |     |     |     |     |     |     |     | •   |     | •   |
| VCZ3X4R (1) | AF,AS,U,UF |     |     |     |     |     |     |     |     | •   |     | •   |

(1) The valves can be combined with the units if there is a control panel for managing them.

#### Combined Adjustment and Balancing Valve Kit

| Model       | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP060 (1)  | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |
|             | AF,UF    | •   |     |     | •   | •   |     |     | •   |     |     |     |     |
| VJP060M (2) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |
|             | AF,UF    | •   |     |     | •   | •   |     |     | •   |     |     |     |     |
| VJP090 (1)  | ACT,AS,U |     |     |     |     |     |     |     |     | •   | •   | •   | •   |
|             | AF,UF    |     |     |     |     |     |     |     |     | •   |     |     | •   |
| VJP090M (2) | ACT,AS,U |     |     |     |     |     |     |     |     | •   | •   | •   | •   |
|             | AF,UF    |     |     |     |     |     |     |     |     | •   |     |     | •   |

| Model       | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP090 (1)  | ACT,AS,U | •   | •   | •   | •   |     |     |     |     |     |     |     |
|             | AF,UF    | •   |     |     | •   |     |     |     |     |     |     |     |
| VJP090M (2) | ACT,AS,U | •   | •   | •   | •   |     |     |     |     |     |     |     |
|             | AF,UF    | •   |     |     | •   |     |     |     |     |     |     |     |
| VJP150 (1)  | ACT,AS,U |     |     |     |     | •   | •   | •   | •   | •   | •   | •   |
|             | AF,UF    |     |     |     |     |     |     |     |     | •   |     | •   |
| VJP150M (2) | ACT,AS,U |     |     |     |     | •   | •   | •   | •   | •   | •   | •   |
|             | AF,UF    |     |     |     |     |     |     |     |     | •   |     | •   |

(1) 230V~50Hz

(2) 24V

#### (Heating only) additional coil

| Model     | Ver            | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-----------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BV122 (1) | ACT,AF,AS,U,UF | •   |     |     |     |     |     |     |     |     |     |     |     |
| BV132 (1) | ACT,AF,AS,U,UF |     |     |     |     | •   |     |     |     |     |     |     |     |
| BV142 (1) | ACT,AF,AS,U,UF |     |     |     |     |     |     |     |     | •   |     |     |     |

| Model      | Ver            | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BV142 (1)  | ACT,AF,AS,U,UF | •   |     |     |     |     |     |     |     |     |     |     |
| BV162 (1)  | ACT,AF,AS,U,UF |     |     |     |     |     |     |     |     | •   |     |     |
| BVZ800 (1) | ACT,AS,U       |     |     |     |     | •   |     |     |     |     |     |     |

(1) Not available for sizes with oversized main coil.

#### Installation accessories

| Model | Ver | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AMP20 | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
| AMPZ  | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |

| Model | Ver | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AMP20 | U   | •   | •   | •   | •   |     |     |     |     |     |     |     |
| AMPZ  | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |

| Model     | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|-----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSCZ4 (1) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|           | AF,UF    | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |

| Model     | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSCZ4 (1) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|           | AF,UF    | •   |     |     | •   |     |     |     |     | •   |     | •   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

| Model    | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BCZ4 (1) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|          | AF,UF    | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |
| BCZ5 (2) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|          | AF,UF    | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |

| Model    | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BCZ4 (1) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|          | AF,UF    | •   |     |     | •   |     |     |     |     | •   |     | •   |
| BCZ5 (2) | ACT,AS,U | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |
|          | AF,UF    | •   |     |     | •   |     |     |     |     |     |     |     |
| BCZ6 (2) | ACT,AS,U |     |     |     |     |     |     |     |     | •   | •   | •   |
|          | AF,UF    |     |     |     |     |     |     |     |     | •   |     | •   |

(1) For vertical installation.

(2) For horizontal installation.

| Model    | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PCZ200   | ACT,AS,U | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
|          | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
| PCZ300   | ACT,AS,U |     |     |     |     | .   | .   | .   | .   |     |     |     |     |
|          | AF,U,F   |     |     |     |     | .   |     |     | .   |     |     |     |     |
| PCZ500   | ACT,AS,U |     |     |     |     |     |     |     |     | .   | .   | .   | .   |
|          | AF,U,F   |     |     |     |     |     |     |     |     | .   |     |     | .   |
| Model    | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| PCZ1000  | ACT,AS,U |     |     |     |     |     |     |     |     | .   | .   | .   |     |
|          | AF,U,F   |     |     |     |     |     |     |     |     | .   |     | .   |     |
| PCZ500   | ACT,AS,U | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
|          | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
| PCZ800   | ACT,AS,U |     |     |     |     | .   | .   | .   | .   |     |     |     |     |
| Model    | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| GA200    | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
|          | AS,U     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
| GA300    | AF,U,F   |     |     |     |     | .   |     |     | .   |     |     |     |     |
|          | AS,U     |     |     |     |     | .   | .   | .   | .   |     |     |     |     |
| GA500    | AF,U,F   |     |     |     |     |     |     |     |     | .   |     |     | .   |
|          | AS,U     |     |     |     |     |     |     |     |     | .   | .   | .   | .   |
| Model    | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| GA500    | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
|          | AS,U     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
| GA800    | AF,U,F   |     |     |     |     |     |     |     |     | .   |     | .   |     |
|          | AS,U     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |
| Model    | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| FIKIT200 | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
|          | AS,U     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
| FIKIT300 | AF,U,F   |     |     |     |     | .   |     |     | .   |     |     |     |     |
|          | AS,U     |     |     |     |     | .   | .   | .   | .   |     |     |     |     |
| FIKIT500 | AF,U,F   |     |     |     |     |     |     |     |     | .   |     |     | .   |
|          | AS,U     |     |     |     |     |     |     |     |     | .   | .   | .   | .   |
| Model    | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| FIKIT500 | AF,U,F   | .   |     |     | .   |     |     |     |     |     |     |     |     |
|          | AS,U     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
| FIKIT800 | AF,U,F   |     |     |     |     |     |     |     |     | .   |     | .   |     |
|          | AS,U     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |
| Model    | Ver      | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
| ZXZ      | ACT,AS,U | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|          | AF,U,F   | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   |
| Model    | Ver      | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| ZXZ      | ACT,AS,U | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|          | AF,U,F   | .   |     |     | .   |     |     |     |     | .   |     | .   | .   |

## PERFORMANCE SPECIFICATIONS

### Technical data - 2-pipe systems (main coil)

#### 2-pipe

|  | FCZI200 |   |   | FCZI250 |   |   | FCZI300 |   |   | FCZI350 |   |   | FCZI400 |   |   | FCZI450 |   |   | FCZI500 |   |   | FCZI550 |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,02 | 2,95 | 3,70 | 2,20 | 3,18 | 4,05 | 3,47 | 4,46 | 5,50 | 3,77 | 4,92 | 6,15 | 4,32 | 5,74 | 7,15 | 4,57 | 6,29 | 7,82 | 5,27 | 7,31 | 8,50 | 5,82 | 8,34 | 9,75 |
| Water flow rate system side | l/h | 177  | 258  | 324  | 193  | 278  | 355  | 304  | 391  | 482  | 330  | 431  | 539  | 379  | 503  | 627  | 400  | 551  | 685  | 462  | 641  | 745  | 510  | 731  | 855  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 7    | 15   | 23   | 7    | 12   | 18   | 8    | 14   | 20   | 9    | 16   | 24   | 6    | 11   | 16   | 12   | 21   | 28   | 10   | 20   | 26   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,00 | 1,46 | 1,84 | 1,09 | 1,58 | 2,01 | 1,72 | 2,21 | 2,73 | 1,87 | 2,44 | 3,06 | 2,14 | 2,85 | 3,55 | 2,27 | 3,12 | 3,88 | 2,62 | 3,63 | 4,22 | 2,89 | 4,14 | 4,85 |
| Water flow rate system side | l/h | 174  | 254  | 319  | 190  | 274  | 350  | 299  | 385  | 475  | 325  | 425  | 531  | 373  | 495  | 617  | 394  | 543  | 675  | 455  | 631  | 734  | 502  | 720  | 842  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 15   | 22   | 8    | 12   | 18   | 9    | 14   | 21   | 10   | 16   | 24   | 6    | 11   | 16   | 12   | 21   | 28   | 10   | 20   | 26   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,06 | 1,55 | 1,94 | 1,68 | 2,17 | 2,65 | 1,89 | 2,46 | 3,02 | 2,20 | 2,92 | 3,60 | 2,41 | 3,21 | 4,03 | 2,68 | 3,69 | 4,25 | 2,91 | 4,13 | 4,79 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 0,79 | 1,20 | 1,52 | 1,26 | 1,65 | 2,04 | 1,33 | 1,76 | 2,18 | 1,59 | 2,14 | 2,67 | 1,69 | 2,30 | 2,90 | 1,94 | 2,73 | 3,18 | 2,07 | 2,98 | 3,49 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 182  | 267  | 334  | 288  | 374  | 456  | 350  | 460  | 560  | 379  | 503  | 619  | 414  | 552  | 694  | 460  | 634  | 731  | 501  | 711  | 824  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 17   | 25   | 8    | 13   | 18   | 11   | 18   | 25   | 10   | 17   | 24   | 9    | 15   | 22   | 13   | 23   | 29   | 12   | 22   | 28   |

#### Fan

|               |      |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------|------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Type          | type | Centrifugal |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Fan motor     | type | Inverter    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Number        | no.  | 1           |     | 1   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     | 2   |     |
| Air flow rate | m³/h | 140         | 220 | 290 | 140 | 220 | 290 | 260 | 350 | 450 | 260 | 350 | 450 | 330 | 460 | 600 | 330 | 460 | 600 | 400 | 600 | 720 | 400 | 600 | 720 |
| Input power   | W    | 5           | 8   | 14  | 5   | 8   | 14  | 5   | 7   | 13  | 5   | 7   | 13  | 5   | 10  | 18  | 5   | 10  | 18  | 7   | 18  | 34  | 7   | 18  | 38  |
| Signal 0-10V  | %    | 44          | 68  | 90  | 44  | 68  | 90  | 52  | 70  | 90  | 52  | 70  | 90  | 49  | 68  | 90  | 49  | 68  | 90  | 50  | 74  | 90  | 50  | 74  | 90  |

#### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 46,0 | 51,0 | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 37,0 | 44,0 | 51,0 | 42,0 | 51,0 | 56,0 | 42,0 | 51,0 | 56,0 |
| Sound pressure level | dB(A) | 27,0 | 38,0 | 43,0 | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 29,0 | 36,0 | 43,0 | 34,0 | 43,0 | 48,0 | 34,0 | 43,0 | 48,0 |

#### Diameter hydraulic fittings

|                     |   |      |  |      |  |      |  |      |  |      |  |      |  |      |  |      |  |      |  |      |  |      |  |      |  |
|---------------------|---|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|
| Main heat exchanger | Ø | 1/2" |  | 1/2" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  | 3/4" |  |
|---------------------|---|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|------|--|

#### Power supply

|              |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|  | FCZI700 |   |   | FCZI750 |   |   | FCZI900 |   |   | FCZI950 |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |       |      |       |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 8,10 | 9,80 | 11,00 | 9,10 | 11,30 | 12,50 | 10,77 | 13,35 | 15,14 | 11,20 | 14,42 | 17,10 |
| Water flow rate system side | l/h | 710  | 860  | 964   | 798  | 991   | 1096  | 945   | 1171  | 1328  | 982   | 1264  | 1500  |
| Pressure drop system side   | kPa | 17   | 23   | 29    | 10   | 15    | 18    | 12    | 17    | 22    | 16    | 25    | 33    |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 4,03 | 4,87 | 5,47 | 4,50 | 5,60 | 6,20 | 5,35 | 6,64 | 7,53 | 5,57 | 7,17 | 8,50 |
| Water flow rate system side | l/h | 699  | 846  | 950  | 786  | 975  | 1079 | 930  | 1152 | 1307 | 967  | 1245 | 1476 |
| Pressure drop system side   | kPa | 17   | 24   | 29   | 10   | 15   | 18   | 12   | 17   | 22   | 15   | 24   | 33   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 3,92 | 4,89 | 5,50 | 4,27 | 5,34 | 6,14 | 4,29 | 5,00 | 6,91 | 5,77 | 7,32 | 8,60 |
| Sensible cooling capacity   | kW  | 2,99 | 3,76 | 4,30 | 3,20 | 4,05 | 4,72 | 2,97 | 3,78 | 5,68 | 3,80 | 4,87 | 5,78 |
| Water flow rate system side | l/h | 675  | 841  | 946  | 734  | 918  | 1056 | 738  | 860  | 1189 | 992  | 1259 | 1479 |
| Pressure drop system side   | kPa | 17   | 25   | 30   | 10   | 15   | 19   | 10   | 13   | 22   | 15   | 23   | 30   |

#### Fan

|               |      |             |     |      |     |     |      |     |     |      |     |     |      |
|---------------|------|-------------|-----|------|-----|-----|------|-----|-----|------|-----|-----|------|
| Type          | type | Centrifugal |     |      |     |     |      |     |     |      |     |     |      |
| Fan motor     | type | Inverter    |     |      |     |     |      |     |     |      |     |     |      |
| Number        | no.  | 3           |     |      | 3   |     |      | 3   |     |      | 3   |     |      |
| Air flow rate | m³/h | 700         | 930 | 1140 | 700 | 930 | 1140 | 700 | 930 | 1140 | 700 | 930 | 1140 |
| Input power   | W    | 30          | 40  | 80   | 30  | 40  | 80   | 30  | 40  | 80   | 30  | 40  | 80   |
| Signal 0-10V  | %    | 56          | 72  | 90   | 56  | 72  | 90   | 56  | 72  | 90   | 56  | 72  | 90   |

#### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 50,0 | 57,0 | 62,0 | 50,0 | 57,0 | 62,0 | 51,0 | 57,0 | 62,0 | 51,0 | 57,0 | 62,0 |
| Sound pressure level | dB(A) | 42,0 | 49,0 | 54,0 | 42,0 | 49,0 | 54,0 | 43,0 | 49,0 | 54,0 | 43,0 | 49,0 | 54,0 |

#### Diameter hydraulic fittings

|                     |   |      |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|
| Main heat exchanger | Ø | 3/4" |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|

#### Power supply

|              |           |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|

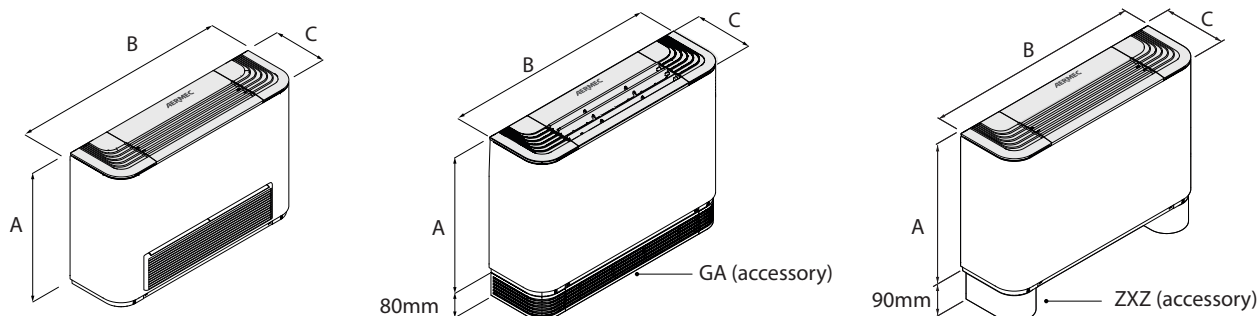
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## Technical data - 4-pipe systems (main coil + secondary coil)

### DIMENSIONS



|                               |    | FCZI200 | FCZI201 | FCZI250 | FCZI300 | FCZI301 | FCZI350 | FCZI400 | FCZI401 | FCZI450 |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |         |
| A                             | mm | 486     | 486     | 486     | 486     | 486     | 486     | 486     | 486     | 486     |
| B                             | mm | 750     | 750     | 750     | 980     | 980     | 980     | 1200    | 1200    | 1200    |
| C                             | mm | 220     | 220     | 220     | 220     | 220     | 220     | 220     | 220     | 220     |
| Empty weight                  | kg | 15      | 15      | 16      | 17      | 17      | 18      | 22      | 23      | 24      |
|                               |    | FCZI500 | FCZI501 | FCZI550 | FCZI700 | FCZI701 | FCZI750 | FCZI900 | FCZI901 | FCZI950 |
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |         |
| A                             | mm | 486     | 486     | 486     | 486     | 486     | 486     | 591     | 591     | 591     |
| B                             | mm | 1200    | 1200    | 1200    | 1320    | 1320    | 1320    | 1320    | 1320    | 1320    |
| C                             | mm | 220     | 220     | 220     | 220     | 220     | 220     | 220     | 220     | 220     |
| Empty weight                  | kg | 22      | 23      | 24      | 29      | 30      | 31      | 34      | 34      | 34      |

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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



## FCZ-D

## Fan coil for vertical wall-mounting or free-standing installation

Cooling capacity  $0,89 \div 4,25$  kW  
Heating capacity  $2,02 \div 8,50$  kW

- Fully silent operation
- Backlit touch command with programming via a smart device
- Total comfort in every season



### DESCRIPTION

The perception of uneven temperature distribution in various settings, especially in the vertical direction, is one of the main factors leading to a drastic reduction in the well-being perceived by occupants.

**FCZ D are able to provide a pleasant sensation of comfort by directing the air in a way that ensures uniform temperature distribution throughout the setting. In winter, hot air is direct downwards; in summer, cool air is directed upwards.**

**Air supply switching at the front or from the top by operating directly on the orientable grille.**

They can be installed in any type of 2 / 4 pipe system and in combination with any heat generator even at low temperatures. Thanks to the availability of several versions and configurations, it is easy to choose the optimal solution for every requirement.

### FEATURES

#### Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

#### Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.

The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.

Extractable shrouds for easy, effective cleaning

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

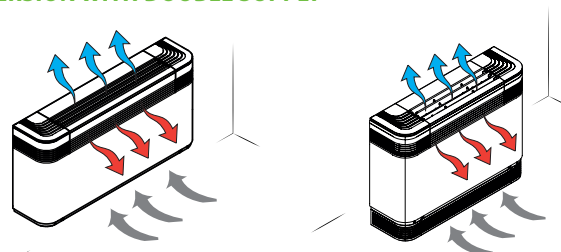
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**The hydraulic connections can be inverted during installation.**

#### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

### VERSION WITH DOUBLE SUPPLY



#### FCZ\_D

— With on-board thermostat.

#### FCZ\_DS

— Compatibility with VMF system.

— Without installed switch

### GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field | Description                                     |
|-------|---|
| 1,2,3 | FCZ   |
| 4     | Size<br>2, 3, 4, 5                              |
| 5     | main heat exchanger                             |
| 0     | Standard  |
| 6     | Secondary heat exchanger                        |
| 0     | Without coil                                    |
| 7     | Version   |
| D     | Dualjet with thermostat TXB on-board the system |
| DS    | Dualjet without on-board thermostat             |

### ACCESSORIES

#### Control panels

**AER5031R:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air puri-

fying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**T-TOUCH:** Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documen-

tation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E22:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### Installation accessories

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**DSCZ4:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver | 200 | 300 | 400 | 500 |
|--------------|-----|-----|-----|-----|-----|
| AER503IR (1) | DS  | •   | •   | •   | •   |
| PRO503       | DS  | •   | •   | •   | •   |
| SA5 (2)      | DS  | •   | •   | •   | •   |
| SW3 (2)      | DS  | •   | •   | •   | •   |
| SW5 (2)      | DS  | •   | •   | •   | •   |
| T-TOUCH (3)  | DS  | •   | •   | •   | •   |
| TX (4)       | DS  | •   | •   | •   | •   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Installation on the fan coil.

(4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

For more information about VMF system, refer to the dedicated documentation.

| Model       | Ver | 200 | 300 | 400 | 500 |
|-------------|-----|-----|-----|-----|-----|
| DI24        | DS  | *   | *   | *   | *   |
| VMF-E19 (1) | DS  | *   | *   | *   | *   |
| VMF-E2Z     | DS  | *   | *   | *   | *   |
| VMF-E3      | DS  | *   | *   | *   | *   |
| VMF-E4DX    | DS  | *   | *   | *   | *   |
| VMF-E4X     | DS  | *   | *   | *   | *   |
| VMF-I0      | DS  | *   | *   | *   | *   |
| VMF-IR      | DS  | *   | *   | *   | *   |
| VMHI        | DS  | *   | *   | *   | *   |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

## Water valves

### 3 way valve kit

| Model       | Ver  | 200 | 300 | 400 | 500 |
|-------------|------|-----|-----|-----|-----|
| VCZ41 (1)   | D,DS | *   |     |     |     |
| VCZ4124 (2) | D,DS | *   |     |     |     |
| VCZ42 (1)   | D,DS |     | *   | *   | *   |
| VCZ4224 (2) | D,DS |     | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

### 2 way valve kit

| Model       | Ver  | 200 | 300 | 400 | 500 |
|-------------|------|-----|-----|-----|-----|
| VCZD1 (1)   | D,DS | *   |     |     |     |
| VCZD124 (2) | D,DS | *   |     |     |     |
| VCZD2 (1)   | D,DS |     | *   | *   | *   |
| VCZD224 (2) | D,DS |     | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

### Valve Kit for 4 pipe systems - Requires a thermostat with valve management

| Model       | Ver  | 200 | 300 | 400 | 500 |
|-------------|------|-----|-----|-----|-----|
| VCZ1X4L (1) | D,DS | *   |     |     |     |
| VCZ1X4R (1) | D,DS | *   |     |     |     |
| VCZ2X4L (1) | D,DS |     | *   | *   | *   |
| VCZ2X4R (1) | D,DS |     | *   | *   | *   |

(1) The valves can be combined with the units if there is a control panel for managing them.

### Combined Adjustment and Balancing Valve Kit

| Model       | Ver  | 200 | 300 | 400 | 500 |
|-------------|------|-----|-----|-----|-----|
| VJP060 (1)  | D,DS | *   | *   |     |     |
| VJP060M (2) | D,DS | *   | *   |     |     |
| VJP090 (1)  | D,DS |     |     | *   | *   |
| VJP090M (2) | D,DS |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

## Installation accessories

### Condensate recirculation device

| Model     | Ver  | 200 | 300 | 400 | 500 |
|-----------|------|-----|-----|-----|-----|
| DSCZ4 (1) | D,DS | *   | *   | *   | *   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

### Condensate drip

| Model    | Ver  | 200 | 300 | 400 | 500 |
|----------|------|-----|-----|-----|-----|
| BCZ4 (1) | D,DS | *   | *   | *   | *   |

(1) For vertical installation.

### Panel closing the rear of the unit

| Model  | Ver  | 200 | 300 | 400 | 500 |
|--------|------|-----|-----|-----|-----|
| PCZ200 | D,DS | *   |     |     |     |
| PCZ300 | D,DS |     | *   |     |     |
| PCZ500 | D,DS |     |     | *   | *   |

### Ornamental grille

| Model | Ver  | 200 | 300 | 400 | 500 |
|-------|------|-----|-----|-----|-----|
| GA200 | D,DS | *   |     |     |     |
| GA300 | D,DS |     | *   |     |     |
| GA500 | D,DS |     |     | *   | *   |

### Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

| Model    | Ver  | 200 | 300 | 400 | 500 |
|----------|------|-----|-----|-----|-----|
| FIKIT200 | D,DS | *   |     |     |     |

| Model    | Ver  | 200 | 300 | 400 | 500 |
|----------|------|-----|-----|-----|-----|
| FIKIT300 | D,DS |     | *   |     |     |
| FIKIT500 | D,DS |     |     | *   | *   |

**Pair of stylish structural feet**

| Model | Ver  | 200 | 300 | 400 | 500 |
|-------|------|-----|-----|-----|-----|
| ZXZ   | D,DS | *   | *   | *   | *   |

**PERFORMANCE SPECIFICATIONS****2-pipe**

|  | FCZ200D |   |   | FCZ300D |   |   | FCZ400D |   |   | FCZ500D |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,02 | 2,95 | 3,70 | 3,47 | 4,46 | 5,50 | 4,32 | 5,74 | 7,15 | 5,27 | 7,31 | 8,50 |
| Water flow rate system side | l/h | 177  | 258  | 324  | 304  | 391  | 482  | 379  | 503  | 627  | 462  | 641  | 745  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 7    | 12   | 18   | 9    | 16   | 24   | 12   | 21   | 28   |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,00 | 1,46 | 1,84 | 1,72 | 2,21 | 2,73 | 2,14 | 2,85 | 3,55 | 2,62 | 3,63 | 4,22 |
| Water flow rate system side | l/h | 174  | 254  | 319  | 299  | 385  | 475  | 373  | 495  | 617  | 455  | 631  | 734  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 12   | 18   | 10   | 16   | 24   | 12   | 21   | 28   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,68 | 2,17 | 2,65 | 2,20 | 2,92 | 3,60 | 2,68 | 3,69 | 4,25 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 1,26 | 1,65 | 2,04 | 1,59 | 2,14 | 2,67 | 1,94 | 2,73 | 3,18 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 288  | 374  | 456  | 379  | 503  | 619  | 460  | 634  | 731  |
| Pressure drop system side   | kPa | 7    | 13   | 18   | 8    | 13   | 18   | 10   | 17   | 24   | 13   | 23   | 29   |

**Fan**

|                   |      |              |     |     |              |     |     |              |     |     |              |     |     |
|-------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|
| Type              | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     |
| Fan motor         | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     |
| Number            | no.  | 1            |     |     | 2            |     |     | 2            |     |     | 2            |     |     |
| Air flow rate     | cfm  | -            | 220 | 290 | -            | 350 | 450 | -            | 460 | 600 | -            | 600 | 720 |
| Input power       | W    | 13           | 25  | 35  | 25           | 33  | 44  | 30           | 43  | 57  | 38           | 52  | 76  |
| Electrical wiring |      | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  |

**Fan coil sound data (3)**

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 42,0 | 51,0 | 56,0 |
| Sound pressure level | dB(A) | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 34,0 | 43,0 | 48,0 |

**Finned pack heat exchanger**

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,5 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

**Diameter hydraulic fittings**

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|

**Power supply**

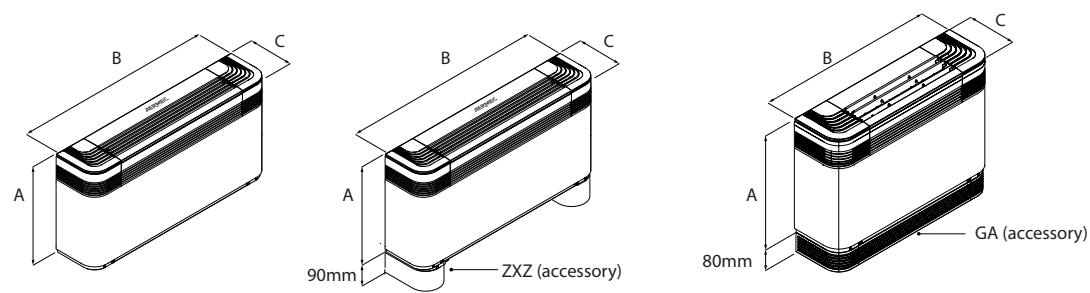
|              |  |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



|                        |    | FCZ200D | FCZ300D | FCZ400D | FCZ500D |
|------------------------|----|---------|---------|---------|---------|
| Dimensions and weights |    |         |         |         |         |
| A                      | mm | 486     | 486     | 486     | 486     |
| B                      | mm | 750     | 980     | 1200    | 1200    |
| C                      | mm | 220     | 220     | 220     | 220     |
| Empty weight           | kg | 15      | 17      | 23      | 22      |

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 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
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## FCZI-D

## Fan coil for vertical wall-mounting or free-standing installation

Cooling capacity 0,89 ÷ 4,25 kW  
Heating capacity 2,02 ÷ 8,50 kW

- Total comfort in every season
- Electric saving equal to 50% with respect to a fan coil with 3-speed motor
- Fully silent operation
- Backlit Touch command with programming via a smart device (DT version)



### DESCRIPTION

The perception of uneven temperature distribution in various settings, especially in the vertical direction, is one of the main factors leading to a drastic reduction in the well-being perceived by occupants.

**FCZI D are able to provide a pleasant sensation of comfort by directing the air in a way that ensures uniform temperature distribution throughout the setting. In winter, hot air is direct downwards; in summer, cool air is directed upwards.**

**Air supply switching at the front or from the top by operating directly on the orientable grille.**

They can be installed in any type of 2 / 4 pipe system and in combination with any heat generator even at low temperatures. Thanks to the availability of several versions and configurations, it is easy to choose the optimal solution for every requirement.

### FEATURES

#### Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

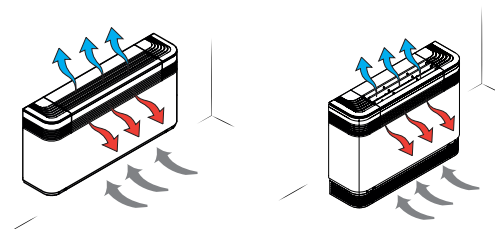
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**The hydraulic connections can be inverted during installation.**

#### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

#### VERSION WITH DOUBLE SUPPLY



#### FCZI\_D

— With on-board thermostat.

#### FCZI\_DT

— With thermostat T-TOUCH-I on-board the system

— Compatibility with VMF system.

#### FCZI\_DS

— Without installed switch

— Compatibility with VMF system.



## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field   | Description                                      |
|---------|--|
| 1,2,3,4 | FCZI   |
| 5       | Size<br>2, 3, 4, 5                               |
| 6       | main heat exchanger                              |
| 0       | Standard   |
| 7       | Secondary heat exchanger                         |
| 0       | Without coil                                     |
| 8       | Version  |
| D       | Dualjet with thermostat TXBI on-board the system |
| DS      | Dualjet without on-board thermostat              |
| DT      | Dualjet with T-Touch-I thermostat                |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** Water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E2Z:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### Installation accessories

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**DSCZ4:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**ZXZ:** Pair of stylish and structural feet

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver | 200 | 300 | 400 | 500 |
|--------------|-----|-----|-----|-----|-----|
| AER503IR (1) | DS  | *   | *   | *   | *   |
| PRO503       | DS  | *   | *   | *   | *   |
| SA5 (2)      | DS  | *   | *   | *   | *   |
| SW3 (2)      | DS  | *   | *   | *   | *   |
| SW5 (2)      | DS  | *   | *   | *   | *   |
| TX (3)       | DS  | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

For more information about VMF system, refer to the dedicated documentation.

| Model        | Ver   | 200 | 300 | 400 | 500 |
|--------------|-------|-----|-----|-----|-----|
| DI24         | DS    | *   | *   | *   | *   |
| VMF-E19I (1) | DS    | *   | *   | *   | *   |
| VMF-E2Z      | DS    | *   | *   | *   | *   |
| VMF-E3       | DS,DT | *   | *   | *   | *   |
| VMF-E4DX     | DS,DT | *   | *   | *   | *   |
| VMF-E4X      | DS,DT | *   | *   | *   | *   |
| VMF-I0       | DS    | *   | *   | *   | *   |
| VMF-IR       | DS    | *   | *   | *   | *   |
| VMF-SW       | DS    | *   | *   | *   | *   |
| VMHI         | DS    | *   | *   | *   | *   |

(1) Mandatory accessory.

### Water valves

#### 3 way valve kit

| Model       | Ver     | 200 | 300 | 400 | 500 |
|-------------|---------|-----|-----|-----|-----|
| VCZ41 (1)   | D,DS,DT | *   |     |     |     |
| VCZ4124 (2) | D,DS,DT | *   |     |     |     |
| VCZ42 (1)   | D,DS,DT |     | *   | *   | *   |
| VCZ4224 (2) | D,DS,DT |     | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

#### 2 way valve kit

| Model       | Ver     | 200 | 300 | 400 | 500 |
|-------------|---------|-----|-----|-----|-----|
| VCZD1 (1)   | D,DS,DT | *   |     |     |     |
| VCZD124 (2) | D,DS,DT | *   |     |     |     |
| VCZD2 (1)   | D,DS,DT |     | *   | *   | *   |
| VCZD224 (2) | D,DS,DT |     | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

#### Valve Kit for 4 pipe systems

| Model       | Ver     | 200 | 300 | 400 | 500 |
|-------------|---------|-----|-----|-----|-----|
| VCZ1X4L (1) | D,DS,DT | *   |     |     |     |
| VCZ1X4R (1) | D,DS,DT | *   |     |     |     |
| VCZ2X4L (1) | D,DS,DT |     | *   | *   | *   |
| VCZ2X4R (1) | D,DS,DT |     | *   | *   | *   |

(1) The valves can be combined with the units if there is a control panel for managing them.

#### Combined Adjustment and Balancing Valve Kit

| Model       | Ver     | 200 | 300 | 400 | 500 |
|-------------|---------|-----|-----|-----|-----|
| VJP060 (1)  | D,DS,DT | *   | *   |     |     |
| VJP060M (2) | D,DS,DT | *   | *   |     |     |
| VJP090 (1)  | D,DS,DT |     |     | *   | *   |
| VJP090M (2) | D,DS,DT |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

### Installation accessories

#### Condensate recirculation device

| Model     | Ver     | 200 | 300 | 400 | 500 |
|-----------|---------|-----|-----|-----|-----|
| DSCZ4 (1) | D,DS,DT | *   | *   | *   | *   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.



**Condensate drip**

| Model    | Ver     | 200 | 300 | 400 | 500 |
|----------|---------|-----|-----|-----|-----|
| BCZ4 (1) | D,DS,DT | .   | .   | .   | .   |

(1) For vertical installation.

**Panel closing the rear of the unit**

| Model  | Ver     | 200 | 300 | 400 | 500 |
|--------|---------|-----|-----|-----|-----|
| PCZ200 | D,DS,DT | .   |     |     |     |
| PCZ300 | D,DS,DT |     | .   |     |     |
| PCZ500 | D,DS,DT |     |     | .   | .   |

**Ornamental grille**

| Model | Ver     | 200 | 300 | 400 | 500 |
|-------|---------|-----|-----|-----|-----|
| GA200 | D,DS,DT | .   |     |     |     |
| GA300 | D,DS,DT |     | .   |     |     |
| GA500 | D,DS,DT |     |     | .   | .   |

**Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil**

| Model    | Ver     | 200 | 300 | 400 | 500 |
|----------|---------|-----|-----|-----|-----|
| FIKIT200 | D,DS,DT | .   |     |     |     |
| FIKIT300 | D,DS,DT |     | .   |     |     |
| FIKIT500 | D,DS,DT |     |     | .   | .   |

**Pair of stylish structural feet**

| Model | Ver     | 200 | 300 | 400 | 500 |
|-------|---------|-----|-----|-----|-----|
| ZXZ   | D,DS,DT | .   | .   | .   | .   |

**PERFORMANCE SPECIFICATIONS****2-pipe**

|  | FCZI200D |   |   | FCZI300D |   |   | FCZI400D |   |   | FCZI500D |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,02 | 2,95 | 3,70 | 3,47 | 4,46 | 5,50 | 4,32 | 5,74 | 7,15 | 5,27 | 7,31 | 8,50 |
| Water flow rate system side | l/h | 177  | 258  | 324  | 304  | 391  | 482  | 379  | 503  | 627  | 462  | 641  | 745  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 7    | 12   | 18   | 9    | 16   | 24   | 12   | 21   | 28   |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,00 | 1,46 | 1,84 | 1,72 | 2,21 | 2,73 | 2,14 | 2,85 | 3,55 | 2,62 | 3,63 | 4,22 |
| Water flow rate system side | l/h | 174  | 254  | 319  | 299  | 385  | 475  | 373  | 495  | 617  | 455  | 631  | 734  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 12   | 18   | 10   | 16   | 24   | 12   | 21   | 28   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,68 | 2,17 | 2,65 | 2,20 | 2,92 | 3,60 | 2,68 | 3,69 | 4,25 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 1,26 | 1,65 | 2,04 | 1,59 | 2,14 | 2,67 | 1,94 | 2,73 | 3,18 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 288  | 374  | 456  | 379  | 503  | 619  | 460  | 634  | 731  |
| Pressure drop system side   | kPa | 7    | 13   | 18   | 8    | 13   | 18   | 10   | 17   | 24   | 13   | 23   | 29   |

**Fan**

|               |                   |             |     |     |             |     |     |             |     |     |             |     |     |
|---------------|-------------------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Type          | type              | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     |
| Fan motor     | type              | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     |
| Number        | no.               | 1           |     |     | 2           |     |     | 2           |     |     | 2           |     |     |
| Air flow rate | m <sup>3</sup> /h | 140         | 220 | 290 | 260         | 350 | 450 | 330         | 460 | 600 | 400         | 600 | 720 |
| Input power   | W                 | 5           | 8   | 14  | 5           | 7   | 13  | 5           | 10  | 18  | 8           | 18  | 34  |
| Signal 0-10V  | %                 | 44          | 68  | 90  | 52          | 70  | 90  | 49          | 68  | 90  | 50          | 74  | 90  |

**Fan coil sound data (3)**

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 31,0 | 43,0 | 50,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 41,0 | 42,0 | 51,0 | 56,0 |
| Sound pressure level | dB(A) | 23,0 | 35,0 |      | 26,0 | 33,0 |      | 29,0 | 36,0 |      | 34,0 | 43,0 |      |

**Finned pack heat exchanger**

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,5 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

**Diameter hydraulic fittings**

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|

**Power supply**

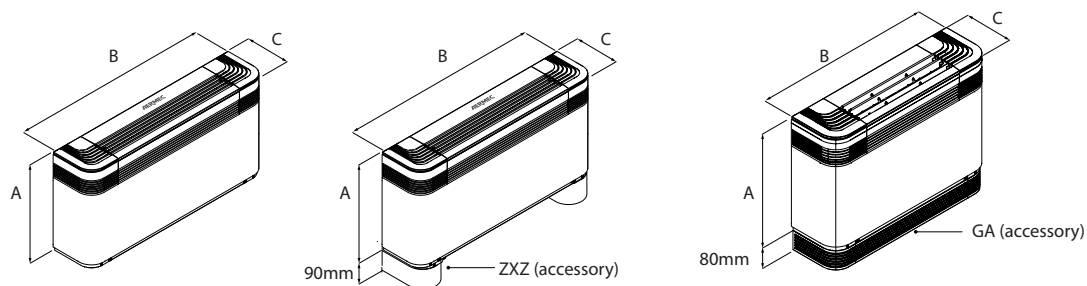
|              |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | FCZI200D | FCZI300D | FCZI400D | FCZI500D |
|-------------------------------|----|----------|----------|----------|----------|
| <b>Dimensions and weights</b> |    |          |          |          |          |
| A                             | mm | 486      | 486      | 486      | 486      |
| B                             | mm | 750      | 980      | 1200     | 1200     |
| C                             | mm | 220      | 220      | 220      | 220      |
| Empty weight                  | kg | 15       | 17       | 23       | 22       |

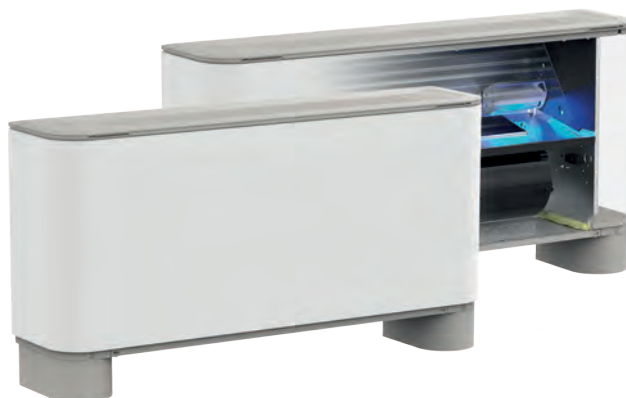
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FCZ-H

## Fan coil with the photocatalytic device, for universal and floor installation

- Photocatalytic device
- Tested effectiveness against viruses, bacteria and allergens
- Active against the SARS-CoV-2 virus, even on surfaces
- Certifications VDI 6022



### DESCRIPTION

Fan coil with built-in **photocatalytic device**.

**Active against the airborne Sars-CoV-2 virus (95%-99% abatement efficacy after 20 minutes of operation tested at the Virostatics laboratory in Alghero).**

**Active against the SARS-CoV-2 virus, even on surfaces - 84% effectiveness after 12 h (tests carried out in collaboration with the Department of Microbiology of the University of Padua).**

Suitable for air conditioning in places requiring optimum hygiene levels, such as:

- Hospitals
- Dentists' surgeries
- Doctors' and vets' surgeries
- Analysis laboratories
- Waiting rooms
- Public premises

They can be installed in any type of 2-pipe system (version for 4-pipe systems available upon request) and in combination with any heat generator, even at low temperatures. Thanks to the availability of several versions and configurations, it's easy to find the right solution for every need.

### VERSIONS

- **H** Unit with shell without thermostat - vertical and horizontal installation.
- **HP** Unit without shell and without thermostat - vertical and horizontal installation. Can also be supplied in a configuration equipped with a boosted asynchronous motor (HPO).
- **HT** Unit with shell and thermostat - vertical installation.

### FEATURES

#### Case

Metallic protective cabinet with rustproofing polyester paint RAL 9003. The head with adjustable air distribution grille is made of plastic RAL 7047. When the grille closes, the fan coil automatically switches off.

#### Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft. The electric motor is single-phase and asynchronous, mounted on anti-vibration supports, and has a permanently engaged condenser. The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

- *Apart from the traditional asynchronous motor, each unit can also be supplied with an inverter (brushless) motor. Refer to the relative FCZI - H datasheet*

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

- *The coil is not reversible during installation but, when ordering, you can choose units with the coil water connections on the right (at no extra charge).*

#### Air filter

Air filter class **COARSE 25%** for all versions; easy to pull out and clean. Shrouds can be pulled out and inspected for easy and effective cleaning.

## PHOTOCATALYTIC DEVICE AT THE HEART OF THE FAN COIL

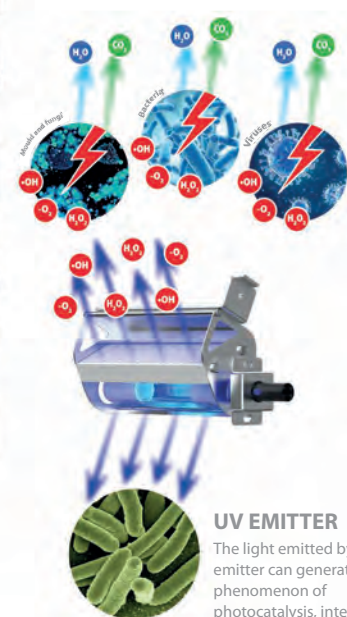


### FILTER

The filter holds back dust, ash and "natural allergens" like pollen, spores, etc.

### TITANIUM DIOXIDE CATALYS

Titanium dioxide ( $\text{TiO}_2$ ) has a high degree of thermal and chemical stability, isn't toxic for humans and isn't expensive, but at the same time it's easily procurable, widely available, bio-compatible, and highly sensitive to UV light. The catalyst has a honeycomb form and increases the photocatalysis reaction surface, thereby maximising and guaranteeing system efficiency. The interaction of the catalyst with the UV light (photocatalysis) creates and releases highly reactive and oxidising species ( $\text{H}_2\text{O}_2$  and  $\text{OH}^\cdot$ ) that attack the polluting agents, breaking them down and eliminating them. The result is a powerful biocidal action with the decomposition of the VOC (Volatile Organic Compounds) and the release of harmless substances like  $\text{CO}_2$  and  $\text{H}_2\text{O}$ .



### UV EMITTER

The light emitted by the emitter can generate the phenomenon of photocatalysis, interacting with the titanium dioxide catalyst ( $\text{TiO}_2$ ). The absorption level is 5,4W.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

### Configuration options FCZ - H

| Field        | Description   |
|--------------|---|
| <b>1,2,3</b> | <b>FCZ</b>  |
| <b>4</b>     | <b>Size</b><br>2, 3, 4, 5, 6, 9   |
| <b>5</b>     | <b>main heat exchanger</b>  |
| 0            | Standard  |
| 5            | Oversized   |
| <b>6</b>     | <b>Secondary heat exchanger</b>   |
| 0            | Without coil  |
| <b>7</b>     | <b>Version</b>  |
| H            | Unit with shell without thermostat - vertical and horizontal mount  |
| HP           | Unit without shell and thermostat - vertical and horizontal mount   |
| HPO          | Unit without shell and thermostat with upgraded motor - vertical and horizontal mount   |
| HPOR         | Unit without shell and thermostat with upgraded motor - vertical and horizontal installation - water connections on the right |
| HPR          | Unit without shell and thermostat - vertical and horizontal installation - water connections on the right                     |
| HR           | Unit with shell without thermostat - vertical and horizontal installation - water connections on the right                    |
| HT           | Unit with shell with thermostat - vertical mount  |
| HTR          | Unit with shell with thermostat - vertical mount - water connections on the right   |

## ACCESSORIES

### Control panels and dedicated accessories - FCZ-H

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those

with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air puri-

fying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SA503:** Wall-mountable ambient sensor, compatible with AER503IR.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**TXB:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

## VMF system

■ *The fan coil can also be teamed up with the VMF system; please contact headquarters about compatibility with the various system components.*

## Common accessories

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VCF41 - 42 - 43 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**ZXZ:** Pair of stylish and structural feet

**BC:** Condensate drip.

**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

**SPCZ:** Brackets to fix the fan coil to the floor.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories - FCZ-H

| Model        | Ver     | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|
| AER503IR (1) | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| SA5 (2)      | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| SA503 (3)    | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (4)     | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (5)     | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| TX (6)       | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| TXB (7)      | H,HP    | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Thermostat probe for AER503IR if available.

(4) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(5) Probe for AER503IR-TX thermostats, if fitted.

(6) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

(7) Installation on the fan coil.

## Common accessories

### 3 way valve kit

| Model       | Ver     | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|
| VCZ41 (1)   | H,HP,HT | *   |     |     |     |     |     |     |
| VCZ4124 (2) | H,HP,HT | *   |     |     |     |     |     |     |
| VCZ42 (1)   | H,HP,HT |     | *   | *   | *   | *   |     |     |
| VCZ4224 (2) | H,HP,HT |     | *   | *   | *   | *   |     |     |
| VCZ43 (1)   | H,HP,HT |     |     |     |     |     | *   | *   |
| VCZ4324 (2) | H,HP,HT |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

### 2 way valve kit

| Model       | Ver     | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|
| VCZD1 (1)   | H,HP,HT | *   |     |     |     |     |     |     |
| VCZD124 (2) | H,HP,HT | *   |     |     |     |     |     |     |

| Model       | Ver     | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|
| VCZD2 (1)   | H,HP,HT |     | *   | *   | *   | *   |     |     |
| VCZD224 (2) | H,HP,HT |     | *   | *   | *   | *   |     |     |
| VCZD3 (1)   | H,HP,HT |     |     |     |     |     | *   | *   |
| VCZD324 (2) | H,HP,HT |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

**Combined Adjustment and Balancing Valve Kit**

| Model       | Ver     | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|
| VJP060 (1)  | H,HP,HT | *   | *   |     |     |     |     |     |
| VJP060M (2) | H,HP,HT | *   | *   |     |     |     |     |     |
| VJP090 (1)  | H,HP,HT |     |     | *   | *   | *   |     |     |
| VJP090M (2) | H,HP,HT |     |     | *   | *   | *   |     |     |
| VJP150 (1)  | H,HP,HT |     |     |     |     |     | *   | *   |
| VJP150M (2) | H,HP,HT |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

**Wall mounting kit**

| Ver | 200   | 300   | 400   | 500   | 600   | 900   | 950   |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H   | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 |
| HP  | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 |

**Condensate drainage**

| Model     | Ver | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|
| DSCZ4 (1) | HP  | *   | *   | *   | *   | *   | *   | *   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

**Condensate drip**

| Ver       | 200                | 300                | 400                | 500                | 600                | 900      | 950      |
|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|----------|----------|
| H, HP, HT | BCZ4 (1), BCZ5 (2) | BCZ4 (1), BCZ5 (2) | BCZ4 (1), BCZ5 (2) | BCZ4 (1), BCZ5 (2) | BCZ4 (1), BCZ5 (2) | BCZ6 (2) | BCZ6 (2) |

(1) For vertical installation.

(2) For horizontal installation.

| Ver | 200     | 300     | 400     | 500     | 600     | 900     | 950     |
|-----|---------|---------|---------|---------|---------|---------|---------|
| HP  | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC9 (1) | BC9 (1) |

(1) For horizontal installation.

**Panel closing the rear of the unit**

| Ver   | 200    | 300    | 400    | 500    | 600    | 900     | 950     |
|-------|--------|--------|--------|--------|--------|---------|---------|
| H, HT | PCZ200 | PCZ300 | PCZ500 | PCZ500 | PCZ800 | PCZ1000 | PCZ1000 |

**Grille also applicable for floor installation**

| Ver       | 200   | 300   | 400   | 500   | 600   | 900   | 950   |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| H, HP, HT | GA200 | GA300 | GA500 | GA500 | GA800 | GA800 | GA800 |

**Metal supports for GA grille**

| Ver       | 200      | 300      | 400      | 500      | 600      | 900      | 950      |
|-----------|----------|----------|----------|----------|----------|----------|----------|
| H, HP, HT | FIKIT200 | FIKIT300 | FIKIT500 | FIKIT500 | FIKIT800 | FIKIT800 | FIKIT800 |

**Ventilcassaforma**

| Ver | 200   | 300   | 400   | 500   | 600   | 900   | 950   |
|-----|-------|-------|-------|-------|-------|-------|-------|
| HP  | CHF22 | CHF32 | CHF42 | CHF42 | CHF62 | CHF62 | CHF62 |

**Brackets to fix the fan coil to the floor.**

| Ver   | 200  | 300  | 400  | 500  | 600  | 900  | 950  |
|-------|------|------|------|------|------|------|------|
| H, HT | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ |

**Pair of stylish structural feet**

| Ver       | 200 | 300 | 400 | 500 | 600 | 900 | 950 |
|-----------|-----|-----|-----|-----|-----|-----|-----|
| H, HP, HT | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

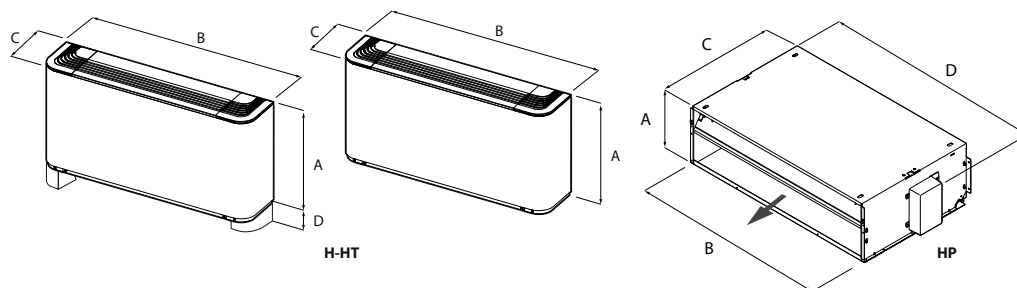
|                                       |       | FCZ200H      |      |      | FCZ250H      |      |      | FCZ300H      |      |       | FCZ350H      |      |       | FCZ400H      |       |       | FCZ450H      |       |       |
|---------------------------------------|-------|--------------|------|------|--------------|------|------|--------------|------|-------|--------------|------|-------|--------------|-------|-------|--------------|-------|-------|
|                                       |       | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2    | 3     | 1            | 2    | 3     | 1            | 2     | 3     | 1            | 2     | 3     |
|                                       |       | L            | M    | H    | L            | M    | H    | L            | M    | H     | L            | M    | H     | L            | M     | H     | L            | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Heating capacity                      | kW    | 2,02         | 2,95 | 3,70 | 2,20         | 3,18 | 4,05 | 3,47         | 4,46 | 5,50  | 3,77         | 4,92 | 6,15  | 4,32         | 5,74  | 7,15  | 4,57         | 6,29  | 7,82  |
| Water flow rate system side           | l/h   | 177          | 258  | 324  | 193          | 278  | 355  | 304          | 391  | 482   | 330          | 431  | 539   | 379          | 503   | 627   | 400          | 551   | 685   |
| Pressure drop system side             | kPa   | 6            | 12   | 18   | 7            | 15   | 23   | 7            | 12   | 18    | 8            | 14   | 20    | 9            | 16    | 24    | 6            | 11    | 16    |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Heating capacity                      | kW    | 1,00         | 1,46 | 1,84 | 1,09         | 1,58 | 2,01 | 1,72         | 2,21 | 2,73  | 1,87         | 2,44 | 3,06  | 2,14         | 2,85  | 3,55  | 2,27         | 3,12  | 3,88  |
| Water flow rate system side           | l/h   | 174          | 254  | 319  | 190          | 274  | 350  | 299          | 385  | 475   | 325          | 425  | 531   | 373          | 495   | 617   | 394          | 543   | 675   |
| Pressure drop system side             | kPa   | 6            | 12   | 18   | 8            | 15   | 22   | 8            | 12   | 18    | 8            | 14   | 20    | 10           | 16    | 24    | 6            | 11    | 16    |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Cooling capacity                      | kW    | 0,89         | 1,28 | 1,60 | 1,06         | 1,55 | 1,94 | 1,68         | 2,17 | 2,65  | 1,89         | 2,46 | 3,02  | 2,20         | 2,92  | 3,60  | 2,41         | 3,21  | 4,03  |
| Sensible cooling capacity             | kW    | 0,71         | 1,05 | 1,33 | 0,79         | 1,20 | 1,52 | 1,26         | 1,65 | 2,04  | 1,33         | 1,76 | 2,18  | 1,59         | 2,14  | 2,67  | 1,69         | 2,30  | 2,90  |
| Water flow rate system side           | l/h   | 153          | 221  | 275  | 182          | 267  | 334  | 288          | 374  | 456   | 350          | 460  | 560   | 379          | 503   | 619   | 414          | 552   | 694   |
| Pressure drop system side             | kPa   | 7            | 13   | 18   | 8            | 17   | 25   | 8            | 13   | 18    | 11           | 18   | 25    | 10           | 17    | 24    | 9            | 15    | 22    |
| Fan                                   |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Type                                  | type  | Centrifugal  |      |      | Centrifugal  |      |      | Centrifugal  |      |       | Centrifugal  |      |       | Centrifugal  |       |       | Centrifugal  |       |       |
| Fan motor                             | type  | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |      |       | Asynchronous |      |       | Asynchronous |       |       | Asynchronous |       |       |
| Number                                | no.   | 1            |      |      | 1            |      |      | 2            |      |       | 2            |      |       | 2            |       |       | 2            |       |       |
| Air flow rate                         | m³/h  | 140          | 220  | 290  | 140          | 220  | 290  | 260          | 350  | 450   | 260          | 350  | 450   | 330          | 460   | 600   | 330          | 460   | 600   |
| Input power                           | W     | 25           | 29   | 33   | 25           | 29   | 33   | 25           | 33   | 44    | 25           | 33   | 44    | 30           | 43    | 57    | 30           | 43    | 57    |
| Electrical wiring                     |       | V1           | V2   | V3   | V1           | V2   | V3   | V1           | V2   | V3    | V1           | V2   | V3    | V1           | V2    | V3    | V1           | V2    | V3    |
| Diameter hydraulic fittings           |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Type                                  | type  | Gas - F      |      |      | Gas - F      |      |      | Gas - F      |      |       | Gas - F      |      |       | Gas - F      |       |       | Gas - F      |       |       |
| Main heat exchanger                   | Ø     | 1/2"         |      |      | 1/2"         |      |      | 3/4"         |      |       | 3/4"         |      |       | 3/4"         |       |       | 3/4"         |       |       |
| Fan coil sound data (3)               |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Sound power level                     | dB(A) | 35,0         | 46,0 | 51,0 | 35,0         | 46,0 | 51,0 | 34,0         | 41,0 | 48,0  | 34,0         | 41,0 | 48,0  | 37,0         | 44,0  | 51,0  | 37,0         | 44,0  | 51,0  |
| Sound pressure level                  | dB(A) | 27,0         | 38,0 | 43,0 | 27,0         | 38,0 | 43,0 | 26,0         | 33,0 | 40,0  | 26,0         | 33,0 | 40,0  | 29,0         | 36,0  | 43,0  | 29,0         | 36,0  | 43,0  |
| Power supply                          |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Power supply                          |       | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |      |       | 230V~50Hz    |      |       | 230V~50Hz    |       |       | 230V~50Hz    |       |       |
|                                       |       | FCZ500H      |      |      | FCZ550H      |      |      | FCZ600H      |      |       | FCZ650H      |      |       | FCZ900H      |       |       | FCZ950H      |       |       |
|                                       |       | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2    | 3     | 1            | 2    | 3     | 1            | 2     | 3     | 1            | 2     | 3     |
|                                       |       | L            | M    | H    | L            | M    | H    | L            | M    | H     | L            | M    | H     | L            | M     | H     | L            | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Heating capacity                      | kW    | 5,27         | 7,31 | 8,50 | 5,82         | 8,34 | 9,75 | 6,50         | 8,10 | 10,00 | 7,19         | 9,15 | 11,50 | 10,77        | 13,35 | 15,14 | 11,20        | 14,42 | 17,10 |
| Water flow rate system side           | l/h   | 462          | 641  | 745  | 510          | 731  | 855  | 570          | 710  | 877   | 631          | 802  | 1008  | 945          | 1171  | 1328  | 982          | 1264  | 1500  |
| Pressure drop system side             | kPa   | 12           | 21   | 28   | 10           | 20   | 26   | 12           | 18   | 26    | 14           | 21   | 31    | 12           | 17    | 22    | 16           | 25    | 33    |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Heating capacity                      | kW    | 2,62         | 3,63 | 4,22 | 2,89         | 4,14 | 4,85 | 3,32         | 4,03 | 4,97  | 3,57         | 4,55 | 5,72  | 5,35         | 6,64  | 7,53  | 5,57         | 7,17  | 8,50  |
| Water flow rate system side           | l/h   | 455          | 631  | 734  | 502          | 720  | 842  | 561          | 699  | 863   | 621          | 790  | 993   | 930          | 1152  | 1307  | 967          | 1245  | 1476  |
| Pressure drop system side             | kPa   | 12           | 21   | 28   | 10           | 20   | 26   | 12           | 18   | 26    | 14           | 20   | 31    | 12           | 17    | 22    | 15           | 24    | 33    |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Cooling capacity                      | kW    | 2,68         | 3,69 | 4,25 | 2,91         | 4,13 | 4,79 | 3,22         | 3,90 | 4,65  | 3,95         | 4,80 | 5,67  | 4,29         | 5,00  | 6,91  | 5,77         | 7,32  | 8,60  |
| Sensible cooling capacity             | kW    | 1,94         | 2,73 | 3,18 | 2,07         | 2,98 | 3,49 | 2,56         | 3,17 | 3,92  | 2,78         | 3,43 | 4,12  | 2,97         | 3,78  | 5,68  | 3,80         | 4,87  | 5,78  |
| Water flow rate system side           | l/h   | 460          | 634  | 731  | 501          | 711  | 824  | 554          | 671  | 800   | 595          | 825  | 975   | 738          | 860   | 1189  | 992          | 1259  | 1479  |
| Pressure drop system side             | kPa   | 13           | 23   | 29   | 12           | 22   | 28   | 14           | 19   | 26    | 15           | 21   | 28    | 10           | 13    | 22    | 15           | 23    | 30    |
| Fan                                   |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Type                                  | type  | Centrifugal  |      |      | Centrifugal  |      |      | Centrifugal  |      |       | Centrifugal  |      |       | Centrifugal  |       |       | Centrifugal  |       |       |
| Fan motor                             | type  | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |      |       | Asynchronous |      |       | Asynchronous |       |       | Asynchronous |       |       |
| Number                                | no.   | 2            |      |      | 2            |      |      | 3            |      |       | 3            |      |       | 3            |       |       | 3            |       |       |
| Air flow rate                         | m³/h  | 400          | 600  | 720  | 400          | 600  | 720  | 520          | 720  | 900   | 520          | 720  | 900   | 700          | 930   | 1140  | 700          | 930   | 1140  |
| Input power                           | W     | 38           | 52   | 76   | 38           | 52   | 76   | 38           | 60   | 91    | 38           | 60   | 91    | 59           | 80    | 106   | 59           | 80    | 106   |
| Electrical wiring                     |       | V1           | V2   | V3   | V1           | V2   | V3   | V1           | V2   | V3    | V1           | V2   | V3    | V1           | V2    | V3    | V1           | V2    | V3    |
| Diameter hydraulic fittings           |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Type                                  | type  | Gas - F      |      |      | Gas - F      |      |      | Gas - F      |      |       | Gas - F      |      |       | Gas - F      |       |       | Gas - F      |       |       |
| Main heat exchanger                   | Ø     | 3/4"         |      |      | 3/4"         |      |      | 3/4"         |      |       | 3/4"         |      |       | 3/4"         |       |       | 3/4"         |       |       |
| Fan coil sound data (3)               |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Sound power level                     | dB(A) | 42,0         | 51,0 | 56,0 | 42,0         | 51,0 | 56,0 | 42,0         | 51,0 | 57,0  | 42,0         | 51,0 | 57,0  | 51,0         | 57,0  | 62,0  | 51,0         | 57,0  | 61,0  |
| Sound pressure level                  | dB(A) | 34,0         | 43,0 | 48,0 | 34,0         | 43,0 | 48,0 | 34,0         | 43,0 | 49,0  | 34,0         | 43,0 | 49,0  | 43,0         | 49,0  | 54,0  | 43,0         | 49,0  | 53,0  |
| Power supply                          |       |              |      |      |              |      |      |              |      |       |              |      |       |              |       |       |              |       |       |
| Power supply                          |       | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |      |       | 230V~50Hz    |      |       | 230V~50Hz    |       |       | 230V~50Hz    |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



| Size                   |      |    | 200 | 300 | 400  | 500  | 600  | 900  | 950  |
|------------------------|------|----|-----|-----|------|------|------|------|------|
| Dimensions and weights |      |    |     |     |      |      |      |      |      |
| A                      | H,HT | mm | 486 | 486 | 486  | 486  | 486  | 591  | 591  |
|                        | HP   | mm | 216 | 216 | 216  | 216  | 216  | 216  | 216  |
| B                      | H,HT | mm | 750 | 980 | 1200 | 1200 | 1320 | 1320 | 1320 |
|                        | HP   | mm | 562 | 793 | 1013 | 1013 | 1147 | 1147 | 1147 |
| C                      | H,HT | mm | 220 | 220 | 220  | 220  | 220  | 220  | 220  |
|                        | HP   | mm | 453 | 453 | 453  | 453  | 453  | 558  | 558  |
| D                      | H,HT | mm | 90  | 90  | 90   | 90   | 90   | 90   | 90   |
|                        | HP   | mm | 522 | 753 | 973  | 973  | 1122 | 1122 | 1122 |
| Empty weight           | H,HT | kg | 15  | 17  | 23   | 22   | 29   | 34   | 34   |
|                        | HP   | kg | 12  | 14  | 20   | 23   | 29   | 32   | 32   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)





## PHOTOCATALYTIC DEVICE AT THE HEART OF THE FAN COIL

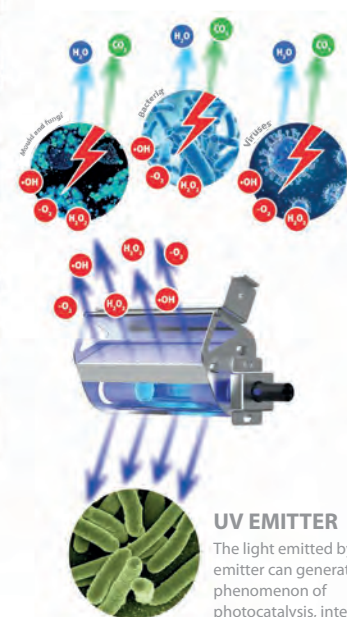


### FILTER

The filter holds back dust, ash and "natural allergens" like pollen, spores, etc.

### TITANIUM DIOXIDE CATALYS

Titanium dioxide ( $\text{TiO}_2$ ) has a high degree of thermal and chemical stability, isn't toxic for humans and isn't expensive, but at the same time it's easily procurable, widely available, bio-compatible, and highly sensitive to UV light. The catalyst has a honeycomb form and increases the photocatalysis reaction surface, thereby maximising and guaranteeing system efficiency. The interaction of the catalyst with the UV light (photocatalysis) creates and releases highly reactive and oxidising species ( $\text{H}_2\text{O}_2$  and  $\text{OH}^\cdot$ ) that attack the polluting agents, breaking them down and eliminating them. The result is a powerful biocidal action with the decomposition of the VOC (Volatile Organic Compounds) and the release of harmless substances like  $\text{CO}_2$  and  $\text{H}_2\text{O}$ .



### UV EMITTER

The light emitted by the emitter can generate the phenomenon of photocatalysis, interacting with the titanium dioxide catalyst ( $\text{TiO}_2$ ). The absorption level is 5,4W.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field   | Description  |
|---------|--|
| 1,2,3,4 | FCZI   |
| 5       | Size<br>2, 3, 4, 5, 7, 9   |
| 6       | main heat exchanger  |
| 0       | Standard   |
| 5       | Oversized  |
| 7       | Secondary heat exchanger   |
| 0       | Without coil   |
| 8       | Version  |
| H       | Unit with shell without thermostat - vertical and horizontal mount   |
| HP      | Unit without shell and thermostat - vertical and horizontal mount  |
| HPR     | Unit without shell and thermostat - vertical and horizontal installation - water connections on the right  |
| HR      | Unit with shell without thermostat - vertical and horizontal installation - water connections on the right |
| HT      | Unit with shell with thermostat - vertical mount   |
| HTR     | Unit with shell with thermostat - vertical mount - water connections on the right                          |

## ACCESSORIES

### Control panels and dedicated accessories - FCZI-H

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SAS:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E22:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### VMF system

■ *The fan coil can also be teamed up with the VMF system; please contact headquarters about compatibility with the various system components.*

### Common accessories

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**PCZ:** Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.

**GA:** Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

**FIKIT:** Structural bracket in floor installation.

**ZXZ:** Pair of stylish and structural feet

**BC:** Condensate drip.

**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

**SPCZ:** Brackets to fix the fan coil to the floor.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Model        | Ver     | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|
| AER503IR (1) | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | H,HP    | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | H,HP    | *   | *   | *   | *   | *   | *   | *   |
|              | HT      |     | *   |     | *   |     | *   |     |
| TX (3)       | H,HP,HT | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver     | 550 | 700 | 750 | 900 | 950 |
|--------------|---------|-----|-----|-----|-----|-----|
| AER503IR (1) | H,HP    | *   | *   | *   | *   | *   |
| PRO503       | H,HP    | *   | *   | *   | *   | *   |
| SAS (2)      | H,HP    | *   | *   | *   | *   | *   |
| SW3 (2)      | H,HP,HT | *   | *   | *   | *   | *   |
| SW5 (2)      | H,HP    | *   | *   | *   | *   | *   |
|              | HT      | *   |     | *   |     |     |
| TX (3)       | H,HP,HT | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

| Model | Ver  | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24  | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

| Model        | Ver  | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VMF-E19I (1) | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E2Z      | H    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3       | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX     | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X      | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IO       | H    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR       | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-LON      | H    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1      | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMHI         | H,HP | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Mandatory accessory.

## Common accessories

### 3 way valve kit

| Model       | Ver     | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ41 (1)   | H,HP,HT | *   | *   |     |     |     |     |     |     |     |     |     |     |
| VCZ4124 (2) | H,HP,HT | *   | *   |     |     |     |     |     |     |     |     |     |     |
| VCZ42 (1)   | H,HP,HT |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |
| VCZ4224 (2) | H,HP,HT |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |
| VCZ43 (1)   | H,HP,HT |     |     |     |     |     |     |     |     |     |     | *   | *   |
| VCZ4324 (2) | H,HP,HT |     |     |     |     |     |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

### 2 way valve kit

| Model       | Ver     | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZD1 (1)   | H,HP,HT | *   | *   |     |     |     |     |     |     |     |     |     |     |
| VCZD124 (2) | H,HP,HT | *   | *   |     |     |     |     |     |     |     |     |     |     |
| VCZD2 (1)   | H,HP,HT |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |
| VCZD224 (2) | H,HP,HT |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |
| VCZD3 (1)   | H,HP,HT |     |     |     |     |     |     |     |     |     |     | *   | *   |
| VCZD324 (2) | H,HP,HT |     |     |     |     |     |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

### Combined Adjustment and Balancing Valve Kit

| Model       | Ver     | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|-------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP060 (1)  | H,HP,HT | *   | *   | *   | *   |     |     |     |     |     |     |     |     |
| VJP060M (2) | H,HP,HT | *   | *   | *   | *   |     |     |     |     |     |     |     |     |
| VJP090 (1)  | H,HP,HT |     |     |     |     | *   | *   | *   | *   |     |     |     |     |
| VJP090M (2) | H,HP,HT |     |     |     |     | *   | *   | *   | *   |     |     |     |     |
| VJP150 (1)  | H,HP,HT |     |     |     |     |     |     |     |     | *   | *   | *   | *   |
| VJP150M (2) | H,HP,HT |     |     |     |     |     |     |     |     | *   | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

### Wall mounting kit

| Ver   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 700   | 750   | 900   | 950   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| H, HP | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 | AMP20 |

### Condensate drainage

| Model    | Ver | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSC4 (1) | HP  | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMP2 valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

### Condensate drip

| Ver | 200      | 250      | 300      | 350      | 400      | 450      | 500      | 550      | 700      | 750      | 900      | 950      |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| HP  | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) | BCZ4 (1) |

(1) For vertical installation.

| Ver | 200     | 250     | 300     | 350     | 400     | 450     | 500     | 550     | 700     | 750     | 900     | 950     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| HP  | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC8 (1) | BC9 (1) | BC9 (1) |

(1) For horizontal installation.

### Panel closing the rear of the unit

| Ver   | 200    | 250    | 300    | 350    | 400    | 450    | 500    | 550    | 700    | 750    | 900     | 950     |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| H, HT | PCZ200 | PCZ200 | PCZ300 | PCZ300 | PCZ500 | PCZ500 | PCZ500 | PCZ500 | PCZ800 | PCZ800 | PCZ1000 | PCZ1000 |

### Grille also applicable for floor installation

| Ver       | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 700   | 750   | 900   | 950   |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| H, HP, HT | GA200 | GA200 | GA300 | GA300 | GA500 | GA500 | GA500 | GA500 | GA800 | GA800 | GA800 | GA800 |

**Metal supports for GA grille**

| Ver       | 200      | 250      | 300      | 350      | 400      | 450      | 500      | 550      | 700      | 750      | 900      | 950      |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| H, HP, HT | FIKIT200 | FIKIT200 | FIKIT300 | FIKIT300 | FIKIT500 | FIKIT500 | FIKIT500 | FIKIT500 | FIKIT800 | FIKIT800 | FIKIT800 | FIKIT800 |

**Ventilcassaforma**

| Ver | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 700   | 750   | 900   | 950   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HP  | CHF22 | CHF22 | CHF32 | CHF32 | CHF42 | CHF42 | CHF42 | CHF42 | CHF62 | CHF62 | CHF62 | CHF62 |

**Brackets to fix the fan coil to the floor.**

| Ver   | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 700  | 750  | 900  | 950  |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| H, HT | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ | SPCZ |

**Pair of stylish structural feet**

| Ver       | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 700 | 750 | 900 | 950 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| H, HP, HT | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ | ZXZ |

**PERFORMANCE SPECIFICATIONS****2-pipe**

|  | FCZI200H |   |   | FCZI250H |   |   | FCZI300H |   |   | FCZI350H |   |   | FCZI400H |   |   | FCZI450H |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,02 | 2,95 | 3,70 | 2,20 | 3,18 | 4,05 | 3,47 | 4,46 | 5,50 | 3,77 | 4,92 | 6,15 | 4,32 | 5,74 | 7,15 | 4,57 | 6,29 | 7,82 |
| Water flow rate system side | l/h | 177  | 258  | 324  | 193  | 278  | 355  | 304  | 391  | 482  | 330  | 431  | 539  | 379  | 503  | 627  | 400  | 551  | 685  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 7    | 15   | 23   | 7    | 12   | 18   | 8    | 14   | 20   | 9    | 16   | 24   | 6    | 11   | 16   |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,00 | 1,46 | 1,84 | 1,09 | 1,58 | 2,01 | 1,72 | 2,21 | 2,73 | 1,87 | 2,44 | 3,06 | 2,14 | 2,85 | 3,55 | 2,27 | 3,12 | 3,88 |
| Water flow rate system side | l/h | 174  | 254  | 319  | 190  | 274  | 350  | 299  | 385  | 475  | 325  | 425  | 531  | 373  | 495  | 617  | 394  | 543  | 675  |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 15   | 22   | 8    | 12   | 18   | 8    | 14   | 20   | 10   | 16   | 24   | 6    | 11   | 16   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,06 | 1,55 | 1,94 | 1,68 | 2,17 | 2,65 | 1,89 | 2,46 | 3,02 | 2,20 | 2,92 | 3,60 | 2,41 | 3,21 | 4,03 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 0,79 | 1,20 | 1,52 | 1,26 | 1,65 | 2,04 | 1,33 | 1,76 | 2,18 | 1,59 | 2,14 | 2,67 | 1,69 | 2,30 | 2,90 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 182  | 267  | 334  | 288  | 374  | 456  | 350  | 460  | 560  | 379  | 503  | 619  | 414  | 552  | 694  |
| Pressure drop system side   | kPa | 7    | 13   | 18   | 8    | 17   | 25   | 8    | 13   | 18   | 11   | 18   | 25   | 10   | 17   | 24   | 9    | 15   | 22   |

**Fan**

|               |      |             |     |     |             |     |     |             |     |     |             |     |     |             |     |     |             |     |     |
|---------------|------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Type          | type | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     |
| Fan motor     | type | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     |
| Number        | no.  | 1           |     |     | 1           |     |     | 2           |     |     | 2           |     |     | 2           |     |     | 2           |     |     |
| Air flow rate | m³/h | 140         | 220 | 290 | 140         | 220 | 290 | 260         | 350 | 450 | 260         | 350 | 450 | 330         | 460 | 600 | 330         | 460 | 600 |
| Input power   | W    | 5           | 8   | 14  | 5           | 8   | 14  | 5           | 7   | 13  | 5           | 7   | 13  | 5           | 10  | 18  | 5           | 10  | 18  |
| Signal 0-10V  | %    | 44          | 68  | 90  | 44          | 68  | 90  | 52          | 70  | 90  | 52          | 70  | 90  | 49          | 68  | 90  | 49          | 68  | 90  |

**Diametre hydraulic fittings**

|      |      |         |  |  |         |  |  |         |  |  |         |  |  |         |  |  |         |  |  |
|------|------|---------|--|--|---------|--|--|---------|--|--|---------|--|--|---------|--|--|---------|--|--|
| Type | type | Gas - F |  |  | Gas - F |  |  | Gas - F |  |  | Gas - F |  |  | Gas - F |  |  | Gas - F |  |  |
|------|------|---------|--|--|---------|--|--|---------|--|--|---------|--|--|---------|--|--|---------|--|--|

**Fan coil sound data (3)**

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 46,0 | 51,0 | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 37,0 | 44,0 | 51,0 |
| Sound pressure level | dB(A) | 27,0 | 38,0 | 43,0 | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 29,0 | 36,0 | 43,0 |

**Power supply**

|              |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

|  | FCZI500H |   |   | FCZI550H |   |   | FCZI700H |   |   | FCZI750H |   |   | FCZI900H |   |   | FCZI950H |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |       |      |      |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|------|------|------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 5,27 | 7,31 | 8,50 | 5,82 | 8,34 | 9,75 | 6,50 | 8,10 | 10,00 | 7,19 | 9,15 | 11,50 | 10,77 | 13,35 | 15,14 | 11,20 | 14,42 | 17,10 |
| Water flow rate system side | l/h | 462  | 641  | 745  | 510  | 731  | 855  | 570  | 710  | 877   | 631  | 802  | 1008  | 945   | 1171  | 1328  | 982   | 1264  | 1500  |
| Pressure drop system side   | kPa | 12   | 21   | 28   | 10   | 20   | 26   | 12   | 18   | 26    | 14   | 21   | 31    | 12    | 17    | 22    | 16    | 25    | 33    |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,62 | 3,63 | 4,22 | 2,89 | 4,14 | 4,85 | 3,32 | 4,03 | 4,97 | 3,57 | 4,55 | 5,72 | 5,35 | 6,64 | 7,53 | 5,57 | 7,17 | 8,50 |
| Water flow rate system side | l/h | 455  | 631  | 734  | 502  | 720  | 842  | 561  | 699  | 863  | 621  | 790  | 993  | 930  | 1152 | 1307 | 967  | 1245 | 1476 |
| Pressure drop system side   | kPa | 12   | 21   | 28   | 10   | 20   | 26   | 12   | 18   | 26   | 14   | 20   | 31   | 12   | 17   | 22   | 15   | 24   | 33   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 2,68 | 3,69 | 4,25 | 2,91 | 4,13 | 4,79 | 3,22 | 3,90 | 4,65 | 3,95 | 4,80 | 5,67 | 4,29 | 5,00 | 6,91 | 5,77 | 7,32 | 8,60 |
| Sensible cooling capacity   | kW  | 1,94 | 2,73 | 3,18 | 2,07 | 2,98 | 3,49 | 2,56 | 3,17 | 3,92 | 2,78 | 3,43 | 4,12 | 2,97 | 3,78 | 5,68 | 3,80 | 4,87 | 5,78 |
| Water flow rate system side | l/h | 460  | 634  | 731  | 501  | 711  | 824  | 554  | 671  | 800  | 595  | 825  | 975  | 738  | 860  | 1189 | 992  | 1259 | 1479 |
| Pressure drop system side   | kPa | 13   | 23   | 29   | 12   | 22   | 28   | 14   | 19   | 26   | 15   | 21   | 28   | 10   | 13   | 22   | 15   | 23   | 30   |

**Fan**

|               |      |             |     |     |             |     |     |             |     |     |             |     |     |             |     |      |             |     |      |
|---------------|------|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|------|-------------|-----|------|
| Type          | type | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |     | Centrifugal |     |      | Centrifugal |     |      |
| Fan motor     | type | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |     | Inverter    |     |      | Inverter    |     |      |
| Number        | no.  | 2           |     |     | 2           |     |     | 3           |     |     | 3           |     |     | 3           |     |      | 3           |     |      |
| Air flow rate | m³/h | 400         | 600 | 720 | 400         | 600 | 720 | 520         | 720 | 900 | 520         | 720 | 900 | 700         | 930 | 1140 | 700         | 930 | 1140 |
| Input power   | W    | 7           | 18  | 34  | 7           | 18  | 34  | 30          | 40  | 80  | 30          | 40  | 80  | 30          | 40  | 80   | 30          | 40  | 80   |
| Signal 0-10V  | %    | 50          | 74  | 90  | 50          | 74  | 90  | 56          | 72  | 90  | 56          | 72  | 90  | 56          | 72  | 90   | 56          | 72  | 90   |

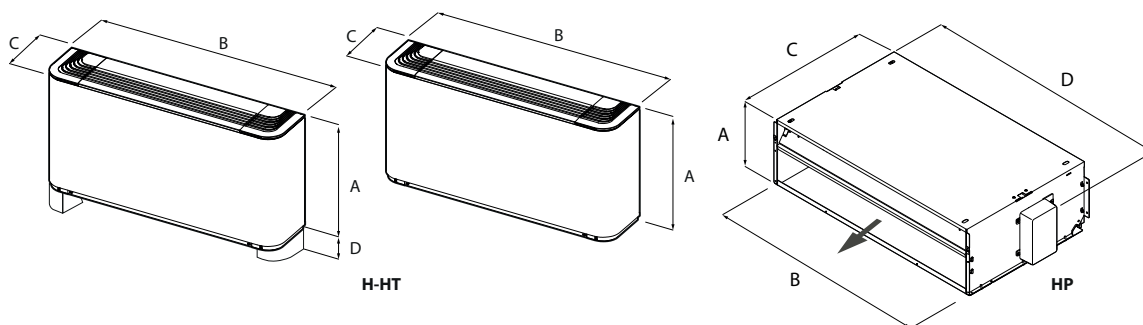
|                             |       | FCZI500H  |      |      | FCZI550H  |      |      | FCZI700H  |      |      | FCZI750H  |      |      | FCZI900H  |      |      | FCZI950H  |      |      |
|-----------------------------|-------|-----------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|-----------|------|------|
| Diametre hydraulic fittings |       |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |
| Type                        | type  | Gas - F   |      |      | Gas - F   |      |      | Gas - F   |      |      | Gas - F   |      |      | Gas - F   |      |      | Gas - F   |      |      |
| Fan coil sound data (3)     |       |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |
| Sound power level           | dB(A) | 42,0      | 51,0 | 56,0 | 42,0      | 51,0 | 56,0 | 42,0      | 51,0 | 57,0 | 42,0      | 51,0 | 57,0 | 51,0      | 57,0 | 62,0 | 51,0      | 57,0 | 61,0 |
| Sound pressure level        | dB(A) | 34,0      | 43,0 | 48,0 | 34,0      | 43,0 | 48,0 | 34,0      | 43,0 | 49,0 | 34,0      | 43,0 | 49,0 | 43,0      | 49,0 | 54,0 | 43,0      | 49,0 | 53,0 |
| Power supply                |       |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |           |      |      |
| Power supply                |       | 230V~50Hz |      |      | 230V~50Hz |      |      | 230V~50Hz |      |      | 230V~50Hz |      |      | 230V~50Hz |      |      | 230V~50Hz |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



| Size                          |      |    | 200 | 250 | 300 | 350 | 400  | 450  | 500  | 550  | 700  | 750  | 900  | 950  |
|-------------------------------|------|----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |      |    |     |     |     |     |      |      |      |      |      |      |      |      |
| A                             | H,HT | mm | 486 | 486 | 486 | 486 | 486  | 486  | 486  | 486  | 486  | 486  | 591  | 591  |
|                               | HP   | mm | 216 | 216 | 216 | 216 | 216  | 216  | 216  | 216  | 216  | 216  | 216  | 216  |
| B                             | H,HT | mm | 750 | 750 | 980 | 980 | 1200 | 1200 | 1200 | 1200 | 1320 | 1320 | 1320 | 1320 |
|                               | HP   | mm | 522 | 522 | 753 | 753 | 973  | 973  | 973  | 973  | 1122 | 1122 | 1122 | 1122 |
| C                             | H,HT | mm | 220 | 220 | 220 | 220 | 220  | 220  | 220  | 220  | 220  | 220  | 220  | 220  |
|                               | HP   | mm | 453 | 453 | 453 | 453 | 453  | 453  | 453  | 453  | 453  | 453  | 558  | 558  |
| D                             | H,HT | mm | 90  | -   | 90  | -   | 90   | -    | 90   | -    | 90   | -    | 90   | 90   |
|                               | HP   | mm | 562 | -   | 793 | -   | 1013 | -    | 1013 | -    | 1147 | -    | 1147 | 1147 |
| Empty weight                  | H,HT | kg | 15  | 16  | 17  | 18  | 22   | 24   | 22   | 24   | 29   | 31   | 34   | 34   |
|                               | HP   | kg | 12  | 14  | 14  | 16  | 20   | 22   | 23   | 24   | 26   | 31   | 32   | 32   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

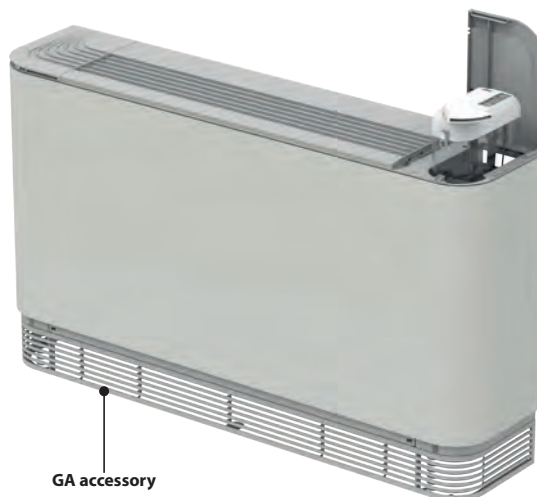


## FCZ-ASW

- **Adiabatic "retractable stand-alone" ultrasonic humidifier**
- **Fully silent operation**
- **Total comfort in every season**

## Fan coil for vertical wall-mounting or free-standing installation

Cooling capacity 0,65 ÷ 7,62 kW  
Heating capacity 1,45 ÷ 17,02 kW



GA accessory



### DESCRIPTION

The FCZ-ASW series adds winter air humidity control to the typical functions of a fan coil, guaranteeing the best degree of thermo-hygrometric comfort without any impact on acoustic performance and with extremely low electricity consumption.

### INTEGRATED ULTRASONIC HUMIDIFIER: EFFICIENCY AND SILENCE

Our "stand-alone" adiabatic ultrasonic humidifier, which disappears from view because it is perfectly integrated into the fan coil cabinet, guarantees precise and silent humidification of the environment. It consists of a transparent tank, a feeding unit with a three-speed micro-fan and a piezoelectric transducer.

**The latter, thanks to ultrasonic technology, nebulizes the demineralised water into microparticles, creating a fine mist that evaporates quickly once in contact with the ambient air.**

The electronic control makes it possible to set three humidity levels, adapting to any need, the integrated level sensor promptly signals the need to top up **only demineralised water**.



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### Case

Metallic micro-perforated cabinet with rustproofing polyester paint RAL 9003. Head with plastic air distribution grille RAL 7047.

### Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.

The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.

Extractable shrouds for easy, effective cleaning

### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Specify the position of the water connections at the time of ordering.**

### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

### DATA AND ACCESSORIES

**For performance data and accessory compatibility, please refer to the commercial documentation of the FCZ series.**

**Please note that only wall-mounted control panels are compatible with this unit, so it cannot be used in units with on-board thermostats**

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Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# Omnia UL

## Fan coil for universal installation

- **Fully silent functioning**
- **Ideal for residential or office solutions**



## DESCRIPTION

fan coil can be installed in any 2 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

## VERSIONS

### C Vertical installation, intake at base, electronic thermostat

**PC** Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier

**S** Vertical and horizontal installation, intake at base, without commands

**UL Standard** - Vertical installation, bottom intake, manual switch-over

## FEATURES

## Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

## Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.

The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

The plastic augers are extractable for easy and efficient cleaning.

### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ The hydraulic connections can be inverted during installation.

### Condensate drip

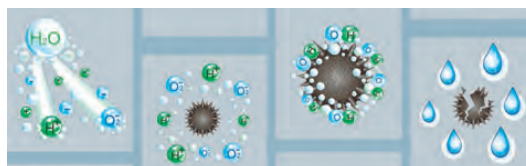
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

## Air filter

The fan coil units are equipped with a standard air filter. For specific details, please refer to the unit's documentation.

**APC versions equipped with Coldplasma Air purifier.**

The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.





## ACCESSORIES

### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate

and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**DI24CP:** Complete flush-mounted interface plate with support for DI24, Vi-mar brand, Arké series, graphite gray color.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E2U:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory. It has 2 selector switches, one for temperature and the other for speed control.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Common accessories

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.

**BC:** Condensate drip.

**GU:** Intake grid covers the front space between the ornamental feet and does not interfere with the filter.

**PCU:** Sheet metal panel closing the rear of the unit.

**ZU1:** Pair of stylish and structural feet.

**GU:** Intake grid covers the front space between the ornamental feet and does not interfere with the filter.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory | UL12C | UL12PC | UL12S | UL17C | UL17PC | UL17S | UL27C | UL27PC | UL27S | UL37C | UL37PC | UL37S |
|-----------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|
| AER503IR  |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| PRO503    |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| SA5       |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| SW3       | *     | *      | *     | *     | *      | *     | *     | *      | *     | *     | *      | *     |
| SW5       |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| TX        |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| WMT10     |       |        | *     |       |        | *     |       |        | *     |       |        | *     |
| WMT16     |       |        | *     |       |        | *     |       |        | *     |       |        | *     |

**VMF system**

| Accessory | UL12S | UL17S | UL27S | UL37S |
|-----------|-------|-------|-------|-------|
| DI24      | *     | *     | *     | *     |
| DI24CP    | *     | *     | *     | *     |
| VMF-E19   | *     | *     | *     | *     |
| VMF-E2U   | *     | *     | *     | *     |
| VMF-E3    | *     | *     | *     | *     |
| VMF-E4DX  | *     | *     | *     | *     |
| VMF-E4X   | *     | *     | *     | *     |
| VMF-IR    | *     | *     | *     | *     |
| VMHI      | *     | *     | *     | *     |

**3 way valve kit**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| VCH       | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     |

**2 way valve kit**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| VCHD      | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     |

**Condensate drip**

| Accessory | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C |
|-----------|------|-------|--------|-------|------|-------|
| BC10 (1)  | *    | *     | *      | *     | *    | *     |
| BC20 (2)  | *    | *     | *      | *     | *    | *     |

| Accessory | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|--------|-------|------|-------|--------|-------|
| BC10 (1)  | *      | *     | *    | *     | *      | *     |
| BC20 (2)  | *      | *     | *    | *     | *      | *     |

(1) For vertical installation.

(2) For horizontal installation.

**Condensate drainage**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| DSCS (1)  | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     |

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

**Wall mounting kit**

| Accessory | UL12C | UL17C | UL17PC | UL27C | UL27PC | UL37C | UL37PC |
|-----------|-------|-------|--------|-------|--------|-------|--------|
| AMP10     | *     | *     | *      | *     | *      | *     | *      |

**Panel closing the rear of the unit**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| PCU12     | *    | *     | *      | *     |      |       |        |       |      |       |        |       |      |       |        |       |
| PCU17     |      |       |        |       | *    | *     | *      | *     |      |       |        |       |      |       |        |       |
| PCU27     |      |       |        |       |      |       |        |       | *    | *     | *      | *     |      |       |        |       |
| PCU37     |      |       |        |       |      |       |        |       |      |       |        |       | *    | *     | *      | *     |

**Intake grids**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| GU12 (1)  | *    | *     | *      | *     |      |       |        |       |      |       |        |       |      |       |        |       |
| GU17 (1)  |      |       |        |       | *    | *     | *      | *     |      |       |        |       |      |       |        |       |
| GU27 (1)  |      |       |        |       |      |       |        |       | *    | *     | *      | *     |      |       |        |       |
| GU37 (1)  |      |       |        |       |      |       |        |       |      |       |        |       | *    | *     | *      | *     |

(1) The combination with a pair of stylish and structural feet is mandatory.

**Pair of stylish structural feet**

| Accessory | UL12 | UL12C | UL12PC | UL12S | UL17 | UL17C | UL17PC | UL17S | UL27 | UL27C | UL27PC | UL27S | UL37 | UL37C | UL37PC | UL37S |
|-----------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|------|-------|--------|-------|
| ZU1       | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     | *    | *     | *      | *     |

**Configuration****Configuration options**

| Field | Description  |
|-------|--|
| 1,2   | UL   |
| 3,4   | Size<br>12, 17, 27, 37   |
| 5     | Version  |
| C     | Vertical installation, intake at base, electronic thermostat                       |
| PC    | Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier |
| S     | Vertical and horizontal installation, intake at base, without commands             |
| UL    | Standard - Vertical installation, bottom intake, manual switch-over                |

## PERFORMANCE SPECIFICATIONS

### Technical data

#### 2-pipe

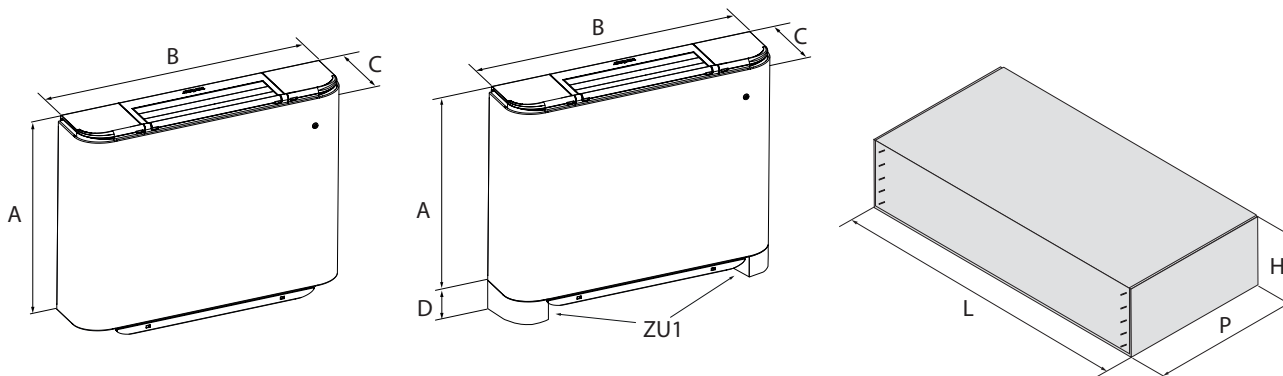
|                                       |       | UL17        |      |      | UL27        |      |      | UL37        |      |      |
|---------------------------------------|-------|-------------|------|------|-------------|------|------|-------------|------|------|
|                                       |       | 1           | 2    | 3    | 1           | 2    | 3    | 1           | 2    | 3    |
|                                       |       | L           | M    | H    | L           | M    | H    | L           | M    | H    |
| Heating performance 70 °C / 60 °C (1) |       |             |      |      |             |      |      |             |      |      |
| Heating capacity                      | kW    | 1,54        | 2,12 | 2,91 | 2,89        | 3,83 | 4,62 | 3,63        | 4,87 | 5,94 |
| Water flow rate system side           | l/h   | 135         | 186  | 255  | 254         | 336  | 405  | 310         | 427  | 521  |
| Pressure drop system side             | kPa   | 1           | 2    | 4    | 5           | 8    | 11   | 3           | 5    | 7    |
| Heating performance 45 °C / 40 °C (2) |       |             |      |      |             |      |      |             |      |      |
| Heating capacity                      | kW    | 0,76        | 1,05 | 1,44 | 1,44        | 1,90 | 2,29 | 1,75        | 2,42 | 2,95 |
| Water flow rate system side           | l/h   | 133         | 183  | 251  | 249         | 331  | 399  | 305         | 420  | 513  |
| Pressure drop system side             | kPa   | 2           | 3    | 3    | 5           | 8    | 11   | 7           | 13   | 18   |
| Cooling performance 7 °C / 12 °C      |       |             |      |      |             |      |      |             |      |      |
| Cooling capacity                      | kW    | 0,69        | 0,87 | 1,17 | 1,26        | 1,65 | 1,99 | 1,63        | 2,26 | 2,79 |
| Sensible cooling capacity             | kW    | 0,52        | 0,69 | 0,96 | 0,97        | 1,30 | 1,61 | 1,13        | 1,59 | 2,00 |
| Water flow rate system side           | l/h   | 122         | 153  | 206  | 220         | 289  | 349  | 286         | 394  | 487  |
| Pressure drop system side             | kPa   | 2           | 3    | 5    | 5           | 8    | 11   | 7           | 13   | 19   |
| Fan                                   |       |             |      |      |             |      |      |             |      |      |
| Type                                  | type  | Centrifugal |      |      | Centrifugal |      |      | Centrifugal |      |      |
| Fan motor                             | type  | On-Off      |      |      | On-Off      |      |      | On-Off      |      |      |
| Number                                | no.   | 1           |      |      | 2           |      |      | 2           |      |      |
| Air flow rate                         | m³/h  | 110         | 160  | 240  | 190         | 270  | 350  | 240         | 350  | 460  |
| Input power                           | W     | 23          | 25   | 32   | 24          | 27   | 35   | 30          | 35   | 42   |
| Electrical wiring                     |       | V1          | V2   | V3   | V1          | V2   | V3   | V1          | V2   | V3   |
| Fan coil sound data (3)               |       |             |      |      |             |      |      |             |      |      |
| Sound power level                     | dB(A) | 34,0        | 43,0 | 48,0 | 35,0        | 43,0 | 48,0 | 34,0        | 43,0 | 50,0 |
| Sound pressure level                  | dB(A) | 26,0        | 35,0 | 40,0 | 27,0        | 35,0 | 40,0 | 26,0        | 33,0 | 40,0 |
| Finned pack heat exchanger            |       |             |      |      |             |      |      |             |      |      |
| Water content main heat exchanger     | l     | 0,4         |      |      | 0,6         |      |      | 0,8         |      |      |
| Diameter hydraulic fittings           |       |             |      |      |             |      |      |             |      |      |
| Main heat exchanger                   | Ø     | 1/2"        |      |      | 1/2"        |      |      | 1/2"        |      |      |
| Power supply                          |       |             |      |      |             |      |      |             |      |      |
| Power supply                          |       | 230V~50Hz   |      |      | 230V~50Hz   |      |      | 230V~50Hz   |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



### Dimensions and weights

|   |    | UL12 | UL12C | UL12S | UL17 | UL17S | UL17C | UL17PC | UL27 | UL27S | UL27C | UL27PC | UL37 | UL37S | UL37C | UL37PC |
|---|----|------|-------|-------|------|-------|-------|--------|------|-------|-------|--------|------|-------|-------|--------|
| <b>Dimensions and weights</b>               |    |      |       |       |      |       |       |        |      |       |       |        |      |       |       |        |
| A   | mm | 485  | 485   | 485   | 485  | 485   | 485   | 485    | 485  | 485   | 485   | 485    | 485  | 485   | 485   | 485    |
| B   | mm | 640  | 640   | 640   | 750  | 750   | 750   | 750    | 980  | 980   | 980   | 980    | 1200 | 1200  | 1200  | 1200   |
| C   | mm | 173  | 173   | 173   | 173  | 173   | 173   | 173    | 173  | 173   | 173   | 173    | 173  | 173   | 173   | 173    |
| D   | mm | 94   | 94    | 94    | 94   | 94    | 94    | 94     | 94   | 94    | 94    | 94     | 94   | 94    | 94    | 94     |
| Empty weight                                | kg | 12   | 12    | 12    | 13   | 13    | 13    | 13     | 17   | 17    | 18    | 18     | 20   | 20    | 20    | 20     |
| <b>Dimensions and weights for transport</b> |    |      |       |       |      |       |       |        |      |       |       |        |      |       |       |        |
| H   | mm | 275  | 275   | 275   | 275  | 275   | 275   | 275    | 275  | 275   | 275   | 275    | 275  | 275   | 275   | 275    |
| L   | mm | 710  | 710   | 710   | 820  | 820   | 820   | 820    | 1050 | 1050  | 1050  | 1050   | 1270 | 1270  | 1270  | 1270   |
| P   | mm | 590  | 590   | 590   | 590  | 590   | 590   | 590    | 590  | 590   | 590   | 590    | 590  | 590   | 590   | 590    |
| Weight for transport                        | kg | 12,5 | 13,0  | 12,5  | 14,5 | 14,5  | 15,0  | 15,0   | 19,0 | 19,0  | 19,5  | 19,5   | 22,5 | 22,5  | 23,0  | 23,0   |

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia

Tel. 0442633111 - Telefax 044293577

www.aermec.com



## ACCESSORIES

### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**DI24CP:** Complete flush-mounted interface plate with support for DI24, Vi-mar brand, Arké series, graphite gray color.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E2U:** User interface on the machine, to be combined with the VMF-E19 and VMF-E19I accessory. It has 2 selector switches, one for temperature and the other for speed control.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLF\_N/M or GLL\_N grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Common accessories

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.

**BC:** Condensate drip.

**GU:** Intake grid covers the front space between the ornamental feet and does not interfere with the filter.

**PCU:** Sheet metal panel closing the rear of the unit.

**ZU1:** Pair of stylish and structural feet.

## ACCESSORIES COMPATIBILITY

| Model        | Ver    | 17 | 27 | 37 |
|--------------|--------|----|----|----|
| AER503IR (1) | S      | •  | •  | •  |
| PRO503       | S      | •  | •  | •  |
| SAS (2)      | S      | •  | •  | •  |
| SW3 (2)      | C,PC,S | •  | •  | •  |
| SW5 (2)      | S      | •  | •  | •  |
| TX (3)       | S      | •  | •  | •  |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Model        | Ver | 17 | 27 | 37 |
|--------------|-----|----|----|----|
| DI24         | S   | •  | •  | •  |
| DI24CP       | S   | •  | •  | •  |
| VMF-E19I (1) | S   | •  | •  | •  |
| VMF-E2U      | S   | •  | •  | •  |
| VMF-E3       | S   | •  | •  | •  |
| VMF-E4DX     | S   | •  | •  | •  |
| VMF-E4X      | S   | •  | •  | •  |
| VMF-IR       | S   | •  | •  | •  |
| VMHI         | S   | •  | •  | •  |

(1) Mandatory accessory.

### Condensate drip

| Model    | Ver    | 17 | 27 | 37 |
|----------|--------|----|----|----|
| BC10 (1) | C,PC,S | •  | •  | •  |
| BC20 (2) | C,PC,S | •  | •  | •  |

(1) For vertical installation.

(2) For horizontal installation.

### Condensate drainage

| Model    | Ver  | 17 | 27 | 37 |
|----------|------|----|----|----|
| DSCS (1) | C,PC | •  | •  | •  |

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

### 3 way valve kit

| Model | Ver  | 17 | 27 | 37 |
|-------|------|----|----|----|
| VCH   | C,PC | •  | •  | •  |

### 2 way valve kit

| Model | Ver  | 17 | 27 | 37 |
|-------|------|----|----|----|
| VCHD  | C,PC | •  | •  | •  |

### Panel closing the rear of the unit

| Model | Ver    | 17 | 27 | 37 |
|-------|--------|----|----|----|
| PCU17 | C,PC,S | •  |    |    |
| PCU27 | C,PC,S |    | •  |    |
| PCU37 | C,PC,S |    |    | •  |

### Intake grids

| Model    | Ver    | 17 | 27 | 37 |
|----------|--------|----|----|----|
| GU17 (1) | C,PC,S | •  |    |    |
| GU27 (1) | C,PC,S |    | •  |    |
| GU37 (1) | C,PC,S |    |    | •  |

(1) The combination with a pair of stylish and structural feet is mandatory.

### Wall mounting kit

| Model | Ver | 17 | 27 | 37 |
|-------|-----|----|----|----|
| AMP10 | S   | •  | •  | •  |

### Pair of stylish structural feet

| Model | Ver    | 17 | 27 | 37 |
|-------|--------|----|----|----|
| ZU1   | C,PC,S | •  | •  | •  |

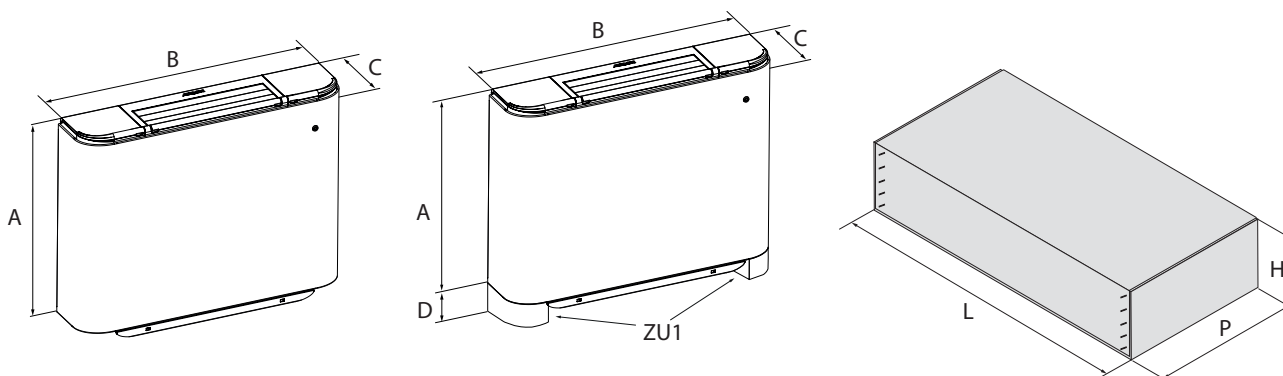
## PERFORMANCE SPECIFICATIONS

### 2-pipe

|                                       |       | ULI17       |      |      | ULI27 |      |      | ULI37 |      |      |
|---------------------------------------|-------|-------------|------|------|-------|------|------|-------|------|------|
|                                       |       | 1           | 2    | 3    | 1     | 2    | 3    | 1     | 2    | 3    |
|                                       |       | L           | M    | H    | L     | M    | H    | L     | M    | H    |
| Heating performance 70 °C / 60 °C (1) |       |             |      |      |       |      |      |       |      |      |
| Heating capacity                      | kW    | 1,54        | 2,12 | 2,91 | 2,89  | 3,83 | 4,62 | 3,53  | 4,87 | 5,94 |
| Water flow rate system side           | l/h   | 135         | 186  | 255  | 254   | 336  | 405  | 310   | 427  | 521  |
| Pressure drop system side             | kPa   | 1           | 2    | 4    | 5     | 8    | 11   | 3     | 5    | 7    |
| Heating performance 45 °C / 40 °C (2) |       |             |      |      |       |      |      |       |      |      |
| Heating capacity                      | kW    | 0,76        | 1,05 | 1,44 | 1,44  | 1,90 | 2,29 | 1,75  | 2,42 | 2,95 |
| Water flow rate system side           | l/h   | 133         | 183  | 251  | 249   | 331  | 399  | 305   | 420  | 513  |
| Pressure drop system side             | kPa   | 2           | 2    | 2    | 5     | 8    | 11   | 7     | 12   | 18   |
| Cooling performance 7 °C / 12 °C      |       |             |      |      |       |      |      |       |      |      |
| Cooling capacity                      | kW    | 0,69        | 0,87 | 1,17 | 1,26  | 1,65 | 1,99 | 1,63  | 2,26 | 2,79 |
| Sensible cooling capacity             | kW    | 0,52        | 0,69 | 0,96 | 0,97  | 1,30 | 1,61 | 1,13  | 1,59 | 2,00 |
| Water flow rate system side           | l/h   | 122         | 153  | 206  | 220   | 289  | 349  | 286   | 394  | 487  |
| Pressure drop system side             | kPa   | 2           | 3    | 5    | 6     | 8    | 11   | 7     | 13   | 19   |
| Fan                                   |       |             |      |      |       |      |      |       |      |      |
| Type                                  | type  | Centrifugal |      |      |       |      |      |       |      |      |
| Fan motor                             | type  | Inverter    |      |      |       |      |      |       |      |      |
| Number                                | no.   | 1           |      |      | 2     |      |      | 2     |      |      |
| Air flow rate                         | m³/h  | 110         | 160  | 240  | 190   | 270  | 350  | 240   | 350  | 460  |
| Input power                           | W     | 23          | 25   | 32   | 24    | 27   | 35   | 30    | 35   | 42   |
| Signal 0-10V                          | %     | 38          | 56   | 83   | 49    | 70   | 90   | 48    | 70   | 90   |
| Sound power level                     | dB(A) | 34,0        | 43,0 | 48,0 | 35,0  | 43,0 | 48,0 | 34,0  | 43,0 | 50,0 |
| Sound pressure level (10 m)           | dB(A) | 26,0        | 35,0 | 40,0 | 27,0  | 35,0 | 40,0 | 26,0  | 33,0 | 42,0 |
| Finned pack heat exchanger            |       |             |      |      |       |      |      |       |      |      |
| Water content                         | l     | 0,4         |      |      | 0,6   |      |      | 0,8   |      |      |
| Diameter hydraulic fittings           |       |             |      |      |       |      |      |       |      |      |
| Main heat exchanger                   | Ø     | 1/2"        |      |      |       |      |      |       |      |      |
| Power supply                          |       |             |      |      |       |      |      |       |      |      |
| 230V ~ 50Hz                           |       |             |      |      |       |      |      |       |      |      |

- (1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C  
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

## DIMENSIONS



| Size  |        |    | 17   | 27   | 37   |
|---|--------|----|------|------|------|
| <b>Dimensions and weights</b>               |        |    |      |      |      |
| A   | C,PC,S | mm | 513  | 513  | 513  |
| B   | C,PC,S | mm | 750  | 980  | 1200 |
| C   | C,PC,S | mm | 173  | 173  | 173  |
| D   | C,PC,S | mm | 93   | 93   | 93   |
| Empty weight                                | C,PC   | kg | 13   | 18   | 20   |
|   | S      | kg | 13   | 17   | 20   |
| <b>Dimensions and weights for transport</b> |        |    |      |      |      |
| H   | C,PC,S | mm | 275  | 275  | 275  |
| L   | C,PC,S | mm | 820  | 1050 | 1270 |
| P   | C,PC,S | mm | 590  | 590  | 590  |
| Weight for transport                        | C,PC   | kg | 15,0 | 19,5 | 23,0 |
|   | S      | kg | 14,5 | 19,0 | 22,5 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# Omnia Radiant

## Fan coils with radiant panel for residential use

- Low temperature radiation \*
- Ventilated heating
- Cooling - dehumidification
- Energy saving
- Low operating temperature



### DESCRIPTION

\* Radiant technology under licence.

**Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions.** In this particular worldwide market evolution, we are pleased to present to you OMNIA Radiant, which represents the innovation of the OMNIA AERMEC series, fan coils especially designed for residential comfort.

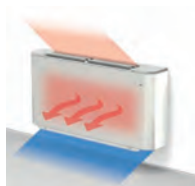
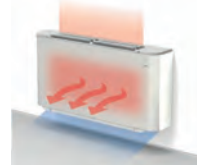
**OMNIA Radiant** inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating.

**OMNIA Radiant Plus** is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

OMNIA Radiant and Radiant Plus offer the following advantages when compared to the traditional systems:

- The radiant plate combination – the finned coil allows the best winter comfort with the lower energy consumption because it provides heating with lower water temperature: only 45°C against the about 65°C needed for the traditional radiator. This not only increases the comfort for the user, but also significantly increases the overall efficiency in case of heat pumps usage;
- The fan system allows to quickly reach the desired temperature, meeting the requirement of a fast start-up;
- The unit can be combined other than the boiler, also to energy saving heat pumps: air to water, water to water and geothermic type;
- During summer Omnia Radiant and Radiant Plus provide air conditioning and dehumidification in a fast and efficient way in every room.

### THE FOUR DIFFERENT WORKING MODES OF OMNIA RADIANT ANNUAL FUNCTIONING



#### Radiant

Heating through radiation, comfortable and noiseless, is granted by the radiant plate placed on the front of the fan coil cover; if necessary, the triple-fins delivery head can be closed to increase the heating of the plate, thus maximizing the radiant effect.

#### Radiant + Natural Convection

With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating. As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

#### Radiant + Forced Convection

The electronic regulation, precise and reliable, continuously compares the effective indoor temperature with the desired temperature: whenever the difference between the two should prove to be too high (e.g. during the heating system start-up) the software will lead the fan system start-up.



Start-up is fast and efficient and grants significant energy savings especially in rooms that are occasionally used.

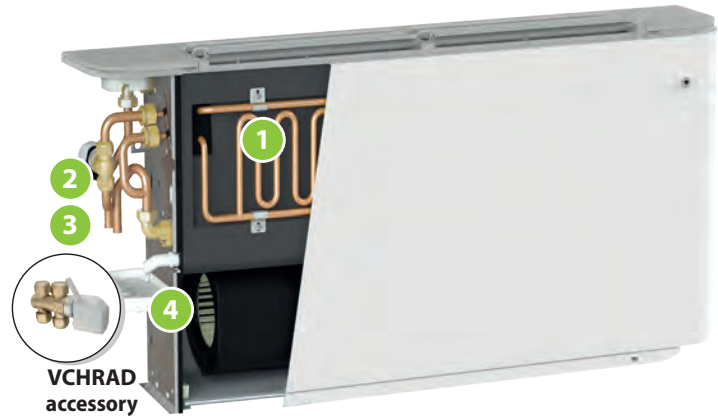
## Omnia Radiant during summer provides air conditioning and dehumidification

### Forced Convection

During summer, Omnia Radiant and Radiant Plus provide air conditioning and dehumidification for each room of the house in a fast and efficient way. Efficiency and quietness benefit from the quality that has always characterized the Omnia series.

## FEATURES

- 1 Radiant plate
- 2 Switching valve
- 3 Water probe
- 4 Condensate storage container, hydraulic hoses



### OMNIA Radiant (UL\_R) standard features:

- Radiant plate
- Centrifugal fan
- Three-speed cross flow fan
- Condensate storage container, hydraulic hoses
- Two way valve
- Water temperature probe
- VMF-thermostat for asynchronous motor
- Compatibility with VMF system

### OMNIA Radiant (UL\_RI) standard features:

- Radiant plate
- Centrifugal fan
- Electric DC Brushless motor with Inverter
- Condensate storage container, hydraulic hoses
- Two way valve
- Water temperature probe
- VMF thermostat for DC Brushless motor

- Compatibility with VMF system

### Ventilation group

Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise.

#### "The heating by radiation at top speed ensures total silence regime"

The fan blades on the Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.

### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The heat exchanger is not reversible.*

## ACCESSORIES

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

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### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**DI24CP:** Complete flush-mounted interface plate with support for DI24, Vi-mar brand, Arké series, graphite gray color.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-E6:** Wall user interface.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC sys-

tem. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

**For compatibility of the VMF-E6 with sizes 27R-37R contact the office.**

#### Common accessories

**AMP:** Wall mounting kit

**GU:** Intake grid covers the front space between the ornamental feet and does not interfere with the filter.

**PCU:** Sheet metal panel closing the rear of the unit.

**ZU1:** Pair of stylish and structural feet.

**VCHRAD:** Kit consisting of motor-driven 3-way valve copper couplings and pipes.

### ACCESSORIES COMPATIBILITY

#### VMF system

| Accessory | UL27R | UL27RI | UL37R | UL37RI |
|-----------|-------|--------|-------|--------|
| DI24      | •     | •      | •     | •      |
| DI24CP    | •     | •      | •     | •      |
| VMF-E4DX  | •     | •      | •     | •      |
| VMF-E4X   | •     | •      | •     | •      |
| VMF-E6    |       | •      |       | •      |
| VMHI      | •     | •      | •     | •      |

#### 3 way valve kit

| Accessory | UL27R | UL27RI | UL37R | UL37RI |
|-----------|-------|--------|-------|--------|
| VCHRAD    | •     | •      | •     | •      |
| Accessory | UL27R | UL27RI | UL37R | UL37RI |
| PCU27     | •     | •      |       |        |
| PCU37     |       |        | •     | •      |

#### Intake grids

| Accessory | UL27R | UL27RI | UL37R | UL37RI |
|-----------|-------|--------|-------|--------|
| GU27      | •     | •      |       |        |
| GU37      |       |        | •     | •      |

#### Wall mounting kit

| Accessory | UL27R | UL27RI | UL37R | UL37RI |
|-----------|-------|--------|-------|--------|
| AMP10     | •     | •      | •     | •      |

#### Pair of stylish structural feet

| Accessory | UL27R | UL27RI | UL37R | UL37RI |
|-----------|-------|--------|-------|--------|
| ZU1       | •     | •      | •     | •      |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|                                      |       | UL27R        |      |      | UL27RI      |      |      | UL37R        |      |      | UL37RI      |      |      |
|--------------------------------------|-------|--------------|------|------|-------------|------|------|--------------|------|------|-------------|------|------|
|                                      |       | 1            | 2    | 3    | 1           | 2    | 3    | 1            | 2    | 3    | 1           | 2    | 3    |
|                                      |       | L            | M    | H    | L           | M    | H    | L            | M    | H    | L           | M    | H    |
| Heating performances                 |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Heating capacity (70 °C) (1)         | kW    | 2,89         | 3,83 | 4,62 | 2,89        | 3,83 | 4,62 | 3,53         | 4,87 | 5,94 | 3,53        | 4,87 | 5,94 |
| Heating capacity (50 °C) (2)         | kW    | 2,75         | 2,75 | 2,75 | 2,75        | 2,75 | 2,75 | 3,54         | 3,54 | 3,54 | 3,54        | 3,54 | 3,54 |
| Water flow rate system side          | l/h   | 397          | 397  | 397  | 397         | 397  | 397  | 511          | 511  | 511  | 511         | 511  | 511  |
| Pressure drop system side            | kPa   | 17           | 17   | 17   | 17          | 17   | 17   | 21           | 21   | 21   | 21          | 21   | 21   |
| Static heating power (70 °C) (3)     | kW    | 0,65         | 0,65 | 0,65 | 0,65        | 0,65 | 0,65 | 0,75         | 0,75 | 0,75 | 0,75        | 0,75 | 0,75 |
| Static heating power (50 °C) (4)     | kW    | 0,39         | 0,39 | 0,39 | 0,39        | 0,39 | 0,39 | 0,45         | 0,45 | 0,45 | 0,45        | 0,45 | 0,45 |
| Static heating power (35 °C) (5)     | kW    | 0,20         | 0,20 | 0,20 | 0,20        | 0,20 | 0,20 | 0,23         | 0,23 | 0,23 | 0,23        | 0,23 | 0,23 |
| Cooling performance 7 °C / 12 °C (6) |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Cooling capacity                     | kW    | 1,42         | 1,78 | 2,03 | 1,42        | 1,78 | 2,03 | 1,73         | 2,31 | 2,83 | 1,73        | 2,31 | 2,83 |
| Sensible cooling capacity            | kW    | 1,05         | 1,37 | 1,64 | 1,05        | 1,37 | 1,64 | 1,28         | 1,79 | 2,04 | 1,28        | 1,79 | 2,04 |
| Water flow rate system side          | l/h   | 349          | 349  | 349  | 349         | 349  | 349  | 487          | 487  | 487  | 487         | 487  | 487  |
| Pressure drop system side            | kPa   | 18           | 18   | 18   | 18          | 18   | 18   | 22           | 22   | 22   | 22          | 22   | 22   |
| Fan                                  |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Type                                 | type  | Centrifugal  |      |      | Centrifugal |      |      | Centrifugal  |      |      | Centrifugal |      |      |
| Fan motor                            | type  | Asynchronous |      |      | Inverter    |      |      | Asynchronous |      |      | Inverter    |      |      |
| Number                               | no.   | 2            |      |      | 2           |      |      | 2            |      |      | 2           |      |      |
| Air flow rate                        | m³/h  | 190          | 270  | 350  | 190         | 270  | 350  | 240          | 350  | 460  | 240         | 350  | 460  |
| Fan coil sound data (7)              |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Sound power level                    | dB(A) | 35,0         | 43,0 | 48,0 | 35,0        | 43,0 | 48,0 | 34,0         | 43,0 | 50,0 | 34,0        | 43,0 | 50,0 |
| Sound pressure level                 | dB(A) | 27,0         | 35,0 | 40,0 | 27,0        | 35,0 | 40,0 | 26,0         | 33,0 | 40,0 | 26,0        | 33,0 | 40,0 |
| Fan                                  |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Input power                          | W     | 35           | 35   | 35   | 12          | 12   | 12   | 42           | 42   | 42   | 16          | 16   | 16   |
| Electrical wiring                    |       | V1           | V2   | V1   | -           | -    | -    | V1           | V2   | V3   | -           | -    | -    |
| Signal 0-10V                         | %     | -            | -    | -    | 5           | 7    | 9    | -            | -    | -    | 5           | 7    | 9    |
| Diameter hydraulic fittings          |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Main heat exchanger                  | Ø     | 1/2"         |      |      | 1/2"        |      |      | 1/2"         |      |      | 1/2"        |      |      |
| Finned pack heat exchanger           |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Water content main heat exchanger    | l     | 0,8          |      |      | 0,8         |      |      | 1,1          |      |      | 1,1         |      |      |
| Power supply                         |       |              |      |      |             |      |      |              |      |      |             |      |      |
| Power supply                         |       | 230V~50Hz    |      |      | 230V~50Hz   |      |      | 230V~50Hz    |      |      | 230V~50Hz   |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air 20 °C b.s.; Water (in) 50 °C; Water flow rate as in cooling mode (EUROVENT)

(3) Radiant power + natural convection; Hot water (in) 70 °C (water flow same as in heating cycle)

(4) Radiant power + natural convection; Hot water (in/°) 50°C/°C (water flow same as in heating cycle)

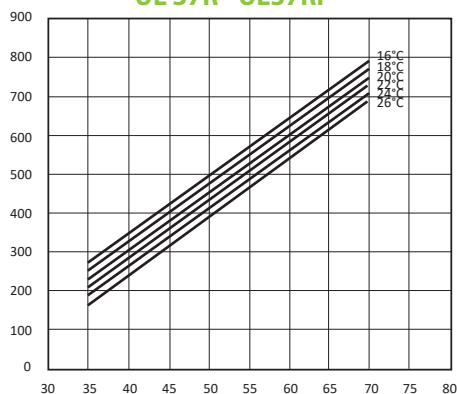
(5) Radiant power + natural convection; Hot water (in/°) 35°C/°C (water flow same as in heating cycle)

(6) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

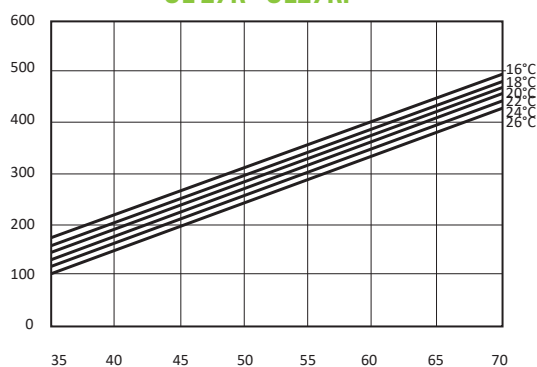
(7) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

### HEATING CAPACITY WITH FAN OFF

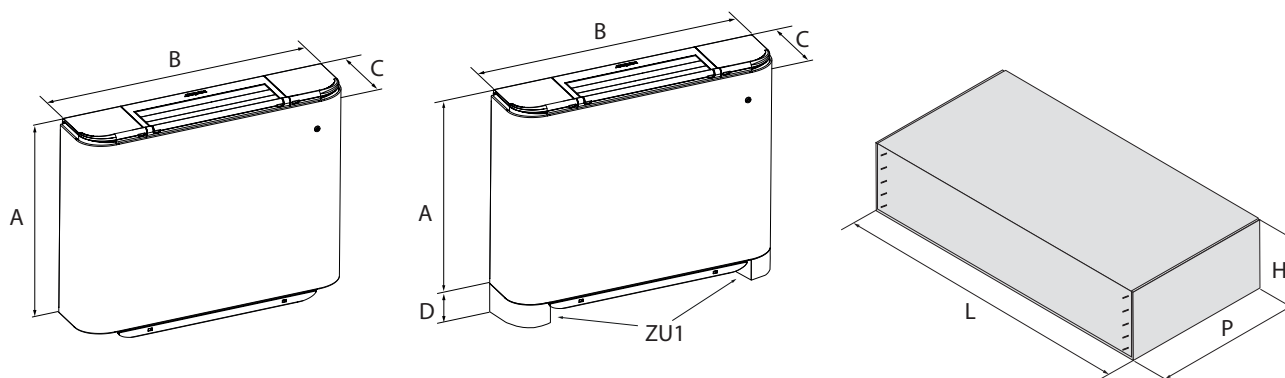
UL 37R - UL37RI



UL 27R - UL27RI



## DIMENSIONS



|   |    | UL27R | UL27RI | UL37R | UL37RI |
|---|----|-------|--------|-------|--------|
| <b>Dimensions and weights</b>               |    |       |        |       |        |
| A   | mm | 513   | 513    | 513   | 513    |
| B   | mm | 980   | 980    | 1200  | 1200   |
| C   | mm | 173   | 173    | 173   | 173    |
| D   | mm | 93    | 93     | 93    | 93     |
| Empty weight                                | kg | 20    | 20     | 24    | 24     |
| <b>Dimensions and weights for transport</b> |    |       |        |       |        |
| H   | mm | 275   | 275    | 275   | 275    |
| L   | mm | 1050  | 1050   | 1270  | 1270   |
| P   | mm | 590   | 590    | 590   | 590    |
| Weight for transport                        | kg | 22,0  | 22,0   | 27,0  | 27,0   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# Omnia ULSI\_B

## Vertical wall-mounting or free-standing installation



- **Compact dimensions, thickness 130 mm**
- **Low operating temperature**
- **Cooling, heating, and dehumidification**



### DESCRIPTION

The Omnia Slim fan coils have been designed to meet the need to combine the typical features of a classic radiator - namely reduced depth and quiet operation - with the ability of a fan coil to air-condition rooms throughout the year.

They can be installed on any system with a 2-pipe system and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

### VERSIONS

**ULSI\_B** Inverter without control board

**ULSI\_BR** Inverter without control with hydraulic connections on the right

### FEATURES

#### Case

Structure in sheet metal, 12/10 and 8/10 mm.

Front cover in 8/10 mm galvanised sheet metal with RAL9003 white epoxy powder coating and thermal-acoustic insulation of 13 mm thickness.

#### Ventilation group

These fan coils have extremely silent ventilation by using special tangential fans, which guarantees maximum acoustic comfort.

The electric motor is a new generation Brushless with built-in driver and IP66 protection rating, continuously variable speed



### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

### Control

Both versions are supplied without on-board control, however, various thermostats or control panels are available as accessories to be installed on board the fan coil unit or on the wall.

### ACCESSORIES

#### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**DSKTS:** Thermostat with an easy-to-read light display that provides clear information on room temperature, programming settings and more. Thanks to the ergonomic ring nut switch, adjusting the desired temperature is very easy. The knob allows precise and immediate adjustments, offering a classic but highly effective control mode. Not only functional, but also aesthetically pleasing. Our thermostat features a modern, compact design that fits perfectly in any environment, adding a touch of style to your home or office.

**EC-DSKT:** Electric cable for use with DSKT control panel. Mandatory accessory when combined with ULSI\_BR versions.

**EC-TXBI:** Electric cable for use with TXBI control panel. Mandatory accessory when combined with ULSI\_BR versions.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**TXBIS:** Thermostat installation on the fan coil.

#### ULSI\_B + DSKTS



#### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



#### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**KITSV:** Kit for installing the VMF-E19/19I.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E2S:** User interface on the fan coil, with two selectors - one for temperature and the other for speed control. For operation, the installation of either the VMF-E19 or VMF-E19I accessory is required.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

#### Common accessories

**BCSV:** Condensate collection tray, for valve kit.

**DSC7:** Condensate drainage device.

**VCS2:** 2-way motorised valve kit without insulating shell. The kit is made up of a valve, actuator and relative hydraulic fittings.

**VCS3:** 3-way motorised valve kit without insulating shell for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings.

**ZXS:** Pair of stylish and structural feet.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Model        | Ver            | 10 | 20 | 30 | 40 | 50 |
|--------------|----------------|----|----|----|----|----|
| AER503IR (1) | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| DSKTS (2)    | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| EC-DSKT      | ULSI_BR        | *  | *  | *  | *  | *  |
| EC-TXBI      | ULSI_BR        | *  | *  | *  | *  | *  |
| PRO503       | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| SAS (3)      | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| SW5 (3)      | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| TX (4)       | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| TXBIS (5)    | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) For ULSI\_BR units add the mandatory EC\_DSKT accessory.

(3) Probe for AER503IR-TX thermostats, if fitted.

(4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

(5) For ULSI\_BR units add the mandatory ULSI\_BR accessory.

### VMF system

| Model        | Ver            | 10 | 20 | 30 | 40 | 50 |
|--------------|----------------|----|----|----|----|----|
| DI24         | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| KITSV (1)    | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| VMF-E19I (2) | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| VMF-E2S (3)  | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| VMF-E3       | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| VMF-E4X      | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |
| VMF-IR       | ULSI_B,ULSI_BR | *  | *  | *  | *  | *  |

| Model | Ver            | 10 | 20 | 30 | 40 | 50 |
|-------|----------------|----|----|----|----|----|
| VMHI  | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

(1) Mandatory when the VMF-E19/19I thermostat is required.

(2) Mandatory accessory.

(3) Installation on the fan coil.

### 3 way valve kit

| Model    | Ver            | 10 | 20 | 30 | 40 | 50 |
|----------|----------------|----|----|----|----|----|
| VCS3 (1) | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

(1) Power supply 230V - Hydraulic connections Ø 1/2"

### 2 way valve kit

| Model    | Ver            | 10 | 20 | 30 | 40 | 50 |
|----------|----------------|----|----|----|----|----|
| VCS2 (1) | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

(1) Power supply 230V - Hydraulic connections Ø 1/2"

### Condensate drip

| Model | Ver            | 10 | 20 | 30 | 40 | 50 |
|-------|----------------|----|----|----|----|----|
| BCSV  | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

### Condensate drainage

| Model | Ver            | 10 | 20 | 30 | 40 | 50 |
|-------|----------------|----|----|----|----|----|
| DSC7  | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

### Pair of stylish structural feet

| Model | Ver            | 10 | 20 | 30 | 40 | 50 |
|-------|----------------|----|----|----|----|----|
| ZXS   | ULSI_B,ULSI_BR | •  | •  | •  | •  | •  |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  | ULSI10B |   |   | ULSI20B |   |   | ULSI30B |   |   | ULSI40B |   |   | ULSI50B |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,70 | 1,14 | 1,53 | 1,27 | 1,88 | 2,86 | 1,88 | 2,91 | 3,72 | 2,32 | 3,55 | 4,77 | 2,49 | 3,85 | 5,73 |
| Water flow rate system side | l/h | 61   | 100  | 134  | 111  | 165  | 251  | 165  | 254  | 326  | 203  | 311  | 418  | 218  | 337  | 501  |
| Pressure drop system side   | kPa | 2    | 4    | 7    | 5    | 10   | 20   | 6    | 14   | 22   | 6    | 13   | 22   | 5    | 10   | 21   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,35 | 0,57 | 0,76 | 0,63 | 0,94 | 1,43 | 0,94 | 1,45 | 1,85 | 1,15 | 1,77 | 2,38 | 1,24 | 1,92 | 2,85 |
| Water flow rate system side | l/h | 61   | 99   | 132  | 110  | 163  | 248  | 163  | 251  | 322  | 201  | 307  | 413  | 216  | 333  | 495  |
| Pressure drop system side   | kPa | 2    | 4    | 7    | 5    | 9    | 20   | 6    | 14   | 22   | 6    | 13   | 22   | 5    | 10   | 21   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,37 | 0,60 | 0,80 | 0,67 | 0,98 | 1,50 | 0,98 | 1,52 | 1,95 | 1,22 | 1,86 | 2,50 | 1,30 | 2,02 | 3,00 |
| Sensible cooling capacity   | kW  | 0,25 | 0,42 | 0,57 | 0,46 | 0,68 | 1,08 | 0,68 | 1,06 | 1,39 | 0,84 | 1,30 | 1,79 | 0,90 | 1,40 | 2,15 |
| Water flow rate system side | l/h | 63   | 103  | 137  | 114  | 169  | 257  | 169  | 261  | 335  | 209  | 319  | 429  | 224  | 346  | 515  |
| Pressure drop system side   | kPa | 3    | 6    | 10   | 7    | 13   | 28   | 9    | 19   | 30   | 9    | 18   | 30   | 7    | 14   | 29   |

### Fan

|               |      |            |    |     |    |     |     |     |     |     |     |     |     |     |     |     |
|---------------|------|------------|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Type          | type | Tangential |    |     |    |     |     |     |     |     |     |     |     |     |     |     |
| Fan motor     | type | Inverter   |    |     |    |     |     |     |     |     |     |     |     |     |     |     |
| Number        | no.  | 1          |    |     | 1  |     |     | 1   |     |     | 2   |     |     | 2   |     |     |
| Air flow rate | m³/h | 46         | 82 | 134 | 78 | 128 | 241 | 109 | 188 | 301 | 126 | 218 | 370 | 127 | 225 | 427 |
| Input power   | W    | 5          | 8  | 10  | 6  | 9   | 15  | 7   | 12  | 17  | 7   | 14  | 20  | 7   | 13  | 21  |
| Signal 0-10V  | %    | 40         | 70 | 90  | 40 | 70  | 90  | 40  | 70  | 90  | 40  | 70  | 90  | 40  | 70  | 90  |

### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 39,0 | 47,0 | 51,0 | 39,0 | 47,0 | 51,0 | 40,0 | 48,0 | 53,0 | 41,0 | 49,0 | 54,0 | 42,0 | 52,0 | 56,0 |
| Sound pressure level | dB(A) | 31,0 | 39,0 | 43,0 | 31,0 | 39,0 | 43,0 | 32,0 | 40,0 | 45,0 | 33,0 | 41,0 | 46,0 | 34,0 | 44,0 | 48,0 |

### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,5 |  |  | 0,9 |  |  | 1,2 |  |  | 1,5 |  |  | 1,8 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

### Diameter hydraulic fittings

|                     |   |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Main heat exchanger | Ø | 1/2" |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

### Power supply

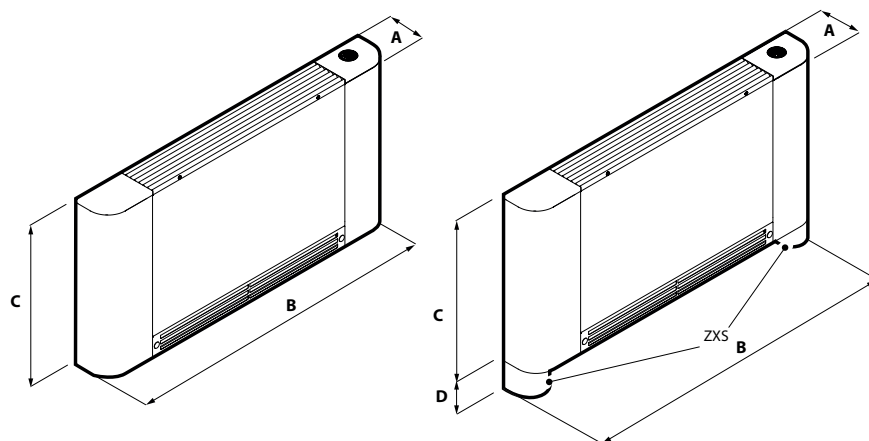
|              |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



| Size                          |                |    | 10  | 20  | 30   | 40   | 50   |
|-------------------------------|----------------|----|-----|-----|------|------|------|
| <b>Dimensions and weights</b> |                |    |     |     |      |      |      |
| A                             | ULSI_B,ULSI_BR | mm | 130 | 130 | 130  | 130  | 130  |
| B                             | ULSI_B,ULSI_BR | mm | 745 | 940 | 1134 | 1328 | 1524 |
| C                             | ULSI_B,ULSI_BR | mm | 580 | 580 | 580  | 580  | 580  |
| D                             | ULSI_B,ULSI_BR | mm | 80  | 80  | 80   | 80   | 80   |
| Empty weight                  | ULSI_B,ULSI_BR | kg | 11  | 13  | 15   | 19   | 17   |

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# FCY

## Fan coil unit for ducted installations



- **Plug and play installation only in horizontal**
- **Reduced dimensions**
- **Inspectable ventilation group**



### DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.

They were designed and built for flush horizontal installation in any type of 2/4 pipe system and in combination with any heat generator, also at low temperatures.

Thanks to the availability of various versions and configurations, with a standard or oversized coil, it is easy to select the optimal solution for any requirement.

### FEATURES

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

The plastic augers are extractable for easy and efficient cleaning.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

- *Reversibility of the water connections during installation only for units with a main standard or oversized coil or standard with BV accessory. Not reversible in all other configurations.*

#### Air filter

Where present, **the Coarse 25% Class according to ISO16890 (G2 according to EN779)** air filter, which is easy to remove and clean.

#### Condensate drip

In addition to the internal tray, all units are equipped with a **configurable external condensate collection tray** during installation.

#### Control

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.

The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field | Description  |
|-------|--|
| 1,2,3 | FCY  |
| 4     | <b>Size</b><br>2, 3, 4, 5, 6, 7  |
| 5     | <b>main heat exchanger (1)</b>   |
| 0     | Standard   |
| 5     | Oversized  |
| 6     | <b>Secondary heat exchanger</b>  |
| 0     | Without coil   |
| 1     | Standard (2)   |
| 7     | <b>Version</b>   |
| C     | Compact  |
| U     | Universal (3)  |
| 8     | <b>Connections</b>   |
| D     | Water connections and electrical panel on the right                              |
| G     | Water connections and electrical panel on the left                               |
| L     | Hydraulic connections on the left and electric connections on the opposite side  |
| R     | Hydraulic connections on the right and electric connections on the opposite side |
| 9     | <b>Options</b>   |
| H     | Electric heater (500W) (4)   |
| P     | With the photocatalytic device (4)   |
| X     | No present   |
| 10    | <b>Filter</b>  |
| F     | With air filter (5)  |
| G     | On the GKY accessory (6)   |
| X     | No present   |

(1) Reversibility of the water connections during installation only for units with a main standard or oversized coil. They are not reversible for units with a secondary coil.

(2) Only for the standard main coil

(3) Only for sizes from 2 to 5

(4) Options "P and H" are available only in units for 2-pipe systems.

(5) The DFA kit must mandatorily be installed on the units The DFA kit must mandatorily be installed on the units in option "F".

(6) Only for sizes 2 and 3, without secondary heat exchanger (0), in U version, D connections, without RX or photocatalytic device (X).

## SIZE AVAILABLE FOR VERSION

### C version

| Size                         | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

### Version U

| Size                         | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |     |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

## INSTALLATION VERSIONS AND EXAMPLES

### C: Compact version.

Compact structure with opposed intake and delivery lines, for an "H"-shaped configuration.

**The unit is provided without openings and without flanges, which can be purchased separately as an accessory.**

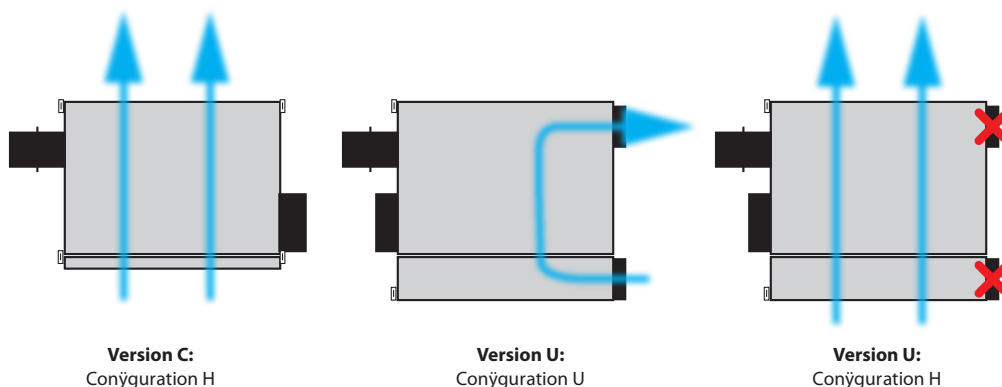
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.

On the side, it can house Ø 125 or 100 mm flanges for the intake of outside air for delivery.

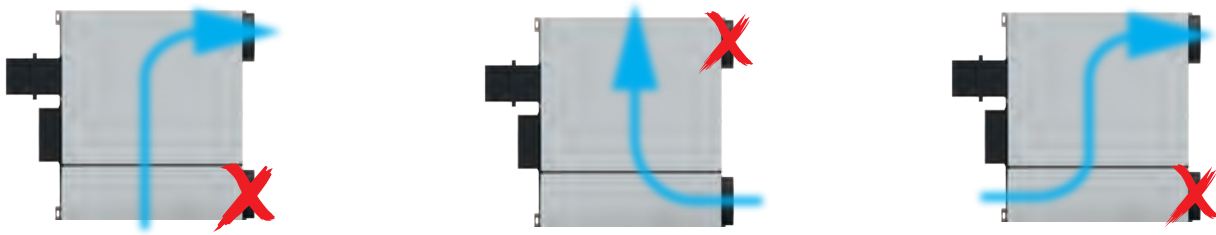
### U: Universal version.

Structure for the "U" configuration with intake and delivery on the same side, opposite of the side with the water connections and the electrical box. The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake or delivery flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.

This version is called universal because it guarantees the possible installations permitted by the C version and adds additional possibilities.



## POSSIBLE ALTERNATIVE CONFIGURATIONS OF THE U VERSION

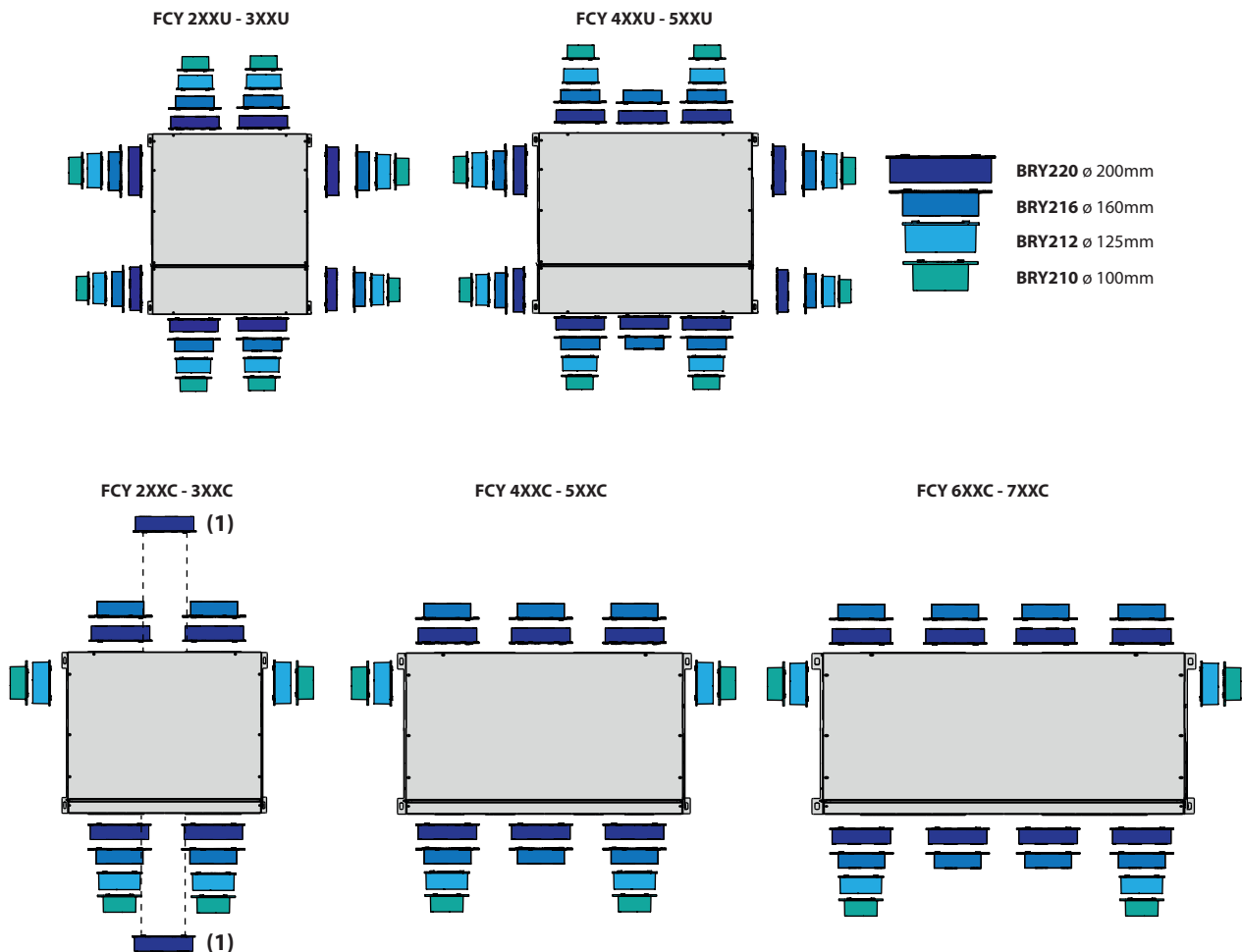


The performance data for the configurations shown here are equal to those for the U version in the U configuration.

## POSSIBLE POSITIONS FOR THE INSTALLATION OF THE BRY ACCESSORIES

In every unit it is possible to use a maximum of one flange accessory for the intake of outside air (BRY210 or BRY212). The number and position of the preparations for the installation of the BRY accessories varies based on the unit size and version.

The standard **C version unit** is supplied without flanges, which can be purchased separately as an accessory.



1 There is a central preparation for the installation of an accessory BRY220 as an alternative to using the two more external preparations.

**For the C version:** it is necessary to use a number of recirculation air preparations at least equal to the maximum number possible for the size selected less 1.

**Example:** for FCY6xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).

**If the number of intake/delivery flanges used is less than the maximum possible for the considered size, their diameter must be 200 mm (BRY220).**

For more information about the possible configurations for both versions, refer to the unit's selection software.

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19Y:** Thermostat to be fixed on the side of the fan coil, fitted as standard with an air and water probe. Depending on the option chosen (P - X - H), VMF-E19Y must be completed with the mandatory electrical completion unit accessory (VMF-YCC, VMF-YCCH or VMF-YCCK / VMF-YICCK).

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMF-YCC:** Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).

**VMF-YCCH:** Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

**VMF-YCCK:** Electric on/off completion unit for the VMF-E19Y accessory, mandatory for FCY units with GKY accessory.

### Valves for main coil

**VCY41 - 42 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left hydraulic connections.

**VCYD for main and secondary coil:** The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

**VDP15HF:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VDP15HF24:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 24 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VDP15HFM:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 24 V powered actuator with modulating function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

### Valves for secondary coil

**VCY44 - for secondary heat exchanger:** 3-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.

**VCYD for main and secondary coil:** The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

### Additional hot water coil.

**BV:** Hot water heat exchanger with 1 row.

### Valve support kit

**KITVPI:** Main coil VDP valve support kit. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

**KITVPI12H:** VDP valve support kit for the secondary coil. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

### Installation accessories

**BDP:** 200 mm plug.

**BRY:** Flange with hydraulic "spigot" connection.

**GMYC:** Plate flange that makes it possible to install the accessory GM either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.

**AFY:** the kit is comprised of a Coarse 25% class filter according to ISO16890 (G2 according to EN779) and four fastening brackets to insert in the grille GM17. To be used together with fan coils supplied without a filter installed in unit "X".

**GMJU:** Plate flange that makes it possible to install the accessory GM17 either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.

**DSC:** Condensate drainage device.

**DAYKIT:** Air deflector for U versions. To be installed in the delivery plenum, on the side opposite the air outlet, to facilitate the flow towards the delivery opening.

**AMPY:** Additional brackets for ceiling mount. Only for "U" version.

#### Accessories in multiple packages

**DFA:** Size of filter halved on the short side. The kit is comprised of two filters with a length equal to the standard filter and with half the height. This fa-

cilitates filter cleaning and/or replacement operations if there is a reduced space for vertical extraction. 20 piece package.

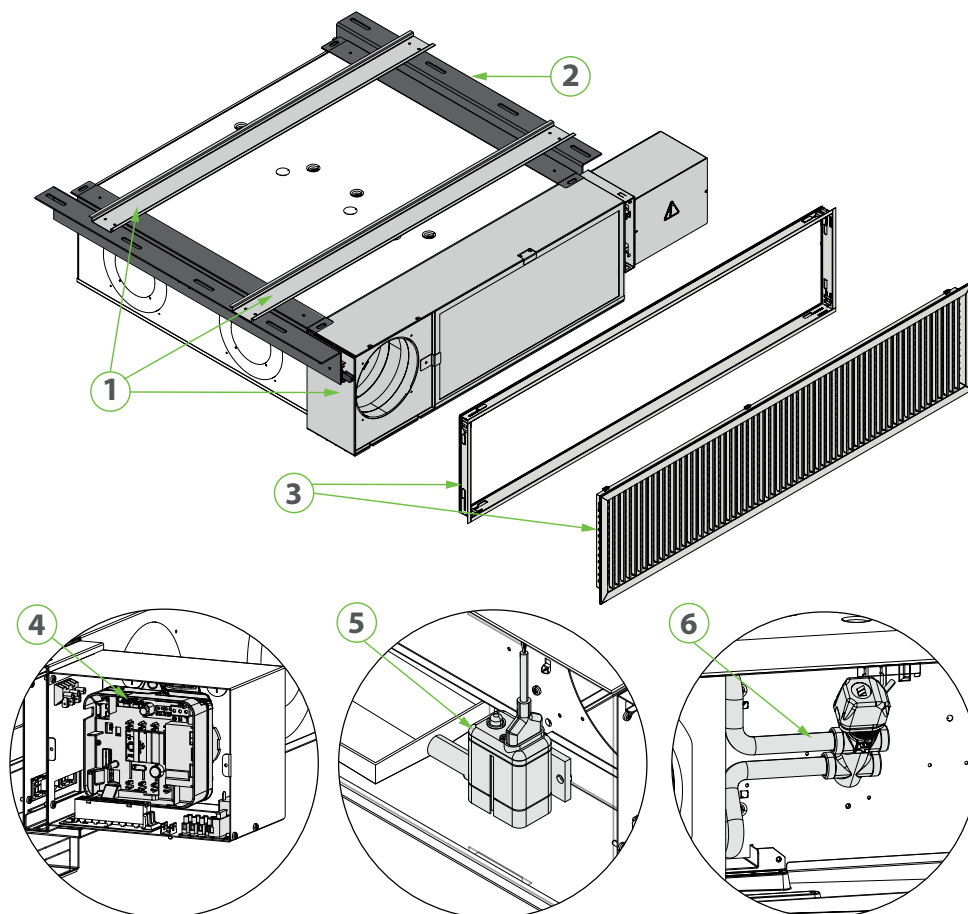
**PPB:** Protection for flanges to be used during installation to prevent dust from entering the unit before connecting the ducts. To be removed when making the connection. 100 piece package.

**CHR12:** Hydraulic connection kit for Ø 1/2" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 50 piece package.

**CHR34:** Hydraulic connection kit for Ø 3/4" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 30 piece package.

**FLK60:** Filter locking kit, allows the filter to be locked and unlocked from below instead of from the side. Pack of 60 pcs.

#### New GKY equipped flange



- 1 GKY
- 2 GKY2GT- GKY3GT (mandatory accessory)
- 3 GKYG (mandatory accessory)
- 4 VMF-E19Y + VMF-YICCK (FCY) / VMF-YCCK (FCY) (optional accessory)
- 5 DSC6 (optional accessory)
- 6 2 pipes with 2/3-way valve (optional accessory)

**GKY:** Extractable galvanised sheet metal equipped flange with electric box, allows for routine and extraordinary maintenance without the need for an inspection hatch underneath. The accessory is only compatible for units in UDXG configuration and recirculation air openings on the right side.

**GKY2GT:** Accessory mandatory for the installation of the GKY plenum, consisting of telescopic guides compatible with size 2.

**GKY3GT:** Accessory mandatory for the installation of the GKY plenum, consisting of telescopic guides compatible with size 3.

**GKYG:** grille kit in RAL9010 colour with counterframe, mandatory accessory compatible with GKY equipped flange accessory.

#### Extractable equipped flange

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY   | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

#### Telescopic guides

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY2GT (1) | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

(1) Accessory mandatory for the installation of the GKY plenum

**Telescopic guides**

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY3GT (1) | U   |     |     |     | *   |     | *   |     |     |     |     |     |     |     |     |     |     |     |     |

(1) Accessory mandatory for the installation of the GKY plenum

**Grid kit**

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKYG  | U   | *   |     | *   | *   |     | *   |     |     |     |     |     |     |     |     |     |     |     |     |

**ACCESSORIES COMPATIBILITY****Control panels and dedicated accessories**

| Model        | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER503IR (1) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| SAS (2)      | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| SIT3 (3)     | C,U | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| SIT5 (4)     | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (5)       | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

**VMF system**

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24     | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-E19Y | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-E3   | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-E4DX | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-E4X  | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-IR   | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-SW   | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-SW1  | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-YCC  | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-YCCH | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| VMF-YCCK | U   | *   |     | *   | *   |     | *   |     |     |     |     |     |     |     |     |     |     |     |     |

**Additional heat only coil for only option "X" (without an electric heater and without a photocatalytic device)**

| Ver | 200   | 201 | 250 | 300   | 301 | 350 | 400   | 401 | 450 | 500   | 501 | 550 | 600    | 601 | 650 | 700    | 701 | 750 |
|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|--------|-----|-----|--------|-----|-----|
| C   | BV122 | -   | -   | BV132 | -   | -   | BV142 | -   | -   | BV142 | -   | -   | BV2800 | -   | -   | BV2800 | -   | -   |
| U   | BV122 | -   | -   | BV132 | -   | -   | BV142 | -   | -   | BV142 | -   | -   | -      | -   | -   | -      | -   | -   |

**Combined adjustment and balancing valve**

|                      | 200       | 201       | 250       | 300       | 301       | 350       | 400       | 401       | 450       |
|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Main coil            | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   | VDP15HF   |
|                      | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 | VDP15HF24 |
|                      | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  | VDP15HFM  |
| Secondary coil       | -         | VDP15HF   | -         | -         | VDP15HF   | -         | -         | VDP15HF   | -         |
|                      | -         | VDP15HF24 | -         | -         | VDP15HF24 | -         | -         | VDP15HF24 | -         |
|                      | -         | VDP15HFM  | -         | -         | VDP15HFM  | -         | -         | VDP15HFM  | -         |
| Additional coil "BV" | VDP15HF   | -         | -         | VDP15HF   | -         | -         | VDP15HF   | -         | -         |
|                      | VDP15HF24 | -         | -         | VDP15HF24 | -         | -         | VDP15HF24 | -         | -         |
|                      | VDP15HFM  | -         | -         | VDP15HFM  | -         | -         | VDP15HFM  | -         | -         |

|                | 500                              | 501                              | 550       | 600                              | 601                              | 650       | 700                              | 701                              | 750       |
|----------------|----------------------------------|----------------------------------|-----------|----------------------------------|----------------------------------|-----------|----------------------------------|----------------------------------|-----------|
| Main coil      | VDP15HF                          | VDP15HF                          | VDP15HF   | VDP15HF                          | VDP15HF                          | VDP15HF   | VDP15HF                          | VDP15HF                          | VDP15HF   |
|                | VDP15HF24                        | VDP15HF24                        | VDP15HF24 | VDP15HF24                        | VDP15HF24                        | VDP15HF24 | VDP15HF24                        | VDP15HF24                        | VDP15HF24 |
|                | VDP15HFM                         | VDP15HFM                         | VDP15HFM  | VDP15HFM                         | VDP15HFM                         | VDP15HFM  | VDP15HFM                         | VDP15HFM                         | VDP15HFM  |
| Secondary coil | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         |
|                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         |

## Valves combinations for main and secondary coil

### 3-way valve kit - main and secondary coil or accessory BV coil

|                | 200              | 201              | 250     | 300              | 301              | 350     | 400              | 401              | 450     | 500              | 501              | 550     | 600              | 601              | 650     | 700              | 701              | 750     |
|----------------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|
| Main coil      | VCY41            | VCY41            | VCY41   | VCY42            | VCY42            | VCY42   | VCY42            | VCY42            | VCY42   | VCY42            | VCY42            | VCY42   | VCY42            | VCY42            | VCY42   | VCY42            | VCY42            | VCY42   |
|                | VCY4124          | VCY4124          | VCY4124 | VCY4224          | VCY4224          | VCY4224 | VCY4224          | VCY4224          | VCY4224 | VCY4224          | VCY4224          | VCY4224 | VCY4224          | VCY4224          | VCY4224 | VCY4224          | VCY4224          | VCY4224 |
| Secondary coil | -                | VCY44<br>VCY4424 | -       | -                | VCY44<br>VCY4424 | -       | -                | VCY44<br>VCY4424 | -       | -                | VCY44<br>VCY4424 | -       | -                | VCY44<br>VCY4424 | -       | -                | VCY44<br>VCY4424 | -       |
|                | VCY44<br>VCY4424 | -                | -       | VCY44<br>VCY4424 | -                | -       | VCY44<br>VCY4424 | -                | -       | VCY44<br>VCY4424 | -                | -       | VCY44<br>VCY4424 | -                | -       | VCY44<br>VCY4424 | -                | -       |

### 2-way valve kit - main and secondary coil or accessory BV coil

|                | 200              | 201              | 250     | 300              | 301              | 350     | 400              | 401              | 450     | 500              | 501              | 550     | 600              | 601              | 650     | 700              | 701              | 750     |
|----------------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|------------------|------------------|---------|
| Main coil      | VCYD1            | VCYD1            | VCYD1   | VCYD2            | VCYD2            | VCYD2   | VCYD2            | VCYD2            | VCYD2   | VCYD2            | VCYD2            | VCYD2   | VCYD2            | VCYD2            | VCYD2   | VCYD2            | VCYD2            | VCYD2   |
|                | VCYD124          | VCYD124          | VCYD124 | VCYD224          | VCYD224          | VCYD224 | VCYD224          | VCYD224          | VCYD224 | VCYD224          | VCYD224          | VCYD224 | VCYD224          | VCYD224          | VCYD224 | VCYD224          | VCYD224          | VCYD224 |
| Secondary coil | -                | VCYD1<br>VCYD124 | -       | -                | VCYD1<br>VCYD124 | -       | -                | VCYD1<br>VCYD124 | -       | -                | VCYD1<br>VCYD124 | -       | -                | VCYD1<br>VCYD124 | -       | -                | VCYD1<br>VCYD124 | -       |
|                | VCYD1<br>VCYD124 | -                | -       | VCYD1<br>VCYD124 | -                | -       | VCYD1<br>VCYD124 | -                | -       | VCYD1<br>VCYD124 | -                | -       | VCYD1<br>VCYD124 | -                | -       | VCYD1<br>VCYD124 | -                | -       |

## Valve support kit

### Main coil VDP valve support kit.

| Model        | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| KITVPI12 (1) | C,U | •   | •   | •   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|              | C   |     |     |     | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
| KITVPI34 (2) | U   |     |     |     | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |

(1) Connections Ø 1/2"

(2) Connections Ø 3/4"

### Secondary coil VDP valve support kit.

|                      | 200       | 201       | 250 | 300       | 301       | 350 | 400       | 401       | 450 | 500       | 501       | 550 | 600       | 601       | 650 |
|----------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Main coil            | -         | -         | -   | -         | -         | -   | -         | -         | -   | -         | -         | -   | -         | -         | -   |
| Secondary coil       | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   |
| Additional coil "BV" | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   |

|                      | 700       | 701       | 750 |
|----------------------|-----------|-----------|-----|
| Main coil            | -         | -         | -   |
| Secondary coil       | -         | KITVPI12H | -   |
| Additional coil "BV" | KITVPI12H | -         | -   |

Connections ø 1/2"

## Installation accessories

### Plastic caps

| Model  | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BDP200 | C   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|        | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |

### Flange

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BRY210 (1) | C   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|            | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |
| BRY212 (2) | C   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|            | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |
| BRY216 (3) | C   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|            | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |
| BRY220 (4) | C   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |
|            | U   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |     |     |     |

(1) Ø 100 mm

(2) Ø 125 mm

(3) Ø 160 mm

(4) Ø 200 mm



**Flange for the installation of the delivery grille GM**

| Model       | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GMV200C (1) | C   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GMV300C (1) | C   |     |     |     | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |
| GMV400C (1) | C   |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| GMV600C (1) | C   |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |

(1) only for "C" version.

**Flange for the installation of the grille GM17**

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GMVU (1) | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

(1) Only for "U" version with connections "G and D".

**Coarse 25% class air filter kit according to ISO16890 (G2 according to EN779)**

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AFY100 (1) | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

(1) To be used with fan coils supplied without a filter installed in unit "X" and in association with GM17 and GMVU.

**Air deflector**

| Model  | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DAYKIT | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

**Brackets for ceiling mount.**

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AMPY (1) | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

(1) Only for "U" version.

**Condensate discharge device kit**

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSC6 (1) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|          | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

(1) Only for "L and R" connections.

**Delivery grille**

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GM17  | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| GM22  | C   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GM32  | C   |     |     |     | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |
| GM42  | C   |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| GM62  | C   |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |

**Accessories in multiple packages****Hydraulic connection kit**

| Model     | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CHR12 (1) | C,U | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CHR34 (2) | C   |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|           | U   |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |

(1) Hydraulic connections Ø 1/2"

(2) Hydraulic connections Ø 3/4"

**Half-size filter kit**

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DFA2  | C,U | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| DFA3  | C,U |     |     |     | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |
| DFA5  | C,U |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |
| DFA7  | C   |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |

**Protection for flange**

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 600 | 601 | 650 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PPB   | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|       | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |



**PERFORMANCE DATA - FCY\_C AND FCY\_U  
(CONFIGURATION OF THE H NOZZLES) - 2 PIPES**

2-pipe

|                                       |       | FCY200C      |      |      | FCY250C |      |      | FCY300C |      |       | FCY350C |      |       | FCY400C |       |       | FCY450C |       |       |
|---------------------------------------|-------|--------------|------|------|---------|------|------|---------|------|-------|---------|------|-------|---------|-------|-------|---------|-------|-------|
|                                       |       | 2            | 4    | 6    | 2       | 4    | 6    | 1       | 4    | 6     | 1       | 4    | 6     | 1       | 3     | 6     | 1       | 3     | 6     |
|                                       |       | L            | M    | H    | L       | M    | H    | L       | M    | H     | L       | M    | H     | L       | M     | H     | L       | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 2,11         | 3,00 | 3,32 | 2,29    | 3,24 | 3,60 | 3,50    | 5,03 | 5,45  | 3,80    | 5,59 | 6,10  | 4,49    | 6,02  | 6,74  | 4,79    | 6,62  | 7,40  |
| Water flow rate system side           | l/h   | 182          | 258  | 285  | 197     | 279  | 310  | 301     | 433  | 469   | 327     | 481  | 524   | 386     | 517   | 580   | 412     | 569   | 637   |
| Pressure drop system side             | kPa   | 7            | 12   | 15   | 9       | 16   | 19   | 8       | 15   | 18    | 9       | 18   | 21    | 11      | 18    | 22    | 7       | 12    | 15    |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 1,05         | 1,49 | 1,65 | 1,14    | 1,61 | 1,79 | 1,74    | 2,50 | 2,71  | 1,89    | 2,78 | 3,03  | 2,23    | 2,99  | 3,35  | 2,38    | 3,29  | 3,68  |
| Water flow rate system side           | l/h   | 160          | 224  | 248  | 196     | 277  | 308  | 299     | 430  | 466   | 325     | 478  | 521   | 383     | 514   | 576   | 409     | 566   | 633   |
| Pressure drop system side             | kPa   | 7            | 12   | 15   | 9       | 16   | 19   | 8       | 15   | 18    | 9       | 17   | 20    | 11      | 18    | 22    | 7       | 12    | 15    |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Cooling capacity                      | kW    | 0,93         | 1,30 | 1,44 | 1,11    | 1,59 | 1,74 | 1,70    | 2,40 | 2,63  | 1,91    | 2,77 | 3,00  | 2,29    | 3,06  | 3,41  | 2,51    | 3,37  | 3,79  |
| Sensible cooling capacity             | kW    | 0,74         | 1,14 | 1,18 | 0,83    | 1,23 | 1,36 | 1,27    | 1,86 | 2,03  | 1,34    | 1,99 | 2,16  | 1,66    | 2,24  | 2,52  | 1,76    | 2,42  | 2,73  |
| Water flow rate system side           | l/h   | 160          | 224  | 248  | 191     | 273  | 299  | 292     | 413  | 452   | 328     | 476  | 516   | 394     | 526   | 586   | 432     | 580   | 652   |
| Pressure drop system side             | kPa   | 8            | 13   | 15   | 10      | 18   | 21   | 9       | 16   | 18    | 11      | 21   | 25    | 11      | 18    | 22    | 11      | 16    | 20    |
| Fan                                   |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Type                                  | type  | Centrifugal  |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Fan motor                             | type  | Asynchronous |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Air flow rate                         | m³/h  | 148          | 226  | 254  | 148     | 226  | 254  | 263     | 404  | 446   | 263     | 404  | 446   | 346     | 487   | 559   | 346     | 487   | 559   |
| High static pressure                  | Pa    | 21           | 50   | 63   | 21      | 50   | 63   | 21      | 50   | 61    | 21      | 50   | 61    | 25      | 50    | 66    | 25      | 50    | 66    |
| Sound power level (inlet + radiated)  | dB(A) | 41,0         | 56,0 | 59,0 | 41,0    | 56,0 | 59,0 | 39,0    | 51,0 | 54,0  | 39,0    | 51,0 | 54,0  | 44,0    | 54,0  | 55,0  | 44,0    | 54,0  | 55,0  |
| Sound power level (outlet)            | dB(A) | 37,0         | 52,0 | 55,0 | 37,0    | 52,0 | 55,0 | 35,0    | 47,0 | 49,0  | 35,0    | 47,0 | 49,0  | 40,0    | 50,0  | 52,0  | 40,0    | 50,0  | 52,0  |
| Input power                           | W     | 28           | 41   | 74   | 28      | 41   | 74   | 38      | 55   | 78    | 38      | 55   | 78    | 53      | 63    | 102   | 53      | 63    | 102   |
| Finned pack heat exchanger            |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Water content                         | l     | 0,5          |      |      | 0,7     |      |      | 0,8     |      |       | 1,0     |      |       | 1,0     |       |       | 1,4     |       |       |
| Diameter hydraulic fittings           |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Main heat exchanger                   | Ø     | 1/2"         |      |      | 1/2"    |      |      | 3/4"    |      |       | 3/4"    |      |       | 3/4"    |       |       | 3/4"    |       |       |
| Power supply                          |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| 230V~50Hz                             |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
|                                       |       | FCY500C      |      |      | FCY550C |      |      | FCY600C |      |       | FCY650C |      |       | FCY700C |       |       | FCY750C |       |       |
|                                       |       | 1            | 5    | 6    | 1       | 5    | 6    | 1       | 4    | 7     | 1       | 4    | 7     | 2       | 5     | 7     | 2       | 5     | 7     |
|                                       |       | L            | M    | H    | L       | M    | H    | L       | M    | H     | L       | M    | H     | L       | M     | H     | L       | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 5,27         | 7,22 | 7,59 | 5,81    | 8,25 | 8,67 | 6,86    | 8,55 | 10,00 | 7,63    | 9,72 | 11,51 | 8,77    | 10,10 | 10,52 | 10,02   | 11,65 | 12,09 |
| Water flow rate system side           | l/h   | 453          | 621  | 652  | 500     | 709  | 746  | 590     | 735  | 860   | 656     | 836  | 990   | 754     | 868   | 905   | 862     | 1002  | 1040  |
| Pressure drop system side             | kPa   | 12           | 21   | 23   | 10      | 19   | 21   | 13      | 20   | 26    | 15      | 23   | 31    | 19      | 25    | 27    | 12      | 15    | 16    |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 2,62         | 3,59 | 3,77 | 2,89    | 4,10 | 4,31 | 3,41    | 4,25 | 4,97  | 3,79    | 4,83 | 5,72  | 4,36    | 5,02  | 5,23  | 4,98    | 5,79  | 6,01  |
| Water flow rate system side           | l/h   | 451          | 617  | 648  | 497     | 705  | 741  | 586     | 731  | 855   | 652     | 831  | 984   | 750     | 863   | 899   | 856     | 996   | 1034  |
| Pressure drop system side             | kPa   | 12           | 21   | 23   | 10      | 19   | 21   | 13      | 19   | 25    | 15      | 23   | 31    | 19      | 25    | 27    | 12      | 15    | 16    |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Cooling capacity                      | kW    | 2,68         | 3,65 | 3,82 | 2,91    | 4,08 | 4,28 | 3,37    | 4,08 | 4,65  | 4,15    | 5,02 | 5,67  | 4,24    | 4,97  | 5,18  | 4,69    | 5,53  | 5,80  |
| Sensible cooling capacity             | kW    | 1,94         | 2,70 | 2,83 | 2,07    | 2,94 | 3,09 | 2,70    | 3,34 | 3,92  | 2,93    | 3,60 | 4,12  | 3,24    | 3,83  | 4,02  | 3,53    | 4,20  | 4,41  |
| Water flow rate system side           | l/h   | 461          | 628  | 657  | 500     | 702  | 736  | 580     | 702  | 800   | 714     | 863  | 975   | 729     | 855   | 891   | 807     | 951   | 997   |
| Pressure drop system side             | kPa   | 13           | 22   | 24   | 12      | 21   | 23   | 15      | 21   | 26    | 16      | 23   | 28    | 20      | 26    | 28    | 12      | 16    | 17    |
| Fan                                   |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Type                                  | type  | Centrifugal  |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Fan motor                             | type  | Asynchronous |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Air flow rate                         | m³/h  | 400          | 592  | 627  | 400     | 592  | 627  | 567     | 770  | 920   | 567     | 770  | 920   | 785     | 978   | 1050  | 785     | 978   | 1050  |
| High static pressure                  | Pa    | 22           | 50   | 56   | 22      | 50   | 56   | 27      | 50   | 71    | 27      | 50   | 71    | 32      | 50    | 58    | 32      | 50    | 58    |
| Sound power level (inlet + radiated)  | dB(A) | 45,0         | 55,0 | 57,0 | 45,0    | 55,0 | 57,0 | 46,0    | 56,0 | 61,0  | 46,0    | 56,0 | 61,0  | 54,0    | 60,0  | 62,0  | 54,0    | 60,0  | 62,0  |
| Sound power level (outlet)            | dB(A) | 41,0         | 51,0 | 53,0 | 41,0    | 51,0 | 53,0 | 44,0    | 54,0 | 60,0  | 44,0    | 54,0 | 60,0  | 52,0    | 59,0  | 61,0  | 52,0    | 59,0  | 61,0  |
| Input power                           | W     | 49           | 80   | 96   | 49      | 80   | 96   | 66      | 89   | 118   | 66      | 89   | 118   | 92      | 117   | 138   | 92      | 117   | 138   |
| Finned pack heat exchanger            |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Water content                         | l     | 1,0          |      |      | 1,4     |      |      | 1,2     |      |       | 1,6     |      |       | 1,2     |       |       | 1,6     |       |       |
| Diameter hydraulic fittings           |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Main heat exchanger                   | Ø     | 3/4"         |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| Power supply                          |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |
| 230V~50Hz                             |       |              |      |      |         |      |      |         |      |       |         |      |       |         |       |       |         |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

**Refer to the selection software for performance data related to the different configurations.**

## PERFORMANCE DATA FCY\_C AND FCY\_U (CONFIGURATION OF THE H NOZZLES) - 4 PIPES

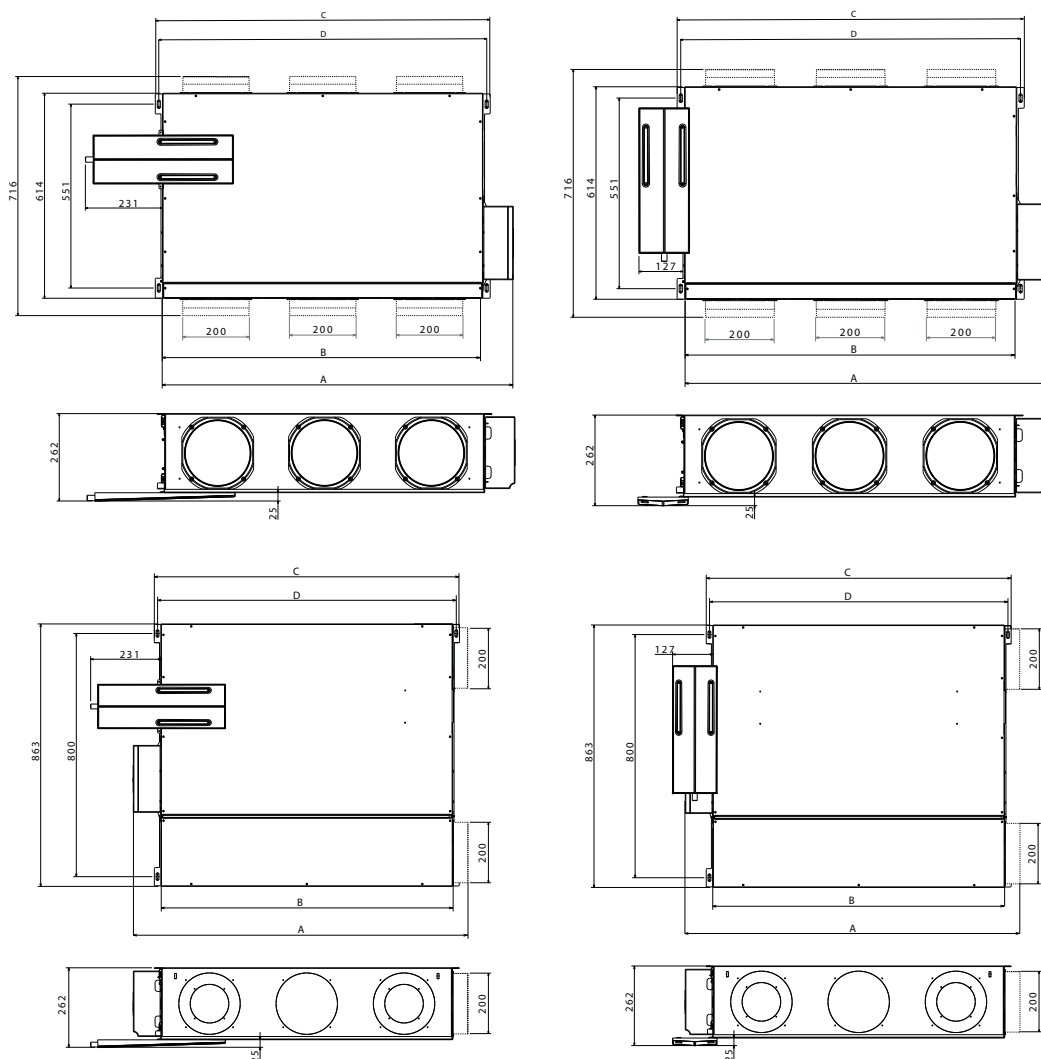
### 4-pipe

|                                       |       | FCY201C      |      |      | FCY301C |      |      | FCY401C |      |      | FCY501C |      |      | FCY601C |      |      | FCY701C |      |      |
|---------------------------------------|-------|--------------|------|------|---------|------|------|---------|------|------|---------|------|------|---------|------|------|---------|------|------|
|                                       |       | 2            | 4    | 6    | 1       | 4    | 6    | 1       | 3    | 6    | 1       | 5    | 6    | 1       | 4    | 7    | 2       | 5    | 7    |
|                                       |       | L            | M    | H    | L       | M    | H    | L       | M    | H    | L       | M    | H    | L       | M    | H    | L       | M    | H    |
| Heating performance 65 °C / 55 °C (1) |       |              |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Heating capacity                      | kW    | 1,06         | 1,37 | 1,48 | 1,82    | 2,39 | 2,55 | 2,19    | 2,75 | 2,99 | 2,59    | 3,30 | 3,34 | 3,13    | 3,85 | 4,35 | 4,13    | 4,40 | 4,60 |
| Water flow rate system side           | l/h   | 93           | 120  | 130  | 159     | 210  | 223  | 192     | 240  | 262  | 226     | 290  | 301  | 274     | 336  | 381  | 361     | 385  | 403  |
| Pressure drop system side             | kPa   | 5            | 8    | 9    | 8       | 12   | 14   | 5       | 7    | 8    | 6       | 9    | 9    | 9       | 13   | 16   | 16      | 15   | 17   |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Cooling capacity                      | kW    | 0,93         | 1,30 | 1,44 | 1,70    | 2,40 | 2,63 | 2,29    | 3,06 | 3,41 | 2,68    | 3,65 | 3,82 | 3,37    | 4,08 | 4,65 | 4,24    | 4,97 | 5,18 |
| Sensible cooling capacity             | kW    | 0,74         | 1,14 | 1,18 | 1,27    | 1,86 | 2,03 | 1,66    | 2,24 | 2,52 | 1,94    | 2,70 | 2,83 | 2,70    | 3,34 | 3,92 | 3,24    | 3,83 | 4,02 |
| Water flow rate system side           | l/h   | 160          | 224  | 248  | 292     | 413  | 452  | 394     | 526  | 586  | 461     | 628  | 657  | 580     | 702  | 800  | 729     | 855  | 891  |
| Pressure drop system side             | kPa   | 8            | 13   | 15   | 9       | 16   | 18   | 11      | 18   | 22   | 13      | 22   | 24   | 15      | 21   | 26   | 20      | 26   | 28   |
| Fan                                   |       |              |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Type                                  | type  | Centrifugal  |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Fan motor                             | type  | Asynchronous |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Air flow rate                         | m³/h  | 148          | 226  | 254  | 263     | 404  | 446  | 346     | 487  | 559  | 400     | 592  | 627  | 567     | 770  | 920  | 785     | 978  | 1050 |
| High static pressure                  | Pa    | 21           | 50   | 63   | 21      | 50   | 61   | 25      | 50   | 66   | 22      | 50   | 56   | 27      | 50   | 71   | 32      | 50   | 58   |
| Sound power level (inlet + radiated)  | dB(A) | 41,0         | 56,0 | 59,0 | 39,0    | 51,0 | 54,0 | 44,0    | 54,0 | 55,0 | 45,0    | 55,0 | 57,0 | 46,0    | 56,0 | 61,0 | 54,0    | 60,0 | 62,0 |
| Sound power level (outlet)            | dB(A) | 37,0         | 52,0 | 55,0 | 35,0    | 47,0 | 49,0 | 40,0    | 50,0 | 52,0 | 41,0    | 51,0 | 53,0 | 44,0    | 54,0 | 60,0 | 52,0    | 59,0 | 61,0 |
| Input power                           | W     | 28           | 41   | 74   | 38      | 55   | 78   | 53      | 63   | 102  | 49      | 80   | 96   | 66      | 89   | 118  | 92      | 117  | 138  |
| Diameter hydraulic fittings           |       |              |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Main heat exchanger                   | Ø     | 1/2"         |      |      | 3/4"    |      |      | 3/4"    |      |      | 3/4"    |      |      | 3/4"    |      |      | 3/4"    |      |      |
| Secondary heat exchanger              | Ø     | 1/2"         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Power supply                          |       |              |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |
| Power supply                          |       | 230V~50Hz    |      |      |         |      |      |         |      |      |         |      |      |         |      |      |         |      |      |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

**Refer to the selection software for performance data related to the different configurations.**

## DIMENSIONS



### FCY - C

| Size                          |    | 200 | 201 | 250 | 300 | 301 | 350 | 400  | 401  | 450  | 500  | 501  | 550  | 600  | 601  | 650  | 700  | 701  | 750  |
|-------------------------------|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | mm | 598 | 598 | 598 | 829 | 829 | 829 | 1050 | 1050 | 1050 | 1050 | 1050 | 1050 | 1171 | 1171 | 1171 | 1171 | 1171 | 1171 |
| B                             | mm | 507 | 507 | 507 | 735 | 735 | 735 | 960  | 960  | 960  | 960  | 960  | 960  | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 |
| C                             | mm | 550 | 550 | 550 | 781 | 781 | 781 | 1003 | 1003 | 1003 | 1003 | 1003 | 1003 | 1122 | 1122 | 1122 | 1122 | 1122 | 1122 |
| D                             | mm | 529 | 529 | 529 | 760 | 760 | 760 | 982  | 982  | 982  | 982  | 982  | 982  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight                  | kg | 19  | 20  | 21  | 23  | 24  | 26  | 31   | 32   | 33   | 31   | 32   | 33   | 41   | 43   | 46   | 41   | 43   | 46   |

### FCY - U

| Size                          |    | 200 | 201 | 250 | 300 | 301 | 350 | 400  | 401  | 450  | 500  | 501  | 550  |
|-------------------------------|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |     |     |      |      |      |      |      |      |
| A                             | mm | 647 | 647 | 647 | 878 | 878 | 878 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| B                             | mm | 508 | 508 | 508 | 739 | 739 | 739 | 960  | 960  | 960  | 960  | 960  | 960  |
| C                             | mm | 550 | 550 | 550 | 781 | 781 | 781 | 1003 | 1003 | 1003 | 1003 | 1003 | 1003 |
| D                             | mm | 529 | 529 | 529 | 760 | 760 | 760 | 982  | 982  | 982  | 982  | 982  | 982  |
| Empty weight                  | kg | 22  | 23  | 24  | 26  | 27  | 29  | 35   | 36   | 37   | 35   | 36   | 37   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FCYI

## Fan coil unit for ducted installations

- Plug and play installation only in horizontal
- Reduced dimensions
- Inspectable ventilation group



### DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.

They were designed and built for flush horizontal installation in any type of 2/4 pipe system and in combination with any heat generator, also at low temperatures.

Thanks to the availability of various versions and configurations, with a standard or oversized coil, it is easy to select the optimal solution for any requirement.

### FEATURES

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors). The plastic augers are extractable for easy and efficient cleaning.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

■ *Reversibility of the water connections during installation only for units with a main standard or oversized coil or standard with BV accessory. Not reversible in all other configurations.*

#### Air filter

Where present, **the Coarse 25% Class according to ISO16890 (G2 according to EN779)** air filter, which is easy to remove and clean.

#### Condensate drip

In addition to the internal tray, all units are equipped with a **configurable external condensate collection tray** during installation.

#### Control

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.

The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field   | Description  |
|---------|--|
| 1,2,3,4 | FCYI   |
| 5       | Size<br>2, 3, 4, 5, 7  |
| 6       | main heat exchanger (1)  |
| 0       | Standard   |
| 5       | Oversized  |
| 7       | Secondary heat exchanger   |
| 0       | Without coil   |
| 1       | Standard (2)   |
| 8       | Version  |
| C       | Compact  |
| U       | Universal (3)  |
| 9       | Connections  |
| D       | Water connections and electrical panel on the right                              |
| G       | Water connections and electrical panel on the left                               |
| L       | Hydraulic connections on the left and electric connections on the opposite side  |
| R       | Hydraulic connections on the right and electric connections on the opposite side |
| 10      | Options  |
| H       | Electric heater (500W) (4)   |
| P       | With the photocatalytic device (4)   |
| X       | No present   |
| 11      | Filter   |
| F       | With air filter (5)  |
| G       | On the GKY accessory (6)   |
| X       | No present   |

(1) Reversibility of the water connections during installation only for units with a main standard or oversized coil. They are not reversible for units with a secondary coil.

(2) Only for the standard main coil

(3) Only for sizes from 2 to 5

(4) Options "P and H" are available only in units for 2-pipe systems.

(5) The DFA kit must mandatorily be installed on the units The DFA kit must mandatorily be installed on the units in option "F".

(6) Only for sizes 2 and 3, without secondary heat exchanger (0), in U version, D connections, without RX or photocatalytic device (X).

## SIZE AVAILABLE FOR VERSION

### C version

| Size                         | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

### Version U

| Size                         | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |     |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

## INSTALLATION VERSIONS AND EXAMPLES

### C: Compact version.

Compact structure with opposed intake and delivery lines, for an "H"-shaped configuration.

**The unit is provided without openings and without flanges, which can be purchased separately as an accessory.**

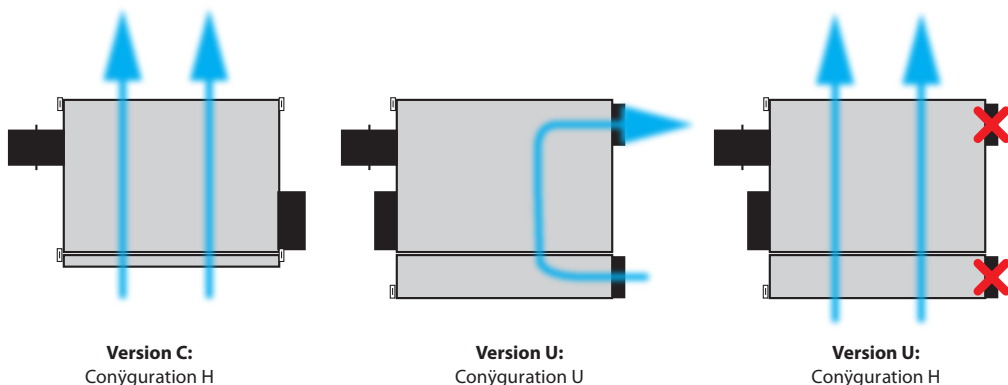
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.

On the side, it can house Ø 125 or 100 mm flanges for the intake of outside air for delivery.

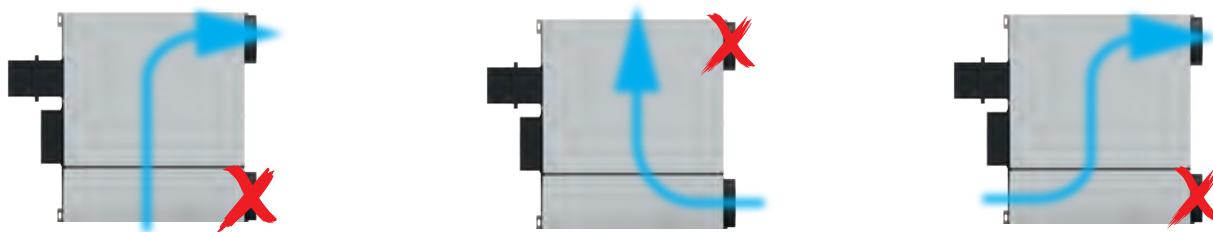
### U: Universal version.

Structure for the "U" configuration with intake and delivery on the same side, opposite of the side with the water connections and the electrical box. The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake or delivery flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.

This version is called universal because it guarantees the possible installations permitted by the C version and adds additional possibilities.



## POSSIBLE ALTERNATIVE CONFIGURATIONS OF THE U VERSION

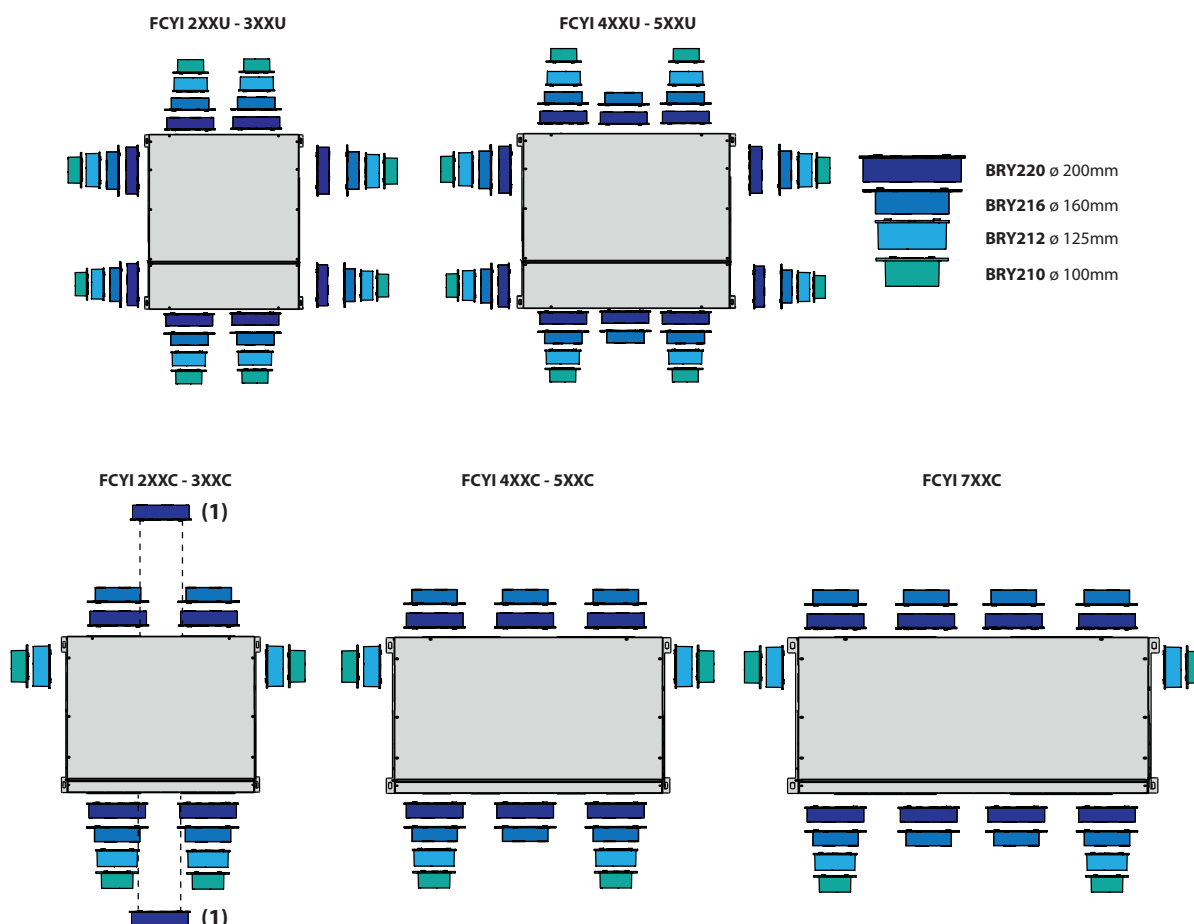


The performance data for the configurations shown here are equal to those for the U version in the U configuration.

## POSSIBLE POSITIONS FOR THE INSTALLATION OF THE BRY ACCESSORIES

In every unit it is possible to use a maximum of one flange accessory for the intake of outside air (BRY210 or BRY212). The number and position of the preparations for the installation of the BRY accessories varies based on the unit size and version.

The standard **C version unit** is supplied without flanges, which can be purchased separately as an accessory.



- 1 There is a central preparation for the installation of an accessory BRY220 as an alternative to using the two more external preparations.

**For the C version:** it is necessary to use a number of recirculation air preparations at least equal to the maximum number possible for the size selected less 1.

**Example:** for FCY6xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).

In both versions if the number of intake/delivery flanges used is less than the maximum possible for the considered size, their diameter must be 200 mm (BRY220).

**Example:** for FCYI7xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).

For more information about the possible configurations for both versions, refer to the unit's selection software.

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19Y:** Thermostat to be fixed on the side of the fan coil, fitted as standard with an air and water probe. Depending on the option chosen (P - X - H), VMF-E19Y must be completed with the mandatory electrical completion unit accessory (VMF-YCC, VMF-YCCH or VMF-YCCK / VMF-YICCK).

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMF-YICC:** Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).

**VMF-YICCH:** Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

**VMF-YICCK:** Electric inverter completion unit for the VMF-E19Y accessory, mandatory for FCYI units with GKY accessory.

### Valves for main coil

**VCY41 - 42 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left hydraulic connections.

**VCYD for main and secondary coil:** The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

**VDP15HF:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VDP15HF24:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 24 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VDP15HFM:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 24 V powered actuator with modulating function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

### Valves for secondary coil

**VCY44 - for secondary heat exchanger:** 3-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.

**VCYD for main and secondary coil:** The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

### Additional hot water coil.

**BV:** Hot water heat exchanger with 1 row.

### Valve support kit

**KITVPI:** Main coil VDP valve support kit. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

**KITVPI12H:** VDP valve support kit for the secondary coil. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

### Installation accessories

**BDP:** 200 mm plug.

**BRY:** Flange with hydraulic "spigot" connection.

**GMYC:** Plate flange that makes it possible to install the accessory GM either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.

**AFY:** the kit is comprised of a Coarse 25% class filter according to ISO16890 (G2 according to EN779) and four fastening brackets to insert in the grille GM17. To be used together with fan coils supplied without a filter installed in unit "X".

**GMJU:** Plate flange that makes it possible to install the accessory GM17 either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.

**DSC:** Condensate drainage device.

**DAYKIT:** Air deflector for U versions. To be installed in the delivery plenum, on the side opposite the air outlet, to facilitate the flow towards the delivery opening.

**AMPY:** Additional brackets for ceiling mount. Only for "U" version.

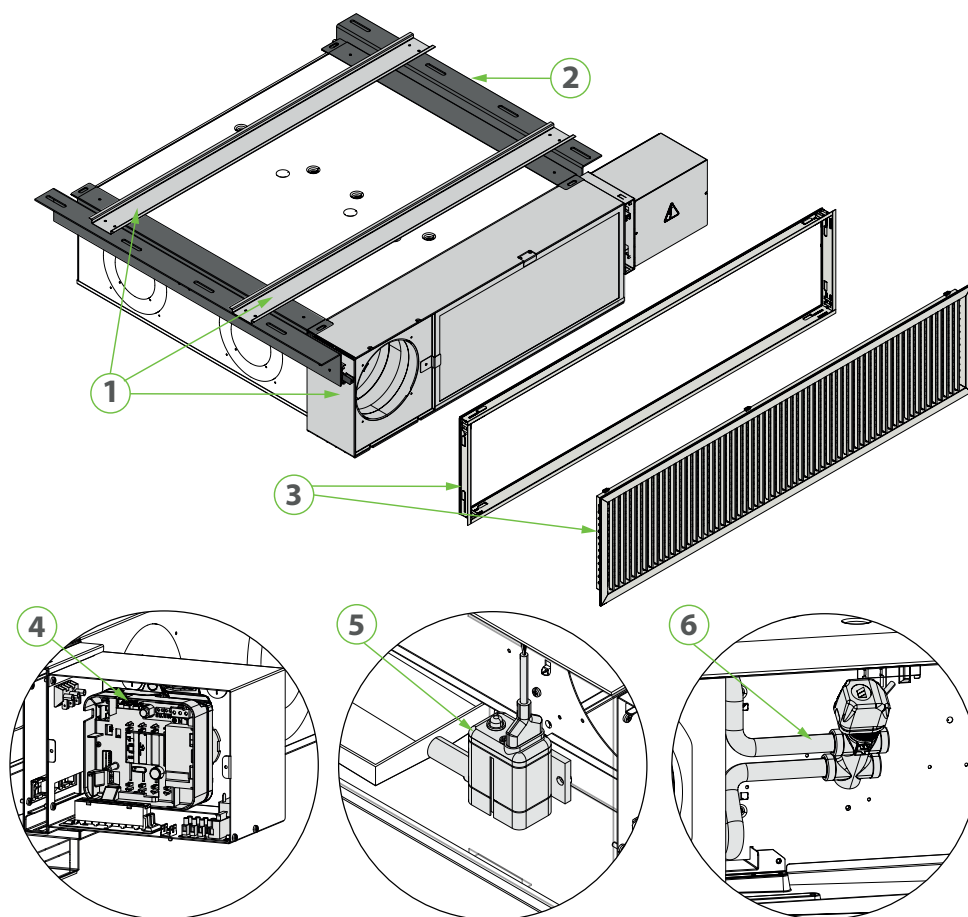


### Accessories in multiple packages

**DFA:** Size of filter halved on the short side. The kit is comprised of two filters with a length equal to the standard filter and with half the height. This facilitates filter cleaning and/or replacement operations if there is a reduced space for vertical extraction. 20 piece package.

**PPB:** Protection for flanges to be used during installation to prevent dust from entering the unit before connecting the ducts. To be removed when making the connection. 100 piece package.

### New GKY equipped flange



- 1 GKY
- 2 GKY2GT- GKY3GT (mandatory accessory)
- 3 GKYG (mandatory accessory)
- 4 VMF-E19Y + VMF-YICCK (FCYI) / VMF-YCCK (FCY) (optional accessory)
- 5 DSC6 (optional accessory)
- 6 2 pipes with 2/3-way valve (optional accessory)

**GKY:** Extractable galvanised sheet metal equipped flange with electric box, allows for routine and extraordinary maintenance without the need for an inspection hatch underneath. The accessory is only compatible for units in UDXG configuration and recirculation air openings on the right side.

**GKY2GT:** Accessory mandatory for the installation of the GKY plenum, consisting of telescopic guides compatible with size 2.

**GKY3GT:** Accessory mandatory for the installation of the GKY plenum, consisting of telescopic guides compatible with size 3.

**GKYG:** grille kit in RAL9010 colour with counterframe, mandatory accessory compatible with GKY equipped flange accessory.

#### Extractable equipped flange

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY   | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

#### Telescopic guides

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY2GT (1) | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

(1) Accessory mandatory for the installation of the GKY plenum

#### Telescopic guides

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKY3GT (1) | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

(1) Accessory mandatory for the installation of the GKY plenum



## Grid kit

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GKYG  | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Model        | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|              | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| SAS (2)      | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|              | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| SW3 (2)      | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|              | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| SW5 (2)      | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|              | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| TX (3)       | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|              | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Model     | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24      | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-E19Y  | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-E3    | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-E4DX  | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-E4X   | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-IR    | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-SW    | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-SW1   | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-YICC  | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-YICCH | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VMF-YICCK | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

### Additional heat only coil for only option "X" (without an electric heater and without a photocatalytic device)

| Ver | 200   | 201 | 250 | 300   | 301 | 350 | 400   | 401 | 450 | 500   | 501 | 550 | 700    | 701 | 750 |
|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|-------|-----|-----|--------|-----|-----|
| C   | BV122 | -   | -   | BV132 | -   | -   | BV142 | -   | -   | BV142 | -   | -   | BV2800 | -   | -   |
| U   | BV122 | -   | -   | BV132 | -   | -   | BV142 | -   | -   | BV142 | -   | -   | -      | -   | -   |

### Combined adjustment and balancing valve

|                | 200                              | 201                              | 250       | 300                              | 301                              | 350                              | 400                              | 401                              | 450       |
|----------------|----------------------------------|----------------------------------|-----------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------|
| Main coil      | VDP15HF                          | VDP15HF                          | VDP15HF   | VDP15HF                          | VDP15HF                          | VDP15HF                          | VDP15HF                          | VDP15HF                          | VDP15HF   |
|                | VDP15HF24                        | VDP15HF24                        | VDP15HF24 | VDP15HF24                        | VDP15HF24                        | VDP15HF24                        | VDP15HF24                        | VDP15HF24                        | VDP15HF24 |
|                | VDP15HFM                         | VDP15HFM                         | VDP15HFM  | VDP15HFM                         | VDP15HFM                         | VDP15HFM                         | VDP15HFM                         | VDP15HFM                         | VDP15HFM  |
| Secondary coil | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         |
|                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         |
|                |                                  |                                  |           |                                  |                                  |                                  |                                  |                                  |           |
|                | 500                              | 501                              | 550       | 700                              | 701                              | 750                              |                                  |                                  |           |
| Main coil      | VDP15HF                          | VDP15HF                          | VDP15HF   | VDP15HF                          | VDP15HF                          | VDP15HF                          |                                  |                                  |           |
|                | VDP15HF24                        | VDP15HF24                        | VDP15HF24 | VDP15HF24                        | VDP15HF24                        | VDP15HF24                        |                                  |                                  |           |
|                | VDP15HFM                         | VDP15HFM                         | VDP15HFM  | VDP15HFM                         | VDP15HFM                         | VDP15HFM                         |                                  |                                  |           |
| Secondary coil | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -         | -                                | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM |                                  |                                  |           |
|                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                | -         | -                                | VDP15HF<br>VDP15HF24<br>VDP15HFM | -                                |                                  |                                  |           |
|                |                                  |                                  |           |                                  |                                  |                                  |                                  |                                  |           |

## Valves combinations for main and secondary coil

### 3-way valve kit - main and secondary coil or accessory BV coil

|                      | 200     | 201     | 250     | 300     | 301     | 350     | 400     | 401     | 450     | 500     | 501     | 550     | 700     | 701     | 750     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCY41   | VCY41   | VCY41   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   | VCY42   |
|                      | VCY4124 | VCY4124 | VCY4124 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 | VCY4224 |
| Secondary coil       | -       | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       |
|                      |         | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |
| Additional coil "BV" | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       | -       | VCY44   | -       | -       |
|                      | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |         | VCY4424 |         |         |

### 2-way valve kit - main and secondary coil or accessory BV coil

|                      | 200     | 201     | 250     | 300     | 301     | 350     | 400     | 401     | 450     | 500     | 501     | 550     | 700     | 701     | 750     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCYD1   | VCYD1   | VCYD1   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   | VCYD2   |
|                      | VCYD124 | VCYD124 | VCYD124 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 | VCYD224 |
| Secondary coil       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       |
|                      |         | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |
| Additional coil "BV" | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       | VCYD1   | -       | -       |
|                      | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |         | VCYD124 |         |         |

## Valve support kit

### Main coil VDP valve support kit.

| Model        | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| KITVPI12 (1) | C,U | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |
| KITVPI34 (2) | C   |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | U   |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Connections Ø 1/2"

(2) Connections Ø 3/4"

### Secondary coil VDP valve support kit.

|                      | 200       | 201       | 250 | 300       | 301       | 350 | 400       | 401       | 450 | 500       | 501       | 550 | 700       | 701       | 750 |
|----------------------|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|-----------|-----------|-----|
| Main coil            |           |           |     |           |           |     |           |           |     |           |           |     |           |           |     |
| Secondary coil       | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   | -         | KITVPI12H | -   |
| Additional coil "BV" | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   | KITVPI12H | -         | -   |

Connections Ø 1/2"

## Installation accessories

### Plastic caps

| Model  | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BDP200 | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|        | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

### Flange

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BRY210 (1) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|            | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| BRY212 (2) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|            | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| BRY216 (3) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|            | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| BRY220 (4) | C   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|            | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Ø 100 mm

(2) Ø 125 mm

(3) Ø 160 mm

(4) Ø 200 mm

### Flange for the installation of the delivery grille GM

| Model       | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GMV200C (1) | C   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |
| GMV300C (1) | C   |     |     |     | *   | *   | *   |     |     |     |     |     |     |     |     |     |
| GMV400C (1) | C   |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   |     |     |     |
| GMV600C (1) | C   |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   |

(1) only for "C" version.

### Flange for the installation of the grille GM17

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GMVU (1) | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |

(1) Only for "U" version with connections "G and D".

### Coarse 25% class air filter kit

| Model      | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AFY100 (1) | U   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |

(1) To be used with fan coils supplied without a filter installed in unit "X" and in association with GM17 and GMVU.

## Air deflector

| Model  | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DAYKIT | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |

## Brackets for ceiling mount.

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AMPY (1) | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |

(1) Only for "U" version.

## Condensate discharge device kit

| Model    | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSC6 (1) | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|          | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |

(1) Only for "L and R" connections.

## Condensate drip

## Accessories in multiple packages

### Hydraulic connection kit

| Model     | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CHR12 (1) | C,U | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |
| CHR34 (2) | C   |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|           | U   |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |

(1) Hydraulic connections Ø 1/2"

(2) Hydraulic connections Ø 3/4"

### Half-size filter kit

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DFA2  | C,U | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |
| DFA3  | C,U |     |     |     | .   | .   | .   |     |     |     |     |     |     |     |     |     |
| DFA5  | C,U |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   |     |     |     |
| DFA7  | C   |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   |

### Protection for flange

| Model | Ver | 200 | 201 | 250 | 300 | 301 | 350 | 400 | 401 | 450 | 500 | 501 | 550 | 700 | 701 | 750 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PPB   | C   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | U   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |

## PERFORMANCE DATA - FCYI\_C AND FCYI\_U (H NOZZLES CONFIGURATION) 2 PIPES

### 2-pipe

|                                       |       | FCYI200C  |      |      | FCYI250C |      |      | FCYI300C |      |      | FCYI350C |      |      | FCYI400C |      |      | FCYI450C |      |      |
|---------------------------------------|-------|-----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|
|                                       |       | 1         | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |
|                                       |       | L         | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |
| Heating performance 70 °C / 60 °C (1) |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Heating capacity                      | kW    | 1,81      | 3,16 | 3,34 | 2,01     | 3,40 | 3,62 | 3,08     | 4,83 | 5,23 | 3,32     | 5,43 | 5,83 | 3,96     | 5,85 | 6,34 | 4,10     | 6,44 | 6,96 |
| Water flow rate system side           | l/h   | 156       | 272  | 287  | 173      | 292  | 311  | 265      | 415  | 450  | 285      | 467  | 502  | 341      | 503  | 545  | 353      | 554  | 599  |
| Pressure drop system side             | kPa   | 6         | 13   | 16   | 7        | 17   | 19   | 7        | 14   | 16   | 7        | 17   | 19   | 9        | 17   | 19   | 5        | 12   | 13   |
| Heating performance 45 °C / 40 °C (2) |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Heating capacity                      | kW    | 0,90      | 1,57 | 1,66 | 1,00     | 1,69 | 1,80 | 1,53     | 2,40 | 2,60 | 1,65     | 2,70 | 2,90 | 1,97     | 2,91 | 3,15 | 2,04     | 3,20 | 3,46 |
| Water flow rate system side           | l/h   | 155       | 270  | 288  | 172      | 291  | 308  | 263      | 413  | 447  | 284      | 464  | 499  | 339      | 501  | 542  | 351      | 550  | 595  |
| Pressure drop system side             | kPa   | 6         | 13   | 16   | 7        | 17   | 19   | 7        | 14   | 16   | 7        | 17   | 19   | 9        | 17   | 19   | 5        | 12   | 13   |
| Cooling performance 7 °C / 12 °C      |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Cooling capacity                      | kW    | 0,80      | 1,37 | 1,45 | 0,95     | 1,67 | 1,76 | 1,40     | 2,38 | 2,53 | 1,66     | 2,70 | 2,88 | 2,03     | 2,98 | 3,21 | 2,22     | 3,28 | 3,55 |
| Sensible cooling capacity             | kW    | 0,63      | 1,13 | 1,20 | 0,70     | 1,29 | 1,37 | 1,10     | 1,82 | 1,94 | 1,15     | 1,94 | 2,07 | 1,45     | 2,18 | 2,36 | 1,54     | 2,35 | 2,56 |
| Water flow rate system side           | l/h   | 138       | 236  | 249  | 163      | 287  | 303  | 241      | 409  | 435  | 285      | 464  | 495  | 349      | 512  | 552  | 382      | 564  | 610  |
| Pressure drop system side             | kPa   | 5         | 14   | 16   | 8        | 19   | 21   | 7        | 15   | 17   | 9        | 21   | 23   | 9        | 13   | 20   | 8        | 16   | 18   |
| Fan                                   |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Air flow rate                         | m³/h  | 123       | 240  | 257  | 123      | 240  | 257  | 225      | 390  | 424  | 225      | 390  | 424  | 300      | 470  | 515  | 300      | 470  | 515  |
| High static pressure                  | Pa    | 13        | 50   | 57   | 13       | 50   | 57   | 16       | 50   | 59   | 16       | 50   | 59   | 20       | 50   | 60   | 20       | 50   | 60   |
| Sound power level (inlet + radiated)  | dB(A) | 37,0      | 57,0 | 59,0 | 37,0     | 57,0 | 59,0 | 36,0     | 50,0 | 53,0 | 36,0     | 50,0 | 53,0 | 43,0     | 53,0 | 55,0 | 43,0     | 53,0 | 55,0 |
| Sound power level (outlet)            | dB(A) | 33,0      | 53,0 | 55,0 | 33,0     | 53,0 | 55,0 | 32,0     | 47,0 | 49,0 | 32,0     | 47,0 | 49,0 | 39,0     | 49,0 | 52,0 | 39,0     | 49,0 | 52,0 |
| Input power                           | W     | 7         | 27   | 31   | 7        | 27   | 31   | 10       | 30   | 40   | 10       | 30   | 40   | 14       | 38   | 48   | 14       | 38   | 48   |
| Diameter hydraulic fittings           |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Main heat exchanger                   | Ø     | 1/2"      |      |      | 1/2"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      |
| Power supply                          |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Power supply                          |       | 230V~50Hz |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
|                                       |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
|                                       |       | FCYI500C  |      |      | FCYI550C |      |      | FCYI700C |      |      | FCYI750C |      |      |          |      |      |          |      |      |
|                                       |       | 1         | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |          |      |      |
|                                       |       | L         | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |          |      |      |
| Heating performance 70 °C / 60 °C (1) |       |           |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |

|                                       |       | FCYI500C  |      |      | FCYI550C |      |      | FCYI700C |      |      | FCYI750C |      |       |
|---------------------------------------|-------|-----------|------|------|----------|------|------|----------|------|------|----------|------|-------|
| Heating capacity                      | kW    | 5,39      | 7,28 | 7,63 | 5,92     | 8,37 | 8,71 | 5,33     | 8,34 | 8,88 | 6,17     | 9,52 | 10,15 |
| Water flow rate system side           | l/h   | 464       | 626  | 656  | 509      | 720  | 749  | 468      | 732  | 779  | 541      | 835  | 890   |
| Pressure drop system side             | kPa   | 12        | 22   | 23   | 11       | 20   | 21   | 8        | 17   | 20   | 5        | 11   | 12    |
| Heating performance 45 °C / 40 °C (2) |       |           |      |      |          |      |      |          |      |      |          |      |       |
| Heating capacity                      | kW    | 2,68      | 3,26 | 3,79 | 2,94     | 4,16 | 4,33 | 2,67     | 4,15 | 4,40 | 2,46     | 4,69 | 5,00  |
| Water flow rate system side           | l/h   | 461       | 623  | 652  | 506      | 715  | 745  | 460      | 720  | 767  | 418      | 806  | 860   |
| Pressure drop system side             | kPa   | 12        | 22   | 23   | 12       | 22   | 23   | 8        | 18   | 20   | 3        | 11   | 12    |
| Cooling performance 7 °C / 12 °C      |       |           |      |      |          |      |      |          |      |      |          |      |       |
| Cooling capacity                      | kW    | 2,73      | 3,68 | 3,84 | 2,97     | 4,15 | 4,31 | 2,20     | 4,00 | 4,30 | 2,60     | 4,41 | 4,70  |
| Sensible cooling capacity             | kW    | 1,98      | 2,73 | 2,85 | 2,11     | 2,98 | 3,12 | 1,71     | 3,00 | 3,20 | 1,90     | 3,30 | 3,50  |
| Water flow rate system side           | l/h   | 469       | 633  | 660  | 511      | 714  | 741  | 378      | 688  | 739  | 447      | 760  | 818   |
| Pressure drop system side             | kPa   | 13        | 22   | 25   | 13       | 22   | 25   | 7        | 18   | 20   | 4        | 11   | 12    |
| Fan                                   |       |           |      |      |          |      |      |          |      |      |          |      |       |
| Air flow rate                         | m³/h  | 410       | 600  | 630  | 410      | 600  | 630  | 405      | 730  | 799  | 405      | 730  | 799   |
| High static pressure                  | Pa    | 23        | 50   | 55   | 23       | 50   | 55   | 15       | 50   | 60   | 15       | 50   | 60    |
| Sound power level (inlet + radiated)  | dB(A) | 45,0      | 56,0 | 57,0 | 45,0     | 56,0 | 57,0 | 38,0     | 55,0 | 58,0 | 41,0     | 55,0 | 58,0  |
| Sound power level (outlet)            | dB(A) | 42,0      | 52,0 | 52,0 | 42,0     | 52,0 | 52,0 | 34,0     | 51,0 | 54,0 | 36,0     | 51,0 | 54,0  |
| Input power                           | W     | 18        | 50   | 60   | 18       | 50   | 60   | 21       | 61   | 78   | 21       | 61   | 78    |
| Diameter hydraulic fittings           |       |           |      |      |          |      |      |          |      |      |          |      |       |
| Main heat exchanger                   | Ø     | 3/4"      |      |      |          |      |      |          |      |      |          |      |       |
| Power supply                          |       |           |      |      |          |      |      |          |      |      |          |      |       |
| Power supply                          |       | 230V~50Hz |      |      |          |      |      |          |      |      |          |      |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

**Refer to the selection software for performance data related to the different configurations.**

## PERFORMANCE DATA FCYI\_C AND FCYI\_U (H NOZZLES CONFIGURATION) 4 PIPES

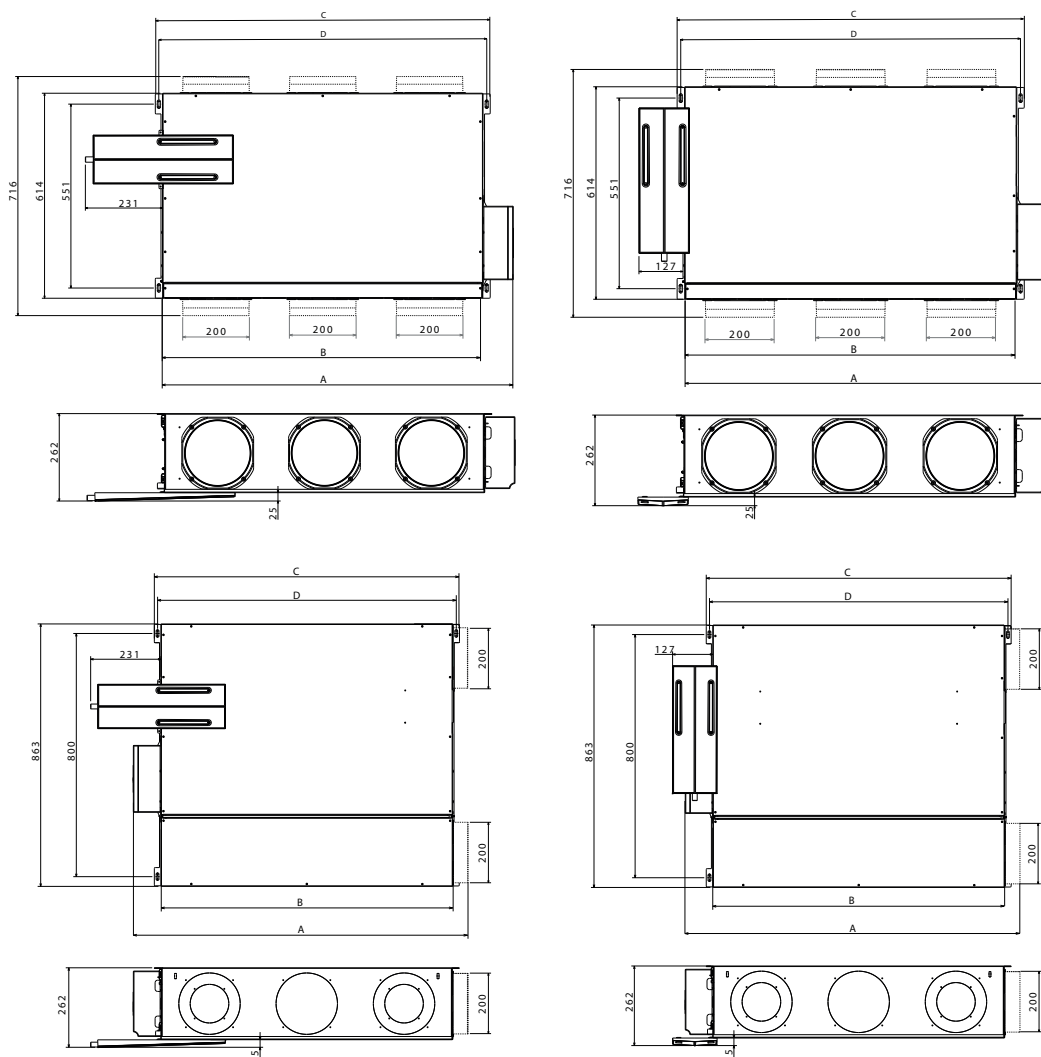
### 4-pipe

|                                       |           | FCYI201C |      |      | FCYI301C |      |      | FCYI401C |      |      | FCYI501C |      |      | FCYI701C |      |      |
|---------------------------------------|-----------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|
|                                       |           | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |
|                                       |           | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |
| Heating performance 65 °C / 55 °C (1) |           |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Heating capacity                      | kW        | 0,94     | 1,42 | 1,49 | 1,60     | 2,34 | 2,47 | 1,99     | 2,69 | 2,85 | 2,62     | 3,59 | 3,45 | 2,99     | 3,70 | 3,92 |
| Water flow rate system side           | l/h       | 81       | 122  | 128  | 138      | 201  | 212  | 171      | 231  | 245  | 225      | 309  | 297  | 257      | 318  | 337  |
| Pressure drop system side             | kPa       | 4        | 9    | 9    | 6        | 12   | 13   | 4        | 7    | 8    | 6        | 9    | 9    | 8        | 12   | 13   |
| Cooling performance 7 °C / 12 °C      |           |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Cooling capacity                      | kW        | 0,80     | 1,37 | 1,45 | 1,40     | 2,38 | 2,53 | 2,03     | 2,98 | 3,21 | 2,73     | 3,68 | 3,84 | 2,20     | 4,00 | 4,30 |
| Sensible cooling capacity             | kW        | 0,63     | 1,13 | 1,20 | 1,10     | 1,82 | 1,94 | 1,45     | 2,18 | 2,36 | 1,98     | 2,73 | 2,85 | 1,71     | 3,00 | 3,20 |
| Water flow rate system side           | l/h       | 138      | 236  | 249  | 241      | 409  | 435  | 349      | 512  | 552  | 469      | 633  | 660  | 378      | 688  | 739  |
| Pressure drop system side             | kPa       | 5        | 14   | 16   | 7        | 15   | 17   | 9        | 13   | 20   | 13       | 22   | 25   | 7        | 18   | 20   |
| Fan                                   |           |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Air flow rate                         | m³/h      | 123      | 240  | 257  | 225      | 390  | 424  | 300      | 470  | 515  | 410      | 600  | 630  | 405      | 730  | 799  |
| High static pressure                  | Pa        | 13       | 50   | 57   | 16       | 50   | 59   | 20       | 50   | 60   | 23       | 50   | 55   | 15       | 50   | 60   |
| Sound power level (inlet + radiated)  | dB(A)     | 37,0     | 57,0 | 59,0 | 36,0     | 50,0 | 53,0 | 43,0     | 53,0 | 55,0 | 45,0     | 56,0 | 57,0 | 38,0     | 55,0 | 58,0 |
| Sound power level (outlet)            | dB(A)     | 33,0     | 53,0 | 55,0 | 32,0     | 47,0 | 49,0 | 39,0     | 49,0 | 52,0 | 42,0     | 52,0 | 52,0 | 34,0     | 51,0 | 54,0 |
| Input power                           | W         | 7        | 27   | 31   | 10       | 30   | 40   | 14       | 38   | 48   | 18       | 50   | 60   | 21       | 61   | 78   |
| Diameter hydraulic fittings           |           |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Main heat exchanger                   | Ø         | 1/2"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      |
| Secondary heat exchanger              | Ø         | 1/2"     |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Power supply                          |           |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Power supply                          | 230V~50Hz |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

**Refer to the selection software for performance data related to the different configurations.**

## DIMENSIONS



### FCYI - C

| Size                          |    | 200 | 201 | 250 | 300 | 301 | 350 | 400  | 401  | 450  | 500  | 501  | 550  | 700  | 701  | 750  |
|-------------------------------|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |
| A                             | mm | 598 | 598 | 598 | 829 | 829 | 829 | 1050 | 1050 | 1050 | 1050 | 1050 | 1050 | 1171 | 1171 | 1171 |
| B                             | mm | 507 | 507 | 507 | 735 | 735 | 735 | 960  | 960  | 960  | 960  | 960  | 960  | 1080 | 1080 | 1080 |
| C                             | mm | 550 | 550 | 550 | 781 | 781 | 781 | 1003 | 1003 | 1003 | 1003 | 1003 | 1003 | 1122 | 1122 | 1122 |
| D                             | mm | 529 | 529 | 529 | 760 | 760 | 760 | 982  | 982  | 982  | 982  | 982  | 982  | 1100 | 1100 | 1100 |
| Empty weight                  | kg | 19  | 20  | 21  | 23  | 24  | 26  | 31   | 32   | 33   | 31   | 32   | 33   | 41   | 43   | 46   |

### FCYI - U

| Size                          |    | 200 | 201 | 250 | 300 | 301 | 350 | 400  | 401  | 450  | 500  | 501  | 550  |
|-------------------------------|----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |     |     |      |      |      |      |      |      |
| A                             | mm | 647 | 647 | 647 | 878 | 878 | 878 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| B                             | mm | 508 | 508 | 508 | 739 | 739 | 739 | 960  | 960  | 960  | 960  | 960  | 960  |
| C                             | mm | 550 | 550 | 550 | 781 | 781 | 781 | 1003 | 1003 | 1003 | 1003 | 1003 | 1003 |
| D                             | mm | 529 | 529 | 529 | 760 | 760 | 760 | 982  | 982  | 982  | 982  | 982  | 982  |
| Empty weight                  | kg | 22  | 23  | 24  | 26  | 27  | 29  | 35   | 36   | 37   | 35   | 36   | 37   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FCZ P - PO

### Fan coil unit for ducted installations

Cooling capacity 0,65 ÷ 7,62 kW  
Heating capacity 1,45 ÷ 17,02 kW

- **Very quiet**
- **Suitable for duct-type installations too**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Vertical and horizontal installation**



#### DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

#### FEATURES

##### Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.

The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.

Extractable shrouds for easy, effective cleaning

##### Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Reversibility of the water connections during installation only for units with a standard or boosted main coil, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.**

##### Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

##### Air filter

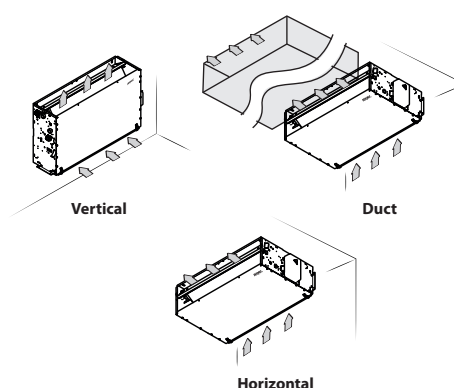
Air filter class Coarse 25% for all versions easy to pull out and clean.

**In the PPC version, air purification is guaranteed by the Cold Plasma purifier.**

The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

#### VERSIONS

##### Flush-mounting and duct-type versions



##### FCZ\_P

— Flush-mounting

##### FCZ\_PPC

— Flush-mounting with Cold Plasma purifier

##### FCZ\_PO

— Flush-mounting, duct-type

— With useful head.

#### GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field | Description |
|-------|-------------|
| 1,2,3 | FCZ         |

| Field | Description   |
|-------|---|
| 4,5,6 | Size<br>100, 101, 102, 150, 200, 201, 202, 250, 300, 301, 302, 350, 400, 401, 402, 450, 500, 501, 502, 550, 600, 601, 602, 650, 700, 701, 702, 750, 800, 801, 802, 850, 900, 901, 950, 1000, 1001 |
|       | 7 main heat exchanger   |
| 8     | Secondary heat exchanger  |

| Field | Description   |
|-------|---|
| 9     | Version   |
| P     | Flush-mounting  |
| PO    | Flush-mounting, with boosted motor  |
| POR   | Flush-mounting, with boosted motor, with water connections on right-hand side |
| PPC   | Flush-mounting with Cold Plasma purifier                                      |
| PR    | Flush-mounting with water connections on right-hand side                      |

## SIZE AVAILABLE FOR VERSION

| Size                         | 100    | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|                              | PO,POR | -   | -   | -   | -   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|                              | PPC    | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | -   | -   | *   |

| Size                         | 600    | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Versions produced (by size)  |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |
| Versions available (by size) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|                              | PO,POR | *   | *   | *   | *   | *   | *   | *   | -   | -   | -   | -   | *   | *   | *   | -    | -    |
|                              | PPC    | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | -   | *   | *   | -   | *    | -    |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**PXAI:** Thermostat on the machine for controlling the fan coils (both with asynchronous and brushless motors), complete with water and air probes to be positioned in the relative seats, and a plastic support to fix it on the side of the unit. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, purifier devices (Cold Plasma and germicidal lamp), or radiant plate.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

## Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

## (Heating only) additional coil

**BV:** Hot water heat exchanger with 1 row.

**RX:** Armoured electric coil with safety thermostat.

**PCR:** Galvanised plate protection for the controls and the electrical element.

## Installation accessories

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**BC:** Condensate drip.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

**MZA:** Cabinet housing with fixed fins.

**MZU:** Cabinet housing with adjustable fins.

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**GM:** Flow grid with adjustable louvers.

**PA:** Intake plenum in galvanised sheet metal, complete with suction couplings for circular-section ducts.

**PAF:** Intake plenum providing recovery and delivery on the same side, for all installations where the machine needs to be positioned outside the air conditioned rooms to minimise the noise levels and facilitate maintenance.

**PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.

**RD:** Straight delivery coupling for canalisation.

**RDA:** Straight suction coupling for canalisation.

**RP:** 90° delivery coupling.

**RPA:** 90° suction coupling.

## Accessories for ducting

**MZC:** Plenum with motorised dampers.

**RDA\_V:** Straight intake connection with rectangular flange.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDA\_C:** Straight intake connection with circular flanges.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

**RDM\_C:** Straight discharge internally insulated, with circular flanges.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|--------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| PRO503       | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| PXAI         | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| SAS (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| SW3 (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| SW5 (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| TX (3)       | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| WMT10 (3)    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| WMT16 (3)    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |
| WMT16CV (3)  | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PO,POR |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | PPC    | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |



| Model        | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|--------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| AERS03IR (1) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| PRO503       | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| PXAI         | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| SAS (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| SW3 (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| SW5 (2)      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| TX (3)       | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| WMT10 (3)    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| WMT16 (3)    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| WMT16CV (3)  | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|              | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

## VMF system

For more information about VMF system, refer to the dedicated documentation.

### VMF system

| Model       | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24        | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19 (1) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X     | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1     | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMHI        | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

| Model       | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| DI24        | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-E19 (1) | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-E3      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-E4DX    | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-E4X     | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-IR      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-SW      | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMF-SW1     | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
| VMHI        | P,PR   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |
|             | PPC    | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

## Water valves

### 3 way valve kit

|                      | 100     | 101     | 102     | 150     | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ41   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   |
|                      | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4124 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       |
|                      | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       |
| Additional coil “BV” | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 500     | 501     | 502     | 550     | 600     | 601     | 602     | 650     | 700     | 701     | 702     | 750     | 800     | 801     | 802     | 850     |
| Main coil            | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   | VCZ42   |
|                      | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 | VCZ4224 |
| Secondary coil       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       | -       | VCF44   | VCF44   | -       |
|                      | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       | -       | VCF4424 | VCF4424 | -       |
| Additional coil “BV” | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       | VCF44   | -       | -       | -       |
|                      | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       | VCF4424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 900     | 901     | 950     | 1000    | 1001    |         |         |         |         |         |         |         |         |         |         |         |
| Main coil            | VCZ43   | VCZ43   | VCZ43   | VCZ43   | VCZ43   |         |         |         |         |         |         |         |         |         |         |         |
|                      | VCZ4324 | VCZ4324 | VCZ4324 | VCZ4324 | VCZ4324 |         |         |         |         |         |         |         |         |         |         |         |
| Secondary coil       | -       | VCF45   | -       | -       | VCF45   |         |         |         |         |         |         |         |         |         |         |         |
|                      | -       | VCF4524 | -       | -       | VCF4524 |         |         |         |         |         |         |         |         |         |         |         |
| Additional coil “BV” | VCF45   | -       | -       | VCF45   | -       |         |         |         |         |         |         |         |         |         |         |         |
|                      | VCF4524 | -       | -       | VCF4524 | -       |         |         |         |         |         |         |         |         |         |         |         |

## 2 way valve kit

|                      | 100     | 101     | 102     | 150     | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|                      | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       |
|                      | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       |
| Additional coil "BV" | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 500     | 501     | 502     | 550     | 600     | 601     | 602     | 650     | 700     | 701     | 702     | 750     | 800     | 801     | 802     | 850     |
| Main coil            | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|                      | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       |
|                      | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       | -       | VCFD424 | VCFD424 | -       |
| Additional coil "BV" | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       | VCFD4   | -       | -       | -       |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 900     | 901     | 950     | 1000    | 1001    |         |         |         |         |         |         |         |         |         |         |         |
| Main coil            | VCZD3   | VCZD3   | VCZD3   | VCZD3   | VCZD3   |         |         |         |         |         |         |         |         |         |         |         |
|                      | VCZD324 | VCZD324 | VCZD324 | VCZD324 | VCZD324 |         |         |         |         |         |         |         |         |         |         |         |
| Secondary coil       | -       | VCFD4   | -       | -       | VCFD4   |         |         |         |         |         |         |         |         |         |         |         |
|                      | -       | VCFD424 | -       | -       | VCFD424 |         |         |         |         |         |         |         |         |         |         |         |
| Additional coil "BV" | VCFD4   | -       | -       | VCFD4   | -       |         |         |         |         |         |         |         |         |         |         |         |
|                      | VCFD424 | -       | -       | VCFD424 | -       |         |         |         |         |         |         |         |         |         |         |         |

## Valve Kit for 4 pipe systems - Requires a thermostat with valve management

| Model       | Ver             | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ1X4L (1) | P,PPC,PR        | •   |     |     | •   | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |     |
|             | PO,POR          |     |     |     |     | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |     |
| VCZ1X4R (1) | P,PPC,PR        | •   |     |     | •   | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |     |
|             | PO,POR          |     |     |     |     | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |     |
| VCZ2X4L (1) | P,PO,POR,PPC,PR |     |     |     |     |     |     |     |     | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |
| VCZ2X4R (1) | P,PO,POR,PPC,PR |     |     |     |     |     |     |     |     | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |

| Model       | Ver      | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| VCZ2X4L (1) | P,PPC,PR | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |     |     |     |      |      |
|             | PO,POR   | •   |     |     | •   | •   |     |     | •   |     |     |     |     |     |     |     |      |      |
| VCZ2X4R (1) | P,PPC,PR | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |     |     |     |      |      |
|             | PO,POR   | •   |     |     | •   | •   |     |     | •   |     |     |     |     |     |     |     |      |      |
| VCZ3X4L (1) | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | •   |     | •   | •    |      |
|             | PO,POR   |     |     |     |     |     |     |     |     |     |     |     |     | •   |     | •   |      |      |
| VCZ3X4R (1) | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | •   |     | •   | •    |      |
|             | PO,POR   |     |     |     |     |     |     |     |     |     |     |     |     | •   |     | •   |      |      |

(1) The valves can be combined with the units if there is a control panel for managing them.

## Combined Adjustment and Balancing Valve Kit

| Model       | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| VJP060 (1)  | P,PR        | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |      |      |     |     |     |
|             | PO,POR      |     |     |     |     | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |      |      |     |     |     |
|             | PPC         | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |     |     |     |      |      |     |     |     |
| VJP060M (2) | P,PR        | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |      |      |     |     |     |
|             | PO,POR      |     |     |     |     | •   | •   | •   | •   | •   | •   | •   | •   |     |     |     |      |      |     |     |     |
|             | PPC         | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   |     |     |     |      |      |     |     |     |
| VJP090 (1)  | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | •   | •   | •   | •    | •    | •   | •   | •   |
|             | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | •   |     |     | •    | •    |     |     | •   |
| VJP090M (2) | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | •   | •   | •   | •    | •    | •   | •   | •   |
|             | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | •   |     |     | •    | •    |     |     | •   |
| Model       | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| VJP090 (1)  | P,PO,POR,PR | •   | •   | •   | •   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|             | PPC         | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| VJP090M (2) | P,PO,POR,PR | •   | •   | •   | •   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|             | PPC         | •   |     |     | •   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| VJP150 (1)  | P,PR        | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •   | •   |     |
|             | PO,POR      | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •   | •   |     |
|             | PPC         | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   | •   |     | •   | •    |      | •   | •   |     |
| VJP150M (2) | P,PR        | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •   | •   |     |
|             | PO,POR      | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •   | •    | •    | •   | •   |     |
|             | PPC         | •   |     |     | •   | •   |     |     | •   | •   |     |     | •   | •   |     | •   | •    |      | •   | •   |     |

(1) 230V~50Hz

(2) 24V

**(Heating only) additional coil****Electric coil - Requires a thermostat with heater management. Not available for sizes with an oversized main coil.**

| Model      | Ver             | 100 | 101 | 102 | 150 | 200 | 201  | 202 | 250 | 300 | 301 | 302  | 350 | 400 | 401 | 402 | 450 | 500 |
|------------|-----------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| RX17 (1)   | P,PR            | .   |     |     |     |     |      |     |     |     |     |      |     |     |     |     |     |     |
| RX22 (1)   | P,PO,POR,PR     |     |     |     |     | .   |      |     |     |     |     |      |     |     |     |     |     |     |
| RX32 (1)   | P,PO,POR,PPC,PR |     |     |     |     |     |      |     |     | .   |     |      |     |     |     |     |     |     |
| RX42 (1)   | P,PO,POR,PPC,PR |     |     |     |     |     |      |     |     |     |     |      |     | .   |     |     |     |     |
| RX52 (1)   | P,PO,POR,PPC,PR |     |     |     |     |     |      |     |     |     |     |      |     |     |     |     |     | .   |
| Model      | Ver             | 501 | 502 | 550 | 600 | 601 | 602  | 650 | 700 | 701 | 702 | 750  | 800 | 801 | 802 | 850 | 900 | 901 |
| RX62 (1)   | P,PO,POR,PPC,PR |     |     |     |     |     |      |     |     |     |     |      |     |     |     |     | .   |     |
| RXZ800 (1) | P,PPC,PR        |     |     |     | .   |     |      |     | .   |     |     |      | .   |     |     |     |     |     |
|            | PO,POR          |     |     |     | .   |     |      |     | .   |     |     |      |     |     |     |     |     |     |
| Model      | Ver             | 950 |     |     |     |     | 1000 |     |     |     |     | 1001 |     |     |     |     |     |     |
| RX62 (1)   | P,PR            |     |     |     |     |     |      |     |     | .   |     |      |     |     |     |     |     |     |

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 PCR2 or PCR1V appliance must also be provided depending on the unit.

**Heating only additional coil**

| Reading only additional con. |                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|------------------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| Model                        | Ver             | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
| BV117 (1)                    | PPR             | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| BV122 (1)                    | P,PO,POR,PR     |     |     |     |     | .   |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| BV132 (1)                    | P,PO,POR,PPC,PR |     |     |     |     |     |     |     |     | .   |     |     |     |     |     |     |      |      |     |     |     |
| BV142 (1)                    | P,PO,POR,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     |      | .    |     |     |     |
| Model                        | Ver             | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| BV162 (1)                    | PPR             |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    |      |     |     |     |
|                              | PO,POR,PPC      |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     |      |      |     |     |     |
| BVZ800 (1)                   | P,PPC,PR        | .   |     |     |     | .   |     |     |     | .   |     |     |     |     |     |     |      |      |     |     |     |
|                              | PO,POR          | .   |     |     |     | .   |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |

(1) Not available for sizes with oversized main coil.

**Galvanised plate protection for the controls and the electrical element.**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201  | 202 | 250 | 300 | 301 | 302  | 350 | 400 | 401 | 402 | 450 | 500 |
|-------|-------------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| PCR1  | P,PO,POR,PR | .   |     |     |     | .   |      |     |     | .   |     |      |     | .   |     |     |     | .   |
| Model | Ver         | 501 | 502 | 550 | 600 | 601 | 602  | 650 | 700 | 701 | 702 | 750  | 800 | 801 | 802 | 850 | 900 | 901 |
| PCR1  | P,PO,POR,PR |     |     |     | .   |     |      |     | .   |     |     |      | .   |     |     |     |     |     |
| PCR2  | P,PO,POR,PR |     |     |     |     |     |      |     |     |     |     |      |     |     |     |     | .   |     |
| Model | Ver         | 950 |     |     |     |     | 1000 |     |     |     |     | 1001 |     |     |     |     |     |     |
| PCR2  | P,PO,POR,PR |     |     |     |     |     |      |     |     | .   |     |      |     |     |     |     |     |     |

**Installation accessories****Wall mounting kit**

| Main mounting kit |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|-------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| Model             | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
| AMP20             | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                   | PO,POR |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                   | PPC    | .   |     |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     |      | .    | .   |     | .   |
|                   |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| Model             | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| AMPZ              | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                   | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                   | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    | .    |     |     |     |

**Condensate drip**

| Condensate drip |        |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|-----------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| Model           | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
| BCZ4 (1)        | PPR    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                 | PO,POR |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                 | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     |     | .    | .    |     |     | .   |
| BCZ5 (2)        | P      |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                 | PO,POR |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|                 | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     |     | .    | .    |     |     | .   |
|                 | PR     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
| Model           | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| BCZ4 (1)        | PPR    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                 | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                 | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    | .    |     |     |     |
| BCZ5 (2)        | PPR    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                 | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |     |     |     |
|                 | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    | .    |     |     |     |
| BCZ6 (2)        | PPR    |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    |     |     |     |
|                 | PO,POR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    |     |     |     |
|                 | PPC    |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    |     |     |     |

(1) For vertical installation.

(2) For horizontal installation.

| Model   | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|---------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| BC8 (1) | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|         | PO,POR |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|         | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     |     | .    | .    |     |     | .   |
| Model   | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| BC8 (1) | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|         | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|         | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     |     | .   |     |     |      |      |     |     |     |
| BC9 (1) | P,PR   |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .    | .    | .   | .   | .   |
|         | PO,POR |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .    | .    | .   | .   | .   |
|         | PPC    |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .    | .    | .   | .   | .   |

(1) For horizontal installation.

#### Condensate recirculation device

| Model     | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-----------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| DSCZ4 (1) | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|           | PO,POR |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|           | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     |     | .    | .    |     |     | .   |
| Model     | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| DSCZ4 (1) | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|           | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|           | PPC    | .   |     |     | .   | .   |     |     | .   | .   |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

#### Ventilcassaforma

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| CHF17 | P,PR        | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| CHF22 | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| CHF32 | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| CHF42 | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     | .   | .    | .    | .   | .   | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| CHF62 | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |

#### Cabinet housing with fixed fins.

| Model  | Ver      | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| MZA100 | P,PPC,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| MZA200 | P,PPC,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| MZA300 | P,PPC,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
| MZA500 | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
| Model  | Ver      | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| MZA800 | P,PPC,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
| MZA900 | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |

#### Cabinet housing with adjustable fins.

| Model  | Ver      | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| MZU100 | P,PPC,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| MZU200 | P,PPC,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| MZU300 | P,PPC,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
| MZU500 | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
| Model  | Ver      | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| MZU800 | P,PPC,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
| MZU900 | P,PPC,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |

### Wall mounting and duct type installation accessories

#### Lower intake grille

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GA17  | P,PR        | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|       | PPC         | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GA22  | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |     |
| GA32  | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |     |
| GA42  | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     | .   | .   | .   | .   | .   | .   |

| Model | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| GA62  | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PPC    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |

**Intake grilles with fixed louvers and filter**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GAF17 | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GAF22 | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GAF32 | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GAF42 | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

| Model | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| GAF62 | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PPC    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |

**Delivery grilles with adjustable louvers**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GM17  | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GM22  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GM32  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| GM42  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

| Model | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| GM62  | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PPC    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |

**Intake plenum in sheet metal complete with connectors for circular channels**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PA17  | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA22  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA32  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA42  | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

| Model | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| PA62  | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PPC    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |

**Intake plenum providing recovery and delivery on the same side**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PA17F | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA22F | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA32F | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| PA42F | P,PO,POR,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|       | PPC         | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

| Model | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |
|-------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| PA62F | P,PR   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PO,POR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |
|       | PPC    | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    |

**Delivery plenum with circular flanges.**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| PM17  | P,PR        | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| PM22  | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| PM32  | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| PM42  | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    | .    |     |     | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| PM62  | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    |      |     |     |     |

**Straight delivery coupling**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RD17  | P,PR        | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| RD22  | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| RD32  | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| RD42  | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    | .    |     |     | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RD62  | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    |      |     |     |     |

**Straight suction coupling**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RDA22 | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| RDA32 | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| RDA42 | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    | .    |     |     | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RDA62 | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    |      |     |     |     |

**90° delivery coupling.**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RP17  | P,PR        | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         | .   |     |     | .   |     |     |     |     |     |     |     |     |     |     |     |      |      |     |     |     |
| RP22  | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| RP32  | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| RP42  | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    | .    |     |     | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RP62  | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    |      |     |     |     |

**90° suction coupling.**

| Model | Ver         | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|-------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RPA22 | P,PO,POR,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     | .   |     |     | .   |     |     |     |     |     |     |     |      |      |     |     |     |
| RPA32 | P,PO,POR,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   |     |     |     |      |      |     |     |     |
|       | PPC         |     |     |     |     |     |     |     |     | .   |     |     | .   |     |     |     |      |      |     |     |     |
| RPA42 | P,PO,POR,PR |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PPC         |     |     |     |     |     |     |     |     |     |     |     |     | .   |     |     | .    | .    |     |     | .   |
| Model | Ver         | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RPA62 | P,PR        | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .    | .    | .   | .   | .   |
|       | PO,POR      | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     | .   | .   | .   |      |      |     |     |     |
|       | PPC         | .   |     |     | .   | .   |     |     | .   | .   |     |     | .   | .   |     | .   | .    |      |     |     |     |

## Accessories for ducting

## Plenum with motorised dampers.

| Model  | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| MZC220 | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| MZC320 | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| MZC530 | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model  | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| MZC830 | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    |     |     |     |

## Straight intake connection with rectangular flange.

| Model   | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|---------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RDA000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| RDA100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| RDA200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model   | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RDA300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Intake plenum with rectangular flange.

| Model   | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|---------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RPA000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| RPA100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| RPA200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model   | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RPA300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Suction plenum with plastic circular flanges.

| Model  | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| PA000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| PA100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| PA200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model  | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| PA300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Internally insulated delivery plenum with circular flanges.

| Model  | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| PM000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| PM100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| PM200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model  | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| PM300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Internally insulated delivery plenum with rectangular flange.

| Model   | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|---------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RPM000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| RPM100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| RPM200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model   | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RPM300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Straight delivery coupling in galvanised sheet metal.

| Model   | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|---------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RDM000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| RDM100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| RDM200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model   | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RDM300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |

## Straight discharge internally insulated, with circular flanges.

| Model    | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|----------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| RDMC000V | PQ,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| RDMC100V | PQ,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| RDMC200V | PQ,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model    | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| RDMC300V | PQ,POR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     | *   | *   | *   |      |      |     |     |     |



## PERFORMANCE DATA FOR UNITS WITHOUT HEAD (EUROVENT CERTIFICATE FC-H)

### 2-pipe

|  | FCZ100P |   |   | FCZ150P |   |   | FCZ200P |   |   | FCZ250P |   |   | FCZ300P |   |   | FCZ350P |   |   | FCZ400P |   |   | FCZ450P |   |   | FCZ500P |   |   | FCZ550P |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,45 | 2,00 | 2,40 | 1,55 | 2,19 | 2,65 | 2,02 | 2,95 | 3,70 | 2,20 | 3,18 | 4,05 | 3,47 | 4,46 | 5,50 | 3,77 | 4,92 | 6,15 | 4,32 | 5,74 | 7,15 | 4,57 | 6,29 | 7,82 | 5,27 | 7,31 | 8,50 | 5,82 | 8,34 | 9,75 |
| Water flow rate system side | l/h | 125  | 172  | 206  | 136  | 192  | 232  | 177  | 258  | 324  | 193  | 278  | 355  | 304  | 391  | 482  | 330  | 431  | 539  | 379  | 503  | 627  | 400  | 551  | 685  | 462  | 641  | 745  | 510  | 731  | 855  |
| Pressure drop system side   | kPa | 4    | 7    | 9    | 5    | 9    | 12   | 6    | 12   | 18   | 7    | 15   | 23   | 7    | 12   | 18   | 8    | 14   | 20   | 9    | 16   | 24   | 6    | 11   | 16   | 12   | 21   | 28   | 10   | 20   | 26   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,72 | 0,99 | 1,19 | 0,77 | 1,09 | 1,31 | 1,00 | 1,46 | 1,84 | 1,09 | 1,58 | 2,01 | 1,72 | 2,21 | 2,73 | 1,87 | 2,44 | 3,06 | 2,14 | 2,85 | 3,55 | 2,27 | 3,12 | 3,88 | 2,62 | 3,63 | 4,22 | 2,89 | 4,14 | 4,85 |
| Water flow rate system side | l/h | 126  | 173  | 207  | 134  | 189  | 229  | 174  | 254  | 319  | 190  | 274  | 350  | 299  | 385  | 475  | 325  | 425  | 531  | 373  | 495  | 617  | 394  | 543  | 675  | 455  | 631  | 734  | 502  | 720  | 842  |
| Pressure drop system side   | kPa | 4    | 7    | 10   | 5    | 9    | 12   | 6    | 12   | 18   | 8    | 15   | 22   | 8    | 12   | 18   | 8    | 14   | 20   | 10   | 16   | 24   | 6    | 11   | 16   | 12   | 21   | 28   | 10   | 20   | 26   |

#### Fan

|                   |      |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |
|-------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|
| Type              | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     |
| Fan motor         | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     |
| Number            | no.  | 1            |     |     | 1            |     |     | 1            |     |     | 1            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 2            |     |     |
| Air flow rate     | m³/h | 110          | 160 | 200 | 110          | 160 | 200 | 140          | 220 | 290 | 140          | 220 | 290 | 260          | 350 | 450 | 260          | 350 | 450 | 330          | 460 | 600 | 330          | 460 | 600 | 400          | 600 | 720 | 400          | 600 | 720 |
| Input power       | W    | 19           | 29  | 35  | 19           | 29  | 35  | 25           | 29  | 33  | 25           | 29  | 33  | 25           | 33  | 44  | 25           | 33  | 44  | 30           | 43  | 57  | 30           | 43  | 57  | 38           | 52  | 76  | 38           | 52  | 76  |
| Electrical wiring |      | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3  |

#### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 31,0 | 38,0 | 45,0 | 31,0 | 38,0 | 45,0 | 35,0 | 46,0 | 51,0 | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 37,0 | 44,0 | 51,0 | 42,0 | 51,0 | 56,0 | 42,0 | 51,0 | 56,0 |
| Sound pressure level | dB(A) | 23,0 | 30,0 | 37,0 | 23,0 | 30,0 | 37,0 | 27,0 | 38,0 | 43,0 | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 29,0 | 36,0 | 43,0 | 34,0 | 43,0 | 48,0 | 34,0 | 43,0 | 48,0 |

#### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,4 |  |  | 0,5 |  |  | 0,5 |  |  | 0,7 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  | 1,4 |  |  | 1,0 |  |  | 1,4 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

#### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

|  | FCZ600P |   |   | FCZ650P |   |   | FCZ700P |   |   | FCZ750P |   |   | FCZ800P |   |   | FCZ850P |   |   | FCZ900P |   |   | FCZ950P |   |   | FCZ1000P |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|----------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1        | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L        | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |       |      |      |       |      |      |       |      |       |       |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|-------|------|------|-------|------|------|-------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 6,50 | 8,10 | 10,00 | 7,19 | 9,15 | 11,50 | 8,10 | 9,80 | 11,00 | 9,10 | 11,30 | 12,50 | 9,80 | 10,80 | 12,00 | 11,30 | 12,35 | 14,00 | 10,77 | 13,35 | 15,14 | 11,20 | 14,42 | 17,10 | 12,53 | 15,24 | 17,02 |
| Water flow rate system side | l/h | 570  | 710  | 877   | 631  | 802  | 1008  | 710  | 860  | 964   | 798  | 991   | 1096  | 859  | 947   | 1052  | 991   | 1083  | 1227  | 945   | 1171  | 1328  | 982   | 1264  | 1500  | 1101  | 1337  | 1493  |
| Pressure drop system side   | kPa | 12   | 18   | 26    | 14   | 21   | 31    | 17   | 24   | 29    | 10   | 15    | 18    | 22   | 27    | 32    | 17    | 20    | 25    | 12    | 17    | 22    | 16    | 24    | 33    | 22    | 32    | 38    |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 3,32 | 4,03 | 4,97 | 3,57 | 4,55 | 5,72 | 4,03 | 4,87 | 5,47 | 4,52 | 5,62 | 6,21 | 4,87 | 5,37 | 5,97 | 5,62 | 6,14 | 6,96 | 5,35 | 6,64 | 7,53 | 5,57 | 7,17 | 8,50 | 6,24 | 7,58 | 8,46 |
| Water flow rate system side | l/h | 561  | 699  | 863  | 621  | 790  | 993  | 699  | 846  | 950  | 786  | 975  | 1079 | 846  | 932  | 1036 | 975  | 1066 | 1209 | 930  | 1152 | 1307 | 967  | 1245 | 1476 | 1084 | 1316 | 1469 |
| Pressure drop system side   | kPa | 12   | 18   | 26   | 14   | 20   | 31   | 16   | 24   | 29   | 10   | 14   | 18   | 22   | 26   | 32   | 17   | 20   | 25   | 12   | 17   | 22   | 15   | 24   | 33   | 22   | 31   | 38   |

#### Fan

|                   |      |              |     |     |              |     |     |              |     |      |              |     |      |              |      |      |              |      |      |              |     |      |              |     |      |     |      |      |
|-------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|------|--------------|-----|------|--------------|------|------|--------------|------|------|--------------|-----|------|--------------|-----|------|-----|------|------|
| Type              | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |      | Centrifugal  |     |      | Centrifugal  |      |      | Centrifugal  |      |      | Centrifugal  |     |      | Centrifugal  |     |      |     |      |      |
| Fan motor         | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |      | Asynchronous |     |      | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |     |      | Asynchronous |     |      |     |      |      |
| Number            | no.  | 3            |     |     | 3            |     |     | 3            |     |      | 3            |     |      | 3            |      |      | 3            |      |      | 3            |     |      | 3            |     |      |     |      |      |
| Air flow rate     | m³/h | 520          | 720 | 920 | 520          | 720 | 920 | 700          | 930 | 1140 | 700          | 930 | 1140 | 900          | 1120 | 1300 | 900          | 1120 | 1300 | 700          | 930 | 1140 | 700          | 930 | 1140 | 900 | 1120 | 1300 |
| Input power       | W    | 38           | 60  | 91  | 38           | 60  | 91  | 59           | 80  | 106  | 59           | 80  | 106  | 80           | 100  | 131  | 80           | 100  | 131  | 59           | 80  | 106  | 59           | 80  | 106  | 80  | 100  | 131  |
| Electrical wiring |      | V1           | V2  | V3  | V1           | V2  | V3  | V1           | V2  | V3   | V1           | V2  | V3   | V1           | V2   | V3   | V1           | V2   | V3   | V1           | V2  | V3   | V1           | V2  | V3   | V1  | V2   | V3   |

#### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 42,0 | 51,0 | 57,0 | 42,0 | 51,0 | 57,0 | 50,0 | 57,0 | 62,0 | 50,0 | 57,0 | 62,0 | 56,0 | 61,0 | 66,0 | 56,0 | 61,0 | 66,0 | 51,0 | 57,0 | 62,0 | 51,0 | 57,0 | 62,0 | 56,0 | 61,0 | 66,0 |
| Sound pressure level | dB(A) | 34,0 | 43,0 | 49,0 | 34,0 | 43,0 | 49,0 | 42,0 | 49,0 | 54,0 | 42,0 | 49,0 | 54,0 | 48,0 | 53,0 | 58,0 | 48,0 | 53,0 | 58,0 | 43,0 | 49,0 | 54,0 | 43,0 | 49,0 | 54,0 | 48,0 | 53,0 | 58,0 |

#### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 1,2 |  |  | 1,6 |  |  | 1,2 |  |  | 1,6 |  |  | 1,2 |  |  | 1,6 |  |  | 1,8 |  |  | 2,3 |  |  | 1,8 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

#### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## 4-pipe

|  | FCZ201P |   |   | FCZ301P |   |   | FCZ401P |   |   | FCZ501P |   |   | FCZ601P |   |   | FCZ701P |   |   | FCZ901P |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

## Heating performance 65 °C/55 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,02 | 1,35 | 1,60 | 1,80 | 2,18 | 2,56 | 2,21 | 2,65 | 3,12 | 2,59 | 3,34 | 3,73 | 2,96 | 3,67 | 4,36 | 3,66 | 4,29 | 4,94 | 4,73 | 5,63 | 5,72 |
| Water flow rate system side | l/h | 89   | 118  | 140  | 158  | 191  | 224  | 186  | 232  | 273  | 227  | 293  | 327  | 259  | 321  | 381  | 320  | 375  | 437  | 414  | 492  | 501  |
| Pressure drop system side   | kPa | 4    | 8    | 10   | 16   | 23   | 30   | 4    | 6    | 8    | 6    | 8    | 10   | 8    | 12   | 16   | 11   | 14   | 18   | 8    | 12   | 12   |

## Cooling performance 7 °C/12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,68 | 2,17 | 2,65 | 2,20 | 2,92 | 3,60 | 2,68 | 3,69 | 4,25 | 3,22 | 3,90 | 4,65 | 3,92 | 4,89 | 5,50 | 4,29 | 5,00 | 6,91 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 1,26 | 1,65 | 2,04 | 1,59 | 2,14 | 2,67 | 1,94 | 2,73 | 3,18 | 2,56 | 3,17 | 3,92 | 2,99 | 3,76 | 4,30 | 2,97 | 3,78 | 5,68 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 288  | 374  | 456  | 379  | 503  | 619  | 460  | 634  | 731  | 554  | 671  | 800  | 675  | 841  | 946  | 738  | 860  | 1189 |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 13   | 18   | 10   | 16   | 24   | 13   | 22   | 29   | 14   | 19   | 26   | 16   | 24   | 30   | 10   | 12   | 22   |

## Fan

|                   |                   |              |     |    |              |     |    |              |     |    |              |     |    |              |     |    |              |     |     |              |     |     |
|-------------------|-------------------|--------------|-----|----|--------------|-----|----|--------------|-----|----|--------------|-----|----|--------------|-----|----|--------------|-----|-----|--------------|-----|-----|
| Type              | type              | Centrifugal  |     |    | Centrifugal  |     |    | Centrifugal  |     |    | Centrifugal  |     |    | Centrifugal  |     |    | Centrifugal  |     |     | Centrifugal  |     |     |
| Fan motor         | type              | Asynchronous |     |    | Asynchronous |     |    | Asynchronous |     |    | Asynchronous |     |    | Asynchronous |     |    | Asynchronous |     |     | Asynchronous |     |     |
| Number            | no.               | 1            |     |    | 2            |     |    | 2            |     |    | 2            |     |    | 3            |     |    | 3            |     |     | 3            |     |     |
| Air flow rate     | m <sup>3</sup> /h | 140          | 220 | -  | 260          | 350 | -  | 330          | 460 | -  | 400          | 600 | -  | 520          | 720 | -  | 700          | 930 | -   | 700          | 930 | -   |
| Input power       | W                 | 25           | 29  | 33 | 25           | 33  | 44 | 30           | 43  | 57 | 38           | 52  | 76 | 38           | 60  | 91 | 59           | 80  | 106 | 59           | 80  | 106 |
| Electrical wiring |                   | V1           | V2  | V3 | V1           | V2  | V3 | V1           | V2  | V3 | V1           | V2  | V3 | V1           | V2  | V3 | V1           | V2  | V3  | V1           | V2  | V3  |

## Fan coil sound data (2)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 42,0 | 51,0 | 56,0 | 42,0 | 51,0 | 57,0 | 50,0 | 57,0 | 62,0 | 51,0 | 57,0 | 62,0 |
| Sound pressure level | dB(A) | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 34,0 | 43,0 | 48,0 | 34,0 | 43,0 | 49,0 | 42,0 | 49,0 | 54,0 | 43,0 | 49,0 | 54,0 |

## Finned pack heat exchanger

|  |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|--|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger      | l | 0,5 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  | 1,2 |  |  | 1,2 |  |  | 1,8 |  |  |
| Water content secondary heat exchanger | l | 0,2 |  |  | 0,3 |  |  | 0,3 |  |  | 0,3 |  |  | 0,4 |  |  | 0,4 |  |  | 0,7 |  |  |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## PERFORMANCE DATA FOR UNITS WITH HEAD (EUROVENT CERTIFICATE FCP-H)

### 2-pipe

|  | FCZ200PO |   |   | FCZ250PO |   |   | FCZ300PO |   |   | FCZ350PO |   |   | FCZ400PO |   |   | FCZ450PO |   |   | FCZ500PO |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 2        | 4 | 6 | 2        | 4 | 6 | 1        | 4 | 6 | 1        | 4 | 6 | 1        | 3 | 6 | 1        | 3 | 6 | 1        | 5 | 6 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,11 | 3,00 | 3,32 | 2,29 | 3,24 | 3,60 | 3,50 | 5,03 | 5,45 | 3,80 | 5,59 | 6,10 | 4,49 | 6,02 | 6,74 | 4,79 | 6,62 | 7,40 | 5,27 | 7,22 | 7,59 |
| Water flow rate system side | l/h | 182  | 258  | 285  | 197  | 279  | 310  | 301  | 433  | 469  | 327  | 481  | 524  | 386  | 517  | 580  | 412  | 569  | 637  | 453  | 621  | 652  |
| Pressure drop system side   | kPa | 7    | 12   | 15   | 9    | 16   | 19   | 8    | 15   | 18   | 9    | 18   | 21   | 11   | 18   | 22   | 7    | 12   | 15   | 12   | 21   | 23   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,05 | 1,49 | 1,65 | 1,14 | 1,61 | 1,79 | 1,74 | 2,50 | 2,71 | 1,89 | 2,78 | 3,03 | 2,23 | 2,99 | 3,35 | 2,38 | 3,29 | 3,68 | 2,62 | 3,59 | 3,77 |
| Water flow rate system side | l/h | 160  | 224  | 248  | 196  | 277  | 308  | 299  | 430  | 466  | 325  | 478  | 521  | 383  | 514  | 576  | 409  | 566  | 633  | 451  | 617  | 648  |
| Pressure drop system side   | kPa | 7    | 12   | 15   | 9    | 16   | 19   | 8    | 15   | 18   | 9    | 18   | 21   | 11   | 18   | 22   | 7    | 12   | 15   | 12   | 21   | 23   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,93 | 1,30 | 1,44 | 1,11 | 1,59 | 1,74 | 1,70 | 2,40 | 2,63 | 1,91 | 2,77 | 3,00 | 2,29 | 3,06 | 3,41 | 2,51 | 3,37 | 3,79 | 2,68 | 3,65 | 3,82 |
| Sensible cooling capacity   | kW  | 0,74 | 1,14 | 1,18 | 0,83 | 1,23 | 1,36 | 1,27 | 1,86 | 2,03 | 1,34 | 1,99 | 2,16 | 1,66 | 2,24 | 2,52 | 1,76 | 2,42 | 2,73 | 1,94 | 2,70 | 2,83 |
| Water flow rate system side | l/h | 160  | 224  | 248  | 191  | 273  | 299  | 292  | 413  | 452  | 328  | 476  | 516  | 394  | 526  | 586  | 432  | 580  | 652  | 461  | 628  | 657  |
| Pressure drop system side   | kPa | 8    | 13   | 15   | 9    | 18   | 21   | 8    | 16   | 18   | 11   | 22   | 25   | 11   | 18   | 22   | 11   | 16   | 20   | 13   | 22   | 24   |

#### Fan

|                      |      |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |
|----------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|
| Type                 | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     |
| Fan motor            | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     |
| Number               | no.  | 1            |     |     | 1            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 2            |     |     |
| Air flow rate        | m³/h | 148          | 226 | 254 | 148          | 226 | 254 | 263          | 404 | 446 | 263          | 404 | 446 | 346          | 487 | 559 | 346          | 487 | 559 | 400          | 592 | 627 |
| High static pressure | Pa   | 21           | 50  | 63  | 21           | 50  | 63  | 21           | 50  | 61  | 21           | 50  | 61  | 25           | -   | 66  | 25           | -   | 66  | 22           | 50  | 56  |
| Input power          | W    | 28           | 41  | 74  | 28           | 41  | 74  | 38           | 55  | 78  | 38           | 55  | 78  | 53           | 63  | 102 | 53           | 63  | 102 | 49           | 80  | 627 |
| Electrical wiring    |      | V2           | V4  | V6  | V2           | V4  | V6  | V1           | V4  | V6  | V1           | V4  | V6  | V1           | V3  | V6  | V1           | V3  | V6  | V1           | V5  | V6  |

#### Duct type fan coil sound data (3)

|                                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level (inlet + radiated) | dB(A) | 41,0 | 56,0 | 59,0 | 41,0 | 56,0 | 59,0 | 39,0 | 51,0 | 54,0 | 39,0 | 51,0 | 54,0 | 44,0 | 54,0 | 55,0 | 44,0 | 54,0 | 55,0 | 45,0 | 55,0 | 57,0 |
| Sound power level (outlet)           | dB(A) | 37,0 | 52,0 | 55,0 | 37,0 | 52,0 | 55,0 | 35,0 | 47,0 | 49,0 | 35,0 | 47,0 | 49,0 | 40,0 | 50,0 | 52,0 | 40,0 | 50,0 | 52,0 | 41,0 | 51,0 | 53,0 |

#### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,5 |  |  | 0,7 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  | 1,4 |  |  | 1,0 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

#### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

|  | FCZ550PO |   |   | FCZ600PO |   |   | FCZ650PO |   |   | FCZ700PO |   |   | FCZ750PO |   |   | FCZ900PO |   |   | FCZ950PO |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 5 | 6 | 1        | 4 | 7 | 1        | 4 | 7 | 2        | 5 | 7 | 2        | 5 | 7 | 2        | 5 | 7 | 2        | 5 | 7 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |       |      |      |       |      |       |       |       |       |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|------|------|------|-------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 5,81 | 8,25 | 8,67 | 6,86 | 8,55 | 10,00 | 7,63 | 9,72 | 11,51 | 8,77 | 10,10 | 10,52 | 10,02 | 11,65 | 12,09 | 11,81 | 13,80 | 14,45 | 12,43 | 15,07 | 16,00 |
| Water flow rate system side | l/h | 500  | 709  | 746  | 590  | 735  | 860   | 656  | 836  | 990   | 754  | 868   | 905   | 862   | 1002  | 1040  | 1016  | 1187  | 1242  | 1069  | 1296  | 1375  |
| Pressure drop system side   | kPa | 10   | 19   | 21   | 12   | 20   | 26    | 15   | 23   | 31    | 19   | 25    | 27    | 12    | 15    | 16    | 14    | 18    | 20    | 19    | 26    | 29    |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 2,89 | 4,10 | 4,31 | 3,41 | 4,25 | 4,97 | 3,79 | 4,83 | 5,72 | 4,36 | 5,02 | 5,23 | 4,98 | 5,79 | 6,01 | 5,87 | 6,86 | 7,18 | 6,18 | 7,49 | 7,95 |
| Water flow rate system side | l/h | 497  | 705  | 741  | 586  | 731  | 855  | 652  | 831  | 984  | 750  | 863  | 899  | 856  | 996  | 1034 | 1009 | 1180 | 1235 | 1063 | 1288 | 1367 |
| Pressure drop system side   | kPa | 10   | 19   | 21   | 13   | 20   | 26   | 15   | 23   | 31   | 19   | 25   | 27   | 12   | 15   | 16   | 14   | 18   | 20   | 19   | 26   | 29   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 2,91 | 4,08 | 4,28 | 3,37 | 4,08 | 4,65 | 4,15 | 5,02 | 5,67 | 4,24 | 4,97 | 5,18 | 4,69 | 5,53 | 5,80 | 4,38 | 5,33 | 5,95 | 6,35 | 7,62 | 8,07 |
| Sensible cooling capacity   | kW  | 2,07 | 2,94 | 3,09 | 2,70 | 3,34 | 3,92 | 2,93 | 3,60 | 4,12 | 3,24 | 3,83 | 4,02 | 3,53 | 4,20 | 4,41 | 3,11 | 4,11 | 4,73 | 4,20 | 5,08 | 5,40 |
| Water flow rate system side | l/h | 500  | 702  | 736  | 580  | 702  | 800  | 715  | 863  | 975  | 731  | 855  | 892  | 807  | 951  | 997  | 753  | 917  | 1023 | 1092 | 1310 | 1388 |
| Pressure drop system side   | kPa | 12   | 21   | 23   | 15   | 21   | 26   | 16   | 23   | 28   | 20   | 26   | 28   | 12   | 16   | 17   | 10   | 14   | 17   | 18   | 24   | 27   |

#### Fan

|                      |      |              |     |     |              |     |     |              |     |     |              |     |      |              |     |      |              |     |      |              |     |      |
|----------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|------|--------------|-----|------|--------------|-----|------|--------------|-----|------|
| Type                 | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |      | Centrifugal  |     |      | Centrifugal  |     |      | Centrifugal  |     |      |
| Fan motor            | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |      | Asynchronous |     |      | Asynchronous |     |      | Asynchronous |     |      |
| Number               | no.  | 2            |     |     | 3            |     |     | 3            |     |     | 3            |     |      | 3            |     |      | 3            |     |      | 3            |     |      |
| Air flow rate        | m³/h | 400          | 592 | 627 | 567          | 770 | 920 | 567          | 770 | 920 | 785          | 978 | 1050 | 785          | 978 | 1050 | 785          | 978 | 1050 | 785          | 978 | 1050 |
| High static pressure | Pa   | 22           | 50  | 56  | 27           | 50  | 71  | 27           | 50  | 71  | 32           | 50  | 58   | 32           | 50  | 58   | 32           | 50  | 58   | 32           | 50  | 58   |
| Input power          | W    | 49           | 80  | 627 | 66           | 89  | 118 | 66           | 89  | 118 | 92           | 117 | 138  | 92           | 117 | 138  | 92           | 117 | 138  | 92           | 117 | 138  |
| Electrical wiring    |      | V1           | V5  | V6  | V1           | V4  | V7  | V1           | V4  | V7  | V2           | V5  | V7   | V2           | V5  | V7   | V2           | V5  | V7   | V2           | V5  | V7   |

#### Duct type fan coil sound data (3)

|                                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level (inlet + radiated) | dB(A) | 45,0 | 55,0 | 57,0 | 46,0 | 56,0 | 61,0 | 46,0 | 56,0 | 61,0 | 54,0 | 60,0 | 62,0 | 54,0 | 60,0 | 62,0 | 54,0 | 60,0 | 62,0 | 54,0 | 60,0 | 62,0 |
| Sound power level (outlet)           | dB(A) | 41,0 | 51,0 | 53,0 | 44,0 | 54,0 | 60,0 | 44,0 | 54,0 | 60,0 | 52,0 | 59,0 | 61,0 | 52,0 | 59,0 | 61,0 | 52,0 | 59,0 | 61,0 | 52,0 | 59,0 | 61,0 |

#### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 1,4 |  |  | 1,2 |  |  | 1,6 |  |  | 1,2 |  |  | 1,6 |  |  | 1,8 |  |  | 2,3 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

#### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## 4-pipe

|  | FCZ201PO |   |   | FCZ301PO |   |   | FCZ401PO |   |   | FCZ501PO |   |   | FCZ601PO |   |   | FCZ701PO |   |   | FCZ901PO |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 2        | 4 | 6 | 1        | 4 | 6 | 1        | 3 | 6 | 1        | 5 | 6 | 1        | 4 | 7 | 2        | 5 | 7 | 2        | 5 | 7 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

## Heating performance 65 °C / 55 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,06 | 1,37 | 1,48 | 1,82 | 2,39 | 2,55 | 2,19 | 2,75 | 2,99 | 2,59 | 3,30 | 3,34 | 3,13 | 3,85 | 4,35 | 4,13 | 4,40 | 4,60 | 5,16 | 5,71 | 5,77 |
| Water flow rate system side | l/h | 93   | 120  | 130  | 159  | 210  | 223  | 192  | 240  | 262  | 226  | 290  | 301  | 274  | 336  | 381  | 361  | 385  | 403  | 452  | 500  | 504  |
| Pressure drop system side   | kPa | 5    | 8    | 9    | 8    | 12   | 14   | 5    | 7    | 8    | 6    | 9    | 9    | 9    | 13   | 16   | 16   | 15   | 17   | 10   | 12   | 12   |

## Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,93 | 1,30 | 1,44 | 1,70 | 2,40 | 2,63 | 2,29 | 3,06 | 3,41 | 2,68 | 3,65 | 3,82 | 3,37 | 4,08 | 4,65 | 4,24 | 4,97 | 5,18 | 4,38 | 5,33 | 5,95 |
| Sensible cooling capacity   | kW  | 0,74 | 1,14 | 1,18 | 1,27 | 1,86 | 2,03 | 1,66 | 2,24 | 2,52 | 1,94 | 2,70 | 2,83 | 2,70 | 3,34 | 3,92 | 3,24 | 3,83 | 4,02 | 3,11 | 4,11 | 4,73 |
| Water flow rate system side | l/h | 160  | 224  | 248  | 292  | 413  | 452  | 394  | 526  | 586  | 461  | 628  | 657  | 580  | 702  | 800  | 729  | 855  | 28   | 753  | 917  | 1023 |
| Pressure drop system side   | kPa | 8    | 13   | 15   | 8    | 16   | 18   | 11   | 18   | 22   | 13   | 22   | 24   | 15   | 21   | 26   | 20   | 26   | 28   | 10   | 14   | 17   |

## Fan

|                      |      |              |     |     |              |     |     |              |     |     |              |     |     |              |     |     |              |     |      |              |     |      |
|----------------------|------|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|-----|--------------|-----|------|--------------|-----|------|
| Type                 | type | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |     | Centrifugal  |     |      | Centrifugal  |     |      |
| Fan motor            | type | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |     | Asynchronous |     |      | Asynchronous |     |      |
| Number               | no.  | 1            |     |     | 2            |     |     | 2            |     |     | 2            |     |     | 3            |     |     | 3            |     |      | 3            |     |      |
| Air flow rate        | m³/h | 148          | 226 | 254 | 263          | 404 | 446 | 346          | 487 | 559 | 400          | 592 | 627 | 567          | 770 | 920 | 785          | 978 | 1050 | 785          | 978 | 1050 |
| High static pressure | Pa   | 21           | 50  | 63  | 21           | 50  | 61  | 25           | 50  | 66  | 22           | 50  | 56  | 27           | 50  | 71  | 32           | 50  | 58   | 32           | 50  | 58   |
| Input power          | W    | 28           | 41  | 74  | 38           | 55  | 78  | 53           | 63  | 102 | 49           | 80  | 627 | 66           | 89  | 118 | 92           | 117 | 138  | 92           | 117 | 138  |
| Electrical wiring    |      | V2           | V4  | V6  | V1           | V4  | V6  | V1           | V3  | V6  | V1           | V5  | V6  | V1           | V4  | V7  | V2           | V5  | V7   | V2           | V5  | V7   |

## Duct type fan coil sound data (2)

|                                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level (inlet + radiated) | dB(A) | 41,0 | 56,0 | 59,0 | 39,0 | 51,0 | 54,0 | 44,0 | 54,0 | 55,0 | 45,0 | 55,0 | 57,0 | 46,0 | 56,0 | 61,0 | 54,0 | 60,0 | 62,0 | 54,0 | 60,0 | 62,0 |
| Sound power level (outlet)           | dB(A) | 37,0 | 52,0 | 55,0 | 35,0 | 47,0 | 49,0 | 40,0 | 50,0 | 52,0 | 41,0 | 51,0 | 53,0 | 44,0 | 54,0 | 60,0 | 52,0 | 59,0 | 61,0 | 52,0 | 59,0 | 61,0 |

## Finned pack heat exchanger

|  |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|--|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger      | l | 0,5 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  | 1,2 |  |  | 1,2 |  |  | 1,8 |  |  |
| Water content secondary heat exchanger | l | 0,2 |  |  | 0,3 |  |  | 0,3 |  |  | 0,3 |  |  | 0,4 |  |  | 0,4 |  |  | 0,7 |  |  |

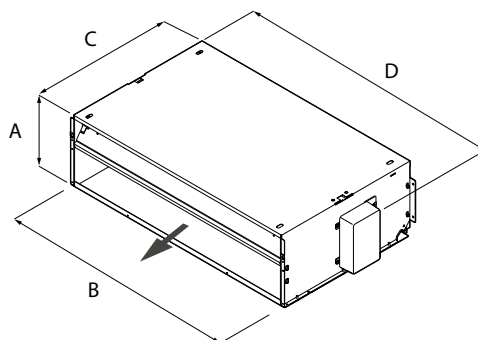
## Diameter hydraulic fittings

|                          |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|--------------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger      | Ø | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
| Secondary heat exchanger | Ø | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | FCZ101P | FCZ102P | FCZ201P | FCZ202P | FCZ301P | FCZ302P | FCZ401P | FCZ402P  | FCZ501P | FCZ502P |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|----------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |          |         |         |
| A                             | mm | 216     | 216     | 216     | 216     | 216     | 216     | 216     | 216      | 216     | 216     |
| B                             | mm | 412     | 412     | 522     | 522     | 753     | 753     | 973     | 973      | 973     | 973     |
| C                             | mm | 453     | 453     | 453     | 453     | 453     | 453     | 453     | 453      | 453     | 453     |
| D                             | mm | 452     | 452     | 562     | 562     | 793     | 793     | 1013    | 1013     | 1013    | 1013    |
| Net weight                    | kg | 12,0    | 13,0    | 13,0    | 14,0    | 15,0    | 16,0    | 21,0    | 22,0     | 23,0    | 24,0    |
|                               |    | FCZ601P | FCZ602P | FCZ701P | FCZ702P | FCZ801P | FCZ802P | FCZ901P | FCZ1001P |         |         |
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |          |         |         |
| A                             | mm | 216     | 216     | 216     | 216     | 216     | 216     | 216     | 216      |         |         |
| B                             | mm | 1122    | 1122    | 1122    | 1122    | 1122    | 1122    | 1122    | 1122     |         |         |
| C                             | mm | 453     | 453     | 453     | 453     | 453     | 453     | 558     | 558      |         |         |
| D                             | mm | 1147    | 1147    | 1147    | 1147    | 1147    | 1147    | 1147    | 1147     |         |         |
| Net weight                    | kg | 30,0    | 31,0    | 30,0    | 31,0    | 30,0    | 31,0    | 32,0    | 32,0     |         |         |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FCZI P

## Fan coil unit for ducted installations

Cooling capacity 0,89 ÷ 8,60 kW  
Heating capacity 2,02 ÷ 17,02 kW

- Electric saving equal to 50% with respect to a fan coil with 3-speed motor
- Suitable for duct-type installations too
- Total comfort: reduced variations in temperature and relative humidity
- Vertical and horizontal installation
- Very quiet



### DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

### FEATURES

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the standard or oversized heat exchanger and the possible secondary heat exchanger have female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**Reversibility of the water connections during installation only for units with a standard or boosted main heat exchanger, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.**

### Condensate drip

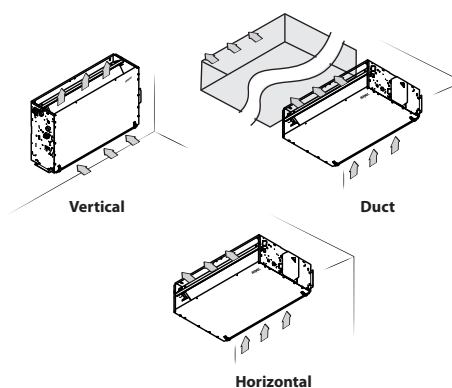
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

### Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

### VERSIONS

#### Flush-mounting and duct-type versions



In the standard configuration there is no useful static pressure available. If necessary for canaled installations, you must act on the engine dip switches, for more details refer to the technical documentation.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field   | Description   |
|---------|---|
| 1,2,3,4 | FCZI  |
| 5,6,7   | Size<br>200, 201, 202, 250, 300, 301, 302, 350, 400, 401, 402, 450, 500, 501, 502, 550, 700, 701, 702, 750, 900, 901, 950 |
| 8       | main heat exchanger   |

## SIZE AVAILABLE FOR VERSION

| Size                         | 200  | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 |
|------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Versions produced (by size)  |      |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | P,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
|                              | 500  | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |     |
| Versions produced (by size)  |      |     |     |     |     |     |     |     |     |     |     |     |
| Versions available (by size) | P,PR | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**PXAI:** Thermostat on the machine for controlling the fan coils (both with asynchronous and brushless motors), complete with water and air probes to be positioned in the relative seats, and a plastic support to fix it on the side of the unit. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, purifier devices (Cold Plasma and germicidal lamp), or radiant plate.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi

| Field | Description  |
|-------|--|
| 9     | Secondary heat exchanger                                 |
| 10    | Version  |
| P     | Flush-mounting   |
| PR    | Flush-mounting with water connections on right-hand side |

connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VCZ\_X:** 3-way valve kit for single-coil fan coil, RH connections, (VCZ\_X4R) or LH (VCZ\_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

**VCZ41:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZ4124:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZ42:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.



**VCZ4224:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZ43:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZ4324:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### (Heating only) additional coil

**BV:** Hot water heat exchanger with 1 row.

### Installation accessories

**AMP:** Wall mounting kit

**DSC:** Condensate drainage device.

**BC:** Condensate drip.

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

**MZA:** Cabinet housing with fixed fins.

**MZU:** Cabinet housing with adjustable fins.

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**GM:** Flow grid with adjustable louvers.

**PA:** Intake plenum in galvanised sheet metal, complete with suction couplings for circular-section ducts.

**PAF:** Intake plenum providing recovery and delivery on the same side, for all installations where the machine needs to be positioned outside the air conditioned rooms to minimise the noise levels and facilitate maintenance.

**PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.

**RD:** Straight delivery coupling for canalisation.

**RDA:** Straight suction coupling for canalisation.

**RP:** 90° delivery coupling.

**RPA:** 90° suction coupling.

### Accessories for ducting

**MZC:** Plenum with motorised dampers.

**RDA\_V:** Straight intake connection with rectangular flange.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDA\_C:** Straight intake connection with circular flanges.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

**RDM\_C:** Straight discharge internally insulated, with circular flanges.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER503IR (1) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PXA1         | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SAS (2)      | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (3)       | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

For more information about VMF system, refer to the dedicated documentation.

### VMF system

| Model        | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24         | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19I (1) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3       | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX     | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X      | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR       | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW       | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1      | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMHI         | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Mandatory accessory.

### Water valves

#### Valve Kit for 4 pipe systems

| Model       | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ1X4L (1) | P,PR | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| VCZ1X4R (1) | P,PR | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| VCZ2X4L (1) | P,PR |     |     |     |     | *   |     |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |     |     |
| VCZ2X4R (1) | P,PR |     |     |     |     | *   |     |     |     | *   | *   |     |     | *   | *   |     |     | *   | *   |     |     | *   |     |     |
| VCZ3X4L (1) | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   |     | *   |



| Model       | Ver | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VCZ3X4R (1) | PPR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   |

(1) The valves can be combined with the units if there is a control panel for managing them.

### 3 way valve kit

|                      | 200              | 201              | 202              | 250     | 300              | 301              | 302              | 350     | 400              | 401              | 402              | 450     |
|----------------------|------------------|------------------|------------------|---------|------------------|------------------|------------------|---------|------------------|------------------|------------------|---------|
| Main coil            | VCZ41            | VCZ41            | VCZ41            | VCZ41   | VCZ42            | VCZ42            | VCZ42            | VCZ42   | VCZ42            | VCZ42            | VCZ42            | VCZ42   |
|                      | VCZ4124          | VCZ4124          | VCZ4124          | VCZ4124 | VCZ4224          | VCZ4224          | VCZ4224          | VCZ4224 | VCZ4224          | VCZ4224          | VCZ4224          | VCZ4224 |
| Secondary coil       | -                | VCF44<br>VCF4424 | VCF44<br>VCF4424 | -       | -                | VCF44<br>VCF4424 | VCF44<br>VCF4424 | -       | -                | VCF44<br>VCF4424 | VCF44<br>VCF4424 | -       |
| Additional coil “BV” | VCF44<br>VCF4424 | -                | -                | -       | VCF44<br>VCF4424 | -                | -                | -       | VCF44<br>VCF4424 | -                | -                | -       |
|                      |                  |                  |                  |         |                  |                  |                  |         |                  |                  |                  |         |
|                      | 500              | 501              | 502              | 550     | 700              | 701              | 702              | 750     | 900              | 901              | 950              |         |
| Main coil            | VCZ42            | VCZ42            | VCZ42            | VCZ42   | VCZ42            | VCZ42            | VCZ42            | VCZ42   | VCZ43            | VCZ43            | VCZ43            |         |
|                      | VCZ4224          | VCZ4224          | VCZ4224          | VCZ4224 | VCZ4224          | VCZ4224          | VCZ4224          | VCZ4224 | VCZ4324          | VCZ4324          | VCZ4324          |         |
| Secondary coil       | -                | VCF44<br>VCF4424 | VCF44<br>VCF4424 | -       | -                | VCF44<br>VCF4424 | VCF44<br>VCF4424 | -       | -                | VCF45<br>VCF4524 | -                |         |
| Additional coil “BV” | VCF44<br>VCF4424 | -                | -                | -       | VCF44<br>VCF4424 | -                | -                | -       | VCF45<br>VCF4524 | -                | -                |         |

VCZ41 - 42 - 43; VCF44 - 45 (230V~50Hz)

VCZ4124 - 4224 - 4324; VCF4424 - 4524 (24V)

### 2 way valve kit

|                      | 200     | 201     | 202     | 250     | 300     | 301     | 302     | 350     | 400     | 401     | 402     | 450     |
|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Main coil            | VCZD1   | VCZD1   | VCZD1   | VCZD1   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   |
|                      | VCZD124 | VCZD124 | VCZD124 | VCZD124 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       |
|                      |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |
| Additional coil “BV” | VCFD4   |         |         |         | VCFD4   |         |         |         | VCFD4   |         |         |         |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       |
|                      |         |         |         |         |         |         |         |         |         |         |         |         |
|                      | 500     | 501     | 502     | 550     | 700     | 701     | 702     | 750     | 900     | 901     | 950     |         |
| Main coil            | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD2   | VCZD3   | VCZD3   | VCZD3   |         |
|                      | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD224 | VCZD324 | VCZD324 | VCZD324 |         |
| Secondary coil       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | VCFD4   | -       | -       | VCFD4   | -       |         |
|                      |         | VCFD424 | VCFD424 |         |         | VCFD424 | VCFD424 |         |         | VCFD424 |         |         |
| Additional coil “BV” | VCFD4   |         |         |         | VCFD4   |         |         |         | VCFD4   |         |         |         |
|                      | VCFD424 | -       | -       | -       | VCFD424 | -       | -       | -       | VCFD424 | -       | -       |         |

VCZD1 - 2 - 3; VCFD4 (230V~50Hz)

VCZD124 - 224 - 324; VCF424 (24V)

### Combined Adjustment and Balancing Valve Kit

| Model       | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP060 (1)  | P,PR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| VJP060M (2) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| VJP090 (1)  | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| VJP090M (2) | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| VJP150 (1)  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| VJP150M (2) | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

(1) 230V~50Hz

(2) 24V

### (Heating only) additional coil

#### Heating only additional coil

| Model      | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BV122 (1)  | P,PR | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BV132 (1)  | P,PR |     |     |     |     | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| BV142 (1)  | P,PR |     |     |     |     |     |     |     |     | *   |     |     |     | *   |     |     |     |     |     |     |     |     |     |     |
| BV162 (1)  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   |     |     |
| BVZ800 (1) | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   |     |     |     |     |     |     |

(1) Not available for sizes with oversized main coil.

### Installation accessories

#### Wall mounting kit

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AMP20 | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| AMPZ  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Condensate drip

| Model    | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BCZ4 (1) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| BCZ5 (2) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

| Model    | Ver | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |  |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| BCZ6 (2) | PPR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   |  |

(1) For vertical installation.  
(2) For horizontal installation.

| Model   | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| BC8 (1) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |
| BC9 (1) | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   |

(1) For horizontal installation.

#### Condensate recirculation device

| Model     | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DSCZ4 (1) | P,PR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

#### Ventilcassaforma

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CHF22 | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CHF32 | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| CHF42 | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| CHF62 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Cabinet housing with fixed fins.

| Model  | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MZA200 | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZA300 | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZA500 | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| MZA800 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |
| MZA900 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   |

#### Cabinet housing with adjustable fins.

| Model  | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MZU100 | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZU300 | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZU500 | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| MZU800 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |
| MZU900 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   |

### Wall mounting and duct type installation accessories

#### Lower intake grille

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GA22  | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GA32  | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GA42  | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| GA62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Intake grilles with fixed louvers and filter

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GAF22 | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GAF32 | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GAF42 | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| GAF62 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Delivery grilles with adjustable louvers

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| GM22  | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GM32  | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| GM42  | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| GM62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Intake plenum in sheet metal complete with connectors for circular channels

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PA22  | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA32  | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA42  | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| PA62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

#### Intake plenum providing recovery and delivery on the same side

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PA22F | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA32F | P,PR |     |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA42F | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| PA62F | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

**Delivery plenum with circular flanges.**

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PM22  | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PM32  | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PM42  | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| PM62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Straight delivery coupling**

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RD22  | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RD32  | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RD42  | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RD62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Straight suction coupling**

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RDA22 | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDA32 | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDA42 | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RDA62 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**90° delivery coupling.**

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RP22  | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RP32  | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RP42  | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RP62  | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**90° suction coupling.**

| Model | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RPA22 | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPA32 | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPA42 | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RPA62 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Accessories for ducting****Plenum with motorised dampers.**

| Model  | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MZC220 | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZC320 | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| MZC530 | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| MZC830 | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Straight intake connection with rectangular flange.**

| Model   | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RDA000V | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDA100V | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDA200V | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RDA300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Intake plenum with rectangular flange.**

| Model   | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RPA000V | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPA100V | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPA200V | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| RPA300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Suction plenum with plastic circular flanges.**

| Model  | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PA000V | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA100V | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PA200V | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| PA300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Internally insulated delivery plenum with circular flanges.**

| Model  | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PM000V | P,PR | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PM100V | P,PR |     |     |     |     | .   | .   | .   | .   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| PM200V | P,PR |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   | .   |     |     |     |     |     |     |     |
| PM300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | .   | .   | .   | .   | .   | .   | .   |

**Internally insulated delivery plenum with rectangular flange.**

| Model   | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RPM000V | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPM100V | P,PR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RPM200V | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| RPM300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

**Straight delivery coupling in galvanised sheet metal.**

| Model   | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|---------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RDM000V | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDM100V | P,PR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDM200V | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| RDM300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

**Straight discharge internally insulated, with circular flanges.**

| Model    | Ver  | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450 | 500 | 501 | 502 | 550 | 700 | 701 | 702 | 750 | 900 | 901 | 950 |
|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RDMC000V | P,PR | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDMC100V | P,PR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| RDMC200V | P,PR |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   | *   |     |     |     |     |     |     |     |
| RDMC300V | P,PR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

## PERFORMANCE DATA FOR UNITS WITHOUT HEAD (EUROVENT CERTIFICATE FC-H)

### 2-pipe

|                                       |       | FCZI200P    |      |      | FCZI250P    |      |      | FCZI300P    |      |       | FCZI350P    |       |       | FCZI400P    |       |       | FCZI450P    |       |       |
|---------------------------------------|-------|-------------|------|------|-------------|------|------|-------------|------|-------|-------------|-------|-------|-------------|-------|-------|-------------|-------|-------|
|                                       |       | 1           | 2    | 3    | 1           | 2    | 3    | 1           | 2    | 3     | 1           | 2     | 3     | 1           | 2     | 3     | 1           | 2     | 3     |
|                                       |       | L           | M    | H    | L           | M    | H    | L           | M    | H     | L           | M     | H     | L           | M     | H     | L           | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Heating capacity                      | kW    | 2,02        | 2,95 | 3,70 | 2,20        | 3,18 | 4,05 | 3,47        | 4,46 | 5,50  | 3,77        | 4,92  | 6,15  | 4,32        | 5,74  | 7,15  | 4,57        | 6,29  | 7,82  |
| Water flow rate system side           | l/h   | 177         | 258  | 324  | 193         | 278  | 355  | 304         | 391  | 482   | 330         | 431   | 539   | 379         | 503   | 627   | 400         | 551   | 685   |
| Pressure drop system side             | kPa   | 6           | 12   | 18   | 7           | 15   | 23   | 7           | 12   | 18    | 8           | 14    | 20    | 9           | 16    | 24    | 6           | 11    | 16    |
| Heating performance 45 °C / 40 °C (2) |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Heating capacity                      | kW    | 1,00        | 1,46 | 1,84 | 1,09        | 1,58 | 2,01 | 1,72        | 2,21 | 2,73  | 1,87        | 2,44  | 3,06  | 2,14        | 2,85  | 3,55  | 2,27        | 3,12  | 3,88  |
| Water flow rate system side           | l/h   | 174         | 254  | 319  | 190         | 274  | 350  | 299         | 385  | 475   | 325         | 425   | 531   | 373         | 495   | 617   | 394         | 543   | 675   |
| Pressure drop system side             | kPa   | 6           | 12   | 18   | 8           | 15   | 22   | 8           | 12   | 18    | 8           | 14    | 20    | 10          | 16    | 24    | 6           | 11    | 16    |
| Fan                                   |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Type                                  | type  | Centrifugal |      |      | Centrifugal |      |      | Centrifugal |      |       | Centrifugal |       |       | Centrifugal |       |       | Centrifugal |       |       |
| Fan motor                             | type  | Inverter    |      |      | Inverter    |      |      | Inverter    |      |       | Inverter    |       |       | Inverter    |       |       | Inverter    |       |       |
| Number                                | no.   | 1           |      |      | 1           |      |      | 2           |      |       | 2           |       |       | 2           |       |       | 2           |       |       |
| Air flow rate                         | m³/h  | 140         | 220  | 290  | 140         | 220  | 290  | 260         | 350  | 450   | 260         | 350   | 450   | 330         | 460   | 600   | 330         | 460   | 600   |
| Input power                           | W     | 7           | 8    | 14   | 7           | 8    | 14   | 5           | 7    | 13    | 5           | 7     | 13    | 5           | 10    | 18    | 5           | 10    | 18    |
| Signal 0-10V                          | %     | 44          | 68   | 90   | 44          | 68   | 90   | 52          | 70   | 90    | 52          | 70    | 90    | 49          | 68    | 90    | 49          | 68    | 90    |
| Fan coil sound data (3)               |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Sound power level                     | dB(A) | 35,0        | 46,0 | 51,0 | 35,0        | 46,0 | 51,0 | 34,0        | 41,0 | 48,0  | 34,0        | 41,0  | 48,0  | 37,0        | 44,0  | 51,0  | 37,0        | 44,0  | 51,0  |
| Sound pressure level                  | dB(A) | 27,0        | 38,0 | 43,0 | 27,0        | 38,0 | 43,0 | 26,0        | 33,0 | 40,0  | 26,0        | 33,0  | 40,0  | 29,0        | 36,0  | 43,0  | 29,0        | 36,0  | 43,0  |
| Finned pack heat exchanger            |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Water content main heat exchanger     | l     | 0,5         |      |      | 0,7         |      |      | 0,8         |      |       | 1,0         |       |       | 1,0         |       |       | 1,4         |       |       |
| Diametre hydraulic fittings           |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Main heat exchanger                   | Ø     | 1/2"        |      |      | 1/2"        |      |      | 3/4"        |      |       | 3/4"        |       |       | 3/4"        |       |       | 3/4"        |       |       |
|                                       |       | FCZI500P    |      |      | FCZI550P    |      |      | FCZI700P    |      |       | FCZI750P    |       |       | FCZI900P    |       |       | FCZI950P    |       |       |
|                                       |       | 1           | 2    | 3    | 1           | 2    | 3    | 1           | 2    | 3     | 1           | 2     | 3     | 1           | 2     | 3     | 1           | 2     | 3     |
|                                       |       | L           | M    | H    | L           | M    | H    | L           | M    | H     | L           | M     | H     | L           | M     | H     | L           | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Heating capacity                      | kW    | 5,27        | 7,31 | 8,50 | 5,82        | 8,34 | 9,75 | 8,10        | 9,80 | 11,00 | 9,10        | 11,30 | 12,50 | 10,77       | 13,35 | 15,14 | 11,20       | 14,42 | 17,10 |
| Water flow rate system side           | l/h   | 462         | 641  | 745  | 510         | 731  | 855  | 710         | 860  | 964   | 798         | 991   | 1096  | 945         | 1171  | 1328  | 982         | 1264  | 1500  |
| Pressure drop system side             | kPa   | 12          | 21   | 28   | 10          | 20   | 26   | 17          | 24   | 29    | 10          | 15    | 18    | 12          | 17    | 22    | 16          | 24    | 33    |
| Heating performance 45 °C / 40 °C (2) |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Heating capacity                      | kW    | 2,62        | 3,63 | 4,22 | 2,89        | 4,14 | 4,85 | 4,03        | 4,87 | 5,47  | 4,52        | 5,62  | 6,21  | 5,35        | 6,64  | 7,53  | 5,57        | 7,17  | 8,50  |
| Water flow rate system side           | l/h   | 455         | 631  | 734  | 502         | 720  | 842  | 699         | 846  | 950   | 786         | 975   | 1079  | 930         | 1152  | 1307  | 967         | 1245  | 1476  |
| Pressure drop system side             | kPa   | 12          | 21   | 28   | 10          | 20   | 26   | 16          | 24   | 29    | 10          | 14    | 18    | 12          | 17    | 22    | 15          | 24    | 33    |
| Fan                                   |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Type                                  | type  | Centrifugal |      |      | Centrifugal |      |      | Centrifugal |      |       | Centrifugal |       |       | Centrifugal |       |       | Centrifugal |       |       |
| Fan motor                             | type  | Inverter    |      |      | Inverter    |      |      | Inverter    |      |       | Inverter    |       |       | Inverter    |       |       | Inverter    |       |       |
| Number                                | no.   | 2           |      |      | 2           |      |      | 3           |      |       | 3           |       |       | 3           |       |       | 3           |       |       |
| Air flow rate                         | m³/h  | 400         | 600  | 720  | 400         | 600  | 720  | 700         | 930  | 1140  | 700         | 930   | 1140  | 700         | 930   | 1140  | 700         | 930   | 1140  |
| Input power                           | W     | 7           | 18   | 31   | 4           | 10   | 19   | 30          | 40   | 80    | 30          | 40    | 80    | 30          | 40    | 80    | 30          | 40    | 80    |
| Signal 0-10V                          | %     | 50          | 74   | 90   | 50          | 74   | 90   | 56          | 72   | 90    | 56          | 72    | 90    | 56          | 72    | 90    | 56          | 72    | 90    |
| Fan coil sound data (3)               |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Sound power level                     | dB(A) | 42,0        | 51,0 | 56,0 | 42,0        | 51,0 | 56,0 | 50,0        | 57,0 | 62,0  | 50,0        | 57,0  | 62,0  | 51,0        | 57,0  | 62,0  | 51,0        | 57,0  | 62,0  |
| Sound pressure level                  | dB(A) | 34,0        | 43,0 | 48,0 | 34,0        | 43,0 | 48,0 | 42,0        | 49,0 | 54,0  | 42,0        | 49,0  | 54,0  | 43,0        | 49,0  | 54,0  | 43,0        | 49,0  | 54,0  |
| Finned pack heat exchanger            |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Water content main heat exchanger     | l     | 1,0         |      |      | 1,4         |      |      | 1,2         |      |       | 1,6         |       |       | 1,8         |       |       | 2,3         |       |       |
| Diametre hydraulic fittings           |       |             |      |      |             |      |      |             |      |       |             |       |       |             |       |       |             |       |       |
| Main heat exchanger                   | Ø     | 3/4"        |      |      | 3/4"        |      |      | 3/4"        |      |       | 3/4"        |       |       | 3/4"        |       |       | 3/4"        |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## 4-pipe

|  | FCZI201P |   |   | FCZI301P |   |   | FCZI401P |   |   | FCZI501P |   |   | FCZI701P |   |   | FCZI901P |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

## Heating performance 65 °C / 55 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,02 | 1,35 | 1,60 | 1,80 | 2,18 | 2,56 | 2,21 | 2,65 | 3,12 | 2,59 | 3,34 | 3,73 | 3,66 | 4,29 | 4,94 | 4,73 | 5,63 | 5,72 |
| Water flow rate system side | l/h | 89   | 118  | 140  | 158  | 191  | 224  | 186  | 232  | 273  | 227  | 293  | 327  | 320  | 375  | 437  | 414  | 492  | 501  |
| Pressure drop system side   | kPa | 4    | 8    | 10   | 16   | 23   | 30   | 4    | 6    | 8    | 6    | 8    | 10   | 11   | 14   | 18   | 8    | 12   | 12   |

## Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,89 | 1,28 | 1,60 | 1,68 | 2,17 | 2,65 | 2,20 | 2,92 | 3,60 | 2,68 | 3,69 | 4,25 | 3,92 | 4,89 | 5,50 | 4,29 | 5,00 | 6,91 |
| Sensible cooling capacity   | kW  | 0,71 | 1,05 | 1,33 | 1,26 | 1,65 | 2,04 | 1,59 | 2,14 | 2,67 | 1,94 | 2,73 | 3,18 | 2,99 | 3,76 | 4,30 | 2,97 | 3,78 | 5,68 |
| Water flow rate system side | l/h | 153  | 221  | 275  | 288  | 374  | 456  | 379  | 503  | 619  | 460  | 634  | 731  | 675  | 841  | 946  | 738  | 860  | 1189 |
| Pressure drop system side   | kPa | 6    | 12   | 18   | 8    | 13   | 18   | 10   | 16   | 24   | 13   | 22   | 29   | 16   | 24   | 30   | 10   | 12   | 22   |

## Fan

|               |      |             |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |      |
|---------------|------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|------|
| Type          | type | Centrifugal |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |      |
| Fan motor     | type | Inverter    |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |      |
| Number        | no.  | 1           |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 3   |     |      | 3   |     |      |
| Air flow rate | m³/h | 140         | 220 | 290 | 260 | 350 | 450 | 330 | 460 | 600 | 400 | 600 | 720 | 700 | 930 | 1140 | 700 | 930 | 1140 |
| Input power   | W    | 7           | 8   | 14  | 5   | 7   | 13  | 5   | 10  | 18  | 7   | 16  | 31  | 30  | 40  | 80   | 30  | 40  | 80   |
| Signal 0-10V  | %    | 44          | 68  | 90  | 52  | 70  | 90  | 49  | 68  | 90  | 50  | 74  | 90  | 56  | 72  | 90   | 56  | 72  | 90   |

## Fan coil sound data (2)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 46,0 | 51,0 | 34,0 | 41,0 | 48,0 | 37,0 | 44,0 | 51,0 | 42,0 | 51,0 | 56,0 | 50,0 | 57,0 | 62,0 | 51,0 | 57,0 | 62,0 |
| Sound pressure level | dB(A) | 27,0 | 38,0 | 43,0 | 26,0 | 33,0 | 40,0 | 29,0 | 36,0 | 43,0 | 34,0 | 43,0 | 48,0 | 42,0 | 49,0 | 54,0 | 43,0 | 49,0 | 54,0 |

## Finned pack heat exchanger

|  |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|--|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger      | l | 0,5 |  |  | 0,8 |  |  | 1,0 |  |  | 1,0 |  |  | 1,2 |  |  | 1,8 |  |  |
| Water content secondary heat exchanger | l | 0,2 |  |  | 0,3 |  |  | 0,3 |  |  | 0,3 |  |  | 0,4 |  |  | 0,7 |  |  |

## Diameter hydraulic fittings

|                           |   |      |      |      |      |      |      |      |      |
|---------------------------|---|------|------|------|------|------|------|------|------|
| Metric hydraulic fittings |   |      |      |      |      |      |      |      |      |
| Main heat exchanger       | Ø | 1/2" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Secondary heat exchanger  | Ø | 1/2" |      |      |      |      |      |      |      |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## PERFORMANCE DATA FOR UNITS WITH HEAD (EUROVENT CERTIFICATE FCP-H)

### 2-pipe

|  |       | FCZI200P    |      |      | FCZI250P |      |      | FCZI300P |      |      | FCZI350P |      |      | FCZI400P |      |      | FCZI450P |      |      | FCZI500P |      |      | FCZI550P |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|--|-------|-------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|-------|--|--|------|--|--|-------|--|--|-------|--|--|
|  |       | 1           | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       | L           | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Heating performance 70 °C / 60 °C (1)</b> |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Heating capacity                             | kW    | 1,81        | 3,16 | 3,34 | 2,01     | 3,40 | 3,62 | 3,08     | 4,83 | 5,23 | 3,32     | 5,43 | 5,83 | 3,96     | 5,85 | 6,34 | 4,10     | 6,44 | 6,96 | 5,39     | 7,28 | 7,63 | 5,92     | 8,37 | 8,71 |       |  |  |      |  |  |       |  |  |       |  |  |
| Water flow rate system side                  | l/h   | 156         | 272  | 287  | 173      | 292  | 311  | 265      | 415  | 450  | 285      | 467  | 502  | 341      | 503  | 545  | 353      | 554  | 599  | 464      | 626  | 656  | 509      | 720  | 749  |       |  |  |      |  |  |       |  |  |       |  |  |
| Pressure drop system side                    | kPa   | 6           | 13   | 16   | 7        | 17   | 19   | 7        | 14   | 16   | 7        | 17   | 19   | 9        | 17   | 19   | 5        | 12   | 13   | 12       | 22   | 23   | 11       | 20   | 21   |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Heating performance 45 °C / 40 °C (2)</b> |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Heating capacity                             | kW    | 0,90        | 1,57 | 1,66 | 1,00     | 1,69 | 1,80 | 1,53     | 2,40 | 2,60 | 1,65     | 2,70 | 2,90 | 1,97     | 2,91 | 3,15 | 2,04     | 3,20 | 3,46 | 2,68     | 3,62 | 3,79 | 2,94     | 4,16 | 4,33 |       |  |  |      |  |  |       |  |  |       |  |  |
| Water flow rate system side                  | l/h   | 155         | 270  | 288  | 172      | 291  | 308  | 263      | 413  | 447  | 284      | 464  | 499  | 339      | 501  | 542  | 351      | 550  | 595  | 461      | 623  | 652  | 506      | 715  | 745  |       |  |  |      |  |  |       |  |  |       |  |  |
| Pressure drop system side                    | kPa   | 6           | 13   | 16   | 7        | 17   | 19   | 7        | 14   | 16   | 7        | 17   | 19   | 9        | 17   | 19   | 5        | 12   | 13   | 12       | 22   | 23   | 11       | 20   | 21   |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Cooling performance 7 °C / 12 °C</b>      |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Cooling capacity                             | kW    | 0,80        | 1,37 | 1,45 | 0,95     | 1,67 | 1,76 | 1,40     | 2,38 | 2,53 | 1,66     | 2,70 | 2,88 | 2,03     | 2,98 | 3,21 | 2,22     | 3,28 | 3,55 | 2,73     | 3,68 | 3,84 | 2,97     | 4,15 | 4,31 |       |  |  |      |  |  |       |  |  |       |  |  |
| Sensible cooling capacity                    | kW    | 0,63        | 1,13 | 1,20 | 0,70     | 1,29 | 1,37 | 1,10     | 1,82 | 1,94 | 1,15     | 1,94 | 2,07 | 1,45     | 2,18 | 2,36 | 1,54     | 2,35 | 2,56 | 1,98     | 2,73 | 2,85 | 2,11     | 2,98 | 3,12 |       |  |  |      |  |  |       |  |  |       |  |  |
| Water flow rate system side                  | l/h   | 138         | 236  | 249  | 163      | 287  | 303  | 241      | 409  | 435  | 285      | 464  | 495  | 349      | 512  | 552  | 382      | 564  | 610  | 469      | 633  | 660  | 511      | 714  | 741  |       |  |  |      |  |  |       |  |  |       |  |  |
| Pressure drop system side                    | kPa   | 5           | 13   | 16   | 8        | 17   | 19   | 7        | 14   | 16   | 9        | 17   | 19   | 9        | 17   | 19   | 8        | 12   | 13   | 13       | 22   | 23   | 12       | 20   | 21   |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Fan</b>                                   |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Type   | type  | Centrifugal |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Fan motor                                    | type  | Inverter    |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Number                                       | no.   | 1           |      |      | 1        |      |      | 2        |      |      | 2        |      |      | 2        |      |      | 2        |      |      | 2        |      |      | 2        |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Air flow rate                                | m³/h  | 123         | 240  | 257  | 123      | 240  | 257  | 225      | 390  | 424  | 225      | 390  | 424  | 300      | 470  | 515  | 300      | 470  | 515  | 410      | 600  | 630  | 410      | 600  | 630  |       |  |  |      |  |  |       |  |  |       |  |  |
| High static pressure                         | Pa    | 13          | 50   | 57   | 13       | 50   | 57   | 16       | 50   | 59   | 16       | 50   | 53   | 20       | 50   | 60   | 20       | 50   | 56   | 23       | 50   | 55   | 23       | 50   | 55   |       |  |  |      |  |  |       |  |  |       |  |  |
| Input power                                  | W     | 7           | 27   | 31   | 7        | 27   | 31   | 10       | 11   | 40   | 10       | 30   | 40   | 14       | 38   | 48   | 14       | 38   | 48   | 18       | 50   | 60   | 18       | 50   | 60   |       |  |  |      |  |  |       |  |  |       |  |  |
| Signal 0-10V                                 | %     | 43          | 84   | 90   | 43       | 84   | 90   | 48       | 83   | 90   | 48       | 83   | 90   | 52       | 82   | 90   | 52       | 82   | 90   | 58       | 85   | 90   | 58       | 85   | 90   |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Duct type fan coil sound data (3)</b>     |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Sound power level (inlet + radiated)         | dB(A) | 37,0        | 57,0 | 59,0 | 37,0     | 57,0 | 59,0 | 36,0     | 50,0 | 53,0 | 36,0     | 50,0 | 53,0 | 43,0     | 53,0 | 55,0 | 43,0     | 53,0 | 55,0 | 45,0     | 56,0 | 57,0 | 45,0     | 56,0 | 57,0 |       |  |  |      |  |  |       |  |  |       |  |  |
| Sound power level (outlet)                   | dB(A) | 33,0        | 53,0 | 55,0 | 33,0     | 53,0 | 55,0 | 32,0     | 47,0 | 49,0 | 32,0     | 47,0 | 49,0 | 39,0     | 49,0 | 52,0 | 39,0     | 49,0 | 52,0 | 42,0     | 52,0 | 52,0 | 42,0     | 52,0 | 52,0 |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Finned pack heat exchanger</b>            |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Water content main heat exchanger            | l     | 0,5         |      |      | 0,7      |      |      | 0,8      |      |      | 1,0      |      |      | 1,0      |      |      | 1,4      |      |      | 1,0      |      |      | 1,4      |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Diameter hydraulic fittings</b>           |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Main heat exchanger                          | Ø     | 1/2"        |      |      | 1/2"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       | FCZI700P    |      |      | FCZI750P |      |      | FCZI900P |      |      | FCZI950P |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       | 1           | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       | L           | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
|  |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Heating performance 70 °C / 60 °C (1)</b> |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Heating capacity                             | kW    | 5,33        |      |      | 8,34     |      |      | 8,88     |      |      | 6,17     |      |      | 9,52     |      |      | 10,15    |      |      | 6,58     |      |      | 11,15    |      |      | 11,87 |  |  | 6,68 |  |  | 11,63 |  |  | 12,66 |  |  |
| Water flow rate system side                  | l/h   | 468         |      |      | 732      |      |      | 779      |      |      | 541      |      |      | 835      |      |      | 890      |      |      | 566      |      |      | 958      |      |      | 1021  |  |  | 574  |  |  | 1000  |  |  | 1088  |  |  |
| Pressure drop system side                    | kPa   | 8           |      |      | 17       |      |      | 20       |      |      | 5        |      |      | 11       |      |      | 12       |      |      | 5        |      |      | 13       |      |      | 14    |  |  | 6    |  |  | 17    |  |  | 19    |  |  |
| <b>Heating performance 45 °C / 40 °C (2)</b> |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Heating capacity                             | kW    | 2,67        |      |      | 4,15     |      |      | 4,40     |      |      | 2,46     |      |      | 4,69     |      |      | 5,00     |      |      | 3,27     |      |      | 5,54     |      |      | 5,90  |  |  | 3,32 |  |  | 5,78  |  |  | 6,29  |  |  |
| Water flow rate system side                  | l/h   | 460         |      |      | 720      |      |      | 767      |      |      | 418      |      |      | 806      |      |      | 860      |      |      | 562      |      |      | 953      |      |      | 1015  |  |  | 571  |  |  | 994   |  |  | 1082  |  |  |
| Pressure drop system side                    | kPa   | 8           |      |      | 18       |      |      | 20       |      |      | 3        |      |      | 11       |      |      | 12       |      |      | 5        |      |      | 13       |      |      | 14    |  |  | 6    |  |  | 17    |  |  | 19    |  |  |
| <b>Cooling performance 7 °C / 12 °C</b>      |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Cooling capacity                             | kW    | 2,20        |      |      | 4,00     |      |      | 4,30     |      |      | 2,60     |      |      | 4,41     |      |      | 4,70     |      |      | 2,81     |      |      | 4,80     |      |      | 5,20  |  |  | 3,58 |  |  | 6,00  |  |  | 6,46  |  |  |
| Sensible cooling capacity                    | kW    | 1,71        |      |      | 3,00     |      |      | 3,20     |      |      | 1,90     |      |      | 3,30     |      |      | 3,50     |      |      | 2,10     |      |      | 3,60     |      |      | 3,90  |  |  | 2,33 |  |  | 3,94  |  |  | 4,27  |  |  |
| Water flow rate system side                  | l/h   | 378         |      |      | 688      |      |      | 739      |      |      | 447      |      |      | 760      |      |      | 818      |      |      | 483      |      |      | 825      |      |      | 894   |  |  | 616  |  |  | 1032  |  |  | 1111  |  |  |
| Pressure drop system side                    | kPa   | 7           |      |      | 18       |      |      | 20       |      |      | 4        |      |      | 11       |      |      | 12       |      |      | 5        |      |      | 13       |      |      | 14    |  |  | 7    |  |  | 17    |  |  | 19    |  |  |
| <b>Fan</b>                                   |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Type   | type  | Centrifugal |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Fan motor                                    | type  | Inverter    |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Number                                       | no.   | 3           |      |      | 3        |      |      | 3        |      |      | 3        |      |      | 3        |      |      | 3        |      |      | 3        |      |      | 3        |      |      | 3     |  |  |      |  |  |       |  |  |       |  |  |
| Air flow rate                                | m³/h  | 405         |      |      | 730      |      |      | 799      |      |      | 405      |      |      | 730      |      |      | 799      |      |      | 405      |      |      | 730      |      |      | 799   |  |  | 405  |  |  | 730   |  |  | 799   |  |  |
| High static pressure                         | Pa    | 15          |      |      | 50       |      |      | 60       |      |      | 15       |      |      | 50       |      |      | 60       |      |      | 15       |      |      | 50       |      |      | 60    |  |  | 15   |  |  | 50    |  |  | 60    |  |  |
| Input power                                  | W     | 21          |      |      | 61       |      |      | 78       |      |      | 21       |      |      | 61       |      |      | 78       |      |      | 21       |      |      | 61       |      |      | 78    |  |  | 21   |  |  | 61    |  |  | 78    |  |  |
| Signal 0-10V                                 | %     | 46          |      |      | 82       |      |      | 90       |      |      | 46       |      |      | 82       |      |      | 90       |      |      | 45       |      |      | 84       |      |      | 90    |  |  | 45   |  |  | 84    |  |  | 90    |  |  |
| <b>Duct type fan coil sound data (3)</b>     |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Sound power level (inlet + radiated)         | dB(A) | 41,0        |      |      | 55,0     |      |      | 58,0     |      |      | 41,0     |      |      | 55,0     |      |      | 58,0     |      |      | 44,0     |      |      | 55,0     |      |      | 58,0  |  |  | 44,0 |  |  | 55,0  |  |  | 58,0  |  |  |
| Sound power level (outlet)                   | dB(A) | 36,0        |      |      | 51,0     |      |      | 54,0     |      |      | 36,0     |      |      | 51,0     |      |      | 54,0     |      |      | 40,0     |      |      | 51,0     |      |      | 54,0  |  |  | 40,0 |  |  | 51,0  |  |  | 54,0  |  |  |
| <b>Finned pack heat exchanger</b>            |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Water content main heat exchanger            | l     | 1,2         |      |      | 1,6      |      |      | 1,6      |      |      | 1,8      |      |      | 1,8      |      |      | 2,3      |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| <b>Diameter hydraulic fittings</b>           |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |
| Main heat exchanger                          | Ø     | 3/4"        |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |       |  |  |      |  |  |       |  |  |       |  |  |

## 4-pipe

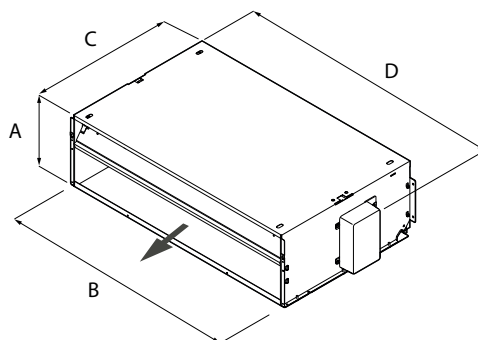
|  |       | FCZI201P    |      |      | FCZI301P |      |      | FCZI401P |      |      | FCZI501P |      |      | FCZI701P |      |      | FCZI901P |      |      |
|--|-------|-------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|
|  |       | 1           | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    |
|  |       | L           | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    |
| Heating performance 65 °C / 55 °C (1)  |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Heating capacity                       | kW    | 0,94        | 1,42 | 1,49 | 1,60     | 2,34 | 2,47 | 1,99     | 2,69 | 2,85 | 2,62     | 3,59 | 3,45 | 2,99     | 3,70 | 3,92 | 3,17     | 5,09 | 5,47 |
| Water flow rate system side            | l/h   | 81          | 122  | 128  | 138      | 201  | 212  | 171      | 231  | 245  | 225      | 309  | 297  | 257      | 318  | 337  | 273      | 438  | 470  |
| Pressure drop system side              | kPa   | 4           | 9    | 9    | 6        | 12   | 13   | 4        | 7    | 8    | 6        | 9    | 9    | 8        | 12   | 13   | 4        | 10   | 11   |
| Cooling performance 7 °C / 12 °C       |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Cooling capacity                       | kW    | 0,80        | 1,37 | 1,45 | 1,40     | 2,38 | 2,53 | 2,03     | 2,98 | 3,21 | 2,73     | 3,68 | 3,84 | 2,20     | 4,00 | 4,30 | 2,80     | 4,80 | 5,24 |
| Sensible cooling capacity              | kW    | 0,63        | 1,13 | 1,20 | 1,10     | 1,82 | 1,94 | 1,45     | 2,18 | 2,36 | 1,98     | 2,73 | 2,85 | 1,71     | 3,00 | 3,20 | 2,10     | 3,60 | 3,90 |
| Water flow rate system side            | l/h   | 138         | 236  | 249  | 241      | 409  | 435  | 349      | 512  | 552  | 469      | 633  | 660  | 378      | 688  | 739  | 482      | 825  | 901  |
| Pressure drop system side              | kPa   | 5           | 14   | 16   | 7        | 15   | 17   | 9        | 13   | 20   | 13       | 23   | 25   | 6        | 18   | 20   | 5        | 12   | 13   |
| Fan                                    |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Type                                   | type  | Centrifugal |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Fan motor                              | type  | Inverter    |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Number                                 | no.   | 1           |      |      | 2        |      |      | 2        |      |      | 2        |      |      | 3        |      |      | 3        |      |      |
| Air flow rate                          | m³/h  | 123         | 240  | 257  | 225      | 390  | 424  | 300      | 470  | 515  | 410      | 600  | 630  | 405      | 730  | 799  | 405      | 730  | 799  |
| High static pressure                   | Pa    | 13          | 50   | 57   | 16       | 50   | 59   | 20       | 50   | 60   | 23       | 50   | 55   | 15       | 50   | 60   | 15       | 50   | 60   |
| Input power                            | W     | 7           | 27   | 31   | 10       | 31   | 40   | 14       | 38   | 58   | 18       | 50   | 60   | 21       | 61   | 78   | 21       | 61   | 78   |
| Signal 0-10V                           | %     | 43          | 84   | 90   | 48       | 83   | 90   | 52       | 82   | 90   | 58       | 85   | 90   | 46       | 82   | 90   | 45       | 84   | 90   |
| Duct type fan coil sound data (2)      |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Sound power level (inlet + radiated)   | dB(A) | 37,0        | 57,0 | 59,0 | 36,0     | 50,0 | 53,0 | 43,0     | 53,0 | 55,0 | 45,0     | 56,0 | 57,0 | 41,0     | 55,0 | 58,0 | 41,0     | 55,0 | 58,0 |
| Sound power level (outlet)             | dB(A) | 33,0        | 53,0 | 55,0 | 32,0     | 47,0 | 49,0 | 39,0     | 49,0 | 52,0 | 42,0     | 52,0 | 52,0 | 36,0     | 51,0 | 54,0 | 36,0     | 51,0 | 54,0 |
| Finned pack heat exchanger             |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Water content main heat exchanger      | l     | 0,5         |      |      | 0,8      |      |      | 1,0      |      |      | 1,0      |      |      | 1,2      |      |      | 1,8      |      |      |
| Water content secondary heat exchanger | l     | 0,2         |      |      | 0,3      |      |      | 0,3      |      |      | 0,3      |      |      | 0,4      |      |      | 0,7      |      |      |
| Diameter hydraulic fittings            |       |             |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |
| Main heat exchanger                    | Ø     | 1/2"        |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      | 3/4"     |      |      |
| Secondary heat exchanger               | Ø     | 1/2"        |      |      |          |      |      |          |      |      |          |      |      |          |      |      |          |      |      |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.



## DIMENSIONS



|                               |    | FCZI200P | FCZI200PAF | FCZI250P   | FCZI250PAF | FCZI300P | FCZI300PAF |
|-------------------------------|----|----------|------------|------------|------------|----------|------------|
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | -          | 216        | -          | 216      | -          |
| B                             | mm | 522      | -          | 522        | -          | 753      | -          |
| C                             | mm | 453      | -          | 453        | -          | 453      | -          |
| D                             | mm | 562      | -          | 562        | -          | 793      | -          |
| Net weight                    | kg | 12,0     | -          | 14,0       | -          | 14,0     | -          |
|                               |    | FCZI350P | FCZI400P   | FCZI400PAF | FCZI450P   | FCZI500P | FCZI500PAF |
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | 216        | -          | 216        | 216      | -          |
| B                             | mm | 753      | 973        | -          | 973        | 973      | -          |
| C                             | mm | 453      | 453        | -          | 453        | 453      | -          |
| D                             | mm | 793      | 1013       | -          | 1013       | 1013     | -          |
| Net weight                    | kg | 16,0     | 20,0       | -          | 22,0       | 23,0     | -          |
|                               |    | FCZI550P | FCZI550PAF | FCZI700P   | FCZI700PAF | FCZI750P | FCZI750PAF |
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | -          | 216        | -          | 216      | -          |
| B                             | mm | 973      | -          | 1122       | -          | 1122     | -          |
| C                             | mm | 453      | -          | 453        | -          | 453      | -          |
| D                             | mm | 1013     | -          | 1147       | -          | 1147     | -          |
| Net weight                    | kg | 24,0     | -          | 29,0       | -          | 31,0     | -          |
|                               |    | FCZI900P | FCZI900PAF | FCZI950P   | FCZI950PAF | Pre_acc  |            |
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | -          | 216        | -          | -        | -          |
| B                             | mm | 1122     | -          | 1122       | -          | -        | -          |
| C                             | mm | 558      | -          | 558        | -          | -        | -          |
| D                             | mm | 1147     | -          | 1147       | -          | -        | -          |
| Net weight                    | kg | 32,0     | -          | 32,0       | -          | -        | -          |
|                               |    | FCZI201P | FCZI202P   | FCZI301P   | FCZI302P   | FCZI401P | FCZI402P   |
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | 216        | 216        | 216        | 216      | 216        |
| B                             | mm | 522      | 522        | 753        | 753        | 973      | 973        |
| C                             | mm | 453      | 453        | 453        | 453        | 453      | 453        |
| D                             | mm | 562      | 562        | 793        | 793        | 1013     | 1013       |
| Net weight                    | kg | 13,0     | 14,0       | 15,0       | 16,0       | 21,0     | 22,0       |
|                               |    | FCZI501P | FCZI502P   | FCZI701P   | FCZI702P   | FCZI901P |            |
| <b>Dimensions and weights</b> |    |          |            |            |            |          |            |
| A                             | mm | 216      | 216        | 216        | 216        | 216      |            |
| B                             | mm | 973      | 973        | 1122       | 1122       | 1122     |            |
| C                             | mm | 453      | 453        | 453        | 453        | 558      |            |
| D                             | mm | 1013     | 1013       | 1147       | 1147       | 1147     |            |
| Net weight                    | kg | 23,0     | 24,0       | 30,0       | 31,0       | 32,0     |            |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# UL-P

- **Very quiet**
- **Ideal for residential or office solutions**
- **Version with Coldplasma Air purifier**



## DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use. It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

## VERSIONS

**P** Without shell, vertical and horizontal installation, lower intake, without commands

**PAF** Without shell, vertical and horizontal installation, front intake, without commands

## FEATURES

### Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft. The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

### Heat exchanger coil

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

### Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

### Air filter

The fan coil units are equipped with a standard air filter. For specific details, please refer to the unit's documentation.

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

### ACCESSORIES COMPATIBILITY

#### Control panels and dedicated accessories - Omnia ULP

| Model        | Ver   | 11 | 16 | 26 | 36 |
|--------------|-------|----|----|----|----|
| AER503IR (1) | P,PAF | *  | *  | *  | *  |
| PRO503       | P,PAF | *  | *  | *  | *  |
| SAS (2)      | P,PAF | *  | *  | *  | *  |
| SIT3 (3)     | P,PAF | *  | *  | *  | *  |
| SIT5 (4)     | P,PAF | *  | *  | *  | *  |
| SW5 (2)      | P,PAF | *  | *  | *  | *  |
| TX (5)       | P,PAF | *  | *  | *  | *  |
| WMT10 (5)    | P,PAF | *  | *  | *  | *  |
| WMT16 (5)    | P,PAF | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

#### VMF system - Omnia ULP

| Model       | Ver   | 11 | 16 | 26 | 36 |
|-------------|-------|----|----|----|----|
| DI24        | P,PAF | *  | *  | *  | *  |
| VMF-E19 (1) | P,PAF | *  | *  | *  | *  |
| VMF-E3      | P,PAF | *  | *  | *  | *  |
| VMF-E4DX    | P,PAF | *  | *  | *  | *  |
| VMF-E4X     | P,PAF | *  | *  | *  | *  |
| VMF-IO      | P,PAF | *  | *  | *  | *  |
| VMF-IR      | P,PAF | *  | *  | *  | *  |
| VMF-LON     | P,PAF | *  | *  | *  | *  |
| VMF-SW      | P,PAF | *  | *  | *  | *  |
| VMF-SW1     | P,PAF | *  | *  | *  | *  |
| VMHI        | P,PAF | *  | *  | *  | *  |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Common accessories

**DSC:** Condensate drainage device.

**VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.

**BC:** Condensate drip.

**Ventilcassaforma:** Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

### GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

#### Omnia ULP

| Field | Description   |
|-------|---|
| 1,2,3 | ULI   |
| 4,5   | Size<br>11, 16, 26, 36  |
| 6     | Version   |
| P     | Without shell, vertical and horizontal installation, lower intake, without commands |
| PAF   | Without shell, vertical and horizontal installation, front intake, without commands |

**Condensate drip****Condensate drainage**

| Model    | Ver   | 11 | 16 | 26 | 36 |
|----------|-------|----|----|----|----|
| DSCS (1) | P,PAF | •  | •  | •  | •  |

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

| Model | Ver   | 11 | 16 | 26 | 36 |
|-------|-------|----|----|----|----|
| VCH   | P,PAF | •  | •  | •  | •  |

**2 way valve kit**

| Model | Ver   | 11 | 16 | 26 | 36 |
|-------|-------|----|----|----|----|
| VCHD  | P,PAF | •  | •  | •  | •  |

**PERFORMANCE SPECIFICATIONS****2-pipe**

|  | UL11P |   |   | UL16P |   |   | UL26P |   |   | UL36P |   |   |
|--|-------|---|---|-------|---|---|-------|---|---|-------|---|---|
|  | 1     | 2 | 3 | 1     | 2 | 3 | 1     | 2 | 3 | 1     | 2 | 3 |
|  | L     | M | H | L     | M | H | L     | M | H | L     | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,06 | 1,46 | 2,01 | 1,54 | 2,12 | 2,91 | 2,89 | 3,83 | 4,62 | 3,63 | 4,87 | 5,94 |
| Water flow rate system side | l/h | 93   | 128  | 176  | 135  | 186  | 255  | 254  | 336  | 405  | 310  | 427  | 521  |
| Pressure drop system side   | kPa | 1    | 1    | 2    | 1    | 2    | 4    | 5    | 8    | 11   | 7    | 13   | 18   |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,52 | 0,73 | 1,00 | 0,76 | 1,05 | 1,44 | 1,44 | 1,90 | 2,29 | 1,75 | 2,42 | 2,95 |
| Water flow rate system side | l/h | 92   | 126  | 174  | 133  | 183  | 251  | 249  | 331  | 399  | 305  | 420  | 513  |
| Pressure drop system side   | kPa | 1    | 1    | 2    | 2    | 3    | 3    | 5    | 8    | 11   | 7    | 13   | 18   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,53 | 0,67 | 0,82 | 0,69 | 0,87 | 1,17 | 1,26 | 1,65 | 1,99 | 1,63 | 2,26 | 2,79 |
| Sensible cooling capacity   | kW  | 0,38 | 0,52 | 0,68 | 0,52 | 0,69 | 0,96 | 0,97 | 1,30 | 1,61 | 1,13 | 1,59 | 2,00 |
| Water flow rate system side | l/h | 94   | 117  | 145  | 122  | 153  | 206  | 220  | 289  | 349  | 286  | 394  | 487  |
| Pressure drop system side   | kPa | 1    | 2    | 2    | 2    | 3    | 5    | 5    | 8    | 11   | 7    | 13   | 19   |

**Fan**

|                   |      |              |     |     |     |     |     |     |     |     |     |     |     |
|-------------------|------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Type              | type | Centrifugal  |     |     |     |     |     |     |     |     |     |     |     |
| Fan motor         | type | Asynchronous |     |     |     |     |     |     |     |     |     |     |     |
| Number            | no.  | 1            |     |     | 1   |     |     | 2   |     |     | 2   |     |     |
| Air flow rate     | m³/h | 80           | 120 | 180 | 110 | 160 | 240 | 190 | 270 | 350 | 240 | 350 | 460 |
| Input power       | W    | 8            | 12  | 18  | 23  | 25  | 32  | 24  | 27  | 35  | 30  | 35  | 42  |
| Electrical wiring |      | V1           | V2  | V3  | V1  | V2  | V3  | V1  | V2  | V3  | V1  | V2  | V3  |

**Diameter hydraulic fittings**

|                     |   |      |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|
| Main heat exchanger | Ø | 1/2" |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|------|--|--|--|--|--|--|--|--|--|--|

**Finned pack heat exchanger**

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|
| Water content main heat exchanger | l | 0,3 |  |  | 0,4 |  |  | 0,6 |  |  | 0,8 |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|

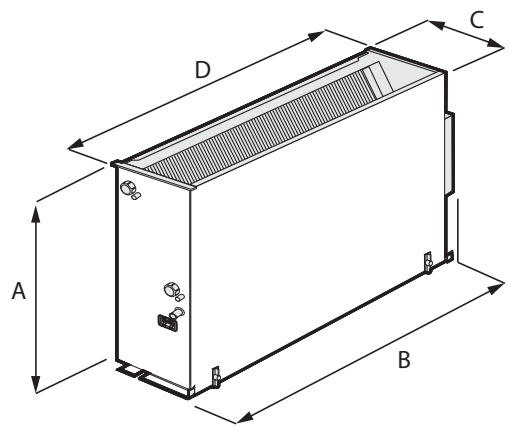
**Power supply**

|              |           |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

# DIMENSIONS



|                               |    | UL11P | UL11PAF | UL16P | UL16PAF | UL26P | UL26PAF | UL36P | UL36PAF |
|-------------------------------|----|-------|---------|-------|---------|-------|---------|-------|---------|
| <b>Dimensions and weights</b> |    |       |         |       |         |       |         |       |         |
| A                             | mm | 465   | -       | 465   | -       | 465   | -       | 465   | -       |
| B                             | mm | 420   | -       | 530   | -       | 761   | -       | 981   | -       |
| C                             | mm | 171   | -       | 171   | -       | 171   | -       | 171   | -       |
| D                             | mm | 360   | -       | 470   | -       | 701   | -       | 921   | -       |
| Net weight                    | kg | 10,0  | -       | 12,0  | -       | 15,0  | -       | 18,0  | -       |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# ULI-P

## Fan coil unit for ducted installations

- **Very quiet**
- **Ideal for residential or office solutions**



### DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use. It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

### VERSIONS

**P** Without shell, vertical and horizontal installation, lower intake, without commands

**PAF** Without shell, vertical and horizontal installation, front intake, without commands

### FEATURES

#### Ventilation group

Centrifugal fans constructed from anti-static plastic with an airfoil design engineered for high efficiency and low noise levels.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

The plastic augers are extractable for easy and efficient cleaning.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

- *The hydraulic connections can be inverted during installation.*

#### Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

#### Air filter

The fan coil units are equipped with a standard air filter. For specific details, please refer to the unit's documentation.

### ACCESSORIES

#### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SA503:** Wall-mountable ambient sensor, compatible with AER503IR.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

#### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.

## VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**DI24CP:** Complete flush-mounted interface plate with support for DI24, Vi-mar brand, Arké series, graphite gray color.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories - Omnia ULP

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P | ULI36PAF |
|-----------|--------|----------|--------|----------|--------|----------|
| AER503IR  | *      | *        | *      | *        | *      | *        |
| PRO503    | *      | *        | *      | *        | *      | *        |
| SA5       | *      | *        | *      | *        | *      | *        |
| SA503     | *      | *        | *      | *        | *      | *        |
| SW5       | *      | *        | *      | *        | *      | *        |
| TX        | *      | *        | *      | *        | *      | *        |

### VMF system - Omnia ULP

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P | ULI36PAF |
|-----------|--------|----------|--------|----------|--------|----------|
| DI24      | *      | *        | *      | *        | *      | *        |
| DI24CP    | *      | *        | *      | *        | *      | *        |
| VMF-E19I  | *      | *        | *      | *        | *      | *        |
| VMF-E3    | *      | *        | *      | *        | *      | *        |
| VMF-E4DX  | *      | *        | *      | *        | *      | *        |
| VMF-E4X   | *      | *        | *      | *        | *      | *        |
| VMF-IO    | *      | *        | *      | *        | *      | *        |
| VMF-IR    | *      | *        | *      | *        | *      | *        |
| VMF-LON   | *      | *        | *      | *        | *      | *        |
| VMF-SW    | *      | *        | *      | *        | *      | *        |
| VMHI      | *      | *        | *      | *        | *      | *        |

### Condensate drip

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P |
|-----------|--------|----------|--------|----------|--------|
| BC10      | *      | *        | *      | *        | *      |
| BC20      | *      | *        | *      | *        | *      |

### Condensate drainage

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P |
|-----------|--------|----------|--------|----------|--------|
| DSCS (1)  | *      | *        | *      | *        | *      |

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

### 2 way valve kit

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P |
|-----------|--------|----------|--------|----------|--------|
| VCHD      | *      | *        | *      | *        | *      |

### 3 way valve kit

| Accessory | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P |
|-----------|--------|----------|--------|----------|--------|
| VCH       | *      | *        | *      | *        | *      |

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

## Common accessories

**DSC:** Condensate drainage device.

**VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.

**BC:** Condensate drip.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

### Omnia ULP

| Field | Description   |
|-------|---|
| 1,2,3 | ULI   |
| 4,5   | Size<br>16, 26, 36  |
| 6     | Version   |
| P     | Without shell, vertical and horizontal installation, lower intake, without commands |
| PAF   | Without shell, vertical and horizontal installation, front intake, without commands |

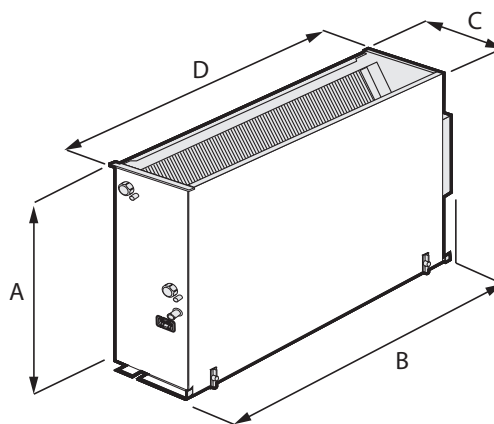
## PERFORMANCE SPECIFICATIONS

2-pipe

|                                       |      | ULI16P      |      |      | ULI26P      |      |      | ULI36P      |      |      |
|---------------------------------------|------|-------------|------|------|-------------|------|------|-------------|------|------|
|                                       |      | 1           | 2    | 3    | 1           | 2    | 3    | 1           | 2    | 3    |
|                                       |      | L           | M    | H    | L           | M    | H    | L           | M    | H    |
| Heating performance 70 °C / 60 °C (1) |      |             |      |      |             |      |      |             |      |      |
| Heating capacity                      | kW   | 1,54        | 2,12 | 2,91 | 2,89        | 3,83 | 4,62 | 3,53        | 4,87 | 5,94 |
| Water flow rate system side           | l/h  | 135         | 186  | 255  | 254         | 336  | 405  | 310         | 427  | 521  |
| Pressure drop system side             | kPa  | 1           | 2    | 4    | 5           | 8    | 11   | 3           | 5    | 7    |
| Heating performance 45 °C / 40 °C (2) |      |             |      |      |             |      |      |             |      |      |
| Heating capacity                      | kW   | 0,76        | 1,05 | 1,44 | 1,44        | 1,90 | 2,29 | 1,75        | 2,42 | 2,95 |
| Water flow rate system side           | l/h  | 133         | 183  | 251  | 249         | 331  | 399  | 305         | 420  | 513  |
| Pressure drop system side             | kPa  | 2           | 2    | 2    | 5           | 8    | 11   | 7           | 12   | 18   |
| Cooling performance 7 °C / 12 °C      |      |             |      |      |             |      |      |             |      |      |
| Cooling capacity                      | kW   | 0,69        | 0,87 | 1,77 | 1,26        | 1,65 | 1,99 | 1,63        | 2,26 | 2,79 |
| Sensible cooling capacity             | kW   | 0,52        | 0,69 | 0,96 | 0,97        | 1,30 | 1,61 | 1,13        | 1,59 | 2,00 |
| Water flow rate system side           | l/h  | 122         | 153  | 206  | 220         | 289  | 349  | 286         | 394  | 487  |
| Pressure drop system side             | kPa  | 2           | 3    | 5    | 6           | 8    | 11   | 7           | 13   | 19   |
| Fan                                   |      |             |      |      |             |      |      |             |      |      |
| Type                                  | type | Centrifugal |      |      | Centrifugal |      |      | Centrifugal |      |      |
| Fan motor                             | type | Inverter    |      |      | Inverter    |      |      | Inverter    |      |      |
| Number                                | no.  | 1           |      |      | 2           |      |      | 2           |      |      |
| Air flow rate                         | m³/h | 110         | 160  | 240  | 190         | 270  | 350  | 240         | 350  | 460  |
| Input power                           | W    | 6           | 8    | 12   | 7           | 10   | 15   | 8           | 12   | 18   |
| Diameter hydraulic fittings           |      |             |      |      |             |      |      |             |      |      |
| Main heat exchanger                   | Ø    | 1/2"        |      |      | 1/2"        |      |      | 1/2"        |      |      |
| Finned pack heat exchanger            |      |             |      |      |             |      |      |             |      |      |
| Water content main heat exchanger     | l    | 0,4         |      |      | 0,6         |      |      | 0,8         |      |      |
| Power supply                          |      |             |      |      |             |      |      |             |      |      |
| Power supply                          |      | 230V~50Hz   |      |      | 230V~50Hz   |      |      | 230V~50Hz   |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C  
 (2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

## DIMENSIONS



### Dimensions and weights

|                               |    | ULI16P | ULI16PAF | ULI26P | ULI26PAF | ULI36P | ULI36PAF |
|-------------------------------|----|--------|----------|--------|----------|--------|----------|
| <b>Dimensions and weights</b> |    |        |          |        |          |        |          |
| A                             | mm | 465    | 465      | 465    | 465      | 465    | 465      |
| B                             | mm | 530    | 530      | 761    | 761      | 981    | 981      |
| C                             | mm | 171    | 171      | 171    | 171      | 171    | 171      |
| D                             | mm | 470    | 470      | 701    | 701      | 921    | 921      |
| Net weight                    | kg | 12,0   | 12,0     | 15,0   | 15,0     | 18,0   | 18,0     |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# Omnia ULSI\_P

- **Low operating temperature**
- **Cooling, heating, and dehumidification**

## Fan coils wall-mount installation



### DESCRIPTION

The Omnia Slim P fan coils have been designed to meet the need to combine the typical features of a classic radiator - namely reduced depth and quiet operation - with the ability of a fan coil to air-condition rooms throughout the year.

Can be installed in 2-pipe systems and used in combination with any heat generator, even at low temperatures.

### VERSIONS

**P** Inverter in venticcassaforma

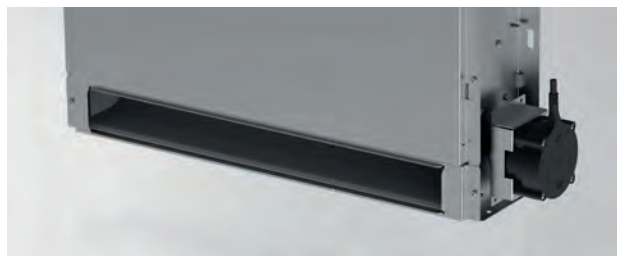
**PR** Inverter for ducted installation with right-hand connections

### FEATURES

#### Ventilation group

These fan coils have extremely silent ventilation by using special tangential fans, which guarantees maximum acoustic comfort.

The electric motor is a new generation Brushless with built-in driver and IP66 protection rating, continuously variable speed



#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

- *The coil is reversible during selection.*

### Control

Both versions are supplied without on-board control, however, various thermostats or control panels are available as accessories to be installed on the wall.

### Mandatory venticcassaforma ULS\_CH accessory

Available in 5 sizes.

Made of galvanised and painted sheet metal, they provide a space for housing the heat exchanger directly in the wall.

Rationalising spaces according to the criteria of modern interior architecture and current energy-saving requirements.



### ACCESSORIES

#### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for An-

droid and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-485EXP:** Not available for VMF-E6.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E2S:** User interface on the fan coil, with two selectors - one for temperature and the other for speed control. For operation, the installation of either the VMF-E19 or VMF-E19I accessory is required.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Common accessories

**BCSV:** Condensate collection tray, for valve kit.

**DSC7:** Condensate drainage device.

**VCS2:** 2-way motorised valve kit without insulating shell. The kit is made up of a valve, actuator and relative hydraulic fittings.

**VCS3:** 3-way motorised valve kit without insulating shell for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings.

### ACCESSORIES COMPATIBILITY

| Model        | Ver  | 10 | 20 | 30 | 40 | 50 |
|--------------|------|----|----|----|----|----|
| AER503IR (1) | P,PR | *  | *  | *  | *  | *  |
| PRO503       | P,PR | *  | *  | *  | *  | *  |
| SAS (2)      | P,PR | *  | *  | *  | *  | *  |
| SW5 (2)      | P,PR | *  | *  | *  | *  | *  |
| TX (3)       | P,PR | *  | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Model        | Ver  | 10 | 20 | 30 | 40 | 50 |
|--------------|------|----|----|----|----|----|
| DI24         | P,PR | *  | *  | *  | *  | *  |
| KITSV (1)    | P,PR | *  | *  | *  | *  | *  |
| VMF-E19I (2) | P,PR | *  | *  | *  | *  | *  |
| VMF-E2S (3)  | P,PR | *  | *  | *  | *  | *  |
| VMF-E3       | P,PR | *  | *  | *  | *  | *  |
| VMF-E4X      | P,PR | *  | *  | *  | *  | *  |
| VMF-IR       | P,PR | *  | *  | *  | *  | *  |
| VMHI         | P,PR | *  | *  | *  | *  | *  |

(1) Mandatory when the VMF-E19/19I thermostat is required.

(2) Mandatory accessory.

(3) Installation on the fan coil.

### 3 way valve kit

| Model    | Ver  | 10 | 20 | 30 | 40 | 50 |
|----------|------|----|----|----|----|----|
| VCS3 (1) | P,PR | *  | *  | *  | *  | *  |

(1) Power supply 230V - Hydraulic connections Ø 1/2"

### 2 way valve kit

| Model    | Ver  | 10 | 20 | 30 | 40 | 50 |
|----------|------|----|----|----|----|----|
| VCS2 (1) | P,PR | *  | *  | *  | *  | *  |

(1) Power supply 230V - Hydraulic connections Ø 1/2"

### Condensate drip

| Model | Ver  | 10 | 20 | 30 | 40 | 50 |
|-------|------|----|----|----|----|----|
| BCSV  | P,PR | *  | *  | *  | *  | *  |

## Condensate drainage

| Model | Ver | 10 | 20 | 30 | 40 | 50 |
|-------|-----|----|----|----|----|----|
| DSC7  | PPR | .  | .  | .  | .  | .  |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  | ULSI10P |   |   | ULSI20P |   |   | ULSI30P |   |   | ULSI40P |   |   | ULSI50P |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 | 1       | 2 | 3 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,70 | 1,14 | 1,53 | 1,27 | 1,88 | 2,86 | 1,88 | 2,91 | 3,72 | 2,32 | 3,55 | 4,77 | 2,49 | 3,85 | 5,73 |
| Water flow rate system side | l/h | 61   | 100  | 134  | 111  | 165  | 251  | 165  | 254  | 326  | 203  | 311  | 418  | 218  | 337  | 501  |
| Pressure drop system side   | kPa | 2    | 4    | 7    | 5    | 10   | 20   | 6    | 14   | 22   | 6    | 13   | 22   | 5    | 10   | 21   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,35 | 0,57 | 0,76 | 0,63 | 0,94 | 1,43 | 0,94 | 1,45 | 1,85 | 1,15 | 1,77 | 2,38 | 1,24 | 1,92 | 2,85 |
| Water flow rate system side | l/h | 61   | 99   | 132  | 110  | 163  | 248  | 163  | 251  | 322  | 201  | 307  | 413  | 216  | 333  | 495  |
| Pressure drop system side   | kPa | 2    | 4    | 7    | 5    | 9    | 20   | 6    | 14   | 22   | 6    | 13   | 22   | 5    | 10   | 21   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,37 | 0,60 | 0,80 | 0,67 | 0,98 | 1,50 | 0,98 | 1,52 | 1,95 | 1,22 | 1,86 | 2,50 | 1,30 | 2,02 | 3,00 |
| Sensible cooling capacity   | kW  | 0,25 | 0,42 | 0,57 | 0,46 | 0,68 | 1,08 | 0,68 | 1,06 | 1,39 | 0,84 | 1,30 | 1,79 | 0,90 | 1,40 | 2,15 |
| Water flow rate system side | l/h | 63   | 103  | 137  | 114  | 169  | 257  | 169  | 261  | 335  | 209  | 319  | 429  | 224  | 346  | 515  |
| Pressure drop system side   | kPa | 3    | 6    | 10   | 7    | 13   | 28   | 9    | 19   | 30   | 9    | 18   | 30   | 7    | 14   | 29   |

#### Fan

|               |      |            |    |     |            |     |     |            |     |     |            |     |     |            |     |     |
|---------------|------|------------|----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|
| Type          | type | Tangential |    |     | Tangential |     |     | Tangential |     |     | Tangential |     |     | Tangential |     |     |
| Fan motor     | type | Inverter   |    |     | Inverter   |     |     | Inverter   |     |     | Inverter   |     |     | Inverter   |     |     |
| Number        | no.  | 1          |    |     | 1          |     |     | 1          |     |     | 2          |     |     | 2          |     |     |
| Air flow rate | m³/h | 46         | 82 | 134 | 78         | 128 | 241 | 109        | 188 | 301 | 126        | 218 | 370 | 127        | 225 | 427 |
| Input power   | W    | 5          | 8  | 10  | 6          | 9   | 15  | 7          | 12  | 17  | 7          | 14  | 20  | 7          | 13  | 21  |
| Signal 0-10V  | %    | 40         | 70 | 90  | 40         | 70  | 90  | 40         | 70  | 90  | 40         | 70  | 90  | 40         | 70  | 90  |

#### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 39,0 | 47,0 | 51,0 | 39,0 | 47,0 | 51,0 | 40,0 | 48,0 | 53,0 | 41,0 | 49,0 | 54,0 | 42,0 | 52,0 | 56,0 |
| Sound pressure level | dB(A) | 31,0 | 39,0 | 43,0 | 31,0 | 39,0 | 43,0 | 32,0 | 40,0 | 45,0 | 33,0 | 41,0 | 46,0 | 34,0 | 44,0 | 48,0 |

#### Finned pack heat exchanger

|                                   |   |     |  |  |     |  |  |     |  |  |     |  |  |     |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|
| Water content main heat exchanger | l | 0,5 |  |  | 0,9 |  |  | 1,2 |  |  | 1,5 |  |  | 1,8 |  |  |
|-----------------------------------|---|-----|--|--|-----|--|--|-----|--|--|-----|--|--|-----|--|--|

#### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

#### Power supply

|              |  |           |  |  |           |  |  |           |  |  |           |  |  |           |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|
| Power supply |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  | 230V~50Hz |  |  |
|--------------|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|-----------|--|--|

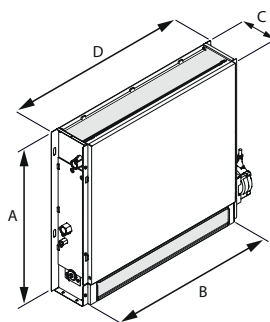
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

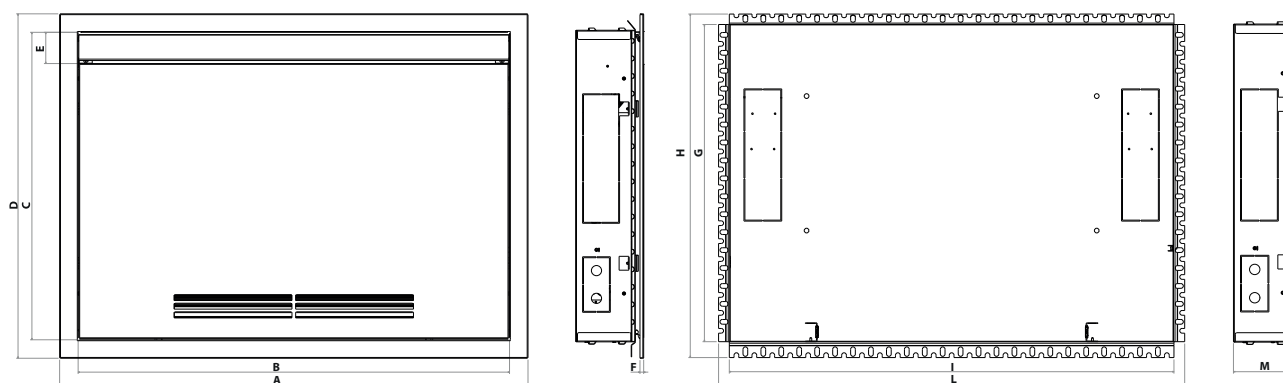
## DIMENSIONS

### ULSI\_P



| Size                          |      |    | 10  | 20  | 30   | 40   | 50   |
|-------------------------------|------|----|-----|-----|------|------|------|
| <b>Dimensions and weights</b> |      |    |     |     |      |      |      |
| A                             | P,PR | mm | 130 | 130 | 130  | 130  | 130  |
| B                             | P,PR | mm | 745 | 940 | 1134 | 1328 | 1524 |
| C                             | P,PR | mm | 580 | 580 | 580  | 580  | 580  |
| D                             | P,PR | mm | 80  | 80  | 80   | 80   | 80   |
| Empty weight                  | P,PR | kg | 11  | 13  | 15   | 17   | 19   |

### ULS\_CH



|                               |    | ULS10CH | ULS20CH | ULS30CH | ULS40CH | ULS50CH |
|-------------------------------|----|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |
| A                             | mm | 818     | 1013    | 1206    | 1401    | 1596    |
| B                             | mm | 738     | 933     | 1126    | 1321    | 1516    |
| C                             | mm | 665     | 665     | 665     | 665     | 665     |
| D                             | mm | 745     | 745     | 745     | 745     | 745     |
| E                             | mm | 67      | 67      | 67      | 67      | 67      |
| F                             | mm | 8       | 8       | 8       | 8       | 8       |
| G                             | mm | 672     | 672     | 672     | 672     | 672     |
| H                             | mm | 728     | 728     | 728     | 728     | 728     |
| I                             | mm | 747     | 942     | 1135    | 1330    | 1525    |
| L                             | mm | 793     | 988     | 1181    | 1376    | 1571    |
| M                             | mm | 129     | 129     | 129     | 129     | 129     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## VED 030-340

## Fan coil unit for ducted installations

- Horizontal and vertical installation
- Large range of available static pressure
- Inspectable ventilation group



### DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying. Designed to maintain the set temperature over time, ensuring very low sound levels. Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

### FEATURES

#### Case

Unit for internal installation. Internally insulated structure with class 1 fire resistance and IP20 protection.

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans.

They are statically and dynamically balanced and directly coupled to the motor shaft.

The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

Fan housing in plastic material removable for easy and effective cleaning.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

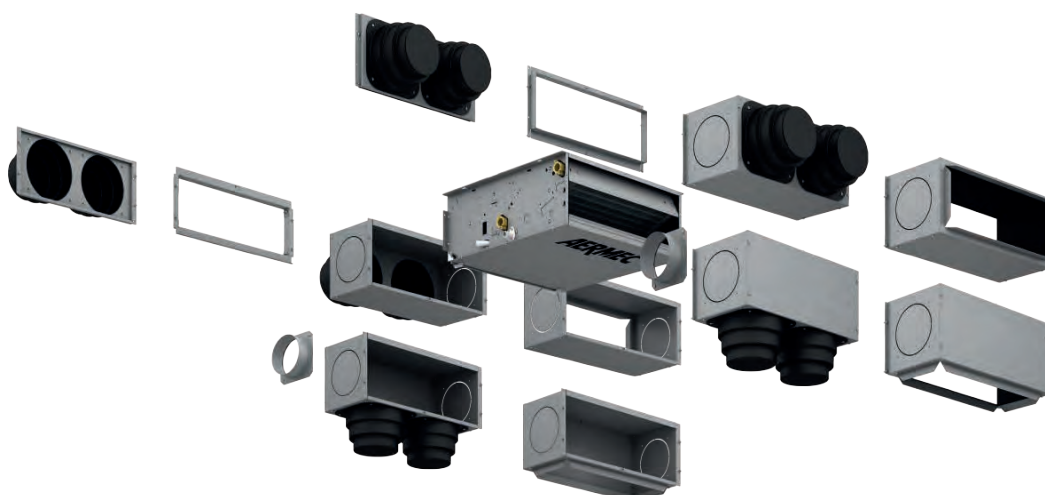
Coarse 25% Class air filter, easy to remove and clean.

#### Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.

The unit is supplied with the delivery connection supplied.

## ACCESSORIES



### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SIT3V:** Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.



**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Valves and additional water coil

**BV:** Hot water heat exchanger with 1 row.

**VCF\_X:** 3-way valve kit for fan coils with single heat exchanger and hydraulic connections on the left side, for installation in 4-pipe systems. The kit is composed by 2 insulated 3-way valves and 4 connections complete with electrothermal actuators, insulating shells for the valves and with hydraulic fittings. 230V power supply. Hydraulic connections: Valve body Ø G 3/4" Male; Valve side connection pipes Ø G 3/4" Female; Unit side connection pipes Ø G 3/4" Male.

**VCF41 - 42 - 43 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.

The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### Installation accessories

**AMP:** Wall mounting kit

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**DSC:** Condensate drainage device.

### Accessories for intake

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**SE\_X:** External air shutter with manual control.

**RDA\_V:** Straight intake connection with rectangular flange.

**RDA\_C:** Straight intake connection with circular flanges.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

### Delivery accessories

**MZC:** Plenum with motorised dampers.

**MZCAC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.

**MZCACV:** Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**GM:** Flow grid with adjustable louvers.

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_C:** Straight discharge internally insulated, with circular flanges.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

**KFV:** Circular flanges kit for plenum.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Model        | Ver | 030 | 040 | 130 | 140 | 230 | 240 | 330 | 340 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERS03IR (1) | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| SA5 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (5)       | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (5)    | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (5)    | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16CV (5)  | .   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Cards for AERS03IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AERS03IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Model         | Ver | 030 | 040 | 130 | 140 | 230 | 240 | 330 | 340 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24          | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19 (1)   | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3        | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX      | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X       | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-I0        | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR        | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SIT3V (2) | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW        | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1       | .   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMHI          | .   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

(2) For the selection, consult the documentation for the thermostat and the fan coil.

**(Heating only) additional coil**

| Ver | 030       | 040 | 130       | 140 | 230       | 240 | 330       | 340 |
|-----|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| .   | BV030 (1) | -   | BV130 (1) | -   | BV230 (1) | -   | BV162 (1) | -   |

(1) Not available for sizes with oversized main coil.  
The accessory cannot be fitted on the configurations indicated with -

**Water valves****Valve Kit for 4 pipe systems with main coil**

| Accessory | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| VCF3X4L   | *      | *      | *      |        | *      |        | *      | *      |
| VCF3X4LS  |        |        |        | *      |        | *      |        |        |
| VCF3X4R   | *      | *      | *      |        | *      |        | *      | *      |
| VCF3X4RS  |        |        |        | *      |        | *      |        |        |

**3 way valve kit**

|                        | VED030        | VED040        | VED130        | VED140          | VED230        | VED240          | VED330        | VED340        |
|------------------------|---------------|---------------|---------------|-----------------|---------------|-----------------|---------------|---------------|
| <b>3 way valve kit</b> |               |               |               |                 |               |                 |               |               |
| Main heat exchanger    | VCF43-VCF4324 | VCF43-VCF4324 | VCF43-VCF4324 | VCF43S-VCF4324S | VCF43-VCF4324 | VCF43S-VCF4324S | VCF43-VCF4324 | VCF43-VCF4324 |
| Additional coil "BV"   | VCF45-VCF4524 | -             | VCF45-VCF4524 | -               | VCF45-VCF4524 | -               | VCF45-VCF4524 | -             |

VCF43 - 4S Power supply 230V, VCF4324-4S24 Power supply 24V - Hydraulic connections Ø 3/4"

**2 way valve kit**

|                        | VED030        | VED040        | VED130        | VED140        | VED230        | VED240        | VED330        | VED340        |
|------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>2 way valve kit</b> |               |               |               |               |               |               |               |               |
| Main heat exchanger    | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 |
| Additional coil "BV"   | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             |

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"  
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

**Combined adjustment and balancing valve cold side**

| Accessory | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| VJP060    | *      | *      | *      | *      |        |        |        |        |
| VJP060M   | *      | *      | *      | *      |        |        |        |        |
| VJP090    |        |        |        |        | *      | *      | *      | *      |
| VJP090M   |        |        |        |        | *      | *      | *      | *      |
| VJP150    |        |        |        |        |        |        | *      | *      |
| VJP150M   |        |        |        |        |        |        | *      | *      |

**Installation accessories**

| Accessory | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| AMP       | *      | *      | *      | *      | *      | *      | *      | *      |

**Condensate drip**

| Accessory        | VED030        | VED040        | VED130        | VED140        | VED230        | VED240        | VED330        | VED340        |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| BC24             | *             | *             | *             | *             | *             | *             | *             | *             |
| BC26             | *             | *             | *             | *             | *             | *             | *             | *             |
| <b>Accessory</b> | <b>VED030</b> | <b>VED040</b> | <b>VED130</b> | <b>VED140</b> | <b>VED230</b> | <b>VED240</b> | <b>VED330</b> | <b>VED340</b> |
| BC9              | *             | *             | *             | *             | *             | *             | *             | *             |

BC24 For vertical installation.  
BC26 For horizontal installation.  
BC9 For horizontal installation.

**Condensate recirculation device**

| Accessory | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| DSC4      | *      | *      | *      | *      | *      | *      | *      | *      |
| DSC24     | *      | *      | *      | *      | *      | *      | *      | *      |

**Accessories for intake****Intake grids**

| Ver | 030  | 040  | 130  | 140  | 230  | 240  | 330  | 340  |
|-----|------|------|------|------|------|------|------|------|
| .   | GA22 | GA22 | GA32 | GA32 | GA42 | GA42 | GA62 | GA62 |

**Intake grid with filter and fixed louvers**

| Ver | 030   | 040   | 130   | 140   | 230   | 240   | 330   | 340   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| .   | GAF22 | GAF22 | GAF32 | GAF32 | GAF42 | GAF42 | GAF62 | GAF62 |

**External air shutter with manual control**

| Ver | 030   | 040   | 130   | 140   | 230   | 240   | 330   | 340   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| .   | SE20X | SE20X | SE30X | SE30X | SE40X | SE40X | SE80X | SE80X |

**Intake straight with rectangular flanges**

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RDA000V | RDA000V | RDA100V | RDA100V | RDA200V | RDA200V | RDA300V | RDA300V |



**Intake straight internally insulated, with circular flanges**

| Ver | 030      | 040      | 130      | 140      | 230      | 240      | 330      | 340      |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|
| .   | RDAC000V | RDAC000V | RDAC100V | RDAC100V | RDAC200V | RDAC200V | RDAC300V | RDAC300V |

**Intake plenum with rectangular flanges**

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RPA000V | RPA000V | RPA100V | RPA100V | RPA200V | RPA200V | RPA300V | RPA300V |

**Intake plenum with circular flanges**

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | PA000V | PA000V | PA100V | PA100V | PA200V | PA200V | PA300V | PA300V |

**Delivery accessories****Plenum with motor-driven dampers**

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | MZC220 | MZC220 | MZC320 | MZC320 | MZC530 | MZC530 | MZC830 | MZC830 |

**Electrical system with relays**

| Ver | 030        | 040        | 130        | 140        | 230        | 240        | 330        | 340        |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|
| .   | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) |

(1) It is mandatory to use MZCACV if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.

**Electric plant**

| Ver | 030   | 040   | 130   | 140   | 230   | 240   | 330   | 340   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| .   | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC |

**Flow grid with adjustable louvers**

| Ver | 030  | 040  | 130  | 140  | 230  | 240  | 330  | 340  |
|-----|------|------|------|------|------|------|------|------|
| .   | GM22 | GM22 | GM32 | GM32 | GM42 | GM42 | GM62 | GM62 |

**Delivery plenum internally insulated, with circular flanges**

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | PM000V | PM000V | PM100V | PM100V | PM200V | PM200V | PM300V | PM300V |

**Delivery plenum internally insulated, with rectangular flanges**

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RPM000V | RPM000V | RPM100V | RPM100V | RPM200V | RPM200V | RPM300V | RPM300V |

**Delivery straight internally insulated, with circular flanges**

| Ver | 030      | 040      | 130      | 140      | 230      | 240      | 330      | 340      |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|
| .   | RDMC000V | RDMC000V | RDMC100V | RDMC100V | RDMC200V | RDMC200V | RDMC300V | RDMC300V |

**Straight delivery coupling**

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RDM000V | RDM000V | RDM100V | RDM100V | RDM200V | RDM200V | RDM300V | RDM300V |

**Circular flanges kit for plenum**

| Accessory | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| KFV10     | .      | .      | .      | .      | .      | .      | .      | .      |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

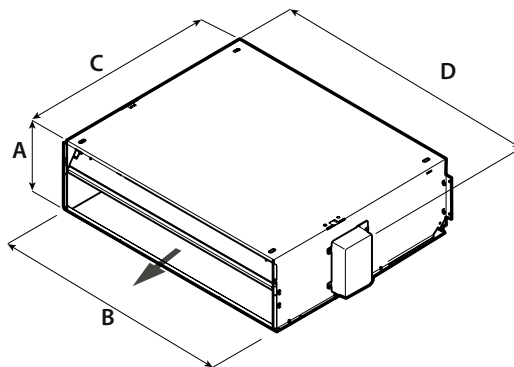
|                                       |       | VED030       |      |      | VED040 |      |      | VED130 |      |      | VED140 |      |      | VED230 |      |      | VED240 |      |      | VED330 |      |       | VED340 |       |       |
|---------------------------------------|-------|--------------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|------|--------|------|-------|--------|-------|-------|
|                                       |       | 1            | 4    | 6    | 1      | 4    | 6    | 1      | 4    | 6    | 1      | 4    | 6    | 1      | 3    | 6    | 1      | 3    | 6    | 1      | 3    | 7     | 1      | 3     | 7     |
|                                       |       | L            | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H     | L      | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Heating capacity                      | kW    | 1,82         | 3,37 | 3,69 | 2,37   | 3,57 | 3,92 | 4,40   | 5,83 | 6,29 | 4,52   | 6,09 | 6,58 | 5,35   | 6,50 | 7,16 | 5,80   | 7,14 | 7,91 | 7,81   | 9,34 | 10,51 | 8,31   | 10,02 | 10,95 |
| Water flow rate system side           | l/h   | 160          | 296  | 323  | 207    | 313  | 343  | 386    | 512  | 552  | 396    | 534  | 577  | 469    | 570  | 628  | 509    | 626  | 694  | 685    | 819  | 921   | 729    | 878   | 960   |
| Pressure drop system side             | kPa   | 3            | 7    | 9    | 4      | 10   | 12   | 13     | 22   | 26   | 9      | 16   | 18   | 27     | 30   | 37   | 18     | 26   | 32   | 9      | 13   | 16    | 22     | 28    | 32    |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Heating capacity                      | kW    | 0,90         | 1,67 | 1,83 | 1,18   | 1,77 | 1,94 | 2,18   | 2,90 | 3,12 | 2,24   | 3,02 | 3,27 | 2,66   | 3,23 | 3,56 | 2,88   | 3,55 | 3,93 | 3,88   | 4,64 | 5,22  | 3,98   | 4,98  | 5,44  |
| Water flow rate system side           | l/h   | 157          | 291  | 318  | 204    | 208  | 338  | 380    | 504  | 543  | 390    | 526  | 568  | 462    | 561  | 618  | 501    | 616  | 683  | 674    | 807  | 907   | 718    | 865   | 945   |
| Pressure drop system side             | kPa   | 3            | 8    | 9    | 5      | 11   | 13   | 15     | 24   | 28   | 10     | 16   | 19   | 26     | 29   | 36   | 18     | 27   | 32   | 10     | 14   | 17    | 13     | 20    | 23    |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Cooling capacity                      | kW    | 0,97         | 1,41 | 1,56 | 1,10   | 1,68 | 1,84 | 2,05   | 2,74 | 2,91 | 2,24   | 3,00 | 3,22 | 2,55   | 3,07 | 3,33 | 2,86   | 3,57 | 3,93 | 3,62   | 4,35 | 4,90  | 3,92   | 4,72  | 5,26  |
| Sensible cooling capacity             | kW    | 0,73         | 1,07 | 1,18 | 0,79   | 1,19 | 1,29 | 1,41   | 1,89 | 2,01 | 1,58   | 2,14 | 2,30 | 1,96   | 2,38 | 2,61 | 2,16   | 2,65 | 2,92 | 2,74   | 3,26 | 3,63  | 2,89   | 3,50  | 3,89  |
| Water flow rate system side           | l/h   | 170          | 250  | 279  | 193    | 296  | 327  | 358    | 480  | 515  | 390    | 525  | 566  | 445    | 538  | 588  | 499    | 624  | 691  | 633    | 760  | 860   | 685    | 824   | 922   |
| Pressure drop system side             | kPa   | 3            | 7    | 9    | 5      | 12   | 14   | 15     | 27   | 31   | 11     | 20   | 23   | 25     | 36   | 44   | 16     | 31   | 37   | 10     | 14   | 18    | 16     | 21    | 26    |
| Fan                                   |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Type                                  | type  | Centrifugal  |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Fan motor                             | type  | Asynchronous |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Number                                | no.   | 1            |      |      | 1      |      |      | 2      |      |      | 2      |      |      | 2      |      |      | 2      |      |      | 3      |      |       | 3      |       |       |
| Air flow rate                         | m³/h  | 161          | 256  | 285  | 160    | 249  | 277  | 287    | 397  | 433  | 280    | 386  | 420  | 417    | 524  | 590  | 406    | 509  | 570  | 572    | 704  | 805   | 563    | 685   | 775   |
| High static pressure                  | Pa    | 21           | 50   | 61   | 21     | 50   | 61   | 26     | 50   | 60   | 26     | 50   | 60   | 32     | 50   | 64   | 32     | 50   | 63   | 33     | 50   | 66    | 34     | 50    | 64    |
| Input power                           | W     | 23           | 38   | 59   | 23     | 38   | 58   | 34     | 53   | 76   | 34     | 52   | 75   | 43     | 57   | 93   | 43     | 57   | 92   | 63     | 75   | 104   | 63     | 74    | 107   |
| Electrical wiring                     |       | V1           | V4   | V6   | V1     | V4   | V6   | V1     | V4   | V6   | V1     | V4   | V6   | V1     | V3   | V6   | V1     | V3   | V6   | V1     | V3   | V7    | V1     | V3    | V7    |
| Duct type fan coil sound data (3)     |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Sound power level (inlet + radiated)  | dB(A) | 44,0         | 52,0 | 54,0 | 44,0   | 52,0 | 54,0 | 47,0   | 53,0 | 55,0 | 47,0   | 53,0 | 55,0 | 49,0   | 54,0 | 57,0 | 49,0   | 54,0 | 57,0 | 49,0   | 55,0 | 58,0  | 49,0   | 55,0  | 58,0  |
| Sound power level (outlet)            | dB(A) | 40,0         | 48,0 | 50,0 | 40,0   | 48,0 | 50,0 | 42,0   | 48,0 | 50,0 | 42,0   | 48,0 | 50,0 | 44,0   | 49,0 | 52,0 | 44,0   | 49,0 | 52,0 | 45,0   | 51,0 | 54,0  | 45,0   | 51,0  | 54,0  |
| Finned pack heat exchanger            |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Water content main heat exchanger     | l     | 0,7          |      |      | 1,0    |      |      | 1,1    |      |      | 1,5    |      |      | 1,5    |      |      | 2,1    |      |      | 1,8    |      |       | 2,3    |       |       |
| Diameter hydraulic fittings           |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Main heat exchanger                   | Ø     | 3/4"         |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Power supply                          |       |              |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |
| Power supply                          |       | 230V~50Hz    |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |      |        |      |       |        |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | VED030 | VED040 | VED130 | VED140 | VED230 | VED240 | VED330 | VED340 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |
| A                             | mm | 217    | 217    | 217    | 217    | 217    | 217    | 217    | 217    |
| B                             | mm | 550    | 550    | 781    | 781    | 1001   | 1001   | 1122   | 1122   |
| C                             | mm | 560    | 560    | 560    | 560    | 560    | 560    | 560    | 560    |
| D                             | mm | 576    | 576    | 807    | 807    | 1027   | 1027   | 1148   | 1148   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## VED 030I-340I

## Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**
- **Total comfort: reduced temperature and humidity oscillations**
- **Electricity savings of 50% compared with a fan coil with multi-speed motor**



### DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying. Designed to maintain the set temperature over time, ensuring very low sound levels. Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

### FEATURES

#### Case

Unit for internal installation. Internally insulated structure with class 1 fire resistance and IP20 protection.

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Brushless motor with continuous speed variation 0-100%. Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

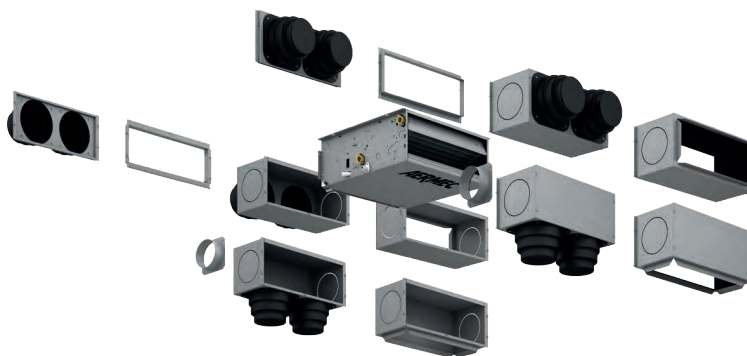
Air filter Class G3, for easy removal and cleaning.

#### Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.

The unit is supplied with the delivery connection supplied.

## ACCESSORIES



### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**SWAI:** External air or water temperature probe.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT21:** Electronic thermostat for inverter fancoils.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documen-

tation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Valves and additional water coil

**BV:** Hot water heat exchanger with 1 row.

**VCF X:** 3-way valve kit for fan coils with single heat exchanger and hydraulic connections on the left side, for installation in 4-pipe systems. The kit is composed by 2 insulated 3-way valves and 4 connections complete with electrothermal actuators, insulating shells for the valves and with hydraulic fittings. 230V power supply. Hydraulic connections: Valve body Ø G 3/4" Male; Valve side connection pipes Ø G 3/4" Female; Unit side connection pipes Ø G 3/4" Male.

**VCF41 - 42 - 43 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

### Installation accessories

**AMP:** Wall mounting kit

**BC:** Condensate drip.

**DSC:** Condensate drainage device.

### Accessories for intake

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**SE\_X:** External air shutter with manual control.

**RDA\_V:** Straight intake connection with rectangular flange.

**RDA\_C:** Straight intake connection with circular flanges.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| AERS03IR  | *       | *       | *       | *       | *       | *       | *       | *       |
| PRO503    | *       |         | *       | *       | *       | *       | *       | *       |
| SA5       | *       | *       | *       | *       | *       | *       | *       | *       |
| SW3       | *       | *       | *       | *       | *       | *       | *       | *       |
| SW5       | *       | *       | *       | *       | *       | *       | *       | *       |
| SWAI      | *       | *       | *       | *       | *       | *       | *       | *       |
| TX        | *       | *       | *       | *       | *       | *       | *       | *       |
| WMT21     | *       | *       | *       | *       | *       | *       | *       | *       |

### VMF system

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| DI24      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E19I  | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E3    | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E4DX  | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E4X   | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-IO    | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-IR    | *       |         | *       |         | *       | *       | *       | *       |
| VMF-LON   | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-SW    | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-SW1   | *       | *       | *       | *       | *       | *       | *       | *       |
| VMHI      | *       | *       | *       | *       | *       | *       | *       | *       |

### (Heating only) additional coil

| Ver | 030   | 040 | 130   | 140 | 230   | 240 | 330   | 340 |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| I   | BV030 | -   | BV130 | -   | BV230 | -   | BV162 | -   |

### Water valves

#### Valve Kit for 4 pipe systems with main coil

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| VCF3X4L   | *       | *       | *       |         | *       |         | *       | *       |
| VCF3X4LS  |         |         |         | *       |         | *       |         |         |
| VCF3X4R   | *       | *       | *       |         | *       |         | *       | *       |
| VCF3X4RS  |         |         |         | *       |         | *       |         |         |

#### 3 way valve kit

|                      | VED030I       | VED040I       | VED130I       | VED140I         | VED230I       | VED240I         | VED330I       | VED340I       |
|----------------------|---------------|---------------|---------------|-----------------|---------------|-----------------|---------------|---------------|
| 3 way valve kit      |               |               |               |                 |               |                 |               |               |
| Main heat exchanger  | VCF43-VCF4324 | VCF43-VCF4324 | VCF43-VCF4324 | VCF43S-VCF4324S | VCF43-VCF4324 | VCF43S-VCF4324S | VCF43-VCF4324 | VCF43-VCF4324 |
| Additional coil "BV" | VCF45-VCF4524 | -             | VCF45-VCF4524 | -               | VCF45-VCF4524 | -               | VCF45-VCF4524 | -             |

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

#### 2 way valve kit

|                      | VED030I       | VED040I       | VED130I       | VED140I       | VED230I       | VED240I       | VED330I       | VED340I       |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 2 way valve kit      |               |               |               |               |               |               |               |               |
| Main heat exchanger  | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 | VCFD3-VCFD324 |
| Additional coil "BV" | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             | VCFD4-VCFD424 | -             |

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"

VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

#### Combined adjustment and balancing valve cold side

| Model       | Ver | 030 | 040 | 130 | 140 | 230 | 240 | 330 | 340 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP060 (1)  | I   | *   | *   | *   | *   |     |     |     |     |
| VJP060M (2) | I   | *   | *   | *   | *   |     |     |     |     |
| VJP090 (1)  | I   |     |     |     |     | *   | *   | *   | *   |
| VJP090M (2) | I   |     |     |     |     | *   | *   | *   | *   |

### Delivery accessories

**GM:** Flow grid with adjustable louvers.

**MZC:** Plenum with motorised dampers.

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_C:** Straight discharge internally insulated, with circular flanges.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

**KFV:** Circular flanges kit for plenum.

| Model       | Ver | 030 | 040 | 130 | 140 | 230 | 240 | 330 | 340 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP150 (1)  | I   |     |     |     |     |     |     | *   | *   |
| VJP150M (2) | I   |     |     |     |     |     |     | *   | *   |

(1) 230V~50Hz

(2) 24V

VJP060 - 090 - 150 (230V~50Hz); VJP060M-090M-150M (24V)

## Installation accessories

### Wall mounting accessories

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| AMP       | *       | *       | *       | *       | *       | *       | *       | *       |

### Condensate drip

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| BCZ4      | *       | *       | *       | *       | *       | *       | *       | *       |
| BCZ6      | *       | *       | *       | *       | *       | *       | *       | *       |

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| BC9       | *       | *       | *       | *       | *       | *       | *       | *       |

BCZ4 For vertical installation.

BCZ6 For horizontal installation.

BC9 For horizontal installation.

### Condensate drainage

| Ver | 030  | 040  | 130  | 140  | 230  | 240  | 330  | 340  |
|-----|------|------|------|------|------|------|------|------|
| I   | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 |

## Accessories for intake

### Intake grids

| Ver | 030  | 040  | 130  | 140  | 230  | 240  | 330  | 340  |
|-----|------|------|------|------|------|------|------|------|
| I   | GA22 | GA22 | GA32 | GA32 | GA42 | GA42 | GA62 | GA62 |

### Intake grid with filter and fixed louvers

| Ver | 030   | 040   | 130   | 140   | 230   | 240   | 330   | 340   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| I   | GAF22 | GAF22 | GAF32 | GAF32 | GAF42 | GAF42 | GAF62 | GAF62 |

### External air shutter with manual control

| Ver | 030       | 040       | 130       | 140       | 230       | 240       | 330       | 340       |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| I   | SE20X (1) | SE20X (1) | SE30X (1) | SE30X (1) | SE40X (1) | SE40X (1) | SE80X (1) | SE80X (1) |

(1) The SE accessories must be combined with the design and structural feet.

### Intake straight with rectangular flanges

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| I   | RDA000V | RDA000V | RDA100V | RDA100V | RDA200V | RDA200V | RDA300V | RDA300V |

### Intake straight internally insulated, with circular flanges

| Ver | 030      | 040      | 130      | 140      | 230      | 240      | 330      | 340      |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|
| I   | RDAC000V | RDAC000V | RDAC100V | RDAC100V | RDAC200V | RDAC200V | RDAC300V | RDAC300V |

### Intake plenum with rectangular flanges

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| I   | RPA000V | RPA000V | RPA100V | RPA100V | RPA200V | RPA200V | RPA300V | RPA300V |

### Intake plenum with circular flanges

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| I   | PA000V | PA000V | PA100V | PA100V | PA200V | PA200V | PA300V | PA300V |

## Delivery accessories

### Outlet grille with adjustable louvers

| Ver | 030  | 040  | 130  | 140  | 230  | 240  | 330  | 340  |
|-----|------|------|------|------|------|------|------|------|
| I   | GM22 | GM22 | GM32 | GM32 | GM42 | GM42 | GM62 | GM62 |

### Plenum with motor-driven dampers

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| I   | MZC220 | MZC220 | MZC320 | MZC320 | MZC530 | MZC530 | MZC830 | MZC830 |

### Delivery plenum internally insulated, with circular flanges

| Ver | 030    | 040    | 130    | 140    | 230    | 240    | 330    | 340    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| I   | PM000V | PM000V | PM100V | PM100V | PM200V | PM200V | PM300V | PM300V |

### Delivery plenum internally insulated, with rectangular flanges

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| I   | RPM000V | RPM000V | RPM100V | RPM100V | RPM200V | RPM200V | RPM300V | RPM300V |

**Delivery straight internally insulated, with circular flanges**

| Ver | 030      | 040      | 130      | 140      | 230      | 240      | 330      | 340      |
|-----|----------|----------|----------|----------|----------|----------|----------|----------|
| I   | RDMC000V | RDMC000V | RDMC100V | RDMC100V | RDMC200V | RDMC200V | RDMC300V | RDMC300V |

**Straight delivery coupling**

| Ver | 030     | 040     | 130     | 140     | 230     | 240     | 330     | 340     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| I   | RDM000V | RDM000V | RDM100V | RDM100V | RDM200V | RDM200V | RDM300V | RDM300V |

**Circular flanges kit for plenum**

| Accessory | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| KFV10     | •       | •       | •       | •       | •       | •       | •       | •       |

**PERFORMANCE SPECIFICATIONS**
**2-pipe**

|  | VED030I |   |   | VED040I |   |   | VED130I |   |   | VED140I |   |   | VED230I |   |   | VED240I |   |   | VED330I |   |   | VED340I |   |   |
|--|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|---------|---|---|
|  | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 | 1       | 5 | 7 |
|  | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H | L       | M | H |

**Heating performance 70 °C / 60 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|
| Heating capacity            | kW  | 1,82 | 3,37 | 3,69 | 2,37 | 3,57 | 3,92 | 4,40 | 5,83 | 6,29 | 4,52 | 6,09 | 6,58 | 5,35 | 6,50 | 7,16 | 5,80 | 7,14 | 7,91 | 7,81 | 9,34 | 10,51 | 8,31 | 10,08 | 10,95 |
| Water flow rate system side | l/h | 160  | 296  | 323  | 207  | 313  | 343  | 386  | 512  | 552  | 396  | 534  | 577  | 469  | 570  | 628  | 509  | 626  | 694  | 685  | 819  | 921   | 729  | 878   | 960   |
| Pressure drop system side   | kPa | 3    | 7    | 9    | 4    | 10   | 12   | 13   | 22   | 26   | 9    | 16   | 18   | 27   | 30   | 37   | 18   | 26   | 32   | 9    | 13   | 16    | 22   | 28    | 32    |

**Heating performance 45 °C / 40 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,90 | 1,67 | 1,83 | 1,17 | 1,77 | 1,94 | 2,18 | 2,90 | 3,12 | 2,24 | 3,02 | 3,27 | 2,66 | 3,23 | 3,56 | 2,88 | 3,55 | 3,93 | 3,88 | 4,64 | 5,22 | 3,98 | 4,98 | 5,44 |
| Water flow rate system side | l/h | 157  | 291  | 318  | 204  | 308  | 338  | 380  | 504  | 543  | 390  | 526  | 568  | 462  | 561  | 618  | 501  | 616  | 683  | 674  | 807  | 907  | 718  | 865  | 945  |
| Pressure drop system side   | kPa | 3    | 8    | 9    | 5    | 11   | 13   | 15   | 24   | 28   | 10   | 16   | 19   | 26   | 29   | 36   | 18   | 27   | 32   | 10   | 14   | 17   | 13   | 20   | 23   |

**Cooling performance 7 °C / 12 °C**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,98 | 1,42 | 1,58 | 1,11 | 1,69 | 1,86 | 2,06 | 2,76 | 2,95 | 2,25 | 3,02 | 3,25 | 2,57 | 3,09 | 3,37 | 2,88 | 3,59 | 3,97 | 3,62 | 4,36 | 4,91 | 3,95 | 4,72 | 5,27 |
| Sensible cooling capacity   | kW  | 0,74 | 1,08 | 1,20 | 0,80 | 1,20 | 1,31 | 1,42 | 1,91 | 2,05 | 1,59 | 2,16 | 2,32 | 1,98 | 2,40 | 2,65 | 2,18 | 2,67 | 2,96 | 2,77 | 3,27 | 3,64 | 2,92 | 3,51 | 3,90 |
| Water flow rate system side | l/h | 170  | 250  | 279  | 193  | 296  | 327  | 358  | 480  | 515  | 390  | 525  | 566  | 445  | 538  | 588  | 499  | 624  | 691  | 633  | 760  | 860  | 680  | 811  | 906  |
| Pressure drop system side   | kPa | 3    | 7    | 9    | 5    | 12   | 14   | 15   | 27   | 41   | 11   | 20   | 23   | 25   | 36   | 44   | 16   | 31   | 37   | 10   | 14   | 18   | 16   | 21   | 26   |

**Fan**

|                      |      |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|----------------------|------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Type                 | type | Centrifugal |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Fan motor            | type | Inverter    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Number               | no.  | 1           |     |     | 1   |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 3   |     |     | 3   |     |     |
| Air flow rate        | m³/h | 161         | 256 | 285 | 160 | 249 | 277 | 287 | 397 | 434 | 280 | 386 | 420 | 417 | 524 | 590 | 406 | 509 | 570 | 572 | 704 | 805 | 563 | 685 | 775 |
| High static pressure | Pa   | 21          | 50  | 61  | 21  | 50  | 61  | 26  | 50  | 60  | 26  | 50  | 60  | 32  | 50  | 64  | 32  | 50  | 63  | 33  | 50  | 66  | 34  | 50  | 64  |
| Input power          | W    | 12          | 29  | 36  | 12  | 29  | 36  | 17  | 33  | 45  | 17  | 33  | 45  | 24  | 40  | 53  | 24  | 40  | 53  | 35  | 60  | 86  | 35  | 60  | 86  |
| Signal 0-10V         | %    | 54          | 80  | 90  | 54  | 80  | 90  | 58  | 82  | 90  | 58  | 82  | 90  | 66  | 80  | 90  | 62  | 80  | 90  | 62  | 78  | 90  | 66  | 84  | 90  |

**Duct type fan coil sound data (3)**

|                                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level (inlet + radiated) | dB(A) | 44,0 | 52,0 | 54,0 | 44,0 | 52,0 | 54,0 | 47,0 | 53,0 | 55,0 | 47,0 | 53,0 | 55,0 | 49,0 | 54,0 | 57,0 | 49,0 | 54,0 | 57,0 | 49,0 | 55,0 | 58,0 | 49,0 | 55,0 | 58,0 |
| Sound power level (outlet)           | dB(A) | 40,0 | 48,0 | 50,0 | 40,0 | 48,0 | 50,0 | 42,0 | 48,0 | 50,0 | 42,0 | 48,0 | 50,0 | 44,0 | 49,0 | 52,0 | 44,0 | 49,0 | 52,0 | 45,0 | 51,0 | 54,0 | 45,0 | 51,0 | 54,0 |

**Diameter hydraulic fittings**

|                     |      |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------|------|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Type                | type | Gas - F |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Main heat exchanger | Ø    | 3/4"    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Power supply**

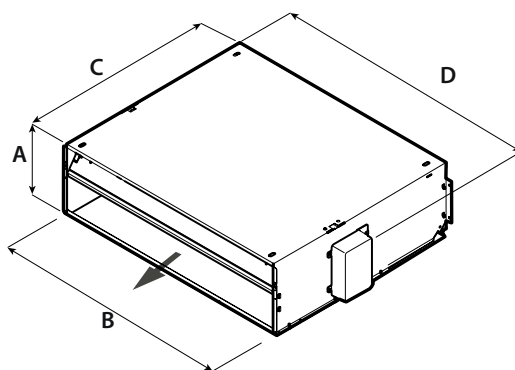
|              |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | VED030I | VED040I | VED130I | VED140I | VED230I | VED240I | VED330I | VED340I |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |
| A                             | mm | 217     | 217     | 217     | 217     | 217     | 217     | 217     | 217     |
| B                             | mm | 550     | 550     | 781     | 781     | 1001    | 1001    | 1122    | 1122    |
| C                             | mm | 584     | 584     | 584     | 584     | 584     | 584     | 584     | 584     |
| D                             | mm | 576     | 576     | 807     | 807     | 1027    | 1027    | 1148    | 1148    |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# VED 430-741

## Fan coil unit for ducted installations

- Horizontal and vertical installation
- Ventilation group to 5 speed
- Large range of available static pressure
- Inspectable ventilation group



### DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying. Designed to maintain the set temperature over time, ensuring very low sound levels. Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

### FEATURES

#### Case

Unit for internal installation. Internally insulated structure with class 1 fire resistance and IP20 protection.

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

Fan housing in plastic material removable for easy and effective cleaning.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

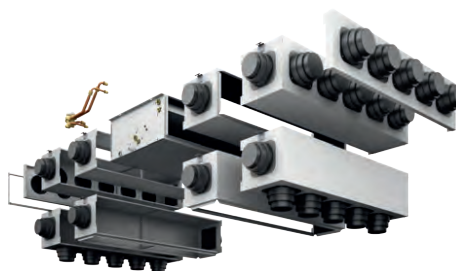
Air filter Class G3, for easy removal and cleaning.

### Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.

The unit is supplied with the delivery connection supplied.

### ACCESSORIES



#### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan

speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-MOD:** Expansion board for the management of modulating valves.

**VMF-SIT3V:** Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCTK:** The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

**VCTKM:** The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

**VCF45C - 47C - 47CS - for main heat exchanger:** 3-way motorised valve kit for the main heat exchanger. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF45H - 47H - for heating only heat exchanger:** Motorized 3-way valve kit for hot only coil. The kit consists of a 3-way 4-way valve, the actuator and its hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

**VCF25C - 25CS - for main coil:** 2-way motorized valve kit for main coil. The kit consists of a valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

**VCF25H - for heating only coil:** 2-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.

**BCV:** Condensate drip.

### Installation accessories

**MZC:** Plenum with motorised dampers.

**RDA\_V:** Straight intake connection with rectangular flange.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**KFV:** Circular flanges kit for plenum.

**MZCACV:** Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**MZCAC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.

## Configurator

| Field | Description  |
|-------|--|
| 1,2,3 | VED  |
| 4,5,6 | Size<br>430, 432, 440, 441, 530, 532, 540, 541, 630, 632, 640, 641, 730, 732, 740, 741 |
| 7     | main heat exchanger  |
| 8     | Secondary heat exchanger   |

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Model        | Ver | 430 | 432 | 440 | 441 | 530 | 532 | 540 | 541 | 630 | 632 | 640 | 641 | 730 | 732 | 740 | 741 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER503IR (1) | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PRO503       | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SA5 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT3 (3)     | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SIT5 (4)     | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW3 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SW5 (2)      | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TX (5)       | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT10 (5)    | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16 (5)    | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| WMT16CV (5)  | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Model         | Ver | 430 | 432 | 440 | 441 | 530 | 532 | 540 | 541 | 630 | 632 | 640 | 641 | 730 | 732 | 740 | 741 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DI24          | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E19 (1)   | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E3        | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4DX      | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-E4X       | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IO        | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-IR        | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-MOD       | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SIT3V (2) | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW        | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-SW1       | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMHI          | .   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

(2) For the selection, consult the documentation for the thermostat and the fan coil.

## Water valves

### 3 way valve kit

|   | VED430 | VED432 | VED440  | VED441  | VED530 | VED532 | VED540  | VED541  |
|---|--------|--------|---------|---------|--------|--------|---------|---------|
| <b>3 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF45C | VCF45C | VCF45C  | VCF45C  | VCF45C | VCF45C | VCF45C  | VCF45C  |
|   | VED630 | VED632 | VED640  | VED641  | VED730 | VED732 | VED740  | VED741  |
| <b>3 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF47C | VCF47C | VCF47CS | VCF47CS | VCF47C | VCF47C | VCF47CS | VCF47CS |
|   | VED430 | VED432 | VED440  | VED441  | VED530 | VED532 | VED540  | VED541  |
| <b>3 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF45C | VCF45C | VCF45C  | VCF45C  | VCF45C | VCF45C | VCF45C  | VCF45C  |
| Secondary heat exchanger for four pipes | -      | VCF45H | -       | VCF45H  | -      | VCF45H | -       | VCF45H  |
|   | VED630 | VED632 | VED640  | VED641  | VED730 | VED732 | VED740  | VED741  |
| <b>3 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF47C | VCF47C | VCF47CS | VCF47CS | VCF47C | VCF47C | VCF47CS | VCF47CS |
| Secondary heat exchanger for four pipes | -      | VCF47H | -       | VCF47H  | -      | VCF47H | -       | VCF47H  |

230V power supply - Hydraulic connection Ø 3/4"

### 2 way valve kit

|                        | VED430 | VED432 | VED440  | VED441  | VED530 | VED532 | VED540  | VED541  |
|------------------------|--------|--------|---------|---------|--------|--------|---------|---------|
| <b>2 way valve kit</b> |        |        |         |         |        |        |         |         |
| Main heat exchanger    | VCF25C | VCF25C | VCF25C  | VCF25C  | VCF25C | VCF25C | VCF25C  | VCF25C  |
|                        | VED630 | VED632 | VED640  | VED641  | VED730 | VED732 | VED740  | VED741  |
| <b>2 way valve kit</b> |        |        |         |         |        |        |         |         |
| Main heat exchanger    | VCF25C | VCF25C | VCF25CS | VCF25CS | VCF25C | VCF25C | VCF25CS | VCF25CS |

|   | VED430 | VED432 | VED440  | VED441  | VED530 | VED532 | VED540  | VED541  |
|---|--------|--------|---------|---------|--------|--------|---------|---------|
| <b>2 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF25C | VCF25C | VCF25C  | VCF25C  | VCF25C | VCF25C | VCF25C  | VCF25C  |
| Secondary heat exchanger for four pipes | -      | VCF25H | -       | VCF25H  | -      | VCF25H | -       | VCF25H  |
|   | VED630 | VED632 | VED640  | VED641  | VED730 | VED732 | VED740  | VED741  |
| <b>2 way valve kit</b>                  |        |        |         |         |        |        |         |         |
| Main heat exchanger                     | VCF25C | VCF25C | VCF25CS | VCF25CS | VCF25C | VCF25C | VCF25CS | VCF25CS |
| Secondary heat exchanger for four pipes | -      | VCF25H | -       | VCF25H  | -      | VCF25H | -       | VCF25H  |

230V power supply - Hydraulic connection Ø 3/4"

#### 2-way globe valves actuator excluded

| Ver | 430    | 432    | 440    | 441    | 530    | 532    | 540    | 541    | 630    | 632    | 640    | 641    | 730    | 732    | 740    | 741    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | VCT102 | VCT102 | VCT102 | VCT102 | VCT102 | VCT102 | VCT102 | VCT102 | VCT202 | VCT202 | VCT202 | VCT202 | VCT202 | VCT202 | VCT202 | VCT202 |

#### 3-way globe valves actuator excluded

| Ver | 430    | 432    | 440    | 441    | 530    | 532    | 540    | 541    | 630    | 632    | 640    | 641    | 730    | 732    | 740    | 741    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | VCT103 | VCT103 | VCT103 | VCT103 | VCT103 | VCT103 | VCT103 | VCT103 | VCT203 | VCT203 | VCT203 | VCT203 | VCT203 | VCT203 | VCT403 | VCT403 |

#### Actuator 230V

| Ver | 430  | 432  | 440  | 441  | 530  | 532  | 540  | 541  | 630  | 632  | 640  | 641  | 730  | 732  | 740  | 741  |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| .   | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK |

#### Actuator 24V

| Ver | 430   | 432   | 440   | 441   | 530   | 532   | 540   | 541   | 630   | 632   | 640   | 641   | 730   | 732   | 740   | 741   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| .   | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM |

#### Combined adjustment and balancing valve cold side

| Model       | Ver | 430 | 432 | 440 | 441 | 530 | 532 | 540 | 541 | 630 | 632 | 640 | 641 | 730 | 732 | 740 | 741 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| VJP150 (1)  | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VJP150M (2) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |
| VJP270M (2) | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   | .   |

(1) 230V~50Hz

(2) 24V

**VJP/VJP\_M the compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.**

#### Accessories for intake

##### Intake straight with rectangular flanges

| Ver | 430     | 432     | 440     | 441     | 530     | 532     | 540     | 541     | 630     | 632     | 640     | 641     | 730     | 732     | 740     | 741     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RDA450V | RDA450V | RDA450V | RDA450V | RDA450V | RDA450V | RDA450V | RDA450V | RDA670V | RDA670V | RDA670V | RDA670V | RDA670V | RDA670V | RDA670V | RDA670V |

##### Intake plenum with rectangular flanges

| Ver | 430     | 432     | 440     | 441     | 530     | 532     | 540     | 541     | 630     | 632     | 640     | 641     | 730     | 732     | 740     | 741     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RPA450V | RPA450V | RPA450V | RPA450V | RPA450V | RPA450V | RPA450V | RPA450V | RPA670V | RPA670V | RPA670V | RPA670V | RPA670V | RPA670V | RPA670V | RPA670V |

##### Intake plenum with circular flanges

| Ver | 430    | 432    | 440    | 441    | 530    | 532    | 540    | 541    | 630    | 632    | 640    | 641    | 730    | 732    | 740    | 741    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | PA450V | PA450V | PA450V | PA450V | PA450V | PA450V | PA450V | PA450V | PA670V | PA670V | PA670V | PA670V | PA670V | PA670V | PA670V | PA670V |

#### Delivery accessories

##### Delivery plenum internally insulated, with rectangular flanges

| Ver | 430     | 432     | 440     | 441     | 530     | 532     | 540     | 541     | 630     | 632     | 640     | 641     | 730     | 732     | 740     | 741     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | RPM450V | RPM450V | RPM450V | RPM450V | RPM450V | RPM450V | RPM450V | RPM450V | RPM670V | RPM670V | RPM670V | RPM670V | RPM670V | RPM670V | RPM670V | RPM670V |

##### Delivery plenum internally insulated, with circular flanges

| Ver | 430    | 432    | 440    | 441    | 530    | 532    | 540    | 541    | 630    | 632    | 640    | 641    | 730    | 732    | 740    | 741    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| .   | PM450V | PM450V | PM450V | PM450V | PM450V | PM450V | PM450V | PM450V | PM670V | PM670V | PM670V | PM670V | PM670V | PM670V | PM670V | PM670V |

##### Circular flanges kit for plenum

| Ver | 430 | 432 | 440 | 441 | 530 | 532 | 540 | 541 | 630 | 632 | 640 | 641 | 730 | 732 | 740 | 741 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| .   | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV | KFV |

##### Condensate drip

| Ver | 430   | 432   | 440   | 441   | 530   | 532   | 540   | 541   | 630   | 632   | 640   | 641   | 730   | 732   | 740   | 741   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| .   | BCV45 | BCV45 | BCV45 | BCV45 | BCV45 | BCV45 | BCV45 | BCV45 | BCV67 | BCV67 | BCV67 | BCV67 | BCV67 | BCV67 | BCV67 | BCV67 |

#### MZC

##### Plenum with motor-driven dampers

| Ver | 430     | 432     | 440     | 441     | 530     | 532     | 540     | 541     | 630     | 632     | 640     | 641     | 730     | 732     | 740     | 741     |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | MZCS040 | MZCS040 | MZCS040 | MZCS040 | MZCS040 | MZCS040 | MZCS040 | MZCS040 | MZC7050 | MZC7050 | MZC7050 | MZC7050 | MZC7050 | MZC7050 | MZC7050 | MZC7050 |

## Electric plant

| Ver | 430   | 432   | 440   | 441   | 530   | 532   | 540   | 541   | 630   | 632   | 640 | 641 | 730 | 732 | 740 | 741 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|
|     | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | MZCAC | -   | -   | -   | -   | -   | -   |

The accessory cannot be fitted on the configurations indicated with -

## Electrical system with relays

| Ver | 430 | 432 | 440 | 441 | 530 | 532 | 540 | 541 | 630 | 632 | 640        | 641        | 730        | 732        | 740        | 741        |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|------------|------------|------------|------------|------------|
|     | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) | MZCACV (1) |

(1) It is mandatory to use MZCACV if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.

The accessory cannot be fitted on the configurations indicated with -

■ For more information, please refer to the MZC plenum sheet.

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|                                       |       | VED430       |       |       | VED440 |       |       | VED530 |       |       | VED540 |       |       | VED630 |       |       | VED640 |       |       | VED730 |       |       | VED740 |       |       |
|---------------------------------------|-------|--------------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|
|                                       |       | 1            | 3     | 5     | 1      | 3     | 5     | 2      | 4     | 5     | 2      | 4     | 5     | 1      | 3     | 5     | 1      | 3     | 5     | 1      | 3     | 5     | 1      | 3     | 5     |
|                                       |       | L            | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     | L      | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Heating capacity                      | kW    | 10,47        | 13,85 | 15,97 | 11,45  | 15,36 | 18,11 | 13,80  | 16,47 | 17,57 | 15,38  | 18,59 | 19,91 | 18,63  | 22,67 | 27,02 | 22,45  | 27,74 | 32,69 | 21,18  | 25,36 | 29,00 | 22,88  | 27,65 | 31,71 |
| Water flow rate system side           | l/h   | 918          | 1214  | 1401  | 1004   | 1347  | 1588  | 1210   | 1444  | 1541  | 1349   | 1630  | 1746  | 1634   | 1988  | 2369  | 1969   | 2433  | 2867  | 1857   | 2224  | 2543  | 2007   | 2425  | 2781  |
| Pressure drop system side             | kPa   | 9            | 14    | 19    | 11     | 18    | 24    | 13     | 15    | 21    | 18     | 25    | 29    | 30     | 43    | 58    | 19     | 29    | 38    | 38     | 55    | 67    | 26     | 36    | 46    |
| Heating performance 45 °C / 40 °C (2) |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Heating capacity                      | kW    | 5,20         | 5,88  | 7,94  | 5,69   | 7,64  | 9,01  | 6,86   | 8,19  | 8,74  | 7,45   | 9,24  | 9,90  | 9,26   | 11,20 | 13,40 | 9,88   | 12,40 | 14,80 | 10,50  | 12,60 | 14,20 | 11,30  | 13,70 | 15,70 |
| Water flow rate system side           | l/h   | 894          | 1183  | 1366  | 979    | 1314  | 1550  | 1180   | 1409  | 1503  | 1281   | 1589  | 1703  | 1593   | 1926  | 2305  | 1699   | 2133  | 2546  | 1806   | 2167  | 2442  | 1944   | 2356  | 2700  |
| Pressure drop system side             | kPa   | 9            | 14    | 19    | 11     | 18    | 24    | 14     | 19    | 21    | 21     | 25    | 30    | 30     | 42    | 58    | 16     | 24    | 32    | 38     | 52    | 66    | 26     | 36    | 35    |
| Cooling performance 7 °C / 12 °C      |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Cooling capacity                      | kW    | 4,54         | 5,98  | 6,72  | 5,21   | 6,88  | 7,79  | 5,99   | 7,16  | 7,49  | 7,26   | 8,31  | 8,70  | 8,67   | 10,43 | 12,19 | 10,20  | 12,50 | 14,80 | 10,17  | 11,92 | 13,48 | 11,73  | 13,95 | 15,71 |
| Sensible cooling capacity             | kW    | 3,40         | 4,54  | 5,13  | 3,65   | 4,86  | 5,51  | 4,55   | 5,48  | 5,75  | 4,87   | 5,90  | 6,18  | 7,00   | 8,48  | 9,96  | 7,02   | 8,62  | 10,30 | 8,25   | 9,71  | 11,07 | 8,11   | 9,69  | 10,95 |
| Water flow rate system side           | l/h   | 781          | 1029  | 1156  | 896    | 1183  | 1340  | 1030   | 1232  | 1288  | 1249   | 1429  | 1496  | 1491   | 1794  | 2097  | 1754   | 2150  | 2546  | 1749   | 2050  | 2319  | 2018   | 2399  | 2702  |
| Pressure drop system side             | kPa   | 8            | 13    | 17    | 10     | 17    | 22    | 12     | 19    | 21    | 19     | 25    | 28    | 26     | 36    | 48    | 24     | 34    | 47    | 35     | 46    | 58    | 27     | 37    | 45    |
| Fan                                   |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Type                                  | type  | Centrifugal  |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Fan motor                             | type  | Asynchronous |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Number                                | no.   | 2            |       |       | 2      |       |       | 2      |       |       | 2      |       |       | 3      |       |       | 3      |       |       | 3      |       |       | 3      |       |       |
| Air flow rate                         | m³/h  | 790          | 1130  | 1350  | 780    | 1100  | 1340  | 1120   | 1400  | 1520  | 1100   | 1380  | 1500  | 1380   | 1800  | 2210  | 1567   | 2004  | 2440  | 1640   | 2040  | 2410  | 1600   | 2000  | 2350  |
| High static pressure                  | Pa    | 24           | 50    | 72    | -      | 50    | 63    | 32     | 50    | 70    | 32     | 50    | 56    | 30     | 50    | 75    | 30     | 50    | 75    | 32     | 50    | 69    | 32     | 50    | 64    |
| Input power                           | W     | 137          | 175   | 228   | 135    | 178   | 222   | 175    | 232   | 270   | 172    | 230   | 267   | 220    | 271   | 340   | 220    | 293   | 340   | 234    | 285   | 371   | 234    | 285   | 371   |
| Electrical wiring                     |       | V1           | V3    | V5    | V1     | V3    | V5    | V2     | V4    | V5    | V2     | V4    | V5    | V1     | V3    | V5    | V1     | V3    | V5    | V1     | V3    | V5    | V1     | V3    | V5    |
| Duct type fan coil sound data (3)     |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Sound power level (inlet + radiated)  | dB(A) | 51,0         | 57,0  | 61,0  | 51,0   | 57,0  | 61,0  | 53,0   | 59,0  | 62,0  | 53,0   | 59,0  | 62,0  | 61,0   | 64,0  | 68,0  | 61,0   | 64,0  | 68,0  | 62,0   | 66,0  | 68,0  | 62,0   | 66,0  | 68,0  |
| Sound power level (outlet)            | dB(A) | 47,0         | 53,0  | 57,0  | 47,0   | 53,0  | 57,0  | 49,0   | 55,0  | 58,0  | 49,0   | 55,0  | 58,0  | 57,0   | 60,0  | 64,0  | 57,0   | 60,0  | 64,0  | 58,0   | 62,0  | 64,0  | 58,0   | 62,0  | 64,0  |
| Diameter hydraulic fittings           |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Type                                  | type  | -            |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Main heat exchanger                   | Ø     | 3/4"         |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Finned pack heat exchanger            |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Water content main heat exchanger     | l     | 2,9          |       |       | 3,9    |       |       | 2,9    |       |       | 3,9    |       |       | 4,7    |       |       | 6,3    |       |       | 4,7    |       |       | 6,3    |       |       |
| Power supply                          |       |              |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |
| Power supply                          |       | 230V~50Hz    |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |        |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

### 4-pipe

|  |      | VED441       |      |      | VED541 |      |      | VED641 |       |       | VED741 |       |       |
|--|------|--------------|------|------|--------|------|------|--------|-------|-------|--------|-------|-------|
|  |      | 1            | 3    | 5    | 2      | 4    | 5    | 1      | 3     | 5     | 1      | 3     | 5     |
|  |      | L            | M    | H    | L      | M    | H    | L      | M     | H     | L      | M     | H     |
| <b>Heating performance 65 °C / 55 °C (1)</b> |      |              |      |      |        |      |      |        |       |       |        |       |       |
| Heating capacity                             | kW   | 5,53         | 6,68 | 7,30 | 6,70   | 7,62 | 7,89 | 9,65   | 11,00 | 12,30 | 10,50  | 11,80 | 12,90 |
| Water flow rate system side                  | l/h  | 475          | 574  | 627  | 576    | 655  | 678  | 829    | 946   | 1057  | 903    | 1014  | 1109  |
| Pressure drop system side                    | kPa  | 14           | 20   | 23   | 20     | 25   | 26   | 15     | 19    | 24    | 18     | 22    | 25    |
| <b>Cooling performance 7 °C / 12 °C</b>      |      |              |      |      |        |      |      |        |       |       |        |       |       |
| Cooling capacity                             | kW   | 5,35         | 7,05 | 8,00 | 7,46   | 8,56 | 8,94 | 10,40  | 12,70 | 15,20 | 11,90  | 14,20 | 16,10 |
| Sensible cooling capacity                    | kW   | 3,79         | 5,03 | 5,74 | 5,07   | 6,14 | 6,42 | 7,26   | 8,92  | 10,70 | 8,37   | 9,96  | 11,30 |
| Water flow rate system side                  | l/h  | 920          | 1212 | 1376 | 1283   | 1472 | 1537 | 1788   | 2184  | 2614  | 2046   | 2442  | 2769  |
| Pressure drop system side                    | kPa  | 12           | 19   | 24   | 21     | 27   | 29   | 24     | 35    | 48    | 27     | 37    | 46    |
| <b>Fan</b>                                   |      |              |      |      |        |      |      |        |       |       |        |       |       |
| Type   | type | Centrifugal  |      |      |        |      |      |        |       |       |        |       |       |
| Fan motor                                    | type | Asynchronous |      |      |        |      |      |        |       |       |        |       |       |
| Number                                       | no.  | 2            |      |      | 2      |      |      | 3      |       |       | 3      |       |       |
| Air flow rate                                | m³/h | 750          | 1060 | 1253 | 1060   | 1360 | 1453 | 1340   | 1730  | 2120  | 1600   | 2000  | 2358  |
| High static pressure                         | Pa   | 25           | 50   | 70   | 32     | 50   | 57   | 30     | 50    | 75    | 32     | 50    | 69    |
| Input power                                  | W    | 121          | 175  | 215  | 170    | 229  | 265  | 224    | 264   | 341   | 224    | 288   | 373   |
| Electrical wiring                            |      | V1           | V3   | V5   | V2     | V4   | V5   | V1     | V3    | V5    | V1     | V3    | V5    |

|  |       | VED441    |      |      | VED541 |      |      | VED641 |      |      | VED741 |      |      |
|--|-------|-----------|------|------|--------|------|------|--------|------|------|--------|------|------|
| Duct type fan coil sound data (2)      |       |           |      |      |        |      |      |        |      |      |        |      |      |
| Sound power level (inlet + radiated)   | dB(A) | 51,0      | 57,0 | 61,0 | 53,0   | 59,0 | 62,0 | 61,0   | 64,0 | 68,0 | 62,0   | 66,0 | 68,0 |
| Sound power level (outlet)             | dB(A) | 47,0      | 53,0 | 57,0 | 49,0   | 55,0 | 58,0 | 57,0   | 60,0 | 64,0 | 58,0   | 62,0 | 64,0 |
| Diameter hydraulic fittings            |       |           |      |      |        |      |      |        |      |      |        |      |      |
| Type                                   | type  | -         |      |      |        |      |      |        |      |      |        |      |      |
| Main heat exchanger                    | Ø     | 3/4"      |      |      |        |      |      |        |      |      |        |      |      |
| Secondary heat exchanger               | Ø     | 1/2"      |      |      |        |      |      |        |      |      |        |      |      |
| Finned pack heat exchanger             |       |           |      |      |        |      |      |        |      |      |        |      |      |
| Water content main heat exchanger      | l     | 3,9       |      |      | 3,9    |      |      | 6,3    |      |      | 6,3    |      |      |
| Water content secondary heat exchanger | l     | 1,0       |      |      | 1,0    |      |      | 1,6    |      |      | 1,6    |      |      |
| Power supply                           |       |           |      |      |        |      |      |        |      |      |        |      |      |
| Power supply                           |       | 230V~50Hz |      |      |        |      |      |        |      |      |        |      |      |

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

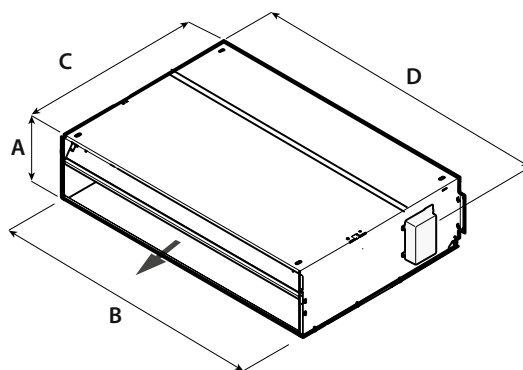
(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

| VED              |    | From VED 430 to 741 |    |    |    |  |
|------------------|----|---------------------|----|----|----|--|
| Fan speed        | V1 | V2                  | V3 | V4 | V5 |  |
| Motor connection | L5 | L4                  | L3 | L2 | L1 |  |

The speed of associates may differ from the standard factory configuration.

For more information refer to the selection program and to the dedicated documentation.

## DIMENSIONS



|                               |    | VED430 | VED432 | VED440 | VED441 | VED530 | VED532 | VED540 | VED541 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |
| A                             | mm | 300    | 300    | 300    | 300    | 300    | 300    | 300    | 300    |
| B                             | mm | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   |
| C                             | mm | 737    | 737    | 737    | 737    | 737    | 737    | 737    | 737    |
| D                             | mm | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   |
| Net weight                    | kg | 41,0   | 46,0   | 43,0   | 46,0   | 42,0   | 47,0   | 47,0   | 47,0   |
|                               |    | VED630 | VED632 | VED640 | VED641 | VED730 | VED732 | VED740 | VED741 |
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |
| A                             | mm | 351    | 351    | 351    | 351    | 351    | 351    | 351    | 351    |
| B                             | mm | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   |
| C                             | mm | 789    | 789    | 789    | 789    | 789    | 789    | 789    | 789    |
| D                             | mm | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   |
| Net weight                    | kg | 57,0   | 60,0   | 60,0   | 60,0   | 58,0   | 61,0   | 61,0   | 64,0   |
|                               |    | VED430 | VED432 | VED440 | VED441 | VED530 | VED532 | VED540 | VED541 |
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |
| A                             | mm | 300    | 300    | 300    | 300    | 300    | 300    | 300    | 300    |
| B                             | mm | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   | 1133   |
| C                             | mm | 737    | 737    | 737    | 737    | 737    | 737    | 737    | 737    |
| D                             | mm | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   | 1158   |
| Net weight                    | kg | 41,0   | 46,0   | 43,0   | 46,0   | 42,0   | 47,0   | 47,0   | 47,0   |
|                               |    | VED630 | VED632 | VED640 | VED641 | VED730 | VED732 | VED740 | VED741 |
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |
| A                             | mm | 351    | 351    | 351    | 351    | 351    | 351    | 351    | 351    |
| B                             | mm | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   | 1533   |
| C                             | mm | 789    | 789    | 789    | 789    | 789    | 789    | 789    | 789    |
| D                             | mm | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   | 1558   |
| Net weight                    | kg | 57,0   | 60,0   | 60,0   | 60,0   | 58,0   | 61,0   | 61,0   | 64,0   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# VED 530I-741I

## Fan coil unit for ducted installations

- Horizontal and vertical installation
- Ventilation group to 5 speed
- Large range of available static pressure
- Inspectable ventilation group



### DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying. Designed to maintain the set temperature over time, ensuring very low sound levels. Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

### FEATURES

#### Case

Unit for internal installation. Internally insulated structure with class 1 fire resistance and IP20 protection.

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Brushless motor with continuous speed variation 0-100%. Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

#### Heat exchanger coil

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

Air filter Class G3, for easy removal and cleaning.

#### Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.

The unit is supplied with the delivery connection supplied.

## ACCESSORIES



### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT21:** Electronic thermostat for inverter fancoils.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**The VMF-E19I accessory must be factory installed**

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Water valves

**VJP:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

**VCF45C - 47C - 47CS - for main heat exchanger:** 3-way motorised valve kit for the main heat exchanger. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCF45H - 47H - for heating only heat exchanger:** Motorized 3-way valve kit for hot only coil. The kit consists of a 3-way 4-way valve, the actuator and its hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

**VCF25C - 25CS - for main coil:** 2-way motorized valve kit for main coil. The kit consists of a valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

**VCF25H - for heating only coil:** 2-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.

**BCV:** Condensate drip.

### Installation accessories

**MZC:** Plenum with motorised dampers.

**RDA\_V:** Straight intake connection with rectangular flange.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.



**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

### Configurator

| Field | Description                                    |
|-------|--|
| 1,2,3 | VED  |
| 4,5,6 | Size<br>530, 532, 540, 541, 730, 732, 740, 741 |

**KFV:** Circular flanges kit for plenum.

**MZCBC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with a brushless motor.

| Field | Description              |
|-------|--------------------------|
| 7     | main heat exchanger      |
| 8     | Secondary heat exchanger |
| 9     | Fans                     |

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory    | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|
| AERS03IR (1) | *       | *       | *       | *       | *       | *       | *       | *       |
| PRO503       | *       | *       | *       | *       | *       | *       | *       | *       |
| SA5 (2)      | *       | *       | *       | *       | *       | *       | *       | *       |
| SW5 (2)      | *       | *       | *       | *       | *       | *       | *       | *       |
| TX (3)       | *       | *       | *       | *       | *       | *       | *       | *       |
| WMT21        | *       | *       | *       | *       | *       | *       | *       | *       |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

| Accessory    | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|
| DI24         | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E19I (1) | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E3       | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E4DX     | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E4X      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-IO       | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-IR       | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-LON      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-SW       | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-SW1      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMHI         | *       | *       | *       | *       | *       | *       | *       | *       |

(1) Mandatory accessory.

**The VMF-E19I accessory must be factory installed**

### Water valves

#### 3 way valve kit

|   | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>3 way valve kit</b>                  |         |         |         |         |         |         |         |         |
| Main heat exchanger                     | VCF45C  | VCF45C  | VCF45C  | VCF45C  | VCF47C  | VCF47C  | VCF47CS | VCF47CS |
| Secondary heat exchanger for four pipes | -       | VCF45H  | -       | VCF45H  | -       | VCF47H  | -       | VCF47H  |

230V power supply - Hydraulic connection Ø 3/4"

#### 2 way valve kit

|   | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>2 way valve kit</b>                  |         |         |         |         |         |         |         |         |
| Main heat exchanger                     | VCF25C  | VCF25C  | VCF25C  | VCF25C  | VCF25C  | VCF25C  | VCF25CS | VCF25CS |
| Secondary heat exchanger for four pipes | -       | VCF25H  | -       | VCF25H  | -       | VCF25H  | -       | VCF25H  |

230V power supply - Hydraulic connection Ø 3/4"

#### 2-way globe valves actuator excluded

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| VCT102    | *       | *       | *       | *       |         |         |         |         |
| VCT202    |         |         |         |         | *       | *       | *       | *       |

#### Actuator 230V

| Accessory | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|
| VCTK      | *       | *       | *       | *       | *       | *       | *       |

#### Actuator 24V

| Accessory | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|
| VCTKM     | *       | *       | *       | *       | *       | *       | *       |

**Combined adjustment and balancing valve cold side**

| Accessory   | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|
| VJP150 (1)  | *       | *       | *       | *       |         |         |         |         |
| VJP150M (2) | *       | *       | *       | *       |         |         |         |         |
| VJP270M (2) |         |         |         |         | *       | *       | *       | *       |

(1) 230V ~ 50Hz

(2) 24V

VJP/VJP\_M the compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

**Condensate drip**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| BCV45     | *       | *       | *       | *       |         |         |         |         |
| BCV67     |         |         |         |         | *       | *       | *       | *       |

**Accessories for intake****Intake plenum with rectangular flanges**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| RPA450V   | *       | *       | *       | *       |         |         |         |         |
| RPA670V   |         |         |         |         | *       | *       | *       | *       |

**Intake plenum with circular flanges**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| PA450V    | *       | *       | *       | *       |         |         |         |         |
| PA670V    |         |         |         |         | *       | *       | *       | *       |

**Delivery accessories****Delivery plenum internally insulated, with rectangular flanges**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| RPM450V   | *       | *       | *       | *       |         |         |         |         |
| RPM670V   |         |         |         |         | *       | *       | *       | *       |

**Delivery plenum internally insulated, with circular flanges**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| PM450V    | *       | *       | *       | *       |         |         |         |         |
| PM670V    |         |         |         |         | *       | *       | *       | *       |

**Circular flanges kit for plenum**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| KFV       | *       | *       | *       | *       | *       | *       | *       | *       |

**MZC****Plenum with motor-driven dampers**

| Accessory | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| MZCS040   | *       | *       | *       | *       |         |         |         |         |
| MZC7050   |         |         |         |         | *       | *       | *       | *       |

**Electric plant**

| Accessory | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-----------|---------|---------|---------|---------|---------|---------|---------|
| MZCBC     | *       | *       | *       | *       | *       | *       | *       |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|                                       |       | VED530I     |       |       | VED540I |       |       | VED730I |       |       | VED740I |       |       |
|---------------------------------------|-------|-------------|-------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|
|                                       |       | 1           | 2     | 3     | 1       | 2     | 3     | 1       | 2     | 3     | 1       | 2     | 3     |
|                                       |       | L           | M     | H     | L       | M     | H     | L       | M     | H     | L       | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 13,80       | 16,47 | 17,57 | 15,38   | 18,59 | 19,91 | 21,18   | 25,36 | 29,00 | 22,88   | 27,65 | 31,71 |
| Water flow rate system side           | l/h   | 1210        | 1444  | 1541  | 1349    | 1630  | 1746  | 1857    | 2224  | 2543  | 2007    | 2425  | 2781  |
| Pressure drop system side             | kPa   | 13          | 18    | 21    | 18      | 25    | 29    | 38      | 55    | 67    | 26      | 36    | 46    |
| Heating performance 45 °C / 40 °C (2) |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Heating capacity                      | kW    | 6,86        | 8,19  | 8,74  | 7,65    | 9,24  | 9,90  | 10,53   | 12,61 | 14,22 | 11,34   | 27,65 | 15,81 |
| Water flow rate system side           | l/h   | 1180        | 1409  | 1503  | 1316    | 1589  | 1703  | 1811    | 2169  | 2446  | 1950    | 2425  | 2719  |
| Pressure drop system side             | kPa   | 14          | 19    | 21    | 21      | 25    | 30    | 38      | 52    | 66    | 26      | 36    | 46    |
| Cooling performance 7 °C / 12 °C      |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Cooling capacity                      | kW    | 6,05        | 7,25  | 7,39  | 7,31    | 8,40  | 8,70  | 10,25   | 11,96 | 13,48 | 11,81   | 13,99 | 15,71 |
| Sensible cooling capacity             | kW    | 4,61        | 5,57  | 6,02  | 4,93    | 5,99  | 6,18  | 8,33    | 9,75  | 11,07 | 8,19    | 9,73  | 10,95 |
| Water flow rate system side           | l/h   | 1041        | 1247  | 1271  | 1257    | 1445  | 1496  | 1763    | 2057  | 2319  | 2031    | 2406  | 2702  |
| Pressure drop system side             | kPa   | 12          | 19    | 21    | 19      | 25    | 28    | 35      | 46    | 58    | 27      | 37    | 45    |
| Fan                                   |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Type                                  | type  | Centrifugal |       |       |         |       |       |         |       |       |         |       |       |
| Fan motor                             | type  | Inverter    |       |       |         |       |       |         |       |       |         |       |       |
| Number                                | no.   | 2           |       |       | 2       |       |       | 3       |       |       | 3       |       |       |
| Air flow rate                         | m³/h  | 1120        | 1400  | 1520  | 1100    | 1380  | 1500  | 1640    | 2040  | 2410  | 1600    | 2000  | 2358  |
| High static pressure                  | Pa    | 32          | 50    | 58    | 32      | 50    | 56    | 32      | 50    | 69    | 32      | 50    | 69    |
| Input power                           | W     | 115         | 160   | 205   | 115     | 160   | 205   | 147     | 241   | 370   | 147     | 241   | 370   |
| Signal 0-10V                          | %     | 66          | 76    | 62    | 62      | 76    | 90    | 62      | 76    | 90    | 62      | 76    | 90    |
| Duct type fan coil sound data (3)     |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Sound power level (inlet + radiated)  | dB(A) | 53,0        | 59,0  | 62,0  | 53,0    | 59,0  | 62,0  | 62,0    | 66,0  | 68,0  | 62,0    | 66,0  | 68,0  |
| Sound power level (outlet)            | dB(A) | 49,0        | 55,0  | 58,0  | 49,0    | 55,0  | 58,0  | 58,0    | 62,0  | 64,0  | 58,0    | 62,0  | 64,0  |
| Diameter hydraulic fittings           |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Main heat exchanger                   | Ø     | 3/4"        |       |       |         |       |       |         |       |       |         |       |       |
| Power supply                          |       |             |       |       |         |       |       |         |       |       |         |       |       |
| Power supply                          |       | 230V~50Hz   |       |       |         |       |       |         |       |       |         |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

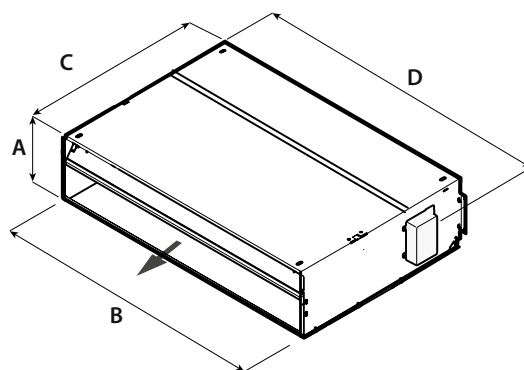
### 4-pipe

|                                       |       | VED541I     |      |      | VED741I |       |       |
|---------------------------------------|-------|-------------|------|------|---------|-------|-------|
|                                       |       | 1           | 2    | 3    | 1       | 2     | 3     |
|                                       |       | L           | M    | H    | L       | M     | H     |
| Heating performance 65 °C / 55 °C (1) |       |             |      |      |         |       |       |
| Heating capacity                      | kW    | 6,70        | 7,62 | 7,90 | 10,57   | 11,88 | 12,96 |
| Water flow rate system side           | l/h   | 584         | 666  | 692  | 925     | 1040  | 1133  |
| Pressure drop system side             | kPa   | 19          | 24   | 26   | 17      | 21    | 25    |
| Cooling performance 7 °C / 12 °C      |       |             |      |      |         |       |       |
| Cooling capacity                      | kW    | 7,43        | 8,54 | 8,97 | 11,96   | 14,23 | 16,08 |
| Sensible cooling capacity             | kW    | 5,04        | 6,13 | 6,45 | 8,34    | 9,97  | 11,32 |
| Water flow rate system side           | l/h   | 1278        | 1469 | 1543 | 2057    | 2448  | 2766  |
| Pressure drop system side             | kPa   | 21          | 27   | 29   | 27      | 37    | 46    |
| Fan                                   |       |             |      |      |         |       |       |
| Type                                  | type  | Centrifugal |      |      |         |       |       |
| Fan motor                             | type  | Inverter    |      |      |         |       |       |
| Number                                | no.   | 2           |      |      | 3       |       |       |
| Air flow rate                         | m³/h  | 1060        | 1360 | 1460 | 1600    | 2000  | 2350  |
| High static pressure                  | Pa    | 32          | 50   | 56   | 32      | 50    | 69    |
| Input power                           | W     | 106         | 163  | 185  | 138     | 240   | 363   |
| Signal 0-10V                          | %     | 66          | 84   | 90   | 64      | 78    | 90    |
| Duct type fan coil sound data (2)     |       |             |      |      |         |       |       |
| Sound power level (inlet + radiated)  | dB(A) | 53,0        | 59,0 | 62,0 | 62,0    | 66,0  | 68,0  |
| Sound power level (outlet)            | dB(A) | 49,0        | 55,0 | 58,0 | 58,0    | 62,0  | 64,0  |
| Diameter hydraulic fittings           |       |             |      |      |         |       |       |
| Main heat exchanger                   | Ø     | 3/4"        |      |      |         |       |       |
| Secondary heat exchanger              | Ø     | 1/2"        |      |      |         |       |       |
| Power supply                          |       |             |      |      |         |       |       |
| Power supply                          |       | 230V~50Hz   |      |      |         |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | VED530I | VED532I | VED540I | VED541I | VED730I | VED732I | VED740I | VED741I |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |
| A                             | mm | 300     | 300     | 300     | 300     | 351     | 351     | 351     | 351     |
| B                             | mm | 1133    | 1133    | 1133    | 1133    | 1533    | 1533    | 1533    | 1533    |
| C                             | mm | 737     | 737     | 737     | 737     | 789     | 789     | 789     | 789     |
| D                             | mm | 1158    | 1158    | 1158    | 1158    | 1558    | 1558    | 1558    | 1558    |
| Net weight                    | kg | 42,0    | 47,0    | 47,0    | 47,0    | 58,0    | 58,0    | 61,0    | 61,0    |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## VDCA\_D

## Fan coil unit for ducted installations

- For district cooling applications
- Horizontal and vertical installation
- Built-in sanitization system
- Large range of available static pressure



### DESCRIPTION

The ducted range VDCA\_D has been designed for air conditioning in environments where the installation of high-performance units with a wide range of useful head and compact dimensions is required. Thanks to the availability of various versions and configurations, it's easy to choose the optimal solution for any requirement.

### FEATURES

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

Fan housing in plastic material removable for easy and effective cleaning.

#### Finned pack heat exchanger

**The high-efficiency heat exchanger is designed to operate with a high temperature difference, typical of District Cooling solutions.**

#### Controls and Accessoires

To facilitate and streamline installation operations on-site, we have made it possible through the configurator, and therefore at the ordering stage, to receive the unit with certain accessories already pre-installed in the factory.

With copper pipes and aluminum fins, the main heat exchanger has female gas hydraulic connections and is equipped with air vents. The hydraulic connections can be inverted during installation.

#### Air filter

All fan coils come equipped with an easily removable and cleanable air filter. Various types of air filters are available through the configurator to meet different needs.

#### Control

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.

The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

To facilitate and streamline installation operations on-site, we have made it possible through the configurator, and therefore at the ordering stage, to receive the unit with certain accessories already pre-installed in the factory. We redirect your attention to the configurator available on this datasheet or to the unit selection software.

We redirect your attention to the configurator available on this datasheet or to the unit selection software.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field          | Description  |
|----------------|--|
| <b>1,2,3,4</b> | <b>VDCA</b>  |
| <b>5</b>       | <b>Size</b><br>1, 2, 3, 5, 7   |
| <b>6</b>       | <b>main heat exchanger</b>   |
| 0              | Standard   |
| <b>7</b>       | <b>Secondary heat exchanger</b>  |
| 0              | No present   |
| 1              | Present  |
| <b>8</b>       | <b>Configuration</b>   |
| D              | High head  |
| P              | Low head   |
| <b>9</b>       | <b>Installation</b>  |
| U              | Universal  |
| V              | Only vertical  |
| <b>10</b>      | <b>Position of connections</b>   |
| D              | Water connections and electrical panel on the right                              |
| G              | Water connections and electrical panel on the left                               |
| L              | Hydraulic connections on the left and electric connections on the opposite side  |
| R              | Hydraulic connections on the right and electric connections on the opposite side |
| <b>11</b>      | <b>Use</b>   |
| V              | With VMF system  |
| W              | Without control board  |
| <b>12</b>      | <b>Device / accessoires</b>  |
| H              | Electric heater  |
| I              | Ioniser  |
| P              | Photocatalytic lamp  |
| W              | Without devices  |
| <b>13</b>      | <b>Filter</b>  |
| B              | Basic filter   |
| M              | Increased filter   |
| P              | Special for units with photocatalytic device                                     |
| V              | With washable mesh filter  |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SA503:** Wall-mountable ambient sensor, compatible with AER503IR.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** Water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**VMF-RIC:** Thermostat interface for fan coil units

### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate

and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

## Valves and additional water coil

**BV:** Hot water heat exchanger with 1 row.

**VCX\_X:** 3-way valve kit for fan coils with single heat exchanger and hydraulic connections on the left side, for installation in 4-pipe systems. The kit is composed by 2 insulated 3-way valves and 4 connections complete with electrothermal actuators, insulating shells for the valves and with hydraulic fittings. 230V power supply. Hydraulic connections: Valve body Ø G 3/4" Male; Valve side connection pipes Ø G 3/4" Female; Unit side connection pipes Ø G 3/4" Male.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VDP:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VCT102:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCT103:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCTK:** The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

**VCTKM:** The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

## Installation accessories

**AMP:** Wall mounting kit

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**DSC:** Condensate drainage device.

## Accessories for intake

**RDA\_V:** Straight intake connection with rectangular flange.

**RDA\_C:** Straight intake connection with circular flanges.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

**MZC:** Plenum with motorised dampers.

**MZCACV:** Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**MZCAC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.

**KFV:** Circular flanges kit for plenum.

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**GM:** Flow grid with adjustable louvers.

## Delivery accessories

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

**RDM\_C:** Straight discharge internally insulated, with circular flanges.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory    | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|--------------|----------|----------|----------|----------|----------|
| AER503IR (1) | *        | *        | *        | *        | *        |
| F3VU         | *        | *        | *        | *        | *        |
| PRO503       | *        | *        | *        | *        | *        |
| SAS (2)      | *        | *        | *        | *        | *        |
| SAS03 (3)    | *        | *        | *        | *        | *        |
| SW3 (2)      | *        | *        | *        | *        | *        |
| SW5 (2)      | *        | *        | *        | *        | *        |
| TX (4)       | *        | *        | *        | *        | *        |
| VMF-RIC      | *        | *        | *        | *        | *        |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Thermostat probe for AER503IR if available.

(4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

#### VMF system

| Accessory   | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-------------|----------|----------|----------|----------|----------|
| DI24        | *        | *        | *        | *        | *        |
| VMF-E19 (1) | *        | *        | *        | *        | *        |
| VMF-E3      | *        | *        | *        | *        | *        |
| VMF-E4DX    | *        | *        | *        | *        | *        |
| VMF-E4X     | *        | *        | *        | *        | *        |
| VMF-IO      | *        | *        | *        | *        | *        |
| VMF-IR      | *        | *        | *        | *        | *        |
| VMF-SW      | *        | *        | *        | *        | *        |
| VMF-SW1     | *        | *        | *        | *        | *        |
| VMHI        | *        | *        | *        | *        | *        |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

### (Heating only) additional heat exchanger

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| BV130 (1) | *        |          |          |
| BV162 (1) |          |          | *        |
| BV230 (1) |          | *        |          |

(1) Not available for sizes with oversized main coil.

## Water valves

### Valve Kit for 4 pipe systems with main coil

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| VCF3X4L   | •        | •        | •        |
| VCF3X4R   | •        | •        | •        |

### 3 way valve kit

|   | VDCA100D        | VDCA200D        | VDCA300D        | VDCA500D | VDCA700D |
|---|-----------------|-----------------|-----------------|----------|----------|
| <b>3 way valve kit</b>                  |                 |                 |                 |          |          |
| Main heat exchanger                     | VCZ43 / VCZ4324 | VCZ43 / VCZ4324 | VCZ43 / VCZ4324 | VCF45CS  | VCF45CS  |
| Secondary heat exchanger for four pipes | -               | -               | -               | -        | -        |
| Additional coil "BV"                    | VCF45 / VCF4524 | VCF45 / VCF4524 | VCF45 / VCF4524 | -        | -        |

VCZ43 - VCF45 - VCF45H - VCF47H Alimentazione 230V - VCZ4324 - VCF4524 Power supply 24V - Hydraulic connection Ø 3/4"

### 2 way valve kit

|   | VDCA100D        | VDCA200D        | VDCA300D        |
|---|-----------------|-----------------|-----------------|
| <b>2 way valve kit</b>                  |                 |                 |                 |
| Main heat exchanger                     | VCZD3 / VCZD324 | VCZD3 / VCZD324 | VCZD3 / VCZD324 |
| Secondary heat exchanger for four pipes | -               | -               | -               |
| Additional coil "BV"                    | VCFD4 / VCFD424 | VCFD4 / VCFD424 | VCFD4 / VCFD424 |

VCZD3 - VCFD4 Power supply 230V - VCZD324 - VCFD424 Power supply 24V  
- Hydraulic connection Ø 3/4"

### Combined adjustment and balancing valve cold side

| Accessory   | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-------------|----------|----------|----------|----------|----------|
| VDP15       | •        | •        | •        | •        | •        |
| VDP15HF (1) | •        | •        | •        | •        | •        |
| VDP15LF     | •        | •        | •        |          |          |
| VDP20HF     |          |          |          | •        | •        |

(1) The compatibility of the valves with the unit must be checked using the project capacity.  
Select the appropriate valve based on the project water flow rate.

### 2-way globe valves actuator excluded

| Accessory        | VDCA500D | VDCA700D |
|------------------|----------|----------|
| VCT103           | •        | •        |
| <b>Accessory</b> | VDCA500D | VDCA700D |
| VCT102           | •        | •        |
| <b>Accessory</b> | VDCA500D | VDCA700D |
| VCTK             | •        | •        |
| <b>Accessory</b> | VDCA500D | VDCA700D |
| VCTKM            | •        | •        |

## Installation accessories

### Installation accessories

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| AMP       | •        | •        | •        |

### Condensate drip

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| BCZ4 (1)  | •        | •        | •        |
| BCZ6 (2)  | •        | •        | •        |

(1) For vertical installation.  
(2) For horizontal installation.

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| BC9 (1)   | •        | •        | •        |

(1) For horizontal installation.

| Accessory | VDCA500D | VDCA700D |
|-----------|----------|----------|
| BCV45     | •        |          |
| BCV67     |          | •        |

### Condensate recirculation device

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| DSCZ4 (1) | •        | •        | •        |

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.



## Accessories for intake

### Intake straight with rectangular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| RDA100V   | .        |          |          |          |          |
| RDA200V   |          | .        |          |          |          |
| RDA300V   |          |          | .        |          |          |
| RDA450V   |          |          |          | .        |          |
| RDA670V   |          |          |          |          | .        |

### Intake straight internally insulated, with circular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| RDAC100V  | .        |          |          |          |          |
| RDAC200V  |          | .        |          |          |          |
| RDAC300V  |          |          |          |          | .        |

### Intake plenum with rectangular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| RPA100V   | .        |          |          |          |          |
| RPA200V   |          | .        |          |          |          |
| RPA300V   |          |          | .        |          |          |
| RPA450V   |          |          |          | .        |          |
| RPA670V   |          |          |          |          | .        |

### Intake plenum with circular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| PA100V    | .        |          |          |          |          |
| PA200V    |          | .        |          |          |          |
| PA300V    |          |          | .        |          |          |
| PA450V    |          |          |          | .        |          |
| PA670V    |          |          |          |          | .        |

### Circular flanges kit for plenum

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| KFV       |          |          |          | .        | .        |
| KFV10     | .        | .        | .        |          |          |

### Intake grids

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| GA32      | .        |          |          |          |          |
| GA42      |          |          | .        |          |          |
| GA62      |          |          |          |          | .        |

### Intake grid with filter and fixed louvers

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| GAF32     | .        |          |          |          |          |
| GAF42     |          |          | .        |          |          |
| GAF62     |          |          |          |          | .        |

### Flow grid with adjustable louvers

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| GM32      | .        |          |          |          |          |
| GM42      |          |          | .        |          |          |
| GM62      |          |          |          |          | .        |

## Delivery accessories

### Delivery plenum internally insulated, with circular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| PM100V    | .        |          |          |          |          |
| PM200V    |          | .        |          |          |          |
| PM300V    |          |          | .        |          |          |
| PM450V    |          |          |          | .        |          |
| PM670V    |          |          |          |          | .        |

### Delivery plenum internally insulated, with rectangular flanges

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| RPM100V   | .        |          |          |          |          |
| RPM200V   |          | .        |          |          |          |
| RPM300V   |          |          | .        |          |          |
| RPM450V   |          |          |          | .        |          |
| RPM670V   |          |          |          |          | .        |

**Straight delivery coupling**

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| RDM100V   | •        |          |          |
| RDM200V   |          | •        |          |
| RDM300V   |          |          | •        |

**Delivery straight internally insulated, with circular flanges**

| Accessory | VDCA100D | VDCA200D | VDCA300D |
|-----------|----------|----------|----------|
| RDMC100V  | •        |          |          |
| RDMC200V  |          | •        |          |
| RDMC300V  |          |          | •        |

**Plenum with motor-driven dampers**

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| MZC320    | •        |          |          |          |          |
| MZC5040   |          |          |          | •        |          |
| MZC530    |          | •        |          |          |          |
| MZC7050   |          |          |          |          | •        |
| MZC830    |          |          | •        |          |          |

**Electrical system with relays**

| Accessory  | VDCA500D | VDCA700D |
|------------|----------|----------|
| MZCACY (1) | •        | •        |

(1) It is mandatory to use MZCACY if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.

**Electric plant**

| Accessory | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-----------|----------|----------|----------|----------|----------|
| MZCAC     | •        | •        | •        | •        | •        |

**PERFORMANCE SPECIFICATIONS****2-pipe**

|  | VDCA100D |   |   |   |    | VDCA200D |   |   |   |    | VDCA300D |   |   |   |    | VDCA500D |   |   |   |    | VDCA700D |   |   |   |    |
|--|----------|---|---|---|----|----------|---|---|---|----|----------|---|---|---|----|----------|---|---|---|----|----------|---|---|---|----|
|  | 1        | 2 | 3 | 4 | 5  | 1        | 2 | 3 | 4 | 5  | 1        | 2 | 3 | 4 | 5  | 1        | 2 | 3 | 4 | 5  | 1        | 2 | 3 | 4 | 5  |
|  | UL       | L | M | H | HH | UL       | L | M | H | HH | UL       | L | M | H | HH | UL       | L | M | H | HH | UL       | L | M | H | HH |

**Heating performances 45 °C / 35 °C (1)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |       |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|
| Heating capacity            | kW  | 1,57 | 1,79 | 2,58 | 2,81 | 4,03 | 2,74 | 2,95 | 3,80 | 4,08 | 5,34 | 3,46 | 4,15 | 5,46 | 5,69 | 6,66 | 4,44 | 5,15 | 7,02 | 8,21 | 10,11 | 8,25 | 10,00 | 12,63 | 14,62 | 16,67 |
| Water flow rate system side | l/h | 136  | 156  | 224  | 244  | 350  | 238  | 256  | 330  | 354  | 463  | 300  | 360  | 474  | 494  | 578  | 386  | 447  | 609  | 713  | 877   | 716  | 868   | 1096  | 1269  | 1447  |
| Pressure drop system side   | kPa | 7    | 9    | 17   | 19   | 37   | 23   | 26   | 40   | 46   | 74   | 11   | 16   | 26   | 28   | 37   | 6    | 8    | 14   | 18   | 26    | 9    | 13    | 20    | 26    | 33    |

**Cooling performance 5.5 °C / 14.5 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| Cooling capacity            | kW  | 1,21 | 1,38 | 1,98 | 2,16 | 3,10 | 2,11 | 2,27 | 2,92 | 3,13 | 4,10 | 2,66 | 3,19 | 4,20 | 4,38 | 5,12 | 3,42 | 3,96 | 5,40 | 6,31 | 7,77 | 6,34 | 7,69 | 9,71 | 11,23 | 12,81 |
| Sensible cooling capacity   | kW  | 0,90 | 1,03 | 1,51 | 1,65 | 2,46 | 1,52 | 1,64 | 2,16 | 2,33 | 3,15 | 2,00 | 2,43 | 3,28 | 3,44 | 4,11 | 2,44 | 2,81 | 3,77 | 4,39 | 5,44 | 4,98 | 5,88 | 7,20 | 8,19  | 9,27  |
| Water flow rate system side | l/h | 115  | 132  | 190  | 207  | 296  | 202  | 217  | 279  | 299  | 392  | 254  | 305  | 401  | 418  | 489  | 327  | 378  | 516  | 603  | 743  | 606  | 735  | 928  | 1074  | 1225  |
| Pressure drop system side   | kPa | 6    | 7    | 14   | 17   | 32   | 19   | 22   | 35   | 39   | 64   | 10   | 13   | 22   | 24   | 32   | 5    | 7    | 12   | 16   | 23   | 8    | 11   | 17   | 22    | 28    |

**Cooling performances 9 °C / 18 °C (3)**

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,79 | 0,91 | 1,30 | 1,42 | 2,04 | 1,39 | 1,49 | 1,92 | 2,06 | 2,69 | 1,75 | 2,09 | 2,76 | 2,88 | 3,36 | 2,24 | 2,60 | 3,55 | 4,15 | 5,10 | 4,17 | 5,05 | 6,38 | 7,38 | 8,42 |
| Sensible cooling capacity   | kW  | 0,75 | 0,86 | 1,27 | 1,39 | 2,04 | 1,27 | 1,38 | 1,81 | 1,95 | 2,64 | 1,68 | 2,04 | 2,75 | 2,88 | 3,36 | 2,05 | 2,36 | 3,16 | 3,69 | 4,56 | 4,17 | 4,93 | 6,04 | 6,88 | 7,78 |
| Water flow rate system side | l/h | 76   | 86   | 125  | 136  | 195  | 132  | 142  | 183  | 197  | 257  | 167  | 200  | 264  | 275  | 321  | 214  | 249  | 339  | 396  | 488  | 398  | 483  | 610  | 705  | 805  |
| Pressure drop system side   | kPa | 3    | 3    | 7    | 8    | 15   | 9    | 10   | 16   | 19   | 30   | 5    | 6    | 10   | 11   | 15   | 2    | 3    | 6    | 7    | 11   | 4    | 5    | 8    | 10   | 13   |

**Fan**

|                      |      |              |     |     |     |     |              |     |     |     |     |              |     |     |     |      |              |     |      |      |      |              |      |      |      |      |
|----------------------|------|--------------|-----|-----|-----|-----|--------------|-----|-----|-----|-----|--------------|-----|-----|-----|------|--------------|-----|------|------|------|--------------|------|------|------|------|
| Type                 | type | Centrifugal  |     |     |     |     | Centrifugal  |     |     |     |     | Centrifugal  |     |     |     |      | Centrifugal  |     |      |      |      | Centrifugal  |      |      |      |      |
| Fan motor            | type | Asynchronous |     |     |     |     | Asynchronous |     |     |     |     | Asynchronous |     |     |     |      | Asynchronous |     |      |      |      | Asynchronous |      |      |      |      |
| Number               | no.  | 2            |     |     |     |     | 2            |     |     |     |     | 3            |     |     |     |      | 2            |     |      |      |      | 3            |      |      |      |      |
| Air flow rate        | m³/h | 260          | 288 | 398 | 435 | 680 | 400          | 436 | 585 | 635 | 870 | 500          | 606 | 840 | 886 | 1100 | 800          | 911 | 1204 | 1393 | 1700 | 1400         | 1621 | 2017 | 2380 | 2800 |
| High static pressure | Pa   | 32           | 26  | 50  | 60  | 24  | 34           | 28  | 50  | 59  | 30  | 45           | 26  | 50  | 56  | 37   | 50           | 29  | 50   | 67   | 35   | 63           | 32   | 50   | 70   | 44   |
| Input power          | W    | 33           | 34  | 52  | 75  | 85  | 43           | 44  | 67  | 95  | 107 | 54           | 61  | 87  | 98  | 120  | 137          | 144 | 198  | 259  | 282  | 217          | 233  | 285  | 371  | 408  |
| Electrical wiring    |      | 1            | 1   | 4   | 6   | 6   | 1            | 1   | 4   | 6   | 6   | 1            | 1   | 4   | 6   | 7    | 1            | 1   | 3    | 5    | 5    | 1            | 1    | 3    | 5    | 5    |

**Duct type fan coil sound data (4)**

|                                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level (inlet + radiated) | dB(A) | 47,0 | 46,0 | 53,0 | 54,0 | 55,0 | 50,0 | 49,0 | 56,0 | 57,0 | 59,0 | 54,0 | 52,0 | 58,0 | 59,0 | 61,0 | 52,0 | 51,0 | 57,0 | 63,0 | 61,0 | 63,0 | 62,0 | 66,0 | 68,0 | 68,0 |
| Sound power level (outlet)           | dB(A) | 45,0 | 44,0 | 50,0 | 52,0 | 54,0 | 48,0 | 48,0 | 55,0 | 56,0 | 59,0 | 52,0 | 50,0 | 57,0 | 58,0 | 60,0 | 48,0 | 47,0 | 53,0 | 59,0 | 57,0 | 58,0 | 58,0 | 62,0 | 64,0 | 63,0 |

**Diameter hydraulic fittings**

|                     |   |      |  |  |  |  |      |  |  |  |  |      |  |  |  |  |      |  |  |  |  |      |  |  |  |  |
|---------------------|---|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|
| Main heat exchanger | Ø | 3/4" |  |  |  |  | 3/4" |  |  |  |  | 3/4" |  |  |  |  | 3/4" |  |  |  |  | 3/4" |  |  |  |  |
|---------------------|---|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|------|--|--|--|--|

**Power supply**

|              |  |           |  |  |  |  |           |  |  |  |  |           |  |  |  |  |           |  |  |  |  |           |  |  |  |  |
|--------------|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|
| Power supply |  | 230V~50Hz |  |  |  |  | 230V~50Hz |  |  |  |  | 230V~50Hz |  |  |  |  | 230V~50Hz |  |  |  |  | 230V~50Hz |  |  |  |  |
|--------------|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|-----------|--|--|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/35 °C;

(2) Room air temperature 24 °C d.b./18 °C w.b.; Water (in/out) 5.5 °C/14.5 °C; EUROVENT

(3) Room air temperature 26 °C d.b./18.6 °C w.b.; Water (in/out) 9 °C/18 °C; EUROVENT

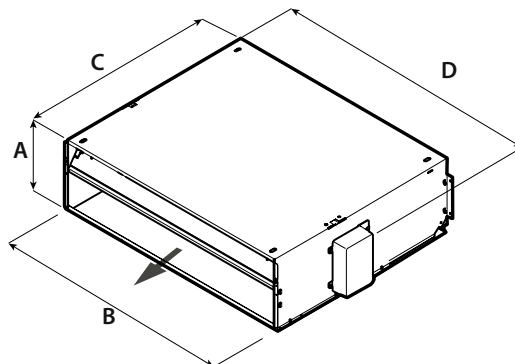
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

**Eurovent certified speed: H,M,L**

**Only for units configured with electric heater (field 12 of the configurator, option H)**

|                        |     | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|------------------------|-----|----------|----------|----------|----------|----------|
| <b>Electric heater</b> |     |          |          |          |          |          |
| Number                 | no. | 1        | 1        | 1        | 1        | 1        |
| Heating power          | kW  | 1310     | 1970     | 2190     | 2920     | 4000     |

**DIMENSIONS**



|                               |    | VDCA100D | VDCA200D | VDCA300D | VDCA500D | VDCA700D |
|-------------------------------|----|----------|----------|----------|----------|----------|
| <b>Dimensions and weights</b> |    |          |          |          |          |          |
| A                             | mm | 217      | 217      | 217      | 300      | 351      |
| B                             | mm | 781      | 1001     | 1122     | 1133     | 1153     |
| C                             | mm | 584      | 584      | 584      | 737      | 789      |
| D                             | mm | 807      | 1027     | 1148     | 1158     | 1558     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# VDCB\_D

## Fan coil unit for ducted installations



- For district cooling applications
- Horizontal and vertical installation
- Built-in sanitization system
- Large range of available static pressure



### DESCRIPTION

The ducted range VDCB has been designed for air conditioning in environments where the installation of high-performance units with a wide range of useful head and compact dimensions is required. Thanks to the availability of various versions and configurations, it's easy to choose the optimal solution for any requirement.

### FEATURES

#### Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.

Their characteristics permit energy savings compared to conventional fans. They are statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

The plastic augers are extractable for easy and efficient cleaning.

#### Finned pack heat exchanger

**The high-efficiency heat exchanger is designed to operate with a high temperature difference, typical of District Cooling solutions.**

With copper pipes and aluminum fins, the main heat exchanger has female gas hydraulic connections and is equipped with air vents.

The hydraulic connections can be inverted during installation.

#### Air filter

All fan coils come equipped with an easily removable and cleanable air filter. Various types of air filters are available through the configurator to meet different needs.

#### Controls and Accessoires

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.

The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

To facilitate and streamline installation operations on-site, we have made it possible through the configurator, and therefore at the ordering stage, to receive the unit with certain accessories already pre-installed in the factory. We redirect your attention to the configurator available on this datasheet or to the unit selection software.

## GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

| Field          | Description  |
|----------------|--|
| <b>1,2,3,4</b> | <b>VDCB</b>  |
| <b>5</b>       | <b>Size</b><br>1, 2, 3, 5, 7   |
| <b>6</b>       | <b>main heat exchanger</b>   |
| 0              | Standard   |
| <b>7</b>       | <b>Secondary heat exchanger</b>  |
| 0              | No present   |
| 1              | Present  |
| <b>8</b>       | <b>Configuration</b>   |
| D              | Low head   |
| P              | High head  |
| <b>9</b>       | <b>Installation</b>  |
| U              | Universal  |
| V              | Only vertical  |
| <b>10</b>      | <b>Position of connections</b>   |
| D              | Water connections and electrical panel on the right                              |
| G              | Water connections and electrical panel on the left                               |
| L              | Hydraulic connections on the left and electric connections on the opposite side  |
| R              | Hydraulic connections on the right and electric connections on the opposite side |
| <b>11</b>      | <b>Use</b>   |
| V              | With VMF system  |
| W              | Without control board  |
| <b>12</b>      | <b>Device / accessoires</b>  |
| H              | Electric heater  |
| I              | Ioniser  |
| P              | Photocatalytic lamp  |
| W              | Without devices  |
| <b>13</b>      | <b>Filter</b>  |
| M              | With increased filter  |
| P              | Special for units with photocatalytic device                                     |
| S              | With basic filter  |
| V              | With washable mesh filter  |

## ACCESSORIES

### Control panels

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**F3VU:** interface board to receive 3 separate voltage commands (corresponding to 3 speeds) and converting them into three analog voltages in the range of 0-10V.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SA503:** Wall-mountable ambient sensor, compatible with AER503IR.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**VMF-RIC:** Thermostat interface for fan coil units

### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Valves and additional finned-pack heat exchanger for water

**BV:** Hot water heat exchanger with 1 row.

**VCF\_X:** 3-way valve kit for fan coils with single heat exchanger and hydraulic connections on the left side, for installation in 4-pipe systems. The kit is composed by 2 insulated 3-way valves and 4 connections complete with electrothermal actuators, insulating shells for the valves and with hydraulic fittings. 230V power supply. Hydraulic connections: Valve body Ø G 3/4" Male; Valve side connection pipes Ø G 3/4" Female; Unit side connection pipes Ø G 3/4" Male.

**VCZ:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can

be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**VCZD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VDP:** Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4" M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

**VCT102:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCT103:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCTK:** The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

**VCTKM:** The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

### Installation accessories

**AMP:** Wall mounting kit

**BCZ:** Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

**DSC:** Condensate drainage device.

### Accessories for intake

**RDA\_V:** Straight intake connection with rectangular flange.

**RDA\_C:** Straight intake connection with circular flanges.

**RPA\_V:** Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**PA\_V:** Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

**MZC:** Plenum with motorised dampers.

**KFV:** Circular flanges kit for plenum.

**GA:** Intake grid with fixed louvers

**GAF:** Intake grid with filter and fixed louvers

**GM:** Flow grid with adjustable louvers.

### Delivery accessories

**PM\_V:** Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.

**RPM\_V:** Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

**RDM\_V:** Straight delivery coupling in galvanised sheet metal.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory    | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|--------------|----------|----------|----------|----------|----------|
| AER503IR (1) | *        | *        | *        | *        | *        |
| F3VU         | *        | *        | *        | *        | *        |
| PRO503       | *        | *        | *        | *        | *        |
| SA5 (2)      | *        | *        | *        | *        | *        |
| SA503 (3)    | *        | *        | *        | *        | *        |
| SW3 (2)      | *        | *        | *        | *        | *        |
| SW5 (2)      | *        | *        | *        | *        | *        |
| TX (4)       | *        | *        | *        | *        | *        |
| VMF-RIC      | *        | *        | *        | *        | *        |

- (1) Wall-mount installation.  
 (2) Probe for AER503IR-TX thermostats, if fitted.  
 (3) Thermostat probe for AER503IR if available.  
 (4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF system

To manage and control a VMF system, it is mandatory to include the VMF-E19I accessory on board the fan coil unit.

#### VMF system

| Accessory    | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|--------------|----------|----------|----------|----------|----------|
| DI24         | *        | *        | *        | *        | *        |
| VMF-E19I (1) | *        | *        | *        | *        | *        |
| VMF-E3       | *        | *        | *        | *        | *        |
| VMF-E4DX     | *        | *        | *        | *        | *        |
| VMF-E4X      | *        | *        | *        | *        | *        |
| VMF-IO       | *        | *        | *        | *        | *        |
| VMF-IR       | *        | *        | *        | *        | *        |
| VMF-SW       | *        | *        | *        | *        | *        |
| VMF-SW1      | *        | *        | *        | *        | *        |
| VMHI         | *        | *        | *        | *        | *        |

- (1) Mandatory accessory.

### (Heating only) additional coil

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| BV130 (1) | *        |          |          |
| BV162 (1) |          |          | *        |
| BV230 (1) |          | *        |          |

- (1) Not available for sizes with oversized main coil.

### Water valves

#### 3 way valve kit

|   | VDCB100D        | VDCB200D        | VDCB300D        | VDCB500D | VDCB700D |
|---|-----------------|-----------------|-----------------|----------|----------|
| <b>3 way valve kit</b>                  |                 |                 |                 |          |          |
| Main heat exchanger                     | VCZ43 / VCZ4324 | VCZ43 / VCZ4324 | VCZ43 / VCZ4324 | VCZ45CS  | VCZ45CS  |
| Secondary heat exchanger for four pipes | -               | -               | -               | -        | -        |
| Additional coil "BV"                    | VCF45 / VCF4524 | VCF45 / VCF4524 | VCF45 / VCF4524 | -        | -        |

VCZ43 - VCF45 - VCF45H - VCF47H Alimentazione 230V - VCZ4324 - VCF4524 Power supply 24V - Hydraulic connection Ø 3/4"

#### 2 way valve kit

|   | VDCB100D        | VDCB200D        | VDCB300D        | VDCB500D | VDCB700D |
|---|-----------------|-----------------|-----------------|----------|----------|
| <b>2 way valve kit</b>                  |                 |                 |                 |          |          |
| Main heat exchanger                     | VCZD3 / VCZD324 | VCZD3 / VCZD324 | VCZD3 / VCZD324 | -        | -        |
| Secondary heat exchanger for four pipes | -               | -               | -               | -        | -        |
| Additional coil "BV"                    | VCFD4 / VCFD424 | VCFD4 / VCFD424 | VCFD4 / VCFD424 | -        | -        |

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"  
 VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

#### Combined adjustment and balancing valve cold side

| Accessory   | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-------------|----------|----------|----------|----------|----------|
| VDP15       | *        | *        | *        | *        | *        |
| VDP15HF (1) | *        | *        | *        | *        | *        |
| VDP15LF     | *        | *        | *        |          |          |
| VDP20HF     |          |          |          | *        | *        |

- (1) The compatibility of the valves with the unit must be checked using the project capacity.  
 Select the appropriate valve based on the project water flow rate.

#### 2-way globe valves actuator excluded

| Accessory | VDCB500D | VDCB700D |
|-----------|----------|----------|
| VCT103    | *        | *        |

| Accessory | VDCB500D | VDCB700D |
|-----------|----------|----------|
| VCT102    | *        | *        |
| Accessory | VDCB500D | VDCB700D |
| VCTK      | *        | *        |
| Accessory | VDCB500D | VDCB700D |
| VCTKM     | *        | *        |

## Installation accessories

### Installation accessories

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| AMP       | *        | *        | *        |

### Condensate drip

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| BCZ4 (1)  | *        | *        | *        |
| BCZ6 (2)  | *        | *        | *        |

(1) For vertical installation.

(2) For horizontal installation.

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| BC9 (1)   | *        | *        | *        |

(1) For horizontal installation.

| Accessory | VDCB500D | VDCB700D |
|-----------|----------|----------|
| BCV45     | *        |          |
| BCV67     |          | *        |

### Condensate recirculation device

| Accessory | VDCB100D | VDCB101D | VDCB200D | VDCB300D | VDCB301D |
|-----------|----------|----------|----------|----------|----------|
| DSCZ4     | *        | *        | *        | *        | *        |

## Accessories for intake

### Intake straight with rectangular flanges

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| RDA100V   | *        |          |          |          |          |
| RDA200V   |          | *        |          |          |          |
| RDA300V   |          |          | *        |          |          |
| RDA450V   |          |          |          | *        |          |
| RDA670V   |          |          |          |          | *        |

### Intake straight internally insulated, with circular flanges

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| RDAC100V  | *        |          |          |
| RDAC200V  |          | *        |          |
| RDAC300V  |          |          | *        |

### Intake plenum with rectangular flanges

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| RPA100V   | *        |          |          |          |          |
| RPA200V   |          | *        |          |          |          |
| RPA300V   |          |          | *        |          |          |
| RPA450V   |          |          |          | *        |          |
| RPA670V   |          |          |          |          | *        |

### Intake plenum with circular flanges

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| PA100V    | *        |          |          |          |          |
| PA200V    |          | *        |          |          |          |
| PA300V    |          |          | *        |          |          |
| PA450V    |          |          |          | *        |          |
| PA670V    |          |          |          |          | *        |

### Intake grids

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| GA32      | *        |          |          |
| GA42      |          | *        |          |
| GA62      |          |          | *        |



**Intake grid with filter and fixed louvers**

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| GAF32     | .        |          |          |
| GAF42     |          | .        |          |
| GAF62     |          |          | .        |

**Flow grid with adjustable louvers**

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| GM32      | .        |          |          |
| GM42      |          | .        |          |
| GM62      |          |          | .        |

**Delivery accessories****Plenum with motor-driven dampers**

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| MZC320    | .        |          |          |          |          |
| MZC5040   |          |          |          | .        |          |
| MZC530    |          | .        |          |          |          |
| MZC7050   |          |          |          |          | .        |
| MZC830    |          |          | .        |          |          |

**Delivery plenum internally insulated, with circular flanges**

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| PM100V    | .        |          |          |          |          |
| PM200V    |          | .        |          |          |          |
| PM300V    |          |          | .        |          |          |
| PM450V    |          |          |          | .        |          |
| PM670V    |          |          |          |          | .        |

**Delivery plenum internally insulated, with rectangular flanges**

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| RPM100V   | .        |          |          |          |          |
| RPM200V   |          | .        |          |          |          |
| RPM300V   |          |          | .        |          |          |
| RPM450V   |          |          |          | .        |          |
| RPM670V   |          |          |          |          | .        |

**Delivery straight internally insulated, with circular flanges**

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| RDMC100V  | .        |          |          |
| RDMC200V  |          | .        |          |
| RDMC300V  |          |          | .        |

**Straight delivery coupling**

| Accessory | VDCB100D | VDCB200D | VDCB300D |
|-----------|----------|----------|----------|
| RDM100V   | .        |          |          |
| RDM200V   |          | .        |          |
| RDM300V   |          |          | .        |

**Circular flanges kit for plenum**

| Accessory | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|-----------|----------|----------|----------|----------|----------|
| KFV       |          |          |          | .        | .        |
| KFV10     | .        | .        | .        |          |          |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  |       | VDCB100D    |      |      |      |      | VDCB200D    |      |      |      |      | VDCB300D    |      |      |      |      | VDCB500D    |      |      |      |       | VDCB700D    |      |       |       |       |  |
|--|-------|-------------|------|------|------|------|-------------|------|------|------|------|-------------|------|------|------|------|-------------|------|------|------|-------|-------------|------|-------|-------|-------|--|
|  |       | 1           | 2    | 3    | 4    | 5    | 1           | 2    | 3    | 4    | 5    | 1           | 2    | 3    | 4    | 5    | 1           | 2    | 3    | 4    | 5     | 1           | 2    | 3     | 4     | 5     |  |
|  |       | UL          | L    | M    | H    | HH   | UL          | L    | M    | H    | HH   | UL          | L    | M    | H    | HH   | UL          | L    | M    | H    | HH    | UL          | L    | M     | H     | HH    |  |
| Heating performances 45 °C / 35 °C (1)   |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Heating capacity                         | kW    | 1,04        | 1,79 | 2,58 | 2,82 | 4,49 | 2,18        | 2,96 | 3,80 | 4,08 | 5,97 | 2,75        | 4,14 | 5,46 | 5,70 | 7,06 | 3,18        | 5,17 | 7,02 | 8,22 | 11,87 | 4,37        | 9,98 | 12,63 | 14,64 | 18,63 |  |
| Water flow rate system side              | l/h   | 90          | 155  | 224  | 245  | 390  | 189         | 257  | 329  | 354  | 518  | 238         | 360  | 474  | 495  | 613  | 276         | 449  | 609  | 713  | 1030  | 379         | 866  | 1096  | 1271  | 1617  |  |
| Pressure drop system side                | kPa   | 3           | 9    | 17   | 19   | 45   | 15          | 26   | 40   | 46   | 91   | 7           | 16   | 26   | 28   | 41   | 3           | 8    | 14   | 18   | 35    | 3           | 13   | 20    | 26    | 40    |  |
| Cooling performance 5.5 °C / 14.5 °C (2) |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Cooling capacity                         | kW    | 0,80        | 1,37 | 1,98 | 2,17 | 3,45 | 1,67        | 2,27 | 2,92 | 3,13 | 4,59 | 2,11        | 3,18 | 4,20 | 4,38 | 5,43 | 2,44        | 3,97 | 5,40 | 6,31 | 9,12  | 3,35        | 7,67 | 9,71  | 11,25 | 14,32 |  |
| Sensible cooling capacity                | kW    | 0,59        | 1,03 | 1,51 | 1,66 | 2,80 | 1,19        | 1,64 | 2,15 | 2,33 | 3,58 | 1,57        | 2,43 | 3,28 | 3,44 | 4,40 | 1,77        | 2,82 | 3,77 | 4,40 | 6,51  | 2,93        | 5,86 | 7,20  | 8,20  | 10,39 |  |
| Water flow rate system side              | l/h   | 77          | 131  | 190  | 207  | 330  | 160         | 217  | 279  | 300  | 439  | 202         | 304  | 401  | 419  | 519  | 233         | 380  | 516  | 604  | 872   | 321         | 733  | 928   | 1075  | 1369  |  |
| Pressure drop system side                | kPa   | 3           | 7    | 14   | 17   | 39   | 13          | 22   | 35   | 40   | 79   | 6           | 13   | 22   | 24   | 35   | 3           | 7    | 12   | 16   | 30    | 3           | 11   | 17    | 22    | 34    |  |
| Cooling performances 9 °C / 18 °C (3)    |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Cooling capacity                         | kW    | 0,53        | 0,90 | 1,30 | 1,42 | 2,27 | 1,10        | 1,49 | 1,92 | 2,06 | 3,02 | 1,39        | 2,09 | 2,76 | 2,88 | 3,57 | 1,60        | 2,61 | 3,55 | 4,15 | 5,99  | 2,20        | 5,04 | 6,38  | 7,39  | 9,41  |  |
| Sensible cooling capacity                | kW    | 0,49        | 0,86 | 1,27 | 1,39 | 2,27 | 1,00        | 1,38 | 1,81 | 1,96 | 3,01 | 1,32        | 2,04 | 2,75 | 2,88 | 3,57 | 1,48        | 2,36 | 3,17 | 3,69 | 5,47  | 2,20        | 4,92 | 6,04  | 6,89  | 8,72  |  |
| Water flow rate system side              | l/h   | 50          | 86   | 125  | 136  | 217  | 105         | 143  | 183  | 197  | 288  | 133         | 200  | 264  | 275  | 341  | 153         | 249  | 339  | 397  | 573   | 211         | 481  | 610   | 706   | 899   |  |
| Pressure drop system side                | kPa   | 1           | 3    | 7    | 8    | 18   | 6           | 10   | 16   | 19   | 37   | 3           | 6    | 10   | 11   | 16   | 1           | 3    | 6    | 7    | 14    | 1           | 5    | 8     | 10    | 16    |  |
| Fan                                      |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Type                                     | type  | Centrifugal |      |      |      |      | Centrifugal |      |      |      |      | Centrifugal |      |      |      |      | Centrifugal |      |      |      |       | Centrifugal |      |       |       |       |  |
| Fan motor                                | type  | Inverter    |      |      |      |      | Inverter    |      |      |      |      | Inverter    |      |      |      |      | Inverter    |      |      |      |       | Inverter    |      |       |       |       |  |
| Number                                   | no.   | 2           |      |      |      |      | 2           |      |      |      |      | 3           |      |      |      |      | 2           |      |      |      |       | 3           |      |       |       |       |  |
| Air flow rate                            | m³/h  | 200         | 287  | 398  | 436  | 800  | 300         | 437  | 585  | 635  | 1000 | 400         | 606  | 840  | 888  | 1200 | 600         | 913  | 1204 | 1393 | 2000  | 1000        | 1617 | 2017  | 2384  | 3200  |  |
| High static pressure                     | Pa    | 9           | 26   | 50   | 60   | 43   | 6           | 28   | 50   | 59   | 34   | 3           | 26   | 50   | 56   | 16   | 9           | 29   | 50   | 67   | 19    | 5           | 32   | 50    | 70    | 79    |  |
| Input power                              | W     | 7           | 15   | 30   | 37   | 80   | 10          | 23   | 45   | 55   | 100  | 14          | 35   | 76   | 93   | 121  | 18          | 50   | 103  | 155  | 249   | 31          | 100  | 166   | 255   | 471   |  |
| Signal 0-10V                             | %     | 30          | 49   | 69   | 76   | 90   | 30          | 55   | 74   | 81   | 90   | 30          | 61   | 85   | 90   | 90   | 30          | 49   | 66   | 76   | 90    | 30          | 53   | 65    | 75    | 90    |  |
| Duct type fan coil sound data (4)        |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Sound power level (inlet + radiated)     | dB(A) | 35,0        | 46,0 | 53,0 | 54,0 | 59,0 | 40,0        | 50,0 | 56,0 | 57,0 | 62,0 | 41,0        | 52,0 | 58,0 | 60,0 | 61,0 | 44,0        | 53,0 | 60,0 | 63,0 | 65,0  | 49,0        | 62,0 | 66,0  | 69,0  | 73,0  |  |
| Sound power level (outlet)               | dB(A) | 33,0        | 44,0 | 50,0 | 52,0 | 57,0 | 37,0        | 48,0 | 55,0 | 56,0 | 60,0 | 39,0        | 50,0 | 57,0 | 58,0 | 60,0 | 40,0        | 51,0 | 57,0 | 60,0 | 64,0  | 43,0        | 56,0 | 62,0  | 66,0  | 69,0  |  |
| Power supply                             |       |             |      |      |      |      |             |      |      |      |      |             |      |      |      |      |             |      |      |      |       |             |      |       |       |       |  |
| Power supply                             |       | 230V~50Hz   |      |      |      |      | 230V~50Hz   |      |      |      |      | 230V~50Hz   |      |      |      |      | 230V~50Hz   |      |      |      |       | 230V~50Hz   |      |       |       |       |  |

(1) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/35 °C;

(2) Room air temperature 24 °C d.b./18 °C w.b.; Water (in/out) 5.5 °C/14.5 °C; EUROVENT

(3) Room air temperature 26 °C d.b./18.6 °C w.b.; Water (in/out) 9 °C/18 °C; EUROVENT

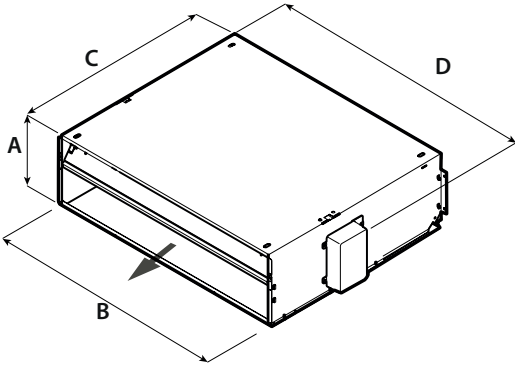
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

**Eurovent certified speed: H,M,L**

**Only for units configured with electric heater (field 12 of the configurator, option H)**

|                        |     | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|------------------------|-----|----------|----------|----------|----------|----------|
| <b>Electric heater</b> |     |          |          |          |          |          |
| Number                 | no. | 1        | 1        | 1        | 1        | 1        |
| Heating power          | kW  | 1310     | 1970     | 2190     | 2920     | 4000     |

DIMENSIONS



|                        |    | VDCB100D | VDCB200D | VDCB300D | VDCB500D | VDCB700D |
|------------------------|----|----------|----------|----------|----------|----------|
| Dimensions and weights |    |          |          |          |          |          |
| A                      | mm | 217      | 217      | 217      | 300      | 351      |
| B                      | mm | 781      | 1001     | 1122     | 1133     | 1153     |
| C                      | mm | 584      | 584      | 584      | 737      | 789      |
| D                      | mm | 807      | 1027     | 1148     | 1158     | 1558     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## MZC

## Plenum with motor-driven dampers

- Multi-zone plenum for controlling air capacity
- Available for channels on/off and inverter fan coils



### DESCRIPTION

The plenum with motor-driven dampers is designed for residential and tertiary applications. It combines optimal ambient comfort with assured energy savings.

Modern plant increasingly require overall air conditioning using channelled systems. Thanks to the electronic control of the dampers, the MZC accessory regulates the room's comfort by adjusting the air flow to meet the actual requirements.

MZC is designed for use in combination with all fan coils with asynchronous or brushless motors and is pre-set to distribute exchange air.

### FEATURES

#### Structure

- Galvanized sheet metal structure, insulated with self-extinguishing material.
- From 2 to 6 delivery outlets, depending on the model. Each outlet is fitted with a motorised damper, with the possibility - if required by the system - to add an MZCSM accessory outlet (possibility not available for all models - see the accessory compatibility table)
- Fresh air injection flange, supplied as standard, for connecting the MZC plenum to a heat recovery unit.
- Pre-setting for the installation of an additional air probe (accessory MZCSA) to control modulating or pressure-independent valves.
- Possibility to install the plenum even on the fan coil intake, using a flange (accessory MZCA)
- Reversible electrical box (right/left)
- Water probe supplied as standard, for the fan coil.

#### Regulation

- MZC is equipped with a zone thermostat VMHI to define the required temperature setting.
- The status of the dampers (open/closed) is adjusted on reaching the temperature set in each room.
- Management of up to 6 motorized dampers.
- Flow control for each damper (the maximum and minimum damper opening can be set for each outlet).
- Possibility to associate the control of several dampers with the request from the same zone thermostat (VMHI or WT10).

- For installations in which the dampers and room thermostats are uniquely associated, the dampers can be modulated in relation to the room thermostat requirements.
- "Suction plenum" function enabling
- MZC can control the valves that may be installed on the fan coil associated with it (On/Off, modulating or pressure-independent types), for 2- or 4-pipe systems
- Possibility to set the control unit parameters via the supervision serial port.

### ACCESSORIES

#### Control panels

**WR10:** Two-channel wireless receiver for WT10.

**WT10:** Wireless thermostat.

#### n°1 as standard



VMHI



MZCUI



WR10+WT10



ZCT

#### VMF Components

**VMF-VOC:** Air quality detection accessory.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

## Installation accessories

**MZCACV:** Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

**MZCAC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.

**MZCBC:** Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with a brushless motor.

**MZCSM:** Single module with motorized damper.

**MZCA:** Adapter flange for installing the Plenum even under fan coil suction.

**MZCSA:** Air probe for controlling modulating or pressure independent valves.

**ZCT:** It is an electrical device equipped with Bluetooth and WiFi technology, with which it is possible to perform the functions of air probe and thermostat with dry contact. Communicate with the AerChront App (available for Android and iOS) for home control by creating customised rooms with name and cover image. For more information on the use of the application and available functions, please refer to the respective documentation on the site.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|--------|---------|---------|
| WR10      | *      | *      | *      | *      | *       | *       |
| WT10      | *      | *      | *      | *      | *       | *       |

### VMF system

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|--------|---------|---------|
| VMF-VOC   | *      | *      | *      | *      | *       | *       |
| VMHI      | *      | *      | *      | *      | *       | *       |

## Installation accessories

### Relay interface board

| Accessory | MZC7050 |        |        |        |         |         |
|-----------|---------|--------|--------|--------|---------|---------|
| MZCACV    | *       |        |        |        |         |         |
| Accessory | MZC220  | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
| MZCAC     | *       | *      | *      | *      | *       | *       |

### Compulsory electrical plant

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|--------|---------|---------|
| MZCBC     | *      | *      | *      | *      | *       | *       |

### Single module with damper

| Accessory | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|---------|---------|
| MZCSM     | *      | *      | *      | *       | *       |

### Adaptation flange

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 |
|-----------|--------|--------|--------|--------|
| MZCA2     | *      |        |        |        |
| MZCA3     |        | *      |        |        |
| MZCA5     |        |        | *      |        |
| MZCA8     |        |        |        | *      |

### Air temperature probe

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|--------|---------|---------|
| MZCSA     | *      | *      | *      | *      | *       | *       |

### Thermostat

| Accessory | MZC220 | MZC320 | MZC530 | MZC830 | MZC5040 | MZC7050 |
|-----------|--------|--------|--------|--------|---------|---------|
| ZCT       | *      | *      | *      | *      | *       | *       |

## COMPATIBILITY OF MZC PLENUMS WITH AERMEC FAN COILS

### Plenum with motorised dampers - FCZ - PO

| Model  | Ver    | 100 | 101 | 102 | 150 | 200 | 201 | 202 | 250 | 300 | 301 | 302 | 350 | 400 | 401 | 402 | 450  | 500  | 501 | 502 | 550 |
|--------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|
| MZC220 | PO,POR |     |     |     |     | *   | *   | *   | *   |     |     |     |     |     |     |     |      |      |     |     |     |
| MZC320 | PO,POR |     |     |     |     |     |     |     |     | *   | *   | *   | *   |     |     |     |      |      |     |     |     |
| MZC530 | PO,POR |     |     |     |     |     |     |     |     |     |     |     |     | *   | *   | *   | *    | *    | *   | *   | *   |
| Model  | Ver    | 600 | 601 | 602 | 650 | 700 | 701 | 702 | 750 | 800 | 801 | 802 | 850 | 900 | 901 | 950 | 1000 | 1001 |     |     |     |
| MZC830 | PO,POR | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *    | *    | *   |     |     |

### Plenum with motorised dampers - VED 030-340

### Plenum with motorised dampers - VED 430-741

| Accessory | VED430 | VED440 | VED530 | VED540 | VED630 | VED640 | VED730 | VED740 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| MZC5040   | *      | *      | *      | *      |        |        |        |        |
| MZC7050   |        |        |        |        | *      | *      | *      | *      |

| Accessory | VED432 | VED441 | VED532 | VED541 | VED632 | VED641 | VED732 | VED741 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| MZC5040   | *      | *      | *      | *      |        |        |        |        |
| MZC7050   |        |        |        |        | *      | *      | *      | *      |

#### Plenum with motorised dampers - VED 030I-340I

#### Plenum with motorised dampers - VED 530I-741I

| Accessory | VED530I | VED540I | VED730I | VED740I |
|-----------|---------|---------|---------|---------|
| MZC5040   | *       | *       |         |         |
| MZC7050   |         |         | *       | *       |

| Accessory | VED532I | VED541I | VED732I | VED741I |
|-----------|---------|---------|---------|---------|
| MZC5040   | *       | *       |         |         |
| MZC7050   |         |         | *       | *       |

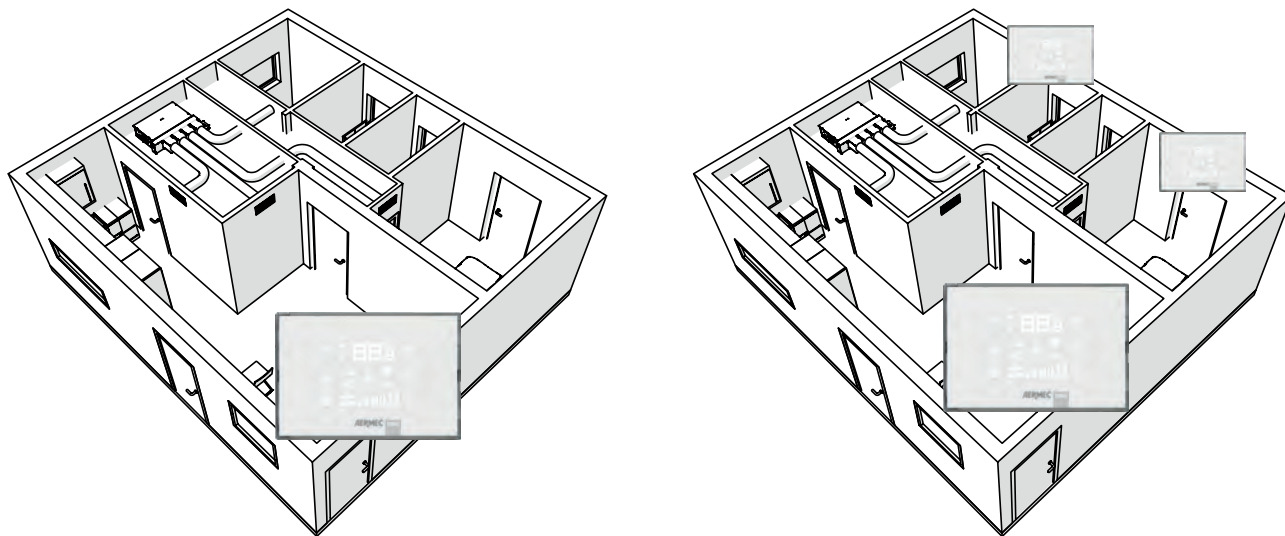
#### Plenum with motor-driven dampers - VES 030-340

| Accessory | VES030 | VES040 | VES130 | VES140 | VES230 | VES240 | VES330 | VES340 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| MZC220    | *      | *      |        |        |        |        |        |        |
| MZC320    |        |        | *      | *      |        |        |        |        |
| MZC530    |        |        |        |        | *      | *      |        |        |
| MZC830    |        |        |        |        |        |        | *      | *      |

#### Plenum with motor-driven dampers - VES 030I-340I

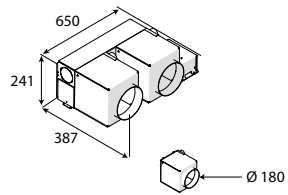
| Accessory | VES030I | VES040I | VES130I | VES140I | VES230I | VES240I | VES330I | VES340I |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| MZC220    | *       | *       |         |         |         |         |         |         |
| MZC320    |         |         | *       | *       |         |         |         |         |
| MZC530    |         |         |         |         | *       | *       |         |         |
| MZC830    |         |         |         |         |         |         | *       | *       |

## SYSTEM SOLUTIONS

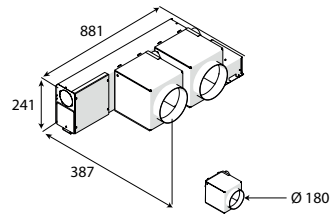


## DIMENSIONS

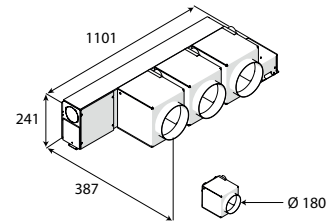
MZC220



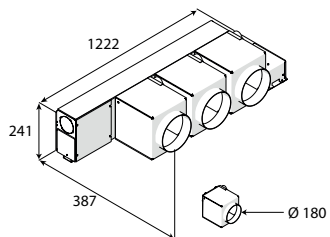
MZC320



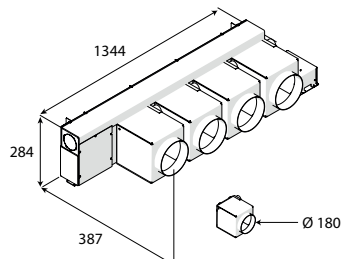
MZC530



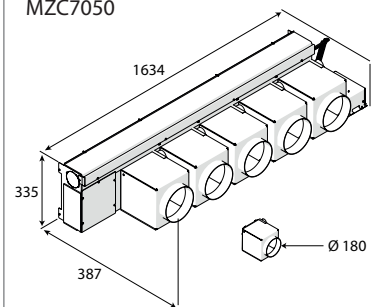
MZC830



MZC5040



MZC7050



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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# VEC

## Coanda-effect fan coil for cassette installation

- **Very quiet**
- **Total comfort in every season**



### DESCRIPTION

Thanks to a special air intake and flow grid, these units allow a coanda-effect air flow to be generated, parallel to the ceiling, creating optimal circulation inside the room to be air-conditioned. They are suitable to be installed inside a suspended ceiling.

### FEATURES

#### Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft. In addition to the traditional three-speed asynchronous motor for the "VECs", every unit can be supplied with a "VEC\_I" Brushless-type inverter motor controlled by an inverter board.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

Units are available with a standard coil (20-50) and a larger coil (24-54). Only units with the standard coil can be combined with an additional electric or water coil with 1 row, both available as an accessory.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

Fire resistance class 1 air filter.

### ACCESSORY COMPULSORY

**VEC\_GL:** Air intake and flow grid with adjustable Coanda-effect vents (white M9016 = lacquered white similar to Ral 9016).

#### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive key-pad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant

panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**FMT10:** Electronic thermostat for fan coil in to 2/4 pipe systems.

**PRO503:** Wall box for AER503IR and VMF-E4 thermostats.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

#### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.





## VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E19:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLF\_N/M or GLL\_N grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

## Common accessories

**BV:** Hot water heat exchanger with 1 row.

**RX:** Armoured electric coil with safety thermostat.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VCF41 - 42 - 43 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**DSC:** Condensate drainage device.

**BC:** Condensate drip.

**VCF44 - 45 - for secondary heat exchanger:** The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.

**PCR:** Galvanised plate protection for the controls and the electrical element.

## ACCESSORIES COMPATIBILITY

### Accessories mandatory

#### Intake grid and distribution of the air

| Model       | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-------------|-----|----|----|----|----|----|----|----|----|
| VEC20GL (1) | .   | *  | *  |    |    |    |    |    |    |
| VEC30GL (1) | .   |    |    | *  | *  |    |    |    |    |
| VEC40GL (1) | .   |    |    |    |    | *  | *  | *  | *  |

(1) Mandatory accessory.

### Control panels and dedicated accessories

| Model        | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|--------------|-----|----|----|----|----|----|----|----|----|
| AER503IR (1) | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| FMT10        | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| PRO503       | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| SAS (2)      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| SIT3 (3)     | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| SIT5 (4)     | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| SW3 (2)      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| SW5 (2)      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| TX (5)       | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT10 (5)    | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16 (5)    | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16CV (5)  | .   | *  | *  | *  | *  | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### VMF Components

| Model       | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-------------|-----|----|----|----|----|----|----|----|----|
| DI24        | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E19 (1) | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E3      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E4X     | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-IR      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-SW      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-SW1     | .   | *  | *  | *  | *  | *  | *  | *  | *  |

| Model | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-------|-----|----|----|----|----|----|----|----|----|
| VMHI  | .   | *  | *  | *  | *  | *  | *  | *  | *  |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

### Common accessories

#### Electric coil

| Model    | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|----------|-----|----|----|----|----|----|----|----|----|
| RX22 (1) | .   | *  | *  |    |    |    |    |    |    |
| RX32 (1) | .   |    |    | *  | *  |    |    |    |    |
| RX42 (1) | .   |    |    |    |    | *  | *  |    |    |
| RX52 (1) | .   |    |    |    |    |    |    | *  | *  |

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 PCR2 or PCR1V appliance must also be provided depending on the unit.

#### Protection for controls and electric resistance

| Model | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-------|-----|----|----|----|----|----|----|----|----|
| PCR1V | .   | *  | *  | *  | *  | *  | *  | *  | *  |

#### Water coil with 1 row

| Model     | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-----------|-----|----|----|----|----|----|----|----|----|
| BV122 (1) | .   | *  |    |    |    |    |    |    |    |
| BV132 (1) | .   |    |    | *  |    |    |    |    |    |
| BV142 (1) | .   |    |    |    |    | *  |    | *  |    |

(1) Not available for sizes with oversized main coil.

#### 3-way valve kit - main coil or accessory BV coil

|                      | VEC20           | VEC24           | VEC30           | VEC34           | VEC40           | VEC44           | VEC50           | VEC54           |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Main coil            | VCF41 - VCF4124 | VCF42 - VCF4224 | VCF41 - VCF4124 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 |
| Additional coil "BV" | VCF44 - VCF4424 | -               | VCF44 - VCF4424 | -               | VCF44 - VCF4424 | -               | VCF44 - VCF4424 | -               |

#### 2-way valve kit - main coil or accessory BV coil

|                      | VEC20           | VEC24           | VEC30           | VEC34           | VEC40           | VEC44           | VEC50           | VEC54           |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Main coil            | VCFD1 - VCFD124 | VCFD2 - VCFD224 | VCFD1 - VCFD124 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 |
| Additional coil "BV" | VCFD4 - VCFD424 | -               | VCFD4 - VCFD424 | -               | VCFD4 - VCFD424 | -               | VCFD4 - VCFD424 | -               |

Valves ending with **24 ex. VCFD124**, are 24V.

#### Condensate drip

| Ver | 20      | 24      | 30      | 34      | 40      | 44      | 50      | 54      |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|
| .   | BCS (1) | BCS (1) | BCS (1) | BCS (1) | BCS (1) | BCS (1) | BCS (1) | BCS (1) |

(1) For horizontal installation.

#### Condensate drainage

| Ver | 20   | 24   | 30   | 34   | 40   | 44   | 50   | 54   |
|-----|------|------|------|------|------|------|------|------|
| .   | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 | DSC4 |

## PERFORMANCE SPECIFICATIONS VEC

2-pipe

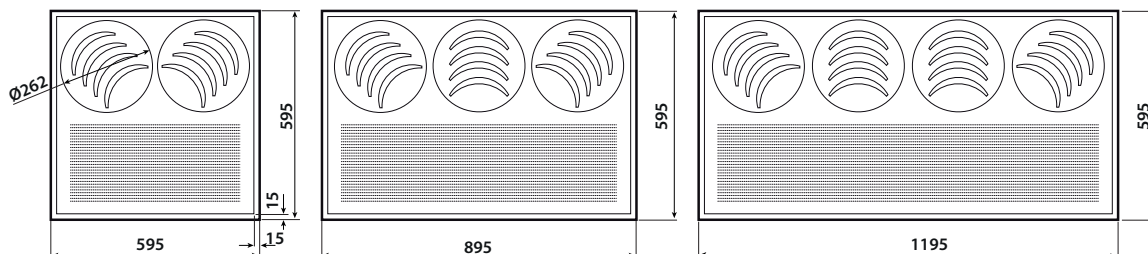
|                                       |       | VEC20        |      |      | VEC24 |      |      | VEC30 |      |      | VEC34 |       |      | VEC40 |      |      | VEC44 |      |      | VEC50 |      |      | VEC54 |      |      |
|---------------------------------------|-------|--------------|------|------|-------|------|------|-------|------|------|-------|-------|------|-------|------|------|-------|------|------|-------|------|------|-------|------|------|
|                                       |       | 1            | 2    | 3    | 1     | 2    | 3    | 1     | 2    | 3    | 1     | 2     | 3    | 1     | 2    | 3    | 1     | 2    | 3    | 1     | 2    | 3    | 1     | 2    | 3    |
|                                       |       | L            | M    | H    | L     | M    | H    | L     | M    | H    | L     | M     | H    | L     | M    | H    | L     | M    | H    | L     | M    | H    | L     | M    | H    |
| Heating performance 70 °C / 60 °C (1) |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Heating capacity                      | kW    | 1,87         | 2,54 | 3,10 | 2,07  | 2,50 | 3,42 | 3,03  | 3,64 | 4,31 | 4,31  | 53,18 | 6,14 | 4,21  | 5,21 | 6,29 | 5,41  | 6,68 | 8,07 | 4,76  | 6,34 | 7,16 | 6,06  | 8,08 | 9,18 |
| Water flow rate system side           | l/h   | 164          | 223  | 272  | 181   | 219  | 300  | 266   | 319  | 378  | 378   | 454   | 538  | 369   | 457  | 551  | 474   | 586  | 708  | 417   | 556  | 628  | 532   | 709  | 805  |
| Pressure drop system side             | kPa   | 2            | 4    | 6    | 1     | 2    | 3    | 9     | 13   | 17   | 5     | 7     | 9    | 6     | 9    | 12   | 9     | 14   | 19   | 7     | 11   | 14   | 9     | 15   | 19   |
| Heating performance 45 °C / 40 °C (2) |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Heating capacity                      | kW    | 0,95         | 1,26 | 1,54 | 1,20  | 1,40 | 1,70 | 1,50  | 1,81 | 2,14 | 2,15  | 2,57  | 3,05 | 2,09  | 2,59 | 3,12 | 2,69  | 3,30 | 4,01 | 2,37  | 3,15 | 3,56 | 3,02  | 4,02 | 4,54 |
| Water flow rate system side           | l/h   | 163          | 217  | 265  | 206   | 241  | 292  | 258   | 311  | 368  | 370   | 442   | 525  | 359   | 445  | 537  | 463   | 568  | 690  | 408   | 542  | 612  | 519   | 691  | 781  |
| Pressure drop system side             | kPa   | 3            | 5    | 7    | 2     | 3    | 4    | 9     | 13   | 17   | 5     | 7     | 9    | 6     | 9    | 13   | 10    | 14   | 20   | 7     | 12   | 14   | 17    | 15   | 19   |
| Cooling performance 7 °C / 12 °C      |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Cooling capacity                      | kW    | 0,80         | 1,07 | 1,31 | 0,88  | 1,21 | 1,52 | 1,35  | 1,61 | 1,91 | 1,79  | 2,14  | 2,47 | 1,99  | 2,47 | 2,99 | 2,55  | 3,34 | 3,91 | 2,35  | 3,17 | 3,61 | 3,00  | 4,00 | 4,28 |
| Sensible cooling capacity             | kW    | 0,64         | 0,87 | 1,07 | 0,67  | 0,90 | 1,14 | 1,03  | 1,25 | 1,49 | 1,26  | 1,51  | 1,78 | 1,58  | 1,98 | 2,41 | 1,91  | 2,42 | 2,74 | 1,68  | 2,27 | 2,59 | 2,09  | 2,83 | 3,04 |
| Water flow rate system side           | l/h   | 138          | 184  | 225  | 151   | 208  | 261  | 232   | 277  | 329  | 308   | 368   | 425  | 342   | 425  | 514  | 439   | 574  | 673  | 404   | 545  | 621  | 516   | 688  | 736  |
| Pressure drop system side             | kPa   | 3            | 4    | 6    | 1     | 2    | 3    | 6     | 11   | 13   | 5     | 6     | 8    | 6     | 9    | 12   | 11    | 17   | 22   | 7     | 12   | 15   | 17    | 27   | 30   |
| Fan                                   |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Type                                  | type  | Centrifugal  |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Fan motor                             | type  | Asynchronous |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Number                                | no.   | 1            |      |      | 1     |      |      | 2     |      |      | 2     |       |      | 2     |      |      | 2     |      |      | 2     |      |      | 2     |      |      |
| Air flow rate                         | m³/h  | 130          | 194  | 247  | 130   | 167  | 247  | 241   | 309  | 383  | 241   | 309   | 383  | 306   | 406  | 511  | 306   | 406  | 511  | 371   | 529  | 613  | 371   | 529  | 613  |
| Input power                           | W     | 19           | 22   | 25   | 19    | 22   | 25   | 25    | 33   | 44   | 25    | 33    | 44   | 30    | 43   | 57   | 30    | 43   | 57   | 34    | 46   | 67   | 34    | 46   | 67   |
| Electrical wiring                     |       | V1           | V2   | V3   | V1    | V2   | V3   | V1    | V2   | V3   | V1    | V2    | V3   | V1    | V2   | V3   | V1    | V2   | V3   | V1    | V2   | V3   | V1    | V2   | V3   |
| Fan coil sound data (3)               |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Sound power level                     | dB(A) | 35,0         | 42,0 | 48,0 | 35,0  | 42,0 | 48,0 | 37,0  | 43,0 | 49,0 | 37,0  | 43,0  | 49,0 | 38,0  | 43,0 | 48,0 | 38,0  | 43,0 | 48,0 | 43,0  | 50,0 | 53,0 | 43,0  | 50,0 | 53,0 |
| Sound pressure level                  | dB(A) | 27,0         | 34,0 | 40,0 | 27,0  | 34,0 | 40,0 | 29,0  | 35,0 | 41,0 | 29,0  | 35,0  | 41,0 | 30,0  | 35,0 | 40,0 | 30,0  | 35,0 | 40,0 | 35,0  | 38,0 | 45,0 | 35,0  | 38,0 | 45,0 |
| Diameter hydraulic fittings           |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Main heat exchanger                   | Ø     | 1/2"         |      |      | 3/4"  |      |      | 1/2"  |      |      | 3/4"  |       |      | 3/4"  |      |      | 3/4"  |      |      | 3/4"  |      |      | 3/4"  |      |      |
| Power supply                          |       |              |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |
| Power supply                          |       | 230V~50Hz    |      |      |       |      |      |       |      |      |       |       |      |       |      |      |       |      |      |       |      |      |       |      |      |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

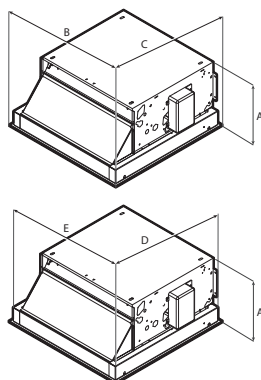
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## GRID DIMENSIONS (MANDATORY ACCESSORY)



## DIMENSIONS



### Dimensions and weights of the unit with grid (maximum dimensions)

| Size                          |    | 20  | 24  | 30  | 34  | 40   | 44   | 50   | 54   |
|-------------------------------|----|-----|-----|-----|-----|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |      |      |      |      |
| A                             | mm | 283 | 283 | 283 | 283 | 283  | 283  | 283  | 283  |
| B                             | mm | 595 | 595 | 895 | 895 | 1195 | 1195 | 1195 | 1195 |
| C                             | mm | 595 | 595 | 595 | 595 | 595  | 595  | 595  | 595  |
| Empty weight                  | kg | 16  | 16  | 21  | 21  | 25   | 25   | 25   | 25   |
| Weight of the grid            | kg | 3,7 | 3,7 | 5,7 | 5,7 | 7,0  | 7,0  | 7,0  | 7,0  |

### Dimensions of the unit with grid (dimensions for installation)

| Size                          |    | 20  | 24  | 30  | 34  | 40   | 44   | 50   | 54   |
|-------------------------------|----|-----|-----|-----|-----|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |     |     |      |      |      |      |
| A                             | mm | 283 | 283 | 283 | 283 | 283  | 283  | 283  | 283  |
| D                             | mm | 574 | 574 | 574 | 574 | 574  | 574  | 574  | 574  |
| E                             | mm | 574 | 574 | 874 | 874 | 1174 | 1174 | 1174 | 1174 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## VEC-I

## Coanda-effect fan coil for cassette installation

- **Very quiet**
- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced variations in temperature and relative humidity in every season**



### DESCRIPTION

Thanks to a special air intake and flow grid, these units allow a coanda-effect air flow to be generated, parallel to the ceiling, creating optimal circulation inside the room to be air-conditioned.

They are suitable to be installed inside a suspended ceiling.

### FEATURES

#### Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

Continuous air flow rate variation is made possible by a 0-10V signal generated by Aermec adjustment and control commands or by independent regulation systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Apart from the inverter motor of the "VEC-I" models, each unit can be supplied with a single-phase asynchronous "VEC" motor.

#### Heat exchanger coil

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

Units are available with a standard coil (20-50) and a larger coil (24-54). Only units with the standard coil can be combined with an additional electric or water coil with 1 row, both available as an accessory.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

#### Air filter

Fire resistance class 1 air filter.

### ACCESSORY COMPULSORY

#### Control panels and dedicated accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

#### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF Components

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

## ACCESSORIES COMPATIBILITY

### Accessories mandatory

#### Intake grid and distribution of the air

| Accessory | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|
| VEC20GL   | *      |        |        |        |        |        |        |
| VEC30GL   |        | *      | *      |        |        |        |        |
| VEC40GL   |        |        |        | *      | *      | *      | *      |

### Control panels and dedicated accessories

| Accessory | VEC20I | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| AERS03IR  | *      | *      | *      | *      | *      | *      | *      | *      |
| PRO503    | *      | *      | *      | *      | *      | *      | *      | *      |
| SA5       | *      | *      | *      | *      | *      | *      | *      | *      |
| SW5       | *      | *      | *      | *      | *      | *      | *      | *      |
| TX        | *      | *      | *      | *      | *      | *      | *      | *      |

### VMF Components

| Model       | Ver | 20 | 24 | 30 | 34 | 40 | 44 | 50 | 54 |
|-------------|-----|----|----|----|----|----|----|----|----|
| DI24        | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E19 (1) | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E3      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E4X     | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-IR      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-SW      | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-SW1     | .   | *  | *  | *  | *  | *  | *  | *  | *  |
| VMHI        | .   | *  | *  | *  | *  | *  | *  | *  | *  |

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

### Common accessories

#### Electric coil

| Accessory | VEC20I | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| RX22      | *      | *      |        |        |        |        |        |        |
| RX32      |        |        | *      | *      |        |        |        |        |
| RX42      |        |        |        |        | *      | *      |        |        |
| RX52      |        |        |        |        |        |        | *      | *      |

#### Protection for controls and electric resistance

| Accessory | VEC20I | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| PCR1V     | *      | *      | *      | *      | *      | *      | *      | *      |

#### Water coil with 1 row

| Accessory | VEC20I | VEC30I | VEC40I | VEC50I |
|-----------|--------|--------|--------|--------|
| BV122     | *      |        |        |        |

**VMF-E19I:** Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

### Common accessories

**BV:** Hot water heat exchanger with 1 row.

**RX:** Armoured electric coil with safety thermostat.

**VCFD:** Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.

**VCF41 - 42 - 43 - for main heat exchanger:** 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

**DSC:** Condensate drainage device.

**BC:** Condensate drip.

**PCR:** Galvanised plate protection for the controls and the electrical element.

| Accessory | VEC20I | VEC30I | VEC40I | VEC50I |
|-----------|--------|--------|--------|--------|
| BV132     |        | *      |        |        |
| BV142     |        |        | *      | *      |

### 3-way valve kit - main coil or accessory BV coil

|                      | VEC20I          | VEC24I          | VEC30I          | VEC34I          | VEC40I          | VEC44I          | VEC50I          | VEC54I          |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Main coil            | VCF41 - VCF4124 | VCF42 - VCF4224 | VCF41 - VCF4124 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 | VCF42 - VCF4224 |
| Additional coil "BV" | VCF44 - VCF4424 | -               | VCF44 - VCF4224 | -               | VCF44 - VCF4224 | -               | VCF44 - VCF4224 | -               |

### 2-way valve kit - main coil or accessory BV coil

|                      | VEC20I          | VEC24I          | VEC30I          | VEC34I          | VEC40I          | VEC44I          | VEC50I          | VEC54I          |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Main coil            | VCFD1 - VCFD124 | VCFD2 - VCFD224 | VCFD1 - VCFD124 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 | VCFD2 - VCFD224 |
| Additional coil "BV" | VCFD2 - VCFD424 | -               | VCFD4 - VCFD424 | -               | VCFD4 - VCFD424 | -               | VCFD4 - VCFD424 | -               |

Valves ending with **24 ex. VCFD124**, are 24V.

### Condensate drip

| Accessory | VEC20I | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| BC5       | *      | *      | *      | *      | *      | *      | *      | *      |

### Condensate drainage

| Accessory | VEC20I | VEC24I | VEC30I | VEC34I | VEC40I | VEC44I | VEC50I | VEC54I |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|
| DSC4      | *      | *      | *      | *      | *      | *      | *      | *      |

## PERFORMANCE SPECIFICATIONS VEC

### 2-pipe

|  | VEC20I |   |   | VEC24I |   |   | VEC30I |   |   | VEC34I |   |   | VEC40I |   |   | VEC44I |   |   | VEC50I |   |   | VEC54I |   |   |
|--|--------|---|---|--------|---|---|--------|---|---|--------|---|---|--------|---|---|--------|---|---|--------|---|---|--------|---|---|
|  | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 | 1      | 2 | 3 |
|  | L      | M | H | L      | M | H | L      | M | H | L      | M | H | L      | M | H | L      | M | H | L      | M | H | L      | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,87 | 2,54 | 3,10 | 2,07 | 2,50 | 3,42 | 3,03 | 3,64 | 4,31 | 4,31 | 53,18 | 6,14 | 4,21 | 5,21 | 6,29 | 5,41 | 6,68 | 8,07 | 4,76 | 6,34 | 7,16 | 6,06 | 8,08 | 9,18 |
| Water flow rate system side | l/h | 164  | 223  | 272  | 181  | 219  | 300  | 266  | 319  | 378  | 378  | 454   | 538  | 369  | 457  | 551  | 474  | 586  | 708  | 417  | 556  | 628  | 532  | 709  | 805  |
| Pressure drop system side   | kPa | 2    | 4    | 6    | 1    | 2    | 3    | 9    | 13   | 17   | 5    | 7     | 9    | 6    | 9    | 12   | 9    | 14   | 19   | 7    | 11   | 14   | 9    | 15   | 19   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 0,95 | 1,26 | 1,54 | 1,20 | 1,40 | 1,70 | 1,50 | 1,81 | 2,14 | 2,15 | 2,57 | 3,05 | 2,09 | 2,59 | 3,12 | 2,69 | 3,30 | 4,01 | 2,37 | 3,15 | 3,56 | 3,02 | 4,02 | 4,54 |
| Water flow rate system side | l/h | 163  | 217  | 265  | 206  | 241  | 292  | 258  | 311  | 368  | 370  | 442  | 525  | 359  | 445  | 537  | 463  | 568  | 690  | 408  | 542  | 612  | 519  | 691  | 781  |
| Pressure drop system side   | kPa | 3    | 5    | 7    | 2    | 3    | 4    | 9    | 13   | 17   | 5    | 7    | 9    | 6    | 9    | 13   | 10   | 14   | 20   | 7    | 12   | 14   | 17   | 15   | 19   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 0,80 | 1,07 | 1,31 | 0,88 | 1,21 | 1,52 | 1,35 | 1,61 | 1,91 | 1,79 | 2,14 | 2,47 | 1,99 | 2,47 | 2,99 | 2,55 | 3,34 | 3,91 | 2,35 | 3,17 | 3,61 | 3,00 | 4,00 | 4,28 |
| Sensible cooling capacity   | kW  | 0,64 | 0,87 | 1,07 | 0,67 | 0,90 | 1,14 | 1,03 | 1,25 | 1,49 | 1,26 | 1,51 | 1,78 | 1,58 | 1,98 | 2,41 | 1,91 | 2,42 | 2,74 | 1,68 | 2,27 | 2,59 | 2,09 | 2,83 | 3,04 |
| Water flow rate system side | l/h | 138  | 184  | 225  | 151  | 208  | 261  | 232  | 277  | 329  | 308  | 368  | 425  | 342  | 425  | 514  | 439  | 574  | 673  | 404  | 545  | 621  | 516  | 688  | 736  |
| Pressure drop system side   | kPa | 3    | 4    | 6    | 1    | 2    | 3    | 6    | 11   | 13   | 5    | 6    | 8    | 6    | 9    | 12   | 11   | 17   | 22   | 7    | 12   | 15   | 17   | 27   | 30   |

### Fan

|               |                   |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------|-------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Type          | type              | Centrifugal |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Fan motor     | type              | Inverter    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Number        | no.               | 1           |     |     | 1   |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 2   |     |     | 2   |     |     |
| Air flow rate | m <sup>3</sup> /h | 130         | 194 | 247 | 130 | 167 | 247 | 241 | 309 | 383 | 241 | 309 | 383 | 306 | 406 | 511 | 306 | 406 | 511 | 371 | 529 | 613 | 371 | 529 | 613 |
| Input power   | W                 | 4           | 9   | 14  | 4   | 9   | 14  | 11  | 16  | 35  | 11  | 16  | 35  | 16  | 20  | 26  | 16  | 20  | 26  | 18  | 27  | 34  | 18  | 27  | 34  |
| Signal 0-10V  | %                 | 48          | 70  | 90  | 48  | 70  | 90  | 58  | 66  | 90  | 58  | 66  | 90  | 54  | 72  | 90  | 54  | 72  | 90  | 56  | 78  | 90  | 56  | 78  | 90  |

### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 35,0 | 42,0 | 48,0 | 35,0 | 42,0 | 48,0 | 37,0 | 43,0 | 49,0 | 37,0 | 43,0 | 49,0 | 38,0 | 43,0 | 48,0 | 38,0 | 43,0 | 48,0 | 43,0 | 50,0 | 53,0 | 43,0 | 50,0 | 53,0 |
| Sound pressure level | dB(A) | 27,0 | 34,0 | 40,0 | 27,0 | 34,0 | 40,0 | 29,0 | 35,0 | 41,0 | 29,0 | 35,0 | 41,0 | 30,0 | 35,0 | 40,0 | 30,0 | 35,0 | 40,0 | 35,0 | 38,0 | 45,0 | 35,0 | 38,0 | 45,0 |

### Diametre hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 3/4" |  |  | 1/2" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  | 3/4" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

### Power supply

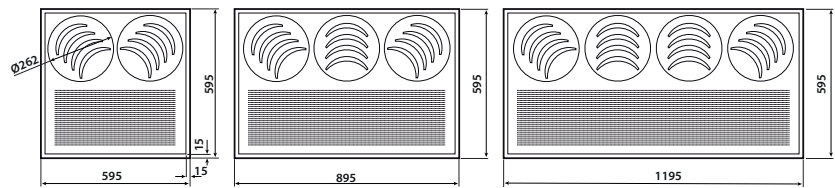
|              |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

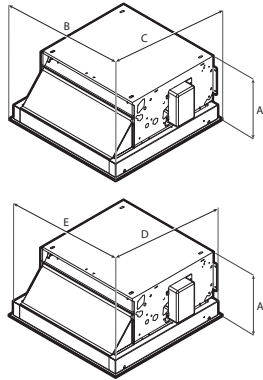
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

GRID DIMENSIONS (MANDATORY ACCESSORY)



DIMENSIONS



Dimensions and weights of the unit with grid (maximum dimensions)

| Size                   |      | 20  | 24  | 30  | 34  | 40   | 44   | 50   | 54   |
|------------------------|------|-----|-----|-----|-----|------|------|------|------|
| Dimensions and weights |      |     |     |     |     |      |      |      |      |
| A                      | . mm | 283 | 283 | 283 | 283 | 283  | 283  | 283  | 283  |
| B                      | . mm | 595 | 595 | 895 | 895 | 1195 | 1195 | 1195 | 1195 |
| C                      | . mm | 595 | 595 | 595 | 595 | 595  | 595  | 595  | 595  |
| Empty weight           | . kg | 16  | 16  | 21  | 21  | 25   | 25   | 25   | 25   |
| Weight of the grid     | . kg | 3,7 | 3,7 | 5,7 | 5,7 | 7,0  | 7,0  | 7,0  | 7,0  |

Dimensions of the unit with grid (dimensions for installation)

| Size                   |      | 20  | 24  | 30  | 34  | 40   | 44   | 50   | 54   |
|------------------------|------|-----|-----|-----|-----|------|------|------|------|
| Dimensions and weights |      |     |     |     |     |      |      |      |      |
| A                      | . mm | 283 | 283 | 283 | 283 | 283  | 283  | 283  | 283  |
| D                      | . mm | 574 | 574 | 574 | 574 | 574  | 574  | 574  | 574  |
| E                      | . mm | 574 | 574 | 874 | 874 | 1174 | 1174 | 1174 | 1174 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# FCL

## Cassette Type Fan Coil Unit

- **Standard internal three-way valve**
- **Version with 2-way valve for variable water flow rate systems**
- **Version without valves**



### DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

### FEATURES

#### Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010.

The dimensions of the first nine sizes respect the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance.

#### Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.

The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

#### Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.

The single-phase electric motor offers three or four speeds (depending on the size), is mounted on anti-vibration supports, and has a permanently enabled condenser.

#### Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.

There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems. There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

### Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

### Air filter

Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

### Versions

**FCL** Standard with internal 3-way valve

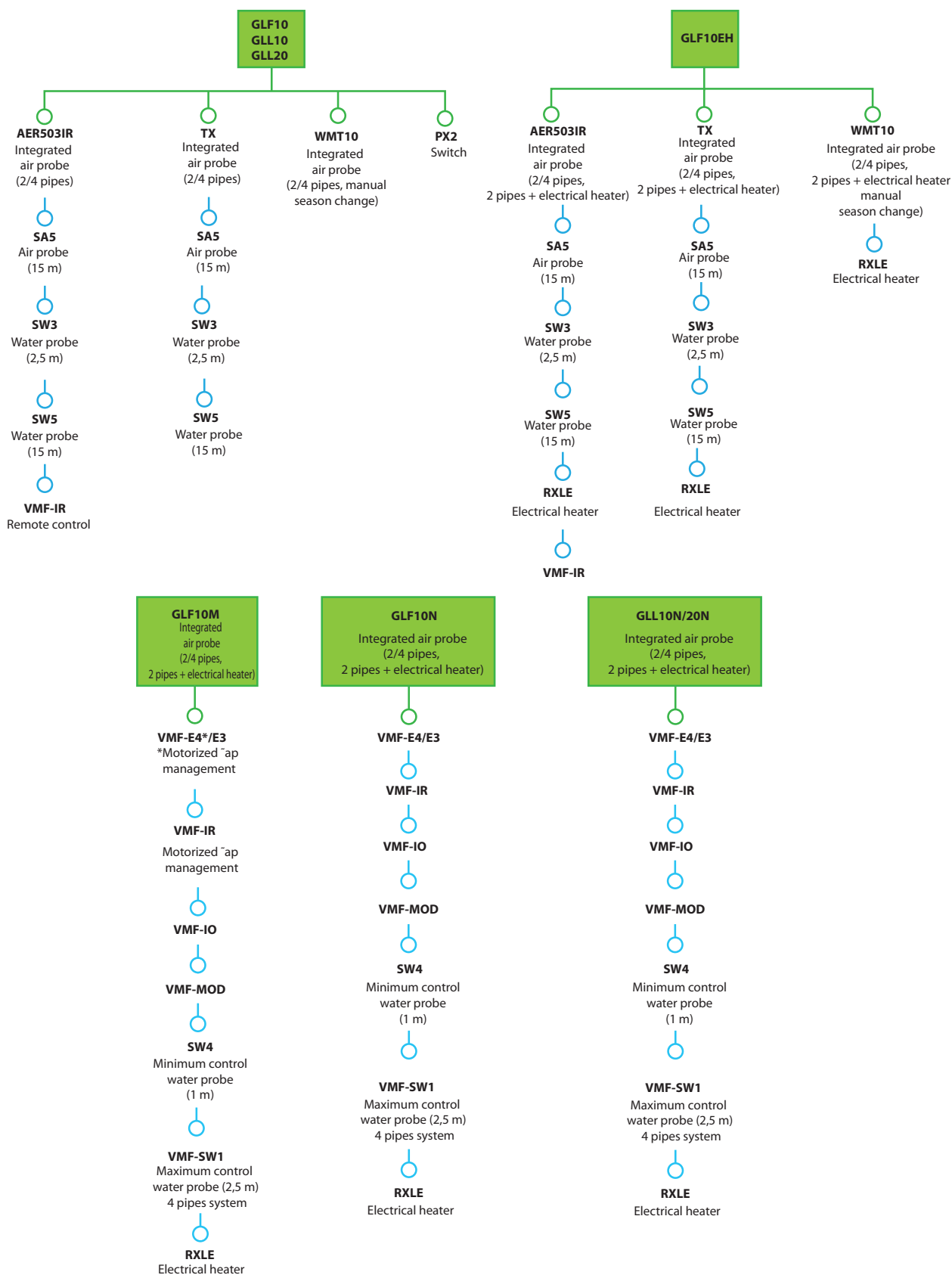
**V2** With internal 2-way valve

**VL** Without internal valve



## ACCESSORIES

### Accessories that can be combined with the grilles



**RXLE it can be installed only at the factory.**

### Intake grids and distribution of the air, compulsory accessory

**GLF10:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated louvers. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLF10EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLF10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

**GLF10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLL10:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLL10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL20:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLL20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-MOD:** Expansion board for the management of modulating valves.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

### Control panels and their accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SIT5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW4:** Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

### Electric heaters it can be installed only at the factory

**RXLE:** Electric heater for heating, can be installed on board the units.

**RXLE20:** Electric heater for heating, can be installed on board the units.

### Water valve kit

**VCFLX4:** 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

**VHL1:** 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

**VHL124:** 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.

**VHL20:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.

**VHL2024:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL2:** 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;

**VHL22:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;

**VHL2224:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL224:** 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

## Installation accessories

**KFL:** Delivery flange, allowing the air to be directed to an adjacent room.

**KFL20:** Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.

**KFLD:** Suction flange, allows to introduce external air directly into the room without mixing.

**KFLD20:** Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFLD20 can be assembled on a single unit.

**FCLMC10:** Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20:** Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

## ACCESSORIES COMPATIBILITY

### Intake grids and distribution of the air

| Model       | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 |
|-------------|-----------|----|----|----|----|----|----|----|----|
| GLF10 (1)   | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| GLF10EH (2) | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| GLF10M (3)  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| GLF10N (3)  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |

| Model       | Ver       | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|-------------|-----------|----|----|----|-----|-----|-----|-----|
| GLF10 (1)   | FCL,V2,VL | *  |    |    |     |     |     |     |
| GLF10EH (2) | FCL,V2,VL | *  |    |    |     |     |     |     |
| GLF10M (3)  | FCL,V2,VL | *  |    |    |     |     |     |     |
| GLF10N (3)  | FCL,V2,VL | *  |    |    |     |     |     |     |

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatible with the VMF system and electric heaters.

### Intake grid and distribution of the air

| Model      | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|------------|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| GLL10 (1)  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  |    |    |     |     |     |     |
| GLL10N (2) | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  |    |    |     |     |     |     |
| GLL20 (1)  | FCL,V2,VL |    |    |    |    |    |    |    |    |    | *  | *  | *   | *   | *   | *   |
| GLL20N (2) | FCL,V2,VL |    |    |    |    |    |    |    |    |    | *  | *  | *   | *   | *   | *   |

(1) Not compatible with the VMF system and electric heaters.

(2) Compatibility with VMF system.

### VMF system

| Model    | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 |
|----------|-----------|----|----|----|----|----|----|----|----|
| DI24     | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E3   | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E4DX | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-E4X  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-I0   | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-IR   | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-MOD  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| VMF-SW1  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |

| Model    | Ver       | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|----------|-----------|----|----|----|-----|-----|-----|-----|
| DI24     | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-E3   | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-E4DX | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-E4X  | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-I0   | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-IR   | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-MOD  | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |
| VMF-SW1  | FCL,V2,VL | *  | *  | *  | *   | *   | *   | *   |

### Control panels and dedicated accessories

| Model        | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|--------------|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| AERS03IR (1) | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SAS (2)      | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SIT3 (3)     | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SIT5 (4)     | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SW3 (2)      | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SW4          | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| SW5 (2)      | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |
| TX (5)       | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |

| Model     | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|-----------|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| WMT10 (5) | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *   | *   | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AER503IR-TX thermostats, if fitted.

(5) Wall-mounting. If the unit intake exceeds 0,7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### 3 way valve kit

| 4-way valve kit |           |    |    |    |     |     |     |     |    |
|-----------------|-----------|----|----|----|-----|-----|-----|-----|----|
| Model           | Ver       | 32 | 34 | 36 | 38  | 42  | 44  | 62  | 64 |
| VHL1 (1)        | FCL,V2,VL |    | *  |    | *   |     | *   |     | *  |
| VHL124 (1)      | FCL,V2,VL |    | *  |    | *   |     | *   |     | *  |
|                 |           |    |    |    |     |     |     |     |    |
| Model           | Ver       | 72 | 82 | 84 | 102 | 104 | 122 | 124 |    |
| VHL20 (1)       | FCL,V2,VL |    |    | *  |     | *   |     |     | *  |
| VHL2024 (1)     | FCL,V2,VL |    |    | *  |     | *   |     |     | *  |

(1) Obligatory accessory in 4-pipe systems.

### 2 way valve kit

| 2 Way Valve Kit |           |    |    |    |     |     |     |     |    |
|-----------------|-----------|----|----|----|-----|-----|-----|-----|----|
| Model           | Ver       | 32 | 34 | 36 | 38  | 42  | 44  | 62  | 64 |
| VHL2 (1)        | FCL,V2,VL |    | *  |    | *   |     | *   |     | *  |
| VHL224 (1)      | FCL,V2,VL |    | *  |    | *   |     | *   |     | *  |
| Model           | Ver       | 72 | 82 | 84 | 102 | 104 | 122 | 124 |    |
| VHL22 (1)       | FCL,V2,VL |    |    | *  |     | *   |     | *   |    |
| VHL2224 (1)     | FCL,V2,VL |    |    | *  |     | *   |     | *   |    |

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

### Valve Kit for 4 pipe systems

| Model     | Ver | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 |
|-----------|-----|----|----|----|----|----|----|----|----|----|
| VCLX4 (1) | VL  | *  |    | *  |    | *  |    | *  |    | *  |

(1) The valve must be commanded via command panels enabled for valve control.

### Delivery flange

Delivery range

| Model | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 |
|-------|-----------|----|----|----|----|----|----|----|----|
| KFL   | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |
| KFLD  | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  |

| Model  | Ver       | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|--------|-----------|----|----|----|-----|-----|-----|-----|
| KFL    | FCL,V2,VL | *  |    |    |     |     |     |     |
| KFL20  | FCL,V2,VL |    | *  | *  | *   | *   | *   | *   |
| KFLD   | FCL,V2,VL | *  |    |    |     |     |     |     |
| KFLD20 | FCL,V2,VL |    | *  | *  | *   | *   | *   | *   |

### Perimeter case

| Model       | Ver       | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 | 82 | 84 | 102 | 104 | 122 | 124 |
|-------------|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| FCLMC10 (1) | FCL,V2,VL | *  | *  | *  | *  | *  | *  | *  | *  | *  |    |    |     |     |     |     |
| FCLMC20 (1) | FCL,V2,VL |    |    |    |    |    |    |    |    |    | *  | *  | *   | *   | *   | *   |

(1) Can only be combined with GLL/GLLI grilles

### Electric heaters it can be installed only at the factory

| The following headers can be inserted only at the factory |           |    |    |     |     |     |     |    |    |    |
|---|-----------|----|----|-----|-----|-----|-----|----|----|----|
| Model   | Ver       | 32 | 34 | 36  | 38  | 42  | 44  | 62 | 64 | 72 |
| RXLE (1)  | FCL,V2,VL | *  |    | *   |     | *   |     | *  |    | *  |
| Model   | Ver       | 82 | 84 | 102 | 104 | 122 | 124 |    |    |    |
| RXLE20 (1)  | FCL,V2,VL | *  |    | *   |     | *   | *   |    |    |    |

(1) It is mandatory to provide one of the grids that manage the resistance.

## 2-pipe

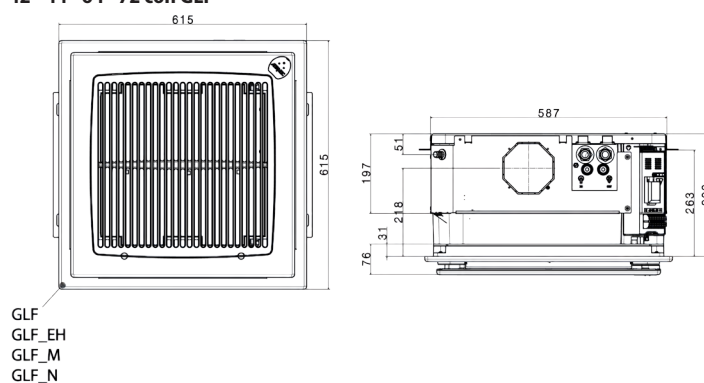
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C  
(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT  
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## 4-pipe

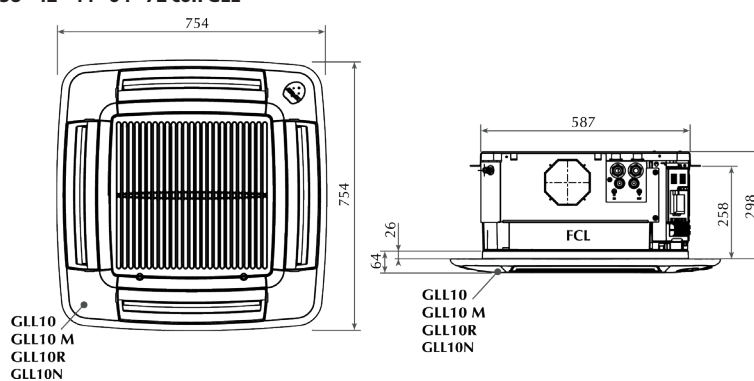
(2) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS

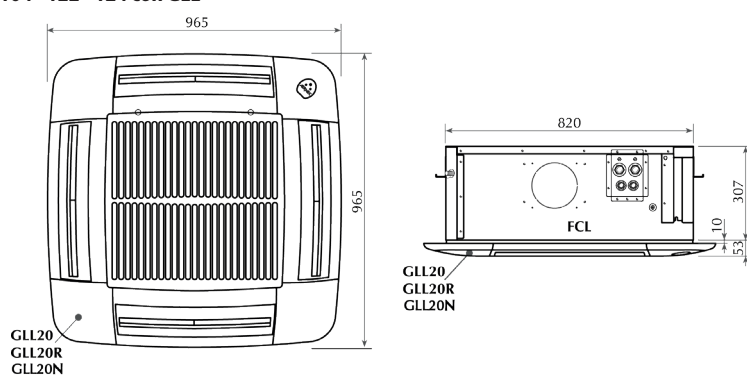
### Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLF



### Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLL



### Dimensions FCL 82 - 84 - 102 - 104 - 122 - 124 con GLL



| Size                   |     | 102 | 104 | 122 | 124 | 32 | 34 | 36 | 38 | 42 | 44 | 62 | 64 | 72 | 82 | 84 |
|------------------------|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|
| Dimensions and weights |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |
| Empty weight           | FCL | kg  | 36  | 36  | 36  | 36 | 20 | 21 | 20 | 21 | 21 | 21 | 22 | 22 | 22 | 35 |
|                        | V2  | kg  | 36  | 36  | 36  | 36 | 20 | 21 | 20 | 21 | 20 | 21 | 22 | 22 | 22 | 35 |
|                        | VL  | kg  | 35  | 35  | 35  | 35 | 20 | 20 | 20 | 20 | 20 | 20 | 22 | 22 | 22 | 34 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# FCLI

## Cassette Type Fan Coil Unit

- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Standard internal three-way valve**
- **Version with 2-way valve for variable water flow rate systems**
- **Version without valves**



### DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

### FEATURES

#### Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010. The dimensions of the first 5 sizes comply with the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance of these large models.

#### Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.

The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

#### Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.

The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

#### Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.

There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems. There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

#### Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

#### Air filter

Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

#### Versions

**FCLI** Standard

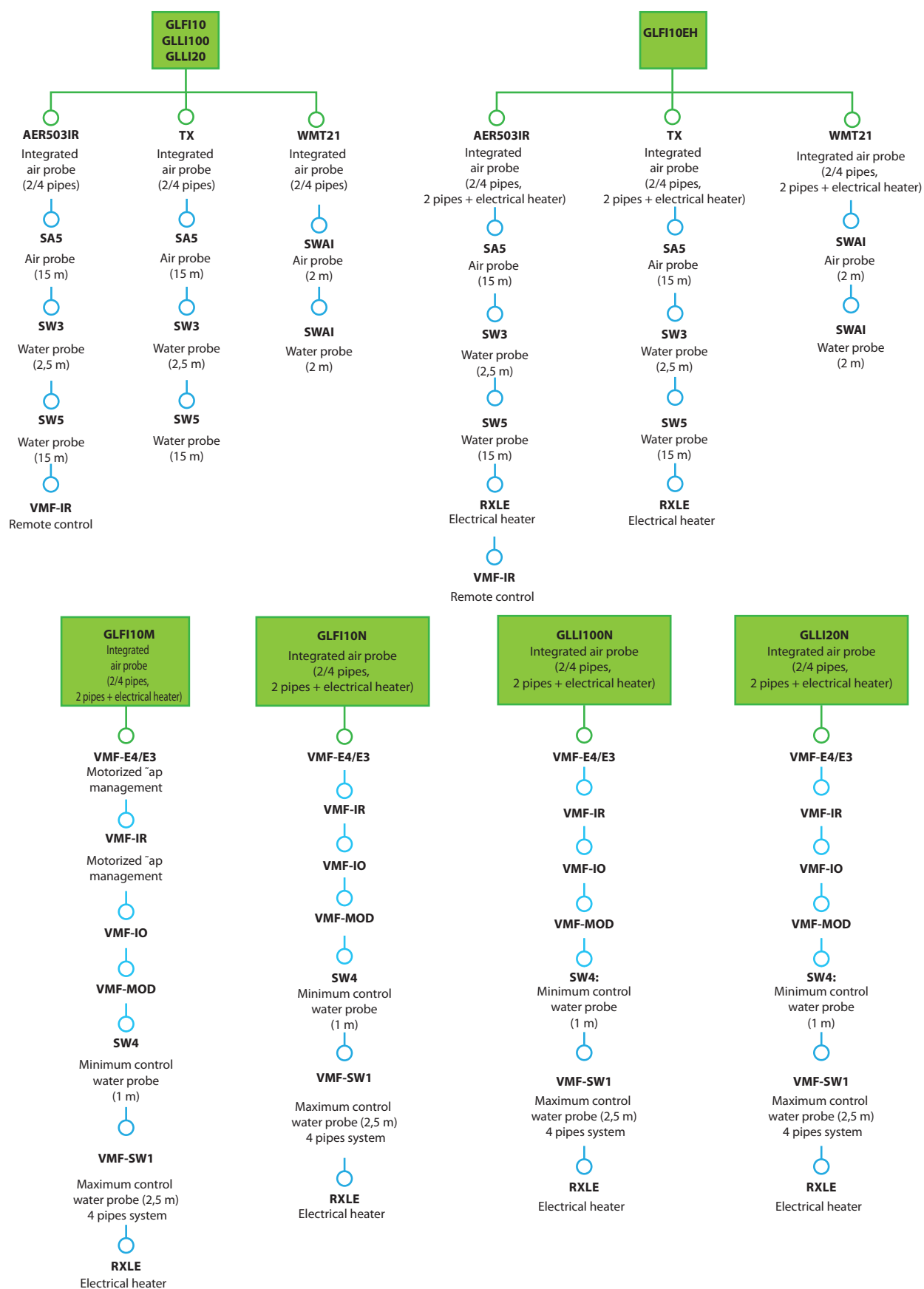
**V2** With internal 2-way valve

**VL** Without internal valve



## ACCESSORIES

Accessories that can be combined with the grilles



**RXLE** it can be installed only at the factory.

**Intake grids and distribution of the air, compulsory accessory**

**GLFI10**: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without over-



lapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated louvers. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLFI10EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLFI10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

**GLFI10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLLI100:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLLI100EH:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

**GLLI100N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X panel as well, and suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLLI20:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

**GLLI20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### VMF system

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

**VMF-E4X:** Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-MOD:** Expansion board for the management of modulating valves.

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Control panels and their accessories

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW3:** Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

**SW4:** Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**SWAI:** External air or water temperature probe.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT21:** Electronic thermostat for inverter fancoils.

### Electric heaters

**RXLE:** Electric heater for heating, can be installed on board the units.

**RXLE20:** Electric heater for heating, can be installed on board the units.

### Water valve kit

**VCFLX4:** 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

**VHL1:** 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

**VHL124:** 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.

**VHL20:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.

**VHL2024:** Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL2:** 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;

**VHL22:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;

**VHL2224:** Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

**VHL224:** 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

### Installation accessories

**KFL:** Delivery flange, allowing the air to be directed to an adjacent room.

**KFL20:** Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.

**KFLD:** Suction flange, allows to introduce external air directly into the room without mixing.

**KFLD20:** Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFLD20 can be assembled on a single unit.

**FCLMC10:** Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20:** Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

**FCLMC20IK:** Installation kit for the inverter controller. Mandatory for units with FCLMC20.

## ACCESSORIES COMPATIBILITY

### Intake grids and distribution of the air

| Model        | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|--------------|------------|----|----|----|----|----|----|----|-----|-----|
| GLFI10 (1)   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLFI10EH (2) | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLFI10M (3)  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLFI10N (3)  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatible with the VMF system and electric heaters.

### Intake grid and distribution of the air

| Model         | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|---------------|------------|----|----|----|----|----|----|----|-----|-----|
| GLLI100 (1)   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLLI100EH (2) | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLLI100N (3)  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  |    |     |     |
| GLLI20 (1)    | FCLI,V2,VL |    |    |    |    |    |    | *  | *   | *   |
| GLLI20N (4)   | FCLI,V2,VL |    |    |    |    |    |    | *  | *   | *   |

(1) Not compatible with the VMF system and electric heaters.

(2) Not compatible with the VMF system, but compatible with electric heaters.

(3) Compatible with the VMF system and electric heaters.

(4) Compatibility with VMF system.

### VMF system

| Model    | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|----------|------------|----|----|----|----|----|----|----|-----|-----|
| DI24     | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-E3   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-E4DX | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-E4X  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-I0   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-IR   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-MOD  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-SW   | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMF-SW1  | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| VMHI     | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |

### Control panels and dedicated accessories

| Model        | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|--------------|------------|----|----|----|----|----|----|----|-----|-----|
| AER503IR (1) | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| SAS (2)      | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| SW3 (2)      | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| SW4          | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| SW5 (2)      | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| SWAI (3)     | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| TX (4)       | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |
| WMT21        | FCLI,V2,VL | *  | *  | *  | *  | *  | *  | *  | *   | *   |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Probe for thermostat WMT21.

(4) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### 3 way valve kit

| Model       | Ver | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|-------------|-----|----|----|----|----|----|----|----|-----|-----|
| VHL1 (1)    | VL  |    | *  |    | *  |    | *  |    |     |     |
| VHL124 (1)  | VL  |    | *  |    | *  |    | *  |    |     |     |
| VHL20 (1)   | VL  |    |    |    |    |    |    |    |     | *   |
| VHL2024 (1) | VL  |    |    |    |    |    |    |    |     | *   |

(1) Obligatory accessory in 4-pipe systems.

**2 way valve kit**

| Model       | Ver | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|-------------|-----|----|----|----|----|----|----|----|-----|-----|
| VHL2 (1)    | VL  |    | •  |    | •  |    | •  |    |     |     |
| VHL22 (1)   | VL  |    |    |    |    |    |    |    |     | •   |
| VHL2224 (1) | VL  |    |    |    |    |    |    |    |     | •   |
| VHL224 (1)  | VL  |    | •  |    | •  |    | •  |    |     |     |

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

**Valve Kit for 4 pipe systems**

| Model      | Ver | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|------------|-----|----|----|----|----|----|----|----|-----|-----|
| VCFLX4 (1) | VL  | •  |    | •  |    | •  |    |    |     |     |

(1) The valve must be commanded via command panels enabled for valve control.

**Delivery and suction flange**

| Model  | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|--------|------------|----|----|----|----|----|----|----|-----|-----|
| KFL    | FCL1,V2,VL | •  | •  | •  | •  | •  | •  |    |     |     |
| KFL20  | FCL1,V2,VL |    |    |    |    |    |    | •  | •   | •   |
| KFLD   | FCL1,V2,VL | •  | •  | •  | •  | •  | •  |    |     |     |
| KFLD20 | FCL1,V2,VL |    |    |    |    |    |    | •  | •   | •   |

**Perimeter case**

| Model         | Ver        | 32 | 34 | 42 | 44 | 62 | 64 | 82 | 122 | 124 |
|---------------|------------|----|----|----|----|----|----|----|-----|-----|
| FCLMC10 (1)   | FCL1,V2,VL | •  | •  | •  | •  | •  | •  |    |     |     |
| FCLMC20 (1)   | FCL1,V2,VL |    |    |    |    |    |    | •  | •   | •   |
| FCLMC20IK (2) | FCL1,V2,VL |    |    |    |    |    |    | •  | •   | •   |

(1) Can only be combined with GLL/GLLI grilles

(2) Mandatory for units with FCLMC20.

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|                                       |       | FCL132      |      |      | FCL142      |      |      | FCL162      |      |       | FCL182      |      |       | FCL1122     |       |       |
|---------------------------------------|-------|-------------|------|------|-------------|------|------|-------------|------|-------|-------------|------|-------|-------------|-------|-------|
|                                       |       | 1           | 2    | 3    | 1           | 2    | 4    | 1           | 2    | 4     | 1           | 2    | 4     | 1           | 2     | 4     |
|                                       |       | L           | M    | H    | L           | M    | H    | L           | M    | H     | L           | M    | H     | L           | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Heating capacity                      | kW    | 2,22        | 2,95 | 4,00 | 3,32        | 4,47 | 7,34 | 5,19        | 6,37 | 10,49 | 5,88        | 8,12 | 11,88 | 10,53       | 14,73 | 21,75 |
| Water flow rate system side           | l/h   | 194         | 258  | 350  | 290         | 391  | 642  | 454         | 558  | 918   | 514         | 710  | 1039  | 921         | 1289  | 1903  |
| Pressure drop system side             | kPa   | 4           | 6    | 10   | 6           | 10   | 24   | 12          | 17   | 42    | 7           | 13   | 26    | 11          | 21    | 42    |
| Heating performance 45 °C / 40 °C (2) |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Heating capacity                      | kW    | 1,10        | 1,47 | 1,98 | 1,67        | 2,21 | 3,64 | 2,58        | 3,21 | 5,21  | 2,94        | 4,05 | 5,90  | 5,28        | 7,37  | 10,80 |
| Water flow rate system side           | l/h   | 192         | 254  | 345  | 287         | 386  | 633  | 448         | 550  | 905   | 507         | 701  | 1025  | 909         | 1271  | 1877  |
| Pressure drop system side             | kPa   | 4           | 6    | 11   | 5           | 9    | 21   | 10          | 17   | 41    | 7           | 13   | 23    | 12          | 21    | 41    |
| Cooling performance 7 °C / 12 °C      |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Cooling capacity                      | kW    | 1,15        | 1,46 | 1,88 | 1,95        | 2,52 | 3,90 | 2,65        | 3,19 | 4,92  | 2,79        | 4,04 | 5,97  | 5,34        | 7,47  | 10,87 |
| Sensible cooling capacity             | kW    | 0,98        | 1,24 | 1,50 | 1,37        | 1,80 | 3,11 | 1,85        | 2,25 | 3,75  | 1,89        | 2,76 | 4,17  | 4,02        | 5,70  | 8,34  |
| Water flow rate system side           | l/h   | 200         | 253  | 327  | 337         | 437  | 679  | 458         | 551  | 856   | 482         | 695  | 1032  | 921         | 1292  | 1893  |
| Pressure drop system side             | kPa   | 4           | 4    | 13   | 7           | 11   | 25   | 12          | 16   | 36    | 7           | 12   | 28    | 10          | 19    | 38    |
| Fan                                   |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Type                                  | type  | Centrifugal |      |      | Centrifugal |      |      | Centrifugal |      |       | Centrifugal |      |       | Centrifugal |       |       |
| Fan motor                             | type  | Inverter    |      |      | Inverter    |      |      | Inverter    |      |       | Inverter    |      |       | Inverter    |       |       |
| Number                                | no.   | 1           |      |      | 1           |      |      | 1           |      |       | 1           |      |       | 1           |       |       |
| Air flow rate                         | m³/h  | 300         | 410  | 600  | 260         | 360  | 700  | 380         | 500  | 880   | 460         | 680  | 1100  | 750         | 1100  | 1750  |
| Input power                           | W     | 10          | 13   | 18   | 12          | 16   | 55   | 14          | 20   | 61    | 10          | 14   | 33    | 16          | 33    | 135   |
| Signal 0-10V                          | %     | 42          | 62   | 90   | 34          | 46   | 90   | 40          | 52   | 90    | 38          | 54   | 90    | 38          | 54    | 90    |
| Cassettes sound data (3)              |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Sound power level (4)                 | dB(A) | 35,0        | 38,0 | 46,0 | 35,0        | 38,0 | 53,0 | 41,0        | 47,0 | 61,0  | 39,0        | 43,0 | 50,0  | 44,0        | 50,0  | 60,0  |
| Sound pressure level (5)              | dB(A) | 26,0        | 29,0 | 37,0 | 26,0        | 30,0 | 44,0 | 32,0        | 38,0 | 52,0  | 30,0        | 34,0 | 41,0  | 35,0        | 41,0  | 51,0  |
| Diametre hydraulic fittings           |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Main heat exchanger                   | Ø     | 3/4"        |      |      | 3/4"        |      |      | 3/4"        |      |       | 3/4"        |      |       | 3/4"        |       |       |
| Secondary heat exchanger              | Ø     | -           |      |      | -           |      |      | -           |      |       | -           |      |       | -           |       |       |
| Power supply                          |       |             |      |      |             |      |      |             |      |       |             |      |       |             |       |       |
| Power supply                          |       | 230V~50Hz   |      |      | 230V~50Hz   |      |      | 230V~50Hz   |      |       | 230V~50Hz   |      |       | 230V~50Hz   |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

(5) Sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

### 4-pipe

|                                      |       | FCL134      |      |      | FCL144 |      |      | FCL164 |      |      | FCL124 |      |       |
|--------------------------------------|-------|-------------|------|------|--------|------|------|--------|------|------|--------|------|-------|
|                                      |       | 1           | 2    | 3    | 1      | 2    | 3    | 1      | 2    | 4    | 1      | 2    | 4     |
|                                      |       | L           | M    | H    | L      | M    | H    | L      | M    | H    | L      | M    | H     |
| Heating performance 65 °C/ 55 °C (1) |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Heating capacity                     | kW    | 1,70        | 1,97 | 2,32 | 1,70   | 2,02 | 2,74 | 2,05   | 2,76 | 3,14 | 6,46   | 8,30 | 11,10 |
| Water flow rate system side          | l/h   | 152         | 171  | 203  | 153    | 178  | 240  | 194    | 219  | 279  | 551    | 727  | 977   |
| Pressure drop system side            | kPa   | 5           | 7    | 9    | 6      | 7    | 12   | 9      | 11   | 19   | 10     | 15   | 25    |
| Cooling performance 7 °C/ 12 °C      |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Cooling capacity                     | kW    | 1,15        | 1,46 | 1,88 | 1,80   | 2,32 | 3,59 | 2,29   | 2,76 | 4,25 | 4,55   | 6,19 | 8,67  |
| Sensible cooling capacity            | kW    | 0,98        | 1,24 | 1,50 | 1,26   | 1,66 | 2,87 | 1,59   | 1,93 | 3,22 | 3,35   | 4,64 | 6,64  |
| Water flow rate system side          | l/h   | 200         | 253  | 327  | 314    | 396  | 626  | 424    | 510  | 793  | 786    | 1068 | 1513  |
| Pressure drop system side            | kPa   | 4           | 7    | 10   | 6      | 10   | 23   | 16     | 23   | 50   | 10     | 20   | 38    |
| Fan                                  |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Type                                 | type  | Centrifugal |      |      |        |      |      |        |      |      |        |      |       |
| Fan motor                            | type  | Inverter    |      |      |        |      |      |        |      |      |        |      |       |
| Number                               | no.   | 1           |      |      | 1      |      |      | 1      |      |      | 1      |      |       |
| Air flow rate                        | m³/h  | 300         | 410  | 600  | 260    | 360  | 700  | 380    | 500  | 880  | 750    | 1100 | 1750  |
| Input power                          | W     | 10          | 13   | 18   | 12     | 16   | 55   | 14     | 20   | 61   | 16     | 33   | 135   |
| Signal 0-10V                         | %     | 42          | 62   | 90   | 34     | 46   | 90   | 40     | 52   | 90   | 38     | 58   | 90    |
| Cassettes sound data (2)             |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Sound power level (3)                | dB(A) | 35,0        | 38,0 | 46,0 | 35,0   | 39,0 | 53,0 | 41,0   | 47,0 | 61,0 | 44,0   | 52,0 | 60,0  |
| Sound pressure level (4)             | dB(A) | 26,0        | 29,0 | 37,0 | 26,0   | 30,0 | 44,0 | 32,0   | 38,0 | 52,0 | 35,0   | 41,0 | 51,0  |
| Diametre hydraulic fittings          |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Main heat exchanger                  | Ø     | 3/4"        |      |      |        |      |      |        |      |      |        |      |       |
| Secondary heat exchanger             | Ø     | 1/2"        |      |      |        |      |      |        |      |      |        |      |       |
| Power supply                         |       |             |      |      |        |      |      |        |      |      |        |      |       |
| Power supply                         |       | 230V~50Hz   |      |      |        |      |      |        |      |      |        |      |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT

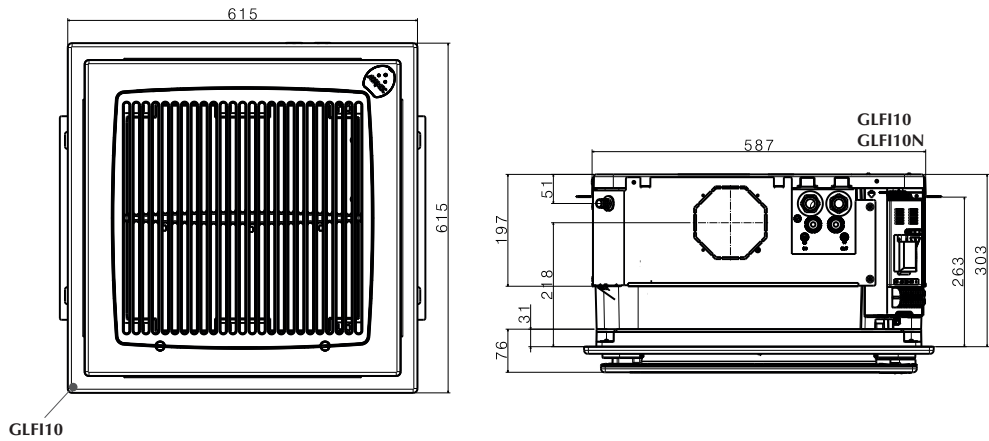
(2) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

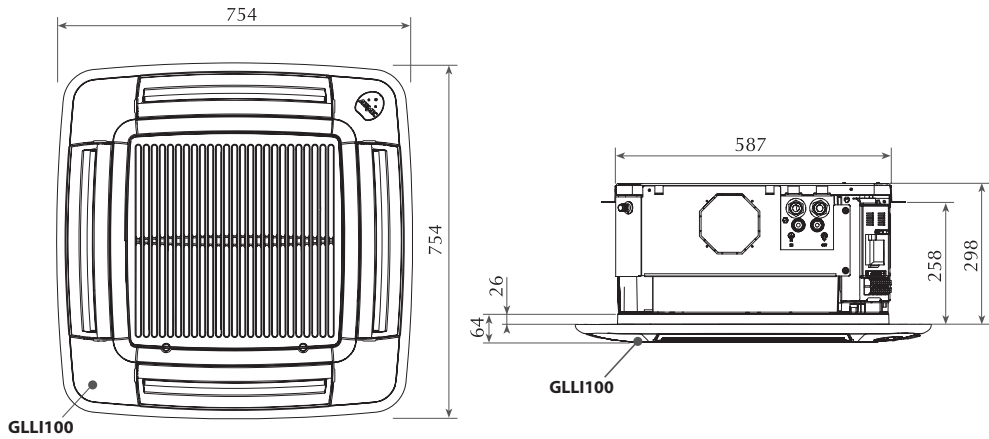
(4) Sound pressure (weighed A) measured in an environment with volume V=100m³, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

# DIMENSIONS

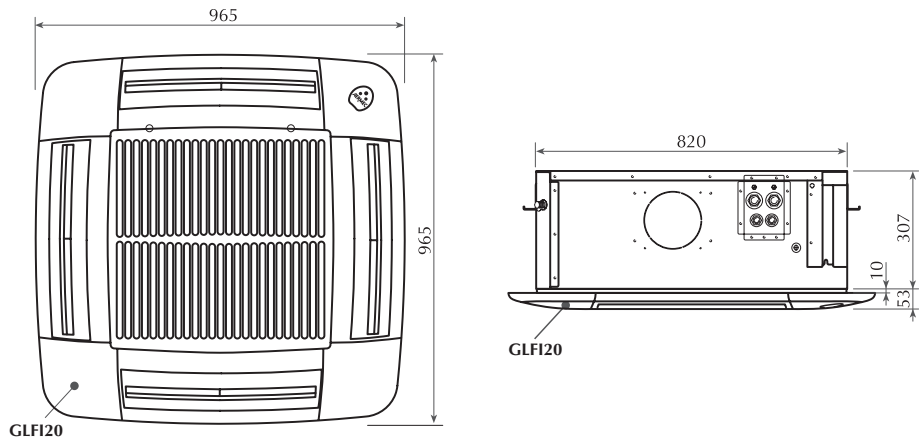
## Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLFI



## Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLLI



## Dimensions FCLI 82 - 122 - 124 con GLLI



| Size                   |      |    | 122 | 124 | 32 | 34 | 42 | 44 | 62 | 64 | 82 |
|------------------------|------|----|-----|-----|----|----|----|----|----|----|----|
| Dimensions and weights |      |    |     |     |    |    |    |    |    |    |    |
| Empty weight           | FCLI | kg | 36  | 36  | 21 | 21 | 22 | 21 | 22 | 23 | 35 |
|                        | V2   | kg | 36  | 36  | 21 | 21 | 21 | 21 | 22 | 23 | 35 |
|                        | VL   | kg | 35  | 35  | 20 | 21 | 20 | 21 | 22 | 22 | 34 |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# FCW

## Fan coils wall-mount installation



- Versions with internal 2 or 3-way valve
- Compact dimensions



### DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors.

To respond to the various system requirements, the product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements. Fan coils without control board must be necessarily combined with an external control device.

### VERSIONS

- 2V** Internal 2-way valve and microprocessor control
- 2VN** Internal 2-way valve without microprocessor control
- 3V** Internal 3-way valve and microprocessor control
- 3VN** Internal 3-way valve without microprocessor control
- VL** Without internal valve but with microprocessor control
- VLN** Without internal valve and microprocessor control

### FEATURES

#### Case

Aesthetically styled with flat panel:

- Microprocessor control
- Air flow louvered louvers with horizontal adjustment facility

- Colors pure white pantone GRIS 1C RAL 9010.

#### Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.

Three-speed cross flow fan.

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

#### Air filter

Fan coils are fitted with air filters easy to remove and clean.

#### Control

The versions with microprocessor control have:

- Timer for programming switch-off or switch-on (TLW4 e PFW5)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW4 e PFW5)
- Night time Well-being Program (TLW4)
- Automatic season change (TLW4 e PFW5)
- Automatic re-start after power cut.

## ACCESSORIES

**FCWCP:** Cold plasma mounting kit

For models with control board installed

**FCW\_2V, 3V, VL** it is mandatory to select among the user interfaces designed for the FCW series (TLW4 o PFW5)

**PFW5:** This accessory is essential for fan coil operation (as an alternative to TLW4). The PFW5 wired panel is supplied separately from the fan coil. It is used to set the main device operating parameters, and is essential for setting the Modbus address of the unit (handy only if you want to command the unit via the RS-485 port).

**TLW4:** Mandatory accessory. Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.



**PFW5**



**TLW4**

For models without control board installed

**FCW\_2VN, 3VN, VLN** a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation.

To make the selection please refer to the "control panels" or "VMF system shett" where you will find comprehensive information on this topic.

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory | FCW23VL | FCW33VL | FCW43VL | FCW53VL | FCW232V | FCW233V |
|-----------|---------|---------|---------|---------|---------|---------|
| PFW5 (1)  | *       | *       | *       | *       | *       | *       |
| TLW4 (1)  | *       | *       | *       | *       | *       | *       |

| Accessory | FCW332V | FCW333V | FCW432V | FCW433V | FCW532V | FCW533V |
|-----------|---------|---------|---------|---------|---------|---------|
| PFW5 (1)  | *       | *       | *       | *       | *       | *       |
| TLW4 (1)  | *       | *       | *       | *       | *       | *       |

(1) Mandatory accessory.

### Cold plasma mounting kit

| Accessory | FCW23VL | FCW33VL | FCW43VL | FCW53VL | FCW232V | FCW232VN | FCW233V | FCW233VN | FCW332V | FCW332VN |
|-----------|---------|---------|---------|---------|---------|----------|---------|----------|---------|----------|
| FCWCP     | *       | *       | *       | *       | *       | *        | *       | *        | *       | *        |

| Accessory | FCW333V | FCW333VN | FCW432V | FCW432VN | FCW433V | FCW433VN | FCW532V | FCW532VN | FCW533V | FCW533VN |
|-----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
| FCWCP     | *       | *        | *       | *        | *       | *        | *       | *        | *       | *        |

### VMF system

| Accessory   | FCW23VL | FCW33VL | FCW43VL | FCW53VL | FCW232V | FCW233V |
|-------------|---------|---------|---------|---------|---------|---------|
| VMF-485LINK | *       | *       | *       | *       | *       | *       |

| Accessory   | FCW332V | FCW333V | FCW432V | FCW433V | FCW532V | FCW533V |
|-------------|---------|---------|---------|---------|---------|---------|
| VMF-485LINK | *       | *       | *       | *       | *       | *       |

**The VMF-485LINK accessory is not compatible with radiant floor heating systems.**

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  |       | FCW23VL      |      |      | FCW33VL      |      |      | FCW43VL      |      |      | FCW53VL      |       |       | FCW232V      |       |       | FCW233V      |       |       |
|--|-------|--------------|------|------|--------------|------|------|--------------|------|------|--------------|-------|-------|--------------|-------|-------|--------------|-------|-------|
|  |       | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2     | 3     | 1            | 2     | 3     | 1            | 2     | 3     |
|  |       | L            | M    | H    | L            | M    | H    | L            | M    | H    | L            | M     | H     | L            | M     | H     | L            | M     | H     |
| <b>Heating performance 70 °C / 60 °C (1)</b> |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Heating capacity                             | kW    | 2,85         | 3,66 | 4,29 | 3,73         | 4,51 | 5,24 | 6,44         | 7,84 | 8,56 | 8,20         | 13,06 | 15,28 | 2,35         | 3,02  | 4,03  | 2,35         | 3,02  | 4,03  |
| Water flow rate system side                  | l/h   | 250          | 321  | 377  | 328          | 396  | 460  | 565          | 688  | 751  | 718          | 1145  | 1339  | 206          | 265   | 354   | 206          | 265   | 354   |
| Pressure drop system side                    | kPa   | 4            | 6    | 9    | 9            | 12   | 16   | 16           | 22   | 26   | 10           | 23    | 30    | 9            | 14    | 24    | 9            | 14    | 24    |
| <b>Heating performance 45 °C / 40 °C (2)</b> |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Heating capacity                             | kW    | 1,42         | 1,82 | 2,14 | 1,85         | 2,24 | 2,61 | 3,21         | 3,90 | 4,26 | 4,10         | 6,50  | 7,60  | 1,17         | 1,50  | 2,00  | 1,17         | 1,50  | 2,00  |
| Water flow rate system side                  | l/h   | 246          | 316  | 371  | 322          | 390  | 453  | 556          | 677  | 739  | 712          | 1129  | 1320  | 203          | 261   | 348   | 203          | 261   | 348   |
| Pressure drop system side                    | kPa   | 4            | 6    | 8    | 9            | 12   | 16   | 15           | 22   | 25   | 10           | 22    | 29    | 9            | 14    | 24    | 9            | 14    | 24    |
| <b>Cooling performance 7 °C / 12 °C</b>      |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Cooling capacity                             | kW    | 1,37         | 1,74 | 2,05 | 1,78         | 2,15 | 2,50 | 3,07         | 3,74 | 4,08 | 4,40         | 6,50  | 7,45  | 1,10         | 1,45  | 1,90  | 1,10         | 1,45  | 1,90  |
| Sensible cooling capacity                    | kW    | 1,16         | 1,47 | 1,73 | 1,51         | 1,82 | 2,04 | 2,59         | 3,10 | 3,47 | 3,30         | 5,05  | 5,80  | 0,92         | 1,20  | 1,55  | 0,92         | 1,20  | 1,55  |
| Water flow rate system side                  | l/h   | 236          | 299  | 353  | 306          | 370  | 430  | 528          | 643  | 702  | 755          | 1115  | 1278  | 189          | 249   | 327   | 189          | 249   | 327   |
| Pressure drop system side                    | kPa   | 5            | 7    | 9    | 8            | 11   | 15   | 15           | 21   | 26   | 12           | 24    | 30    | 9            | 14    | 23    | 9            | 14    | 23    |
| <b>Fan</b>                                   |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Type   | type  | Tangential   |      |      | Tangential   |      |      | Tangential   |      |      | Tangential   |       |       | Tangential   |       |       | Tangential   |       |       |
| Fan motor                                    | type  | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |       |       | Asynchronous |       |       | Asynchronous |       |       |
| Number                                       | no.   | 1            |      |      | 1            |      |      | 1            |      |      | 1            |       |       | 1            |       |       | 1            |       |       |
| Air flow rate                                | m³/h  | 280          | 340  | 389  | 330          | 400  | 446  | 476          | 602  | 684  | 592          | 945   | 1179  | 270          | 330   | 380   | 270          | 330   | 380   |
| Input power                                  | W     | 23           | 24   | 27   | 22           | 23   | 27   | 31           | 41   | 48   | 38           | 55    | 75    | 23           | 24    | 27    | 23           | 24    | 27    |
| <b>Fan coil sound data (3)</b>               |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Sound power level                            | dB(A) | 42,0         | 48,0 | 53,0 | 42,0         | 48,0 | 53,0 | 44,0         | 49,0 | 54,0 | 44,0         | 54,0  | 60,0  | 42,0         | 48,0  | 53,0  | 42,0         | 48,0  | 53,0  |
| Sound pressure level                         | dB(A) | 34,0         | 39,5 | 44,5 | 34,0         | 39,5 | 44,5 | 35,5         | 40,5 | 45,5 | 35,5         | 45,5  | 51,5  | 34,0         | 39,5  | 44,5  | 34,0         | 39,5  | 44,5  |
| <b>Diameter hydraulic fittings</b>           |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Main heat exchanger                          | Ø     | 1/2"         |      |      | 1/2"         |      |      | 1/2"         |      |      | 3/4"         |       |       | 1/2"         |       |       | 1/2"         |       |       |
| <b>Power supply</b>                          |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Power supply                                 |       | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |       |       | 230V~50Hz    |       |       | 230V~50Hz    |       |       |
|  |       | FCW332V      |      |      | FCW333V      |      |      | FCW432V      |      |      | FCW433V      |       |       | FCW532V      |       |       | FCW533V      |       |       |
|  |       | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2    | 3    | 1            | 2     | 3     | 1            | 2     | 3     | 1            | 2     | 3     |
|  |       | L            | M    | H    | L            | M    | H    | L            | M    | H    | L            | M     | H     | L            | M     | H     | L            | M     | H     |
| <b>Heating performance 70 °C / 60 °C (1)</b> |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Heating capacity                             | kW    | 3,25         | 4,36 | 5,03 | 3,25         | 4,36 | 5,03 | 6,29         | 7,23 | 7,97 | 6,29         | 7,23  | 7,97  | 8,04         | 11,80 | 14,00 | 8,04         | 11,80 | 14,00 |
| Water flow rate system side                  | l/h   | 286          | 383  | 442  | 286          | 383  | 442  | 552          | 635  | 699  | 552          | 635   | 699   | 704          | 1034  | 1227  | 704          | 1034  | 1227  |
| Pressure drop system side                    | kPa   | 13           | 22   | 29   | 13           | 22   | 29   | 21           | 27   | 32   | 21           | 27    | 32    | 10           | 21    | 28    | 10           | 21    | 28    |
| <b>Heating performance 45 °C / 40 °C (2)</b> |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Heating capacity                             | kW    | 1,62         | 2,17 | 2,50 | 1,62         | 2,17 | 2,50 | 3,13         | 3,60 | 3,96 | 3,13         | 3,60  | 3,96  | 4,00         | 5,90  | 7,00  | 4,00         | 5,90  | 7,00  |
| Water flow rate system side                  | l/h   | 281          | 377  | 434  | 281          | 377  | 434  | 543          | 624  | 688  | 543          | 624   | 688   | 695          | 1025  | 1216  | 695          | 1025  | 1216  |
| Pressure drop system side                    | kPa   | 13           | 22   | 29   | 13           | 22   | 29   | 20           | 26   | 31   | 20           | 26    | 31    | 11           | 22    | 30    | 11           | 22    | 30    |
| <b>Cooling performance 7 °C / 12 °C</b>      |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Cooling capacity                             | kW    | 1,55         | 2,08 | 2,40 | 1,55         | 2,08 | 2,40 | 3,00         | 3,45 | 3,80 | 3,00         | 3,45  | 3,80  | 4,00         | 6,00  | 7,00  | 4,00         | 6,00  | 7,00  |
| Sensible cooling capacity                    | kW    | 1,28         | 1,68 | 1,97 | 1,28         | 1,68 | 1,97 | 2,01         | 2,50 | 2,85 | 2,01         | 2,50  | 2,85  | 2,85         | 4,50  | 5,30  | 2,85         | 4,50  | 5,30  |
| Water flow rate system side                  | l/h   | 267          | 358  | 413  | 267          | 358  | 413  | 516          | 593  | 654  | 516          | 593   | 654   | 686          | 1030  | 1201  | 686          | 1030  | 1201  |
| Pressure drop system side                    | kPa   | 13           | 22   | 29   | 13           | 22   | 29   | 21           | 27   | 32   | 21           | 27    | 32    | 11           | 23    | 30    | 11           | 23    | 30    |
| <b>Fan</b>                                   |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Type   | type  | Tangential   |      |      | Tangential   |      |      | Tangential   |      |      | Tangential   |       |       | Tangential   |       |       | Tangential   |       |       |
| Fan motor                                    | type  | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |      |      | Asynchronous |       |       | Asynchronous |       |       | Asynchronous |       |       |
| Number                                       | no.   | 1            |      |      | 1            |      |      | 1            |      |      | 1            |       |       | 1            |       |       | 1            |       |       |
| Air flow rate                                | m³/h  | 320          | 390  | 440  | 320          | 390  | 440  | 370          | 470  | 540  | 370          | 470   | 540   | 535          | 859   | 1082  | 535          | 859   | 1082  |
| Input power                                  | W     | 22           | 23   | 27   | 22           | 23   | 27   | 31           | 41   | 48   | 31           | 41    | 48    | 38           | 55    | 75    | 38           | 55    | 75    |
| <b>Fan coil sound data (3)</b>               |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Sound power level                            | dB(A) | 42,0         | 48,0 | 53,0 | 42,0         | 48,0 | 53,0 | 44,0         | 49,0 | 54,0 | 44,0         | 49,0  | 54,0  | 44,0         | 54,0  | 60,0  | 44,0         | 54,0  | 60,0  |
| Sound pressure level                         | dB(A) | 34,0         | 39,5 | 44,5 | 34,0         | 39,5 | 44,5 | 35,5         | 40,5 | 45,5 | 35,5         | 40,5  | 45,5  | 35,5         | 45,5  | 51,5  | 35,5         | 45,5  | 51,5  |
| <b>Diameter hydraulic fittings</b>           |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Main heat exchanger                          | Ø     | 1/2"         |      |      | 1/2"         |      |      | 1/2"         |      |      | 1/2"         |       |       | 3/4"         |       |       | 3/4"         |       |       |
| <b>Power supply</b>                          |       |              |      |      |              |      |      |              |      |      |              |       |       |              |       |       |              |       |       |
| Power supply                                 |       | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |      |      | 230V~50Hz    |       |       | 230V~50Hz    |       |       | 230V~50Hz    |       |       |

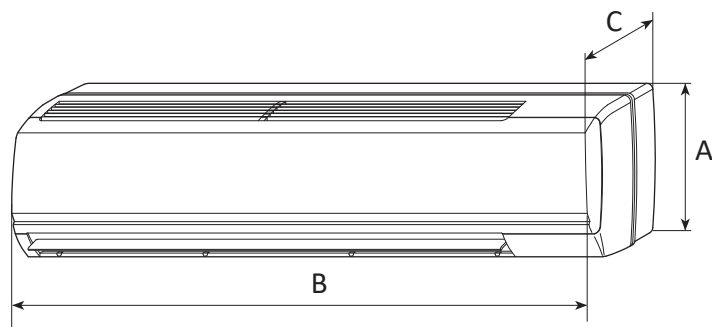
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.



## DIMENSIONS



|                               |    | FCW23VL | FCW33VL | FCW43VL | FCW53VL | FCW232V | FCW233V |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |
| A                             | mm | 298     | 305     | 360     | 365     | 298     | 298     |
| B                             | mm | 880     | 990     | 1170    | 1450    | 880     | 880     |
| C                             | mm | 205     | 210     | 220     | 230     | 205     | 205     |
| Empty weight                  | kg | 9       | 10      | 19      | 28      | 9       | 9       |
|                               |    | FCW332V | FCW333V | FCW432V | FCW433V | FCW532V | FCW533V |
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |
| A                             | mm | 305     | 305     | 360     | 360     | 365     | 365     |
| B                             | mm | 990     | 990     | 1170    | 1170    | 1450    | 1450    |
| C                             | mm | 210     | 210     | 220     | 220     | 230     | 230     |
| Empty weight                  | kg | 10      | 10      | 19      | 19      | 28      | 28      |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# FCWI

## Fan coils wall-mount installation



- Versions with internal 2 or 3-way valve
- Electric saving equal to 50% with respect to a fan coil with 3-speed motor
- Total comfort: reduced temperature and humidity oscillations
- Fully silent operation



### DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors. The product is configurable and available with or without (2- or 3-way) valve which ensures compatibility with various system requirements.

### VERSIONS

- 2V** Internal 2-way valve and microprocessor control
- 3V** Internal 3-way valve and microprocessor control
- VL** Without internal valve but with microprocessor control

### FEATURES

#### Case

Aesthetically styled with flat panel:

- Air flow louvered louvers with horizontal adjustment facility
- Motorised deflector louvers that can be activated by remote control TLW3 for vertical orientation of the outlet air with steps fixed positions and continuous oscillation
- Colors pure white pantone GRIS 1C RAL 9010.

#### Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.

Brushless motor with continuous speed variation 0-100%.

Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

#### Finned pack heat exchanger

With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

#### Air filter

Fan coils are fitted with air filters easy to remove and clean.

#### Control

The versions with microprocessor control have:

- Timer for programming switch-off or switch-on (TLW4/ PFW4)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW4/ PFW4)
- Night time Well-being Program (TLW4/ PFW4)
- Automatic season change (TLW4/ PFW4)
- Automatic re-start after power cut.
- Possibility of using a contact on the board to switch off the unit (window contact) or change the set point (presence contact) via microswitch.
- Controllable via RS485 port with Modbus RTU communication protocol.

## ACCESSORIES

**FCWCP:** Cold plasma mounting kit

For models with control board installed

**FCWI\_2V, 3V, VL** it is mandatory to select among the user interfaces designed for the FCWI series (TLW4 o PFW4)

**PFW4:** This accessory is essential for fan coil operation (as an alternative to TLW4). The PFW4 wired panel is supplied separately from the fan coil. It is used to set the main device operating parameters, and is essential for setting the Modbus address of the unit (handy only if you want to command the unit via the RS-485 port).

**TLW4:** Mandatory accessory. Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.



**PFW4**



**TLW4**

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

| Accessory | FCWI23VL | FCWI33VL | FCWI43VL | FCWI53VL | FCWI232V | FCWI233V |
|-----------|----------|----------|----------|----------|----------|----------|
| PFW4 (1)  | •        | •        | •        | •        | •        | •        |
| TLW4 (1)  | •        | •        | •        | •        | •        | •        |

| Accessory | FCWI332V | FCWI333V | FCWI432V | FCWI433V | FCWI532V | FCWI533V |
|-----------|----------|----------|----------|----------|----------|----------|
| PFW4 (1)  | •        | •        | •        | •        | •        | •        |
| TLW4 (1)  | •        | •        | •        | •        | •        | •        |

(1) Mandatory accessory.

### Plasmacluster mounting kit

| Accessory | FCWI23VL | FCWI33VL | FCWI43VL | FCWI53VL | FCWI232V | FCWI233V | FCWI332V | FCWI333V | FCWI432V | FCWI433V | FCWI532V | FCWI533V |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| FCWCP     | •        | •        | •        | •        | •        | •        | •        | •        | •        | •        | •        | •        |

### VMF system

| Accessory   | FCWI23VL | FCWI33VL | FCWI43VL | FCWI53VL | FCWI232V | FCWI233V |
|-------------|----------|----------|----------|----------|----------|----------|
| VMF-485LINK | •        | •        | •        | •        | •        | •        |

| Accessory   | FCWI332V | FCWI333V | FCWI432V | FCWI433V | FCWI532V | FCWI533V |
|-------------|----------|----------|----------|----------|----------|----------|
| VMF-485LINK | •        | •        | •        | •        | •        | •        |

The VMF-485LINK accessory is not compatible with radiant floor heating systems.

## PERFORMANCE SPECIFICATIONS

### 2-pipe

|  | FCWI23VL |   |   | FCWI33VL |   |   | FCWI43VL |   |   | FCWI53VL |   |   | FCWI232V |   |   | FCWI233V |   |   |
|--|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|----------|---|---|
|  | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 | 1        | 2 | 3 |
|  | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H | L        | M | H |

#### Heating performance 70 °C / 60 °C (1)

|                             |     |      |      |      |      |      |      |      |      |      |      |       |       |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|------|------|------|------|
| Heating capacity            | kW  | 3,12 | 4,52 | 4,75 | 3,46 | 5,33 | 5,74 | 6,36 | 9,24 | 9,86 | 8,31 | 13,80 | 15,24 | 2,57 | 3,73 | 4,46 | 2,57 | 3,73 | 4,46 |
| Water flow rate system side | l/h | 274  | 397  | 417  | 304  | 468  | 504  | 558  | 811  | 865  | 728  | 1147  | 1335  | 226  | 327  | 392  | 226  | 327  | 392  |
| Pressure drop system side   | kPa | 8    | 16   | 17   | 9    | 19   | 22   | 16   | 30   | 34   | 10   | 23    | 30    | 11   | 21   | 29   | 11   | 21   | 29   |

#### Heating performance 45 °C / 40 °C (2)

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 1,55 | 2,25 | 2,37 | 1,71 | 2,65 | 2,86 | 3,17 | 4,60 | 4,91 | 4,16 | 6,51 | 7,58 | 1,28 | 1,85 | 2,21 | 1,28 | 1,85 | 2,21 |
| Water flow rate system side | l/h | 269  | 390  | 411  | 298  | 461  | 496  | 549  | 798  | 851  | 722  | 1131 | 1316 | 222  | 323  | 385  | 222  | 323  | 385  |
| Pressure drop system side   | kPa | 8    | 16   | 17   | 9    | 19   | 21   | 15   | 30   | 32   | 10   | 22   | 29   | 11   | 21   | 29   | 11   | 21   | 29   |

#### Cooling performance 7 °C / 12 °C

|                             |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cooling capacity            | kW  | 1,50 | 2,15 | 2,27 | 1,65 | 2,54 | 2,74 | 3,03 | 4,41 | 4,70 | 4,46 | 6,51 | 7,43 | 1,20 | 1,79 | 2,10 | 1,20 | 1,79 | 2,10 |
| Sensible cooling capacity   | kW  | 1,27 | 1,82 | 1,92 | 1,40 | 2,15 | 2,24 | 2,38 | 3,43 | 3,61 | 3,34 | 5,06 | 5,78 | 1,02 | 1,51 | 1,78 | 1,02 | 1,51 | 1,78 |
| Water flow rate system side | l/h | 258  | 369  | 391  | 284  | 437  | 471  | 521  | 758  | 809  | 765  | 1117 | 1275 | 207  | 308  | 362  | 207  | 308  | 362  |
| Pressure drop system side   | kPa | 8    | 15   | 16   | 8    | 18   | 20   | 17   | 27   | 30   | 12   | 22   | 28   | 10   | 19   | 26   | 10   | 19   | 26   |

### Fan

| Type          | type | Tangential Inverter |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |     |
|---------------|------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|
| Fan motor     | type | Inverter            |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |     |
| Number        | no.  | 1                   |     |     | 1   |     |     | 1   |     |     | 1   |     |      | 1   |     |     | 1   |     |     |
| Air flow rate | m³/h | 250                 | 400 | 440 | 290 | 450 | 490 | 450 | 690 | 760 | 590 | 960 | 1210 | 200 | 300 | 400 | 200 | 300 | 400 |
| Input power   | W    | 9                   | 17  | 19  | 9   | 17  | 20  | 13  | 27  | 34  | 17  | 35  | 58   | 9   | 17  | 19  | 9   | 17  | 19  |

### Fan coil sound data (3)

|                      |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level    | dB(A) | 37,0 | 50,0 | 52,0 | 38,0 | 50,0 | 52,0 | 41,0 | 53,0 | 55,0 | 44,0 | 54,0 | 60,0 | 37,0 | 50,0 | 52,0 | 37,0 | 50,0 | 52,0 |
| Sound pressure level | dB(A) | 29,0 | 42,0 | 44,0 | 30,0 | 42,0 | 44,0 | 33,0 | 45,0 | 47,0 | 36,0 | 46,0 | 52,0 | 29,0 | 42,0 | 44,0 | 29,0 | 42,0 | 44,0 |

### Diameter hydraulic fittings

|                     |   |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |      |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|
| Main heat exchanger | Ø | 1/2" |  |  | 1/2" |  |  | 1/2" |  |  | 3/4" |  |  | 1/2" |  |  | 1/2" |  |  |
|---------------------|---|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|------|--|--|

### Power supply

|              |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Power supply | 230V~50Hz |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

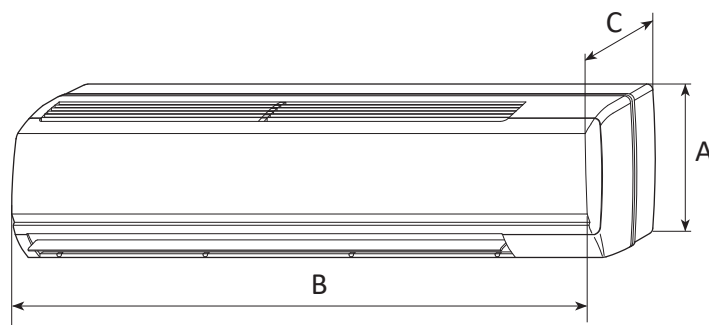
|                                       |       | FCWI332V   |      |      | FCWI333V |      |      | FCWI432V |      |      | FCWI433V |      |      | FCWI532V |       |       | FCWI533V |       |       |
|---------------------------------------|-------|------------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|-------|-------|----------|-------|-------|
|                                       |       | 1          | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2    | 3    | 1        | 2     | 3     | 1        | 2     | 3     |
|                                       |       | L          | M    | H    | L        | M    | H    | L        | M    | H    | L        | M    | H    | L        | M     | H     | L        | M     | H     |
| Heating performance 70 °C / 60 °C (1) |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Heating capacity                      | kW    | 3,01       | 5,15 | 5,51 | 3,01     | 5,15 | 5,51 | 6,21     | 8,53 | 9,18 | 6,21     | 8,53 | 9,18 | 8,15     | 11,82 | 13,96 | 8,15     | 11,82 | 13,96 |
| Water flow rate system side           | l/h   | 265        | 452  | 484  | 265      | 452  | 484  | 545      | 749  | 805  | 545      | 749  | 508  | 714      | 1036  | 1224  | 714      | 1036  | 1224  |
| Pressure drop system side             | kPa   | 11         | 30   | 34   | 11       | 30   | 34   | 21       | 36   | 41   | 21       | 36   | 41   | 10       | 21    | 28    | 10       | 21    | 28    |
| Heating performance 45 °C / 40 °C (2) |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Heating capacity                      | kW    | 1,50       | 2,56 | 2,74 | 1,50     | 2,56 | 2,74 | 3,09     | 4,24 | 4,56 | 3,09     | 4,24 | 4,56 | 4,05     | 5,91  | 6,98  | 4,05     | 5,91  | 6,98  |
| Water flow rate system side           | l/h   | 260        | 445  | 476  | 260      | 445  | 477  | 536      | 736  | 793  | 536      | 736  | 793  | 704      | 1027  | 1213  | 704      | 1027  | 1213  |
| Pressure drop system side             | kPa   | 11         | 30   | 34   | 11       | 30   | 34   | 20       | 35   | 40   | 20       | 35   | 40   | 11       | 22    | 30    | 11       | 22    | 30    |
| Cooling performance 7 °C / 12 °C      |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Cooling capacity                      | kW    | 1,44       | 2,46 | 2,63 | 1,44     | 2,46 | 2,63 | 2,96     | 4,07 | 4,38 | 2,96     | 4,07 | 4,38 | 4,05     | 6,01  | 6,98  | 4,05     | 6,01  | 6,98  |
| Sensible cooling capacity             | kW    | 1,22       | 2,08 | 2,15 | 1,22     | 2,08 | 2,15 | 2,32     | 3,16 | 3,36 | 2,32     | 3,16 | 3,36 | 3,04     | 4,67  | 5,44  | 3,04     | 4,67  | 5,44  |
| Water flow rate system side           | l/h   | 248        | 423  | 453  | 248      | 426  | 453  | 509      | 699  | 753  | 509      | 699  | 753  | 695      | 1032  | 1198  | 695      | 1032  | 1198  |
| Pressure drop system side             | kPa   | 11         | 28   | 32   | 11       | 28   | 32   | 18       | 32   | 37   | 18       | 32   | 37   | 11       | 23    | 30    | 11       | 23    | 30    |
| Fan                                   |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Type                                  | type  | Tangential |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Fan motor                             | type  | Inverter   |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Number                                | no.   | 1          |      |      | 1        |      |      | 1        |      |      | 1        |      |      | 1        |       |       | 1        |       |       |
| Air flow rate                         | m³/h  | 250        | 430  | 460  | 250      | 430  | 460  | 430      | 620  | 690  | 430      | 620  | 690  | 530      | 870   | 1110  | 530      | 870   | 1110  |
| Input power                           | W     | 9          | 17   | 20   | 9        | 17   | 20   | 13       | 27   | 34   | 13       | 27   | 34   | 17       | 35    | 58    | 17       | 35    | 58    |
| Fan coil sound data (3)               |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Sound power level                     | dB(A) | 38,0       | 50,0 | 52,0 | 38,0     | 50,0 | 52,0 | 41,0     | 53,0 | 55,0 | 41,0     | 53,0 | 55,0 | 44,0     | 54,0  | 60,0  | 44,0     | 54,0  | 60,0  |
| Sound pressure level                  | dB(A) | 30,0       | 42,0 | 44,0 | 30,0     | 42,0 | 44,0 | 33,0     | 45,0 | 47,0 | 33,0     | 45,0 | 47,0 | 36,0     | 46,0  | 52,0  | 36,0     | 46,0  | 52,0  |
| Diametre hydraulic fittings           |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Main heat exchanger                   | Ø     | 1/2"       |      |      | 1/2"     |      |      | 1/2"     |      |      | 1/2"     |      |      | 3/4"     |       |       | 3/4"     |       |       |
| Power supply                          |       |            |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |
| Power supply                          |       | 230V~50Hz  |      |      |          |      |      |          |      |      |          |      |      |          |       |       |          |       |       |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C/40 °C; EUROVENT

(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

## DIMENSIONS



|                               |    | FCWI23VL | FCWI33VL | FCWI43VL | FCWI53VL | FCWI232V | FCWI233V |
|-------------------------------|----|----------|----------|----------|----------|----------|----------|
| <b>Dimensions and weights</b> |    |          |          |          |          |          |          |
| A                             | mm | 298      | 305      | 360      | 365      | 298      | 298      |
| B                             | mm | 880      | 990      | 1170     | 1450     | 880      | 880      |
| C                             | mm | 205      | 210      | 220      | 230      | 205      | 205      |
| Empty weight                  | kg | 9        | 10       | 19       | 28       | 9        | 9        |
|                               |    | FCWI332V | FCWI333V | FCWI432V | FCWI433V | FCWI532V | FCWI533V |
| <b>Dimensions and weights</b> |    |          |          |          |          |          |          |
| A                             | mm | 305      | 305      | 360      | 360      | 365      | 365      |
| B                             | mm | 990      | 990      | 1170     | 1170     | 1450     | 1450     |
| C                             | mm | 210      | 210      | 220      | 220      | 230      | 230      |
| Empty weight                  | kg | 10       | 10       | 19       | 19       | 28       | 28       |

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### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# VENTILCASSAFORMA

## Template for recessed installation of fancoils in the wall



- Ideal for residential or office solutions



### DESCRIPTION

Ventilcassaforma has been designed to respond to the needs to rationalise spaces to suit modern interior architecture. Ventilcassaforma is a galvanised template that makes it possible to make a space to house fan coils in the wall.

The template will make masonry work easier during the construction of a niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from view.

### VERSIONS

CHU-L: For fan coils in the Omnia ULI\_P series.

CHF: For fan coils in the FCZ P, FCZI P series

### FEATURES

Ventilcassaforma is made up of the following parts to be assembled:

- Recess box;
- Closure panel;
- Outer frame with deflector;
- Cover bases, cross-members, covers.

All parts are made of galvanised steel and treated with epoxy-polyester resin-based thermo-hardening base paint in grey with rough glazed finish in order to hold the paint. The final colour can be chosen by the client.

### Socket box embedded in the wall

Made of galvanised steel, this is the box housing the fan coil. The box is recessed in the wall during building work making the construction of a niche where the fan coils will be installed much easier.

Holes for fitting the fan coil and preparing an electric plant with a socket and GEWISS fuse holder are already present on the back panel.

The box can accommodate the hydraulic system pipes and condensation drain pipes thanks to the presence of several easily-removable elements on the sides and base.

### Closure panel

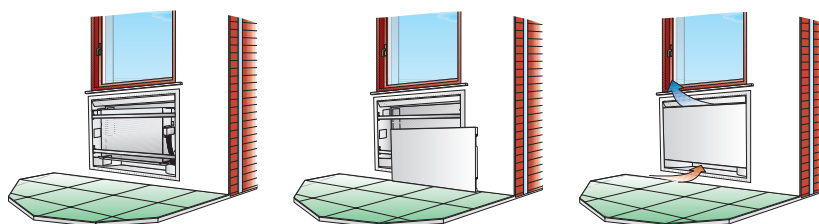
Made of steel pre-treated with base paint and no slots present. Easily removable for servicing and cleaning the air filter.

### Outside frame

The perimeter of the box has an outer frame made of pre-treated steel making it possible to cover the perimeter part of the wall and hide any imperfections that overtime show possible crumbling on the edge of the plaster work.

### Deflector

Manual, with which the flow of air can be directed into the room. The deflector is incorporated in the frame.



## ACCESSORIES COMPATIBILITY

## FCZ-H

| Ver | 200   | 300   | 400   | 500   | 600   | 900   | 950   |
|-----|-------|-------|-------|-------|-------|-------|-------|
| HP  | CHF22 | CHF32 | CHF42 | CHF42 | CHF62 | CHF62 | CHF62 |

## FCZI-H

| Ver | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 700   | 750   | 900   | 950   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| HP  | CHF22 | CHF22 | CHF32 | CHF32 | CHF42 | CHF42 | CHF42 | CHF42 | CHF62 | CHF62 | CHF62 | CHF62 |

## FCZ-P

| Ver     | 100   | 101   | 102   | 150   | 200   | 201   | 202   | 250   | 300   | 301   | 302   | 350   | 400   | 401   | 402   | 450   | 500   | 501   | 502   | 550   |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P, PR   | CHF17 | CHF17 | CHF17 | CHF17 | CHF22 | CHF22 | CHF22 | CHF22 | CHF32 | CHF32 | CHF32 | CHF32 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 |
| PO, POR | -     | -     | -     | -     | CHF22 | CHF22 | CHF22 | CHF22 | CHF32 | CHF32 | CHF32 | CHF32 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 |
| PPC     | CHF17 | -     | -     | CHF17 | CHF22 | -     | -     | CHF22 | CHF32 | -     | -     | CHF32 | CHF42 | -     | -     | CHF42 | CHF42 | -     | -     | CHF42 |

The accessory cannot be fitted on the configurations indicated with -

| Ver     | 600   | 601   | 602   | 650   | 700   | 701   | 702   | 750   | 800   | 801   | 802   | 850   | 900   | 901   | 950   | 1000  | 1001  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P, PR   | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 |
| PO, POR | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | -     | -     | -     | -     | CHF62 | CHF62 | CHF62 | -     | -     |
| PPC     | CHF62 | -     | -     | CHF62 | CHF62 | -     | -     | CHF62 | CHF62 | -     | -     | CHF62 | CHF62 | -     | CHF62 | CHF62 | -     |

The accessory cannot be fitted on the configurations indicated with -

## FCZI-P

| Ver   | 200   | 201   | 202   | 250   | 300   | 301   | 302   | 350   | 400   | 401   | 402   | 450   | 500   | 501   | 502   | 550   | 700   | 701   | 702   | 750   | 900   | 901   | 950   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P, PR | CHF22 | CHF22 | CHF22 | CHF22 | CHF32 | CHF32 | CHF32 | CHF32 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF42 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 | CHF62 |

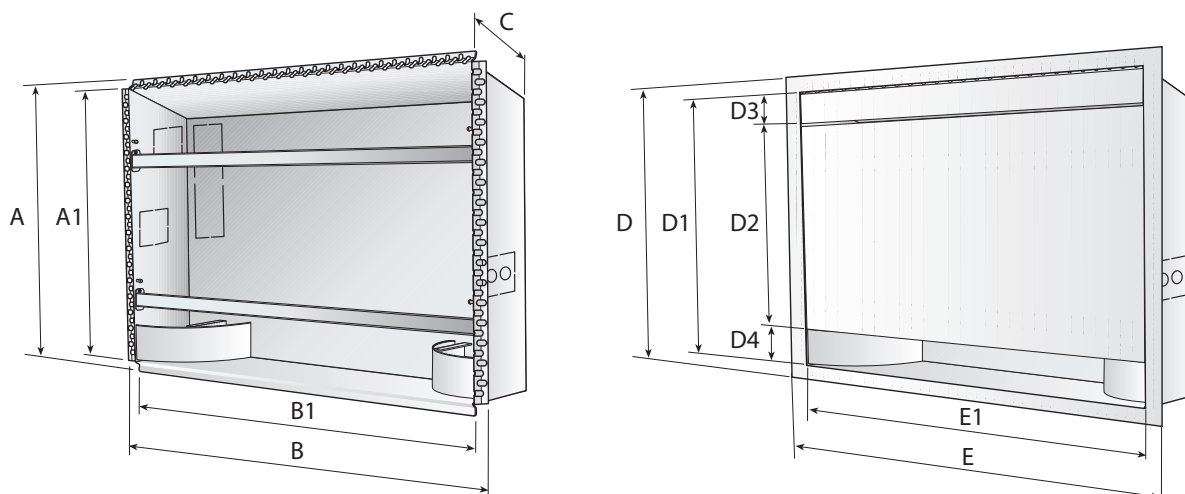
## UL-P

| Ver | 11     | 16     | 26     | 36     |
|-----|--------|--------|--------|--------|
| P   | CHU12L | CHU17L | CHU27L | CHU37L |

## ULI-P

| Accessory | ULI16P | ULI26P | ULI36P |
|-----------|--------|--------|--------|
| CHU17L    | .      |        |        |
| CHU27L    |        | .      |        |
| CHU37L    |        |        | .      |

## DIMENSIONS



|                       |    | CHU12L | CHU17L | CHU27L | CHU37L |
|-----------------------|----|--------|--------|--------|--------|
| <b>Dimensions jig</b> |    |        |        |        |        |
| A                     | mm | 691    | 691    | 691    | 691    |
| A1                    | mm | 648    | 648    | 648    | 648    |
| B                     | mm | 692    | 802    | 1032   | 1252   |
| B1                    | mm | 644    | 754    | 984    | 1204   |
| C                     | mm | 186    | 186    | 186    | 186    |
| D                     | mm | 724    | 724    | 724    | 724    |
| D1                    | mm | 634    | 634    | 634    | 634    |
| D2                    | mm | 494    | 494    | 494    | 494    |
| D3                    | mm | 70     | 70     | 70     | 70     |
| D4                    | mm | -      | -      | -      | -      |
| E                     | mm | 713    | 823    | 1053   | 1273   |
| E1                    | mm | 633    | 743    | 973    | 1193   |

|                       |    | CHF17 | CHF22 | CHF32 | CHF42 | CHF62 |
|-----------------------|----|-------|-------|-------|-------|-------|
| <b>Dimensions jig</b> |    |       |       |       |       |       |
| A                     | mm | 728   | 728   | 728   | 728   | 833   |
| A1                    | mm | 684   | 684   | 684   | 684   | 789   |
| B                     | mm | 732   | 842   | 1073  | 1293  | 1414  |
| B1                    | mm | 684   | 794   | 1025  | 1245  | 1366  |
| C                     | mm | 240   | 240   | 240   | 240   | 240   |
| D                     | mm | 760   | 760   | 760   | 760   | 865   |
| D1                    | mm | 680   | 680   | 680   | 680   | 785   |
| D2                    | mm | 493   | 493   | 493   | 493   | 598   |
| D3                    | mm | 93    | 93    | 93    | 93    | 93    |
| D4                    | mm | 94    | 94    | 94    | 94    | 94    |
| E                     | mm | 753   | 863   | 1094  | 1314  | 1435  |
| E1                    | mm | 673   | 783   | 1014  | 1234  | 1355  |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# Control panels

## Range of control panels for fan coils

- Wide range of panels for the simple, complete control of all the fan coil functions.

### ACCESSORIES

**AERCAB:** 100 meter skein of shielded cable (4-pole wire + shield) for connection with RS485 serial port and CAN.

### T-TOUCH AND T-TOUCH-I



#### Characteristics and equipment supplied as standard

- Installation on the fan coil.
- Air and water probes supplied as standard.
- RS485 serial port for connection with the VMF network (MASTER).
- Connection with VMF-E4X user interface.
- Control of the 3 speeds of the asynchronous motors.
- 0-10 V and/or PWM output for brushless motors.
- Two triac outputs for control of valves and/or accessories.
- MS input (micro switch).
- Inverter fault input.
- Visualisation of the speeds and the temperature set-point.

#### Compatibility with the hydronic terminals

| Thermostat | Unit | Range            |
|------------|------|------------------|
| T-TOUCH    | FCZ  | AS - U - UA - DS |
| T-TOUCH-I  | FCZI | AS - U           |

### Compatibility with 2 and 4 pipes systems

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             | supplied as standard  | supplied as standard    |
| with heater   |                       |                         |
| with 2-way valve and heater                           |                       |                         |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      | supplied as standard  | supplied as standard    |
| with 3-way valve                                      |                       |                         |



## AER503IR



### Characteristics and equipment supplied as standard

- Flush installation (503-502 module box, or plasterboard boxes).
- Management of fan coils with asynchronous and brushless motor.
- Automatic / manual season changeover.
- Control of up to 2 On/Off valves.
- Control of 1 modulating valve 0-10.
- Temperature and ventilation control.
- Internal air probe.
- Compatibility with VMF-IR.
- Overall dimensions (mm): H=86 - W=125 - D=46.

### Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil and INVERTER fancoil, without on board controls.

### Compatibility with 2 and 4 pipes systems

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             |                       |                         |
| with heater   |                       |                         |
| with 2-way valve and heater                           | SAS                   | SW5                     |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| with 2-way valve and radiant panel (heating)          |                       |                         |
| radiant panel only (heating)                          |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      | SAS                   | SW5                     |
| with 3-way valve                                      |                       |                         |

## TX



### Characteristics and equipment supplied as standard

- Wall-mount installation.
- Management of fan coils with asynchronous and brushless motor.
- Automatic / manual season changeover.
- Control of up to 2 On/Off valves.
- Temperature and ventilation control (3 speeds).
- Internal air probe
- Management of fins and external contact.
- Overall dimensions (mm): H=148 - W=70 - D=27.5.

### Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil and INVERTER fancoil, without on board controls.

### Compatibility with 2 and 4 pipes systems

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             |                       |                         |
| with heater   |                       |                         |
| with 2-way valve and heater                           | SAS                   | SW3/ SW5                |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| with 2-way valve and radiant panel (heating)          |                       |                         |
| radiant panel only (heating)                          |                       |                         |
| with twin delivery (Dualjet)                          |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      | SAS                   | SW3/ SW5                |
| with 3-way valve                                      |                       |                         |

## PXAI



### Characteristics and equipment supplied as standard

- Installation on the fan coil.
- Automatic / manual season changeover.
- Control of up to 2 On/Off valves.
- Temperature and ventilation control (3 speeds).
- Internal water probe (2.5m) and air probe (2.3m).
- Management of fins and external contact.
- Overall dimensions (mm): H=148 - W=70 - D=27.5.

### Compatibility with the hydronic terminals

Compatible with all fancoil of the series FCZ-P, FCZI-P.

### Compatibility with 2 and 4 pipes systems

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             | supplied as standard  | supplied as standard    |
| with heater   |                       |                         |
| with 2-way valve and heater                           |                       |                         |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      | supplied as standard  | supplied as standard    |
| with 3-way valve                                      |                       |                         |

**TXB/TXBI - TXBIS****TXB-TXBI****TXBIS****Characteristics and equipment supplied as standard**

- Installation on the fan coil.
- Automatic / manual season changeover.
- Control of up to 2 On/Off valves.
- Temperature and ventilation control (3 speeds).
- Internal air probe.
- Water probe (supplied) for controlling the minimum or maximum depending on the system, with the possibility to fit an external air probe (SA5).

**Compatibility with the hydronic terminals****TXB**

Compatible with all fancoil of the series FCZ.

**TXBI**

Compatible with all fancoil of the series FCZI.

**TXBIS**

Compatible with all fancoil of the series ULSI\_B and ULSI\_BR.

■ For ULSI\_BR units add the mandatory EC-TXBI accessory.

**Compatibility with 2 and 4 pipes systems**

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             |                       |                         |
| with heater   |                       |                         |
| with 2-way valve and heater                           | supplied as standard  | supplied as standard    |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| with 2-way valve and radiant panel (heating)          |                       |                         |
| radiant panel only (heating)                          |                       |                         |
| with twin delivery (Dualjet)                          |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      | supplied as standard  | supplied as standard    |
| with 3-way valve                                      |                       |                         |

**WMT16 - 16V****Characteristics and equipment supplied as standard**

- Wall-mount installation.
- Manual season changeover.
- Temperature and ventilation control (3 speeds).
- Thermostat-controlled ventilation WMT16 - Continuous WMT16CV
- Internal air probe.
- Overall dimensions (mm): H=130 - L=85 - P=40.

**Compatibility with the hydronic terminals**

Compatible with all ON/OFF fancoil without on board controls.

**Compatibility with 2 pipe systems**

| 2-pipe systems        | Air temperature probe | Water temperature probe |
|-----------------------|-----------------------|-------------------------|
| without accessories   |                       |                         |
| with 2-way valve      | internal              | -                       |
| <b>4-pipe systems</b> |                       |                         |
| with 2-way valve      | internal              | -                       |

**WMT10****Characteristics and equipment supplied as standard**

- Wall-mount installation.
- Manual season changeover.
- Control of up to 2 On/Off valves.
- Temperature and ventilation control (3 speeds).
- Internal air probe.
- Overall dimensions (mm): H=75 - W=127 - D=25.

**Compatibility with the hydronic terminals**

Compatible with all ON/OFF fancoil without on board controls.

**Compatibility with 2 and 4 pipes systems**

| 2-pipe systems                        | Air temperature probe | Water temperature probe |
|---------------------------------------|-----------------------|-------------------------|
| without accessories                   |                       |                         |
| with 2-way valve                      |                       |                         |
| with heater                           | internal              | -                       |
| with 2-way valve and heater           |                       |                         |
| cooling only, with heater for heating |                       |                         |
| <b>4-pipe systems</b>                 |                       |                         |
| with 2-way valve                      | internal              | -                       |

**FMT10****Characteristics and equipment supplied as standard**

- Wall-mount installation.
- Automatic / manual season changeover.
- Control of up to 2 On/Off valves, or 1 valve and 1 heater.
- Temperature and ventilation control (3 speeds).
- Air probe (supplied) to be installed on the fan coil intake.
- Overall dimensions (mm): H=80 - W=118 - D=40.

**Compatibility with the hydronic terminals**

Compatible with all ON/OFF fancoil without on board controls.

**Compatibility with 2 and 4 pipes systems**

| 2-pipe systems                        | Air temperature probe | Water temperature probe |
|---------------------------------------|-----------------------|-------------------------|
| without accessories                   |                       |                         |
| with 2-way valve                      |                       |                         |
| with heater                           | supplied as standard  | -                       |
| with 2-way valve and heater           |                       |                         |
| cooling only, with heater for heating |                       |                         |
| <b>4-pipe systems</b>                 |                       |                         |
| with 2-way valve                      | supplied as standard  | -                       |

## DSKT/DSKTI - DSKTS



**DSKT-DSKTI**

**DSKTS**

### Characteristics and equipment supplied as standard

- Installation on the fan coil.
- Air and water probes supplied as standard.
- RS485 serial port for connection with the VMF network (MASTER).
- Control of the 3 speeds of the asynchronous motors.
- 0-10 V and/or PWM output for brushless motors.
- MS input (micro switch).
- Inverter fault input.
- Visualisation of the speeds and the temperature set-point.
- Air purification device management.

### Compatibility with the hydronic terminals

#### DSKT

Compatible with all fancoil of the series FCZ-AS.

#### DSKTI

Compatible with all fancoil of the series FCZI-AS.

#### DSKTS

Compatible with all fancoil of the series ULSI\_B and ULSI\_BR.

■ For ULSI\_BR units add the mandatory EC-DSKT accessory.

### Compatibility with 2 and 4 pipes systems

| 2-pipe systems  | Air temperature probe | Water temperature probe |
|---|-----------------------|-------------------------|
| without accessories                                   |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      |                       |                         |
| with Cold Plasma purifier                             |                       |                         |
| with 2-way valve and Cold Plasma purifier             |                       |                         |
| with 3-way valve and Cold Plasma purifier             | supplied as standard  | supplied as standard    |
| with heater   |                       |                         |
| with 2-way valve and heater                           |                       |                         |
| with 3-way valve and heater                           |                       |                         |
| cooling only, with heater for heating                 |                       |                         |
| cooling only, with heater for heating and 3-way valve |                       |                         |
| <b>4-pipe systems</b>                                 |                       |                         |
| with 2-way valve                                      |                       |                         |
| with 3-way valve                                      | supplied as standard  | supplied as standard    |

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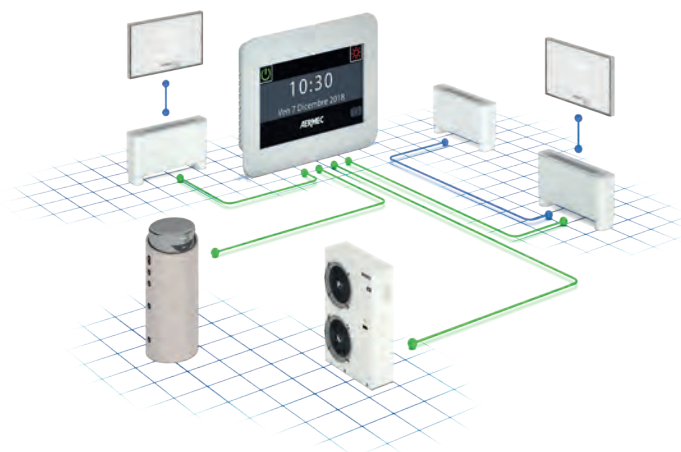
#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# VMF

## Multi Flow Variable Systems

- **Components for plant management**
- **Air conditioning**
- **Heating**
- **Hot domestic water (HDW)**



### DESCRIPTION

Hydronic system management and control unit for air conditioning, heating and domestic hot water production.

The VMF system ensures the complete control of every single component of a hydronic system, both local and centralised, through communication between the various system components, managing the performance without neglecting the end user's request for comfort at any time, but reaching it as efficiently as possible, with consequent energy savings.

Summing up the advantages of a such an innovative control with the flexibility of a hydronic system, you achieve a more effective and efficient alternative to variable refrigerant volume (VRF) systems.

The VMF system can manage different areas, each of which has one of the following types of terminals:

- Fancoil;
- Radiant only (heating only);
- Fancoil + Radiant;
- MZC Zone;
- MZC Zone + Radiant.

### FEATURES

The VMF system is extremely flexible, to the extent that it offers various control and management steps, also expandable at different times:

1. Control of a single zone;
2. Control of a Master/Slave zone (one MASTER fancoil and up to 5 SLAVE fancoils);
3. Control of a network consisting of several independent zones (one MASTER fancoil and up to 5 SLAVE fancoils for each zone, or another of the types of terminals provided);
4. Control of several zones, plus heat pump management (if compatible with the VMF system);
5. Control of several zones, of heat pumps and management of the domestic hot water;
6. Control of several zones, heat pumps, domestic hot water production and additional pumps (up to a maximum of 12 using 3 additional VMF-CRP modules);
7. Control of several zones, heat pumps, domestic hot water production, additional pumps and management of up to 3 heat recovery units (with the possibility to manage up to 3 VMF-VOC probes) and/or a boiler;

### CONTROL PANELS

The VMF system can pilot and manage a different number of areas, depending on the panel used:

- **VMF-E6/VMF-E5**: maximum 64 zones (so a maximum of 64 Master Fancoil, each of which will pilot 5 Slave, for a total of 384 Fancoil);
- **VMF-RCC**: maximum 10 zones (then a maximum of 10 Master Fancoil, each of which will pilot 5 Slave, for a total of 50 Fancoil).

In addition to the centralised control provided by the VMF-E6/VMF-E5/VMF-RCC panel, the MASTER system terminal must be equipped with a local control interface; this interface can be mounted on board the terminal itself or on a wall panel.

Via panel VMF-E6/VMF-E5/VMF-RCC it is possible to control several functions:

- Identify the various zones by giving each of them a name that characterises it;
- Control and set the ON-OFF function and the temperature setting of each zone;
- Set and manage the heat pump temperature;
- Schedule time slots.

Simple installation of the fancoil network thanks to the SELF-DETECTION function of the MASTER fancoils.

## SYSTEM COMPONENTS

### AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



### Command interfaces

**DI24:** Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

**VMF-E2D:** Machine user interface to be combined with VMF-E19 accessory, dedicated to the DUALJET range. It has 2 selector switches, one for temperature and the other for speed control.

**VMF-E2H:** User interface on the machine, to be combined with the VMF-E19 accessory, dedicated to the HL series. It has 2 selector switches, one for temperature and the other for speed control.

**VMF-E2S:** User interface on the fan coil, with two selectors - one for temperature and the other for speed control. For operation, the installation of either the VMF-E19 or VMF-E19I accessory is required.

**VMF-E2Z:** User interface on the fan coil, with two selectors, one for temperature and the other for speed control; to be combined with accessories VMF-E19 and VMF-E19I.

**VMF-E3:** Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, with grids GLF\_N/M and GLL\_N, can be controlled with VMF-IR control.

**VMF-E4DX:** A wall-mounted user interface to be combined with VMF-E19, VMF-E19I, VMF-E24 ed VMF-E24I accessories. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment temperature with a panel-mounted sensor probe (standard), or with the VMF-E19/E19I probe, or through mediated reading. It also enables the activation of an air purifier (Cold Plasma/ UV lamp) and a heating element. Light grey front panel PANTONE 425C (METAL).

**VMF-E4X:** A wall-mounted user interface to be combined with VMF-E19, VMF-E19I, VMF-E24 ed VMF-E24I accessories. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment temperature with a panel-mounted sensor probe (standard), or with the VMF-E19/E19I probe, or through mediated reading. It also enables the activation of an air purifier (Cold Plasma/ UV lamp) and a heating element. Light grey front panel PANTONE COOL GRAY 1C.

**VMF-E5:** Black recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on time periods and/or by

measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverter valve/pump, integrated heating element, storage tank temperature sensor, anti-legionella circuit system. The panel is available in both white (VMF-E5B) and black (VMF-E5N).

**VMF-E6:** White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aeraulic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).

**VMF-IR:** User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

**VMF-RCC:** Flush-mounting panel for the centralised command/control of a complete hydronic system consisting of: fan coils (up to 10 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (if you want to manage up to 4 outdoor units, the MULTICONTROL accessory must be provided), MZC accessories (up to 3) for the management of radiant panels using a suitable number of VMF-REB 1/VMF-REB 2/VMF-REB 3 accessories, (up to 28 zones total), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/O, control of heat recovery units and VOC probes (up to 3).

**VMF-VOC:** Air quality detection accessory.

**VMHI:** The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

### Thermostats

**VMF-E19:** Thermostat, accessory to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, it allows for the creation of a single fan coil area (1 master + maximum 5 slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features: 1. In systems with two pipes and a heating element, the latter can be activated as a complete replacement, allowing you to warm the environment exclusively with this accessory. 2. Dualjet features are available in standard software and can be set via dip switch. 3. Economy contact/presence sensor. 4. Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory). 5. Serial RS485, ModBus RTU protocol, for centralised control. 6. Possibility of inserting expansion boards for future developments. The VMF-E19 accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump. 7. Compatibility with the VMF-IO accessory. Compatibility with VMF-LON expansion board. The thermostat is protected by a fuse.

**VMF-E19I:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5 slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features: In systems with two pipes and a heating element - the latter can be activated as a complete replacement - allowing you to warm the environment exclusively with this accessory - Dualjet features are available in standard software and can be set via dip switch - Economy contact/presence sensor - Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory) - Serial RS485, ModBus RTU protocol, for centralised control - Possibility of inserting expansion boards for future developments. The VMF-E19 accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump - Compatibility with the VMF-IO accessory - Compatibility with VMF-LON expansion board. The thermostat is protected by a fuse.

**VMF-E19Y:** Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating



element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5 slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features: 1. In systems with two pipes and a heating element - the latter can be activated as a complete replacement - allowing you to warm the environment exclusively with this accessory. 2. Economy contact/presence sensor. 3. Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory). 4. Serial RS485, ModBus RTU protocol, for centralised control. 5. Possibility of inserting expansion boards for future developments. The VMF-E19Y accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump. 6. Compatibility with the VMF-IO accessory - Compatibility with VMF-LON expansion board. The thermostat is protected by a fuse.

**VMF-FMD:** The VMF-FMD panel is a flush-mounted thermostat that, when used in stand-alone mode or within a centralised supervisory system (BMS), can manage plant requirements where an actuator (a heating furniture valve, radiant system head, zone valve, zone circulator) is to be controlled as a function of room temperature.

**VMF-IO:** Manage the unit exclusively from a centralized VMF control panel without area control panel.

**VMF-LON:** Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

**VMF-YCC:** Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).

**VMF-YCCH:** Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

**VMF-YCCK:** Electric on/off completion unit for the VMF-E19Y accessory, mandatory for FCY units with GKY accessory.

**VMF-YICC:** Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).

**VMF-YICCH:** Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

**VMF-YICCK:** Electric inverter completion unit for the VMF-E19Y accessory, mandatory for FCYI units with GKY accessory.

### Intake grids and distribution of the air, compulsory accessory

**GLF10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

**GLF10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLF10M:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

**GLF10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

**GLL10N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL100N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X panel as well, and suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

**GLL20N:** Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

### Probes

**VMF-SW:** Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve.

**VMF-SW1:** Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

### Modules

**AERCAB:** 100 meter skein of shielded cable (4-pole wire + shield) for connection with RS485 serial port and CAN.

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**IC-2P:** Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

**VMF-REB:** Only available for VMF-E6, manages the heads of the radiant panels (each module can manage up to 8), one pump and up to 3 thermostats through digital input.

**VMF-REB 1:** Only available for VMF-RCC, manages the heads of 10 radiant panels associated with fancoil and up to 10 thermostats through digital input

**VMF-REB 2:** Only available for VMF-RCC, manages the heads of 10 radiant panels associated with MZC and up to 10 thermostats through digital input

**VMF-REB 3:** Only available for VMF-RCC, manages the heads of 8 radiant panels associated with MZC and up to 10 thermostats through digital input

**VMF-SIT3:** Interface boards that allow connecting thermostats to a fan coil with a high-power motor (for selection, see all the thermostat and fan coil documentation); if a VMF-E19 thermostat is used, this accessory will be replaced by the normal SIT3.

**VMF-SIT3V:** Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

### Electrical panels for DHW (Domestic hot water management for other suppliers' storage tanks, not available for VMF-E6)

**VMF-ACS3KM:** Electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated single phase 3kW resistor command, anti-legionella function and temperature sensor)

**VMF-ACS3KTN:** Quadro elettrico per il comando / controllo completo di un accumulo acqua sanitaria (comando valvola 3 vie, comando resistenza integrativa da 3kW trifase, antilegionella e sonda di temperatura).

**VMF-ACS6KTN:** Quadro elettrico per il comando / controllo completo di un accumulo acqua sanitaria (comando valvola 3 vie, comando resistenza integrativa da 6kW trifase, antilegionella e sonda di temperatura).

**VMF-ACS8KTN:** Quadro elettrico per il comando / controllo completo di un accumulo acqua sanitaria (comando valvola 3 vie, comando resistenza integrativa da 8kW trifase, antilegionella e sonda di temperatura).

## Heat storage tank with integrated domestic hot water management (no need to be combined with a VMF-ACS accessory)

**SAF:** Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.

### Control systems

**AERCONNECT:** Web server allowing local and remote supervision of the VMF-E6 system (by appropriately configuring the DNS service supplied with the purchase of the accessory) via web pages; allows simultaneous access for up to 8 users

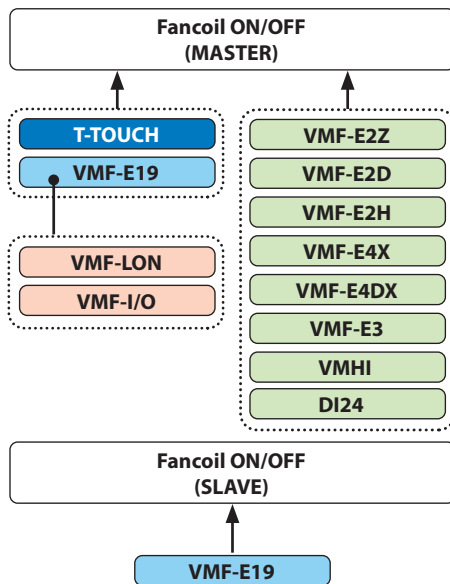
**VMF-485EXP:** This accessory, specifically mounted in the VMF-E5/RCC panel, adds an RS485 serial communication port to external supervision (BMS, Aerweb or Aermec supervision systems). Not available for VMF-E6.

**VMF-MONITORING:** PC software to monitor and control the operation of one or several VMF controlled systems. Through the VMF-E5/RCC expansion board, the VMF-485EXP panel provides the RS485 serial communication port used by the VMF-MONITORING application for controlling the hydronic system. The maximum number of controllable systems, each with VMF-E5 and VMF-485EXP expansion, is 10 (not available for VMF-E6).

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.

## COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF FAN COILS



### Type of component:

- Thermostat board
- Thermostat board + Command interface
- Expansion board
- Command interfaces

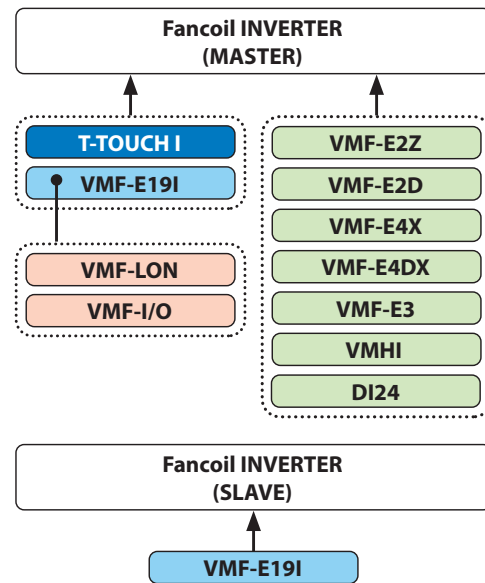
### Note:

- Each fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible;

- The E19 thermostat board can manage just one expansion board, selected from those available;
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E2Z                 | FCZ (AS-AF-U-UA-UF)         |
|                         | FCZ-D (DS)                  |
|                         | FCZ-H                       |
| VMF-E2D                 | Omnia UL (S)                |
| VMF-E2H                 | Omnia HL (S-SM)             |
| VMF-E4X (E4DX) / VMF-E3 | FCZ (AS-AF-U-UA-UF)         |
|                         | FCZ-D (DS)                  |
|                         | FCZ-H                       |
|                         | Omnia UL (S)                |
|                         | Omnia radiant               |
|                         | FCW                         |
| T-TOUCH                 | FCZ (AS-AF-U-UA-UF-DS)      |
|                         | FCZ-D (DS)                  |
|                         | FCZ-H                       |
| VMHI / DI24             | FCZ (AS-AF-U-UA-UF)         |
|                         | FCZ-D (DS)                  |
|                         | FCZ-H                       |
|                         | Omnia UL (S)                |
|                         | Omnia radiant               |

## COMPATIBILITY OF VMF COMPONENTS WITH INVERTER FAN COILS



### Type of component:

- Thermostat board
- Thermostat board + Command interface
- Expansion board
- Command interfaces

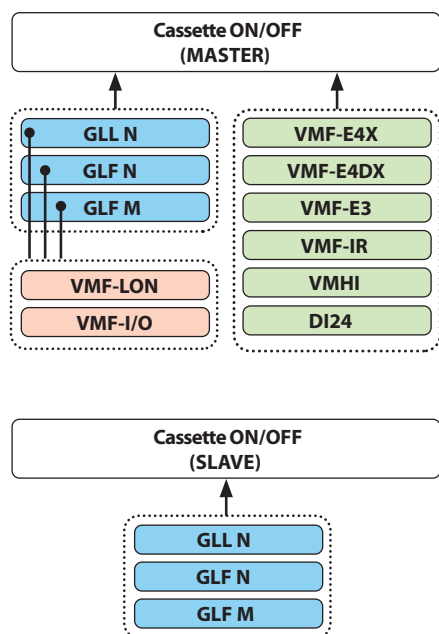
### Note:

- Each fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible;
- The E19I thermostat board can manage just one expansion board, selected from those available;
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

| Command interfaces | Compatible ranges or models |
|--------------------|-----------------------------|
| VMF-E2Z            | FCZI (AS-AF-U-UF)           |
|                    | FCZI-H                      |

| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E2D                 | Omnia ULI (S)               |
|                         | FCZI (AS-AF-U-UF)           |
|                         | FCZI-D (DS)                 |
| VMF-E4X (E4DX) / VMF-E3 | Omnia ULI (S)               |
|                         | Omnia radiant plus          |
|                         | FCWI                        |
| T-TOUCH-I               | FCZI (AS-AF-U-UF)           |
|                         | FCZI (AS-AF-U-UF)           |
|                         | FCZI-D (DS)                 |
| VMHI / DI24             | Omnia ULI (S)               |
|                         | Omnia radiant plus          |

### COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF CASSETTES



#### Type of component:

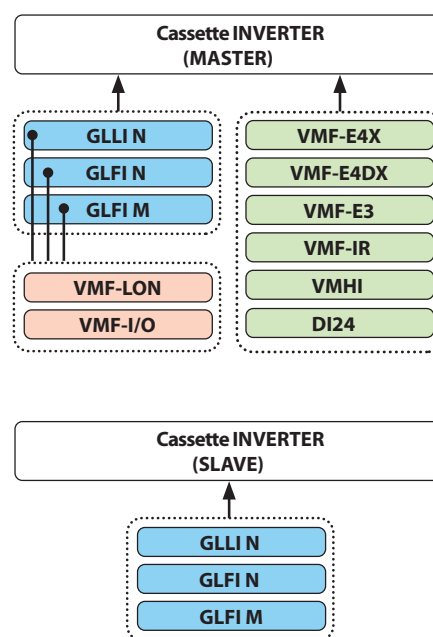
- Delivery suction grille with thermostat board
- Expansion board
- Command interfaces

#### Note:

- Each Cassette (Master or Slave) must have a delivery recovery grille (fitted with a VMF thermostat board) selected from those that are compatible;
- The delivery recovery grilles can manage just one expansion board, selected from those available;
- Each Master Cassette must have just ONE command interface, selected from those that are compatible:

| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E4X (E4DX) / VMF-E3 | FCL                         |
|                         | VEC                         |
| VMF-IR                  | FCL                         |
|                         | VEC                         |
| VMHI / DI24             | FCL                         |
|                         | VEC                         |

### COMPATIBILITY OF VMF COMPONENTS WITH INVERTER CASSETTES



#### Type of component:

- Delivery suction grille with thermostat board
- Expansion board
- Command interfaces

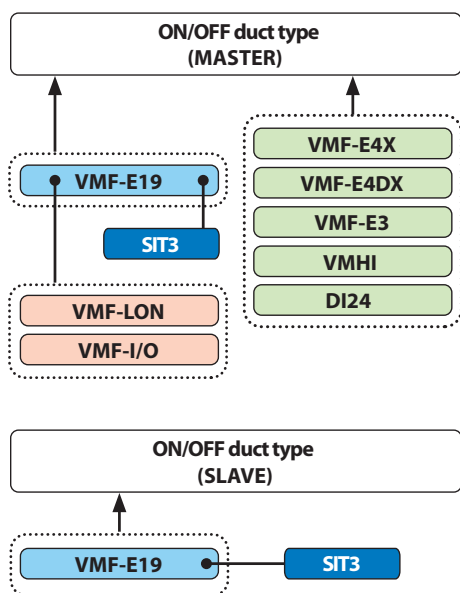
#### Note:

- Each Cassette (Master or Slave) must have a delivery recovery grille (fitted with a VMF thermostat board) selected from those that are compatible;
- The delivery recovery grilles can manage just one expansion board, selected from those available;
- Each Master Cassette must have just ONE command interface, selected from those that are compatible:

| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E4X (E4DX) / VMF-E3 | FCLI                        |
|                         | VEC-I                       |
| VMF-IR                  | FCLI                        |
|                         | VEC-I                       |
| VMHI / DI24             | FCLI                        |
|                         | VEC-I                       |



## COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF DUCT TYPE FAN COILS



### Type of component:

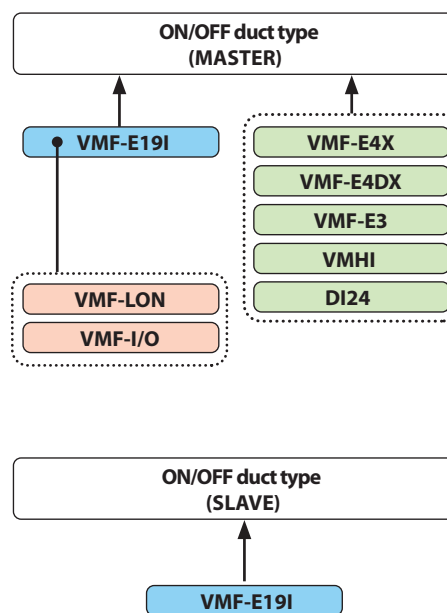
- Thermostat board
- Motor control board
- Expansion board
- Command interfaces

### Note:

- Each duct type fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible;
- The VMF-E19 thermostat board can manage just one expansion board, selected from those available;
- Depending on the size of the duct type fan coil, a motor control board (VMF-SIT3 or SIT3) may be needed;
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E4X (E4DX) / VMF-E3 | VED                         |
|                         | VES                         |
|                         | FCZ PO                      |
|                         | FCY                         |
|                         | Omnia UL (P - PAF)          |
|                         | FCZ-H (P-PO)                |
| VMHI / DI24             | VED                         |
|                         | VES                         |
|                         | FCZ PO                      |
|                         | FCY                         |
|                         | Omnia UL (P - PAF)          |
|                         | FCZ-H (P-PO)                |

## COMPATIBILITY OF VMF COMPONENTS WITH INVERTER DUCT TYPE FAN COILS



### Type of component:

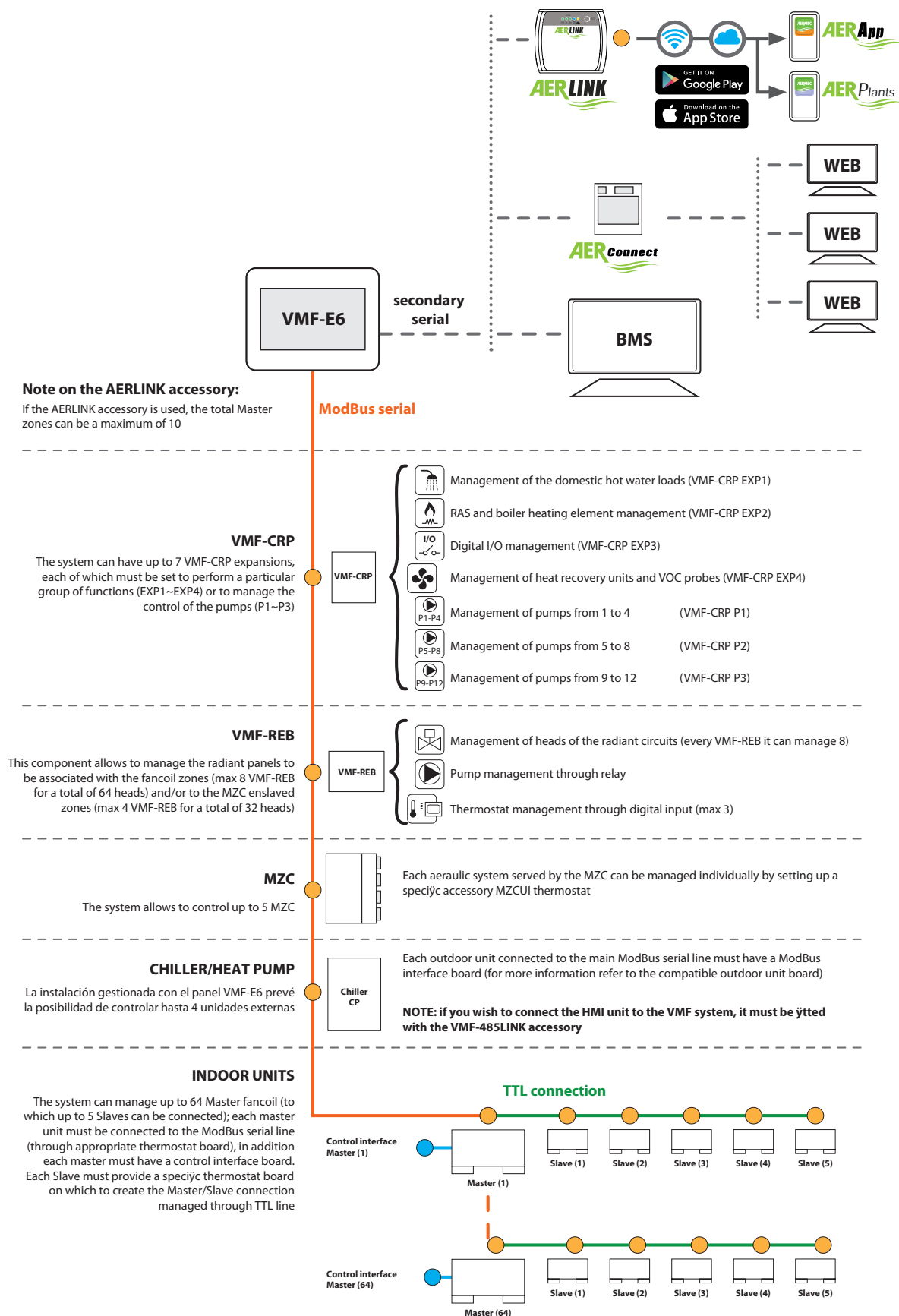
- Thermostat board
- Expansion board
- Command interfaces

### Note:

- Each duct type fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible;
- The VMF-E19I thermostat board can manage just one expansion board, selected from those available;
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

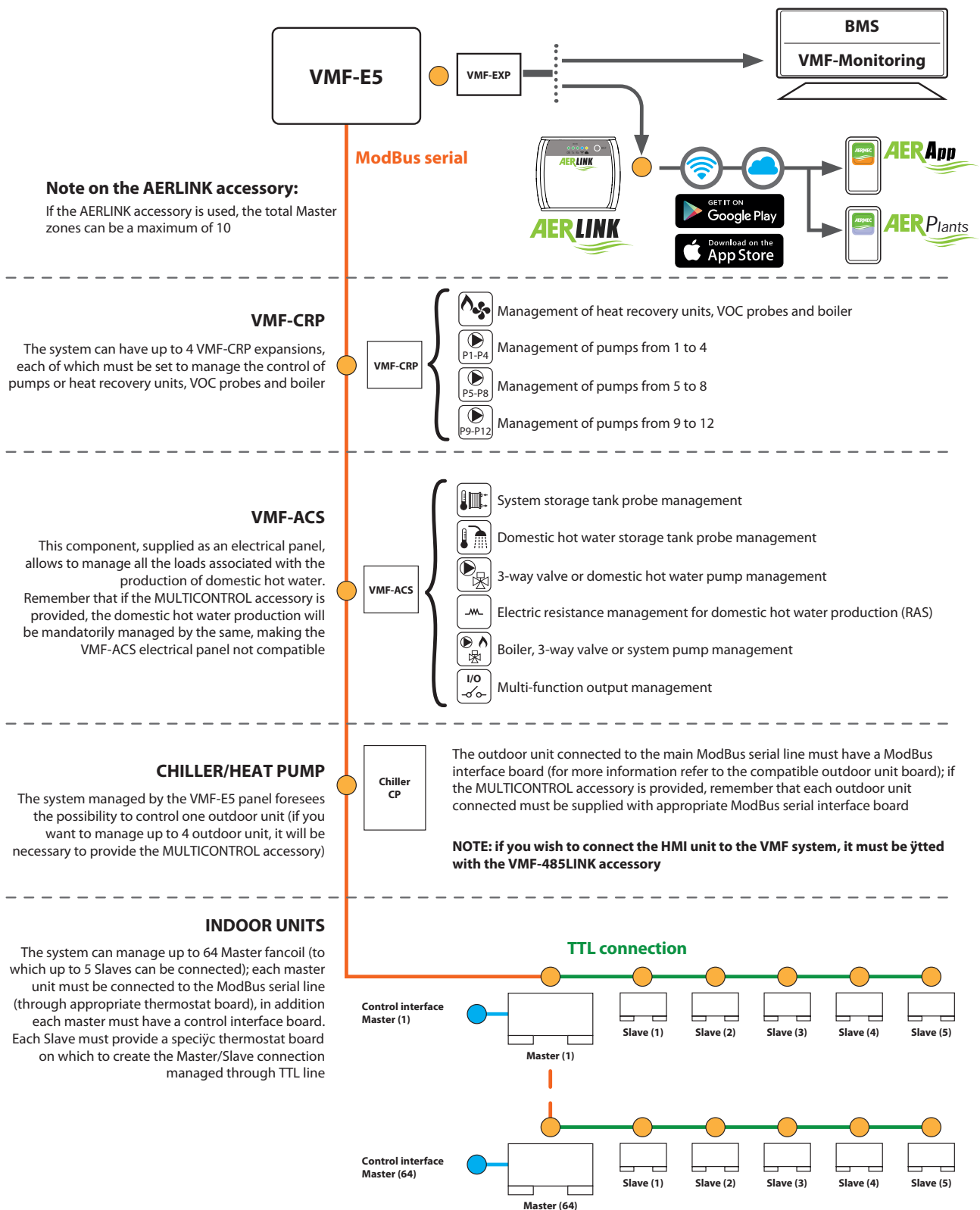
| Command interfaces      | Compatible ranges or models |
|-------------------------|-----------------------------|
| VMF-E4X (E4DX) / VMF-E3 | VED I                       |
|                         | VES I                       |
|                         | FCZI P                      |
|                         | FCYI                        |
|                         | Omnia UL (P - PAF)          |
|                         | FCZI-H (P-PO)               |
| VMHI / DI24             | VED I                       |
|                         | VES I                       |
|                         | FCZI P                      |
|                         | FCYI                        |
|                         | Omnia UL (P - PAF)          |
|                         | FCZI-H (P-PO)               |

## EXAMPLE OF SYSTEM COMPONENTS WITH VMF-E6



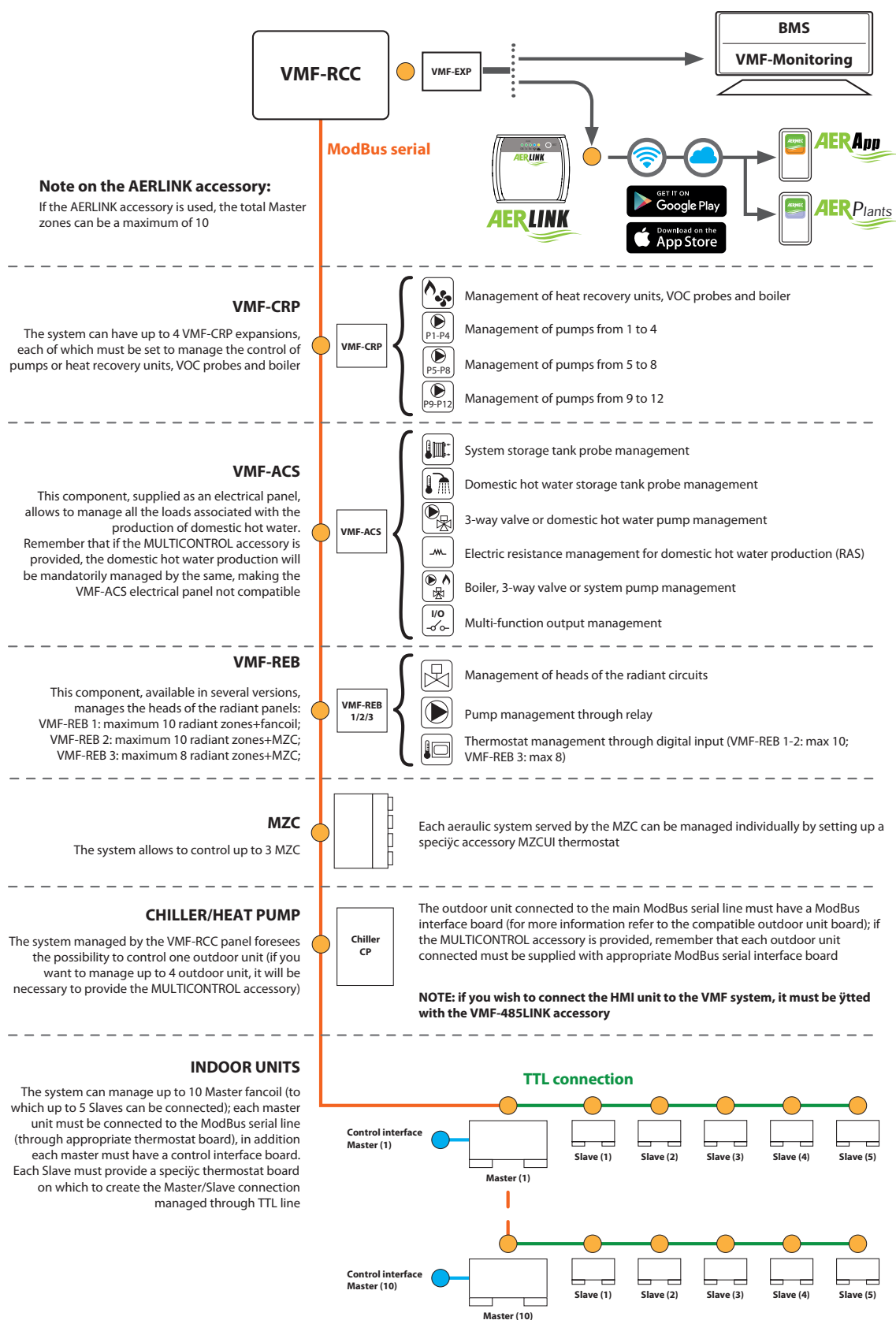
**ATTENTION:** if one (or more) areas are controlled with an FCWI fan coil (each of which require the VMF-485LINK interface), these areas cannot have a Slave unit.

## EXAMPLE OF SYSTEM COMPONENTS WITH VMF-E5



**ATTENTION:** if one (or more) areas are controlled with an FCWI fan coil (each of which require the VMF-485LINK interface), these areas cannot have a Slave unit.

## EXAMPLE OF SYSTEM COMPONENTS WITH VMF-RCC



**ATTENTION:** if one (or more) areas are controlled with an FCWI fan coil (each of which require the VMF-485LINK interface), these areas cannot have a Slave unit.

Aermec reserves the right to make any modifiçations deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential.

The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served.

The catalogued range of nominal available air flow rates is from 100 to around 16.100 m<sup>3</sup>/h.

| HEAT RECOVERY UNITS |   | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---------------------|---|--------------------------------------|--------------------|--------------------|------|
| <b>RPS</b>          | Counter-current flow heat recovery unit with inverter motor               | 800                                  | -                  | -                  | 224  |
| <b>REPURO</b>       | With cross-flow exchanger   | 100-650                              | -                  | -                  | 229  |
| <b>TRS</b>          | Heat recovery unit with enthalpy exchanger                                | 250-1300                             | -                  | -                  | 235  |
| <b>RPLI</b>         | Counter-current flow heat recovery unit with inverter motor               | 200-3900                             | -                  | -                  | 237  |
| <b>RTD</b>          | Thermodynamic recovery unit with integrated heat pump                     | 1100-3200                            | -                  | -                  | 242  |
| <b>RPF</b>          | High performance heat recovery unit with cross-current recuperator        | 790-4250                             | -                  | -                  | 246  |
| <b>URX-CF</b>       | With cross-flow exchanger and refrigerant circuit                         | 750-3300                             | -                  | -                  | 250  |
| <b>URHE-CF</b>      | High efficiency version with cross-flow exchanger and refrigerant circuit | 1000-3300                            | -                  | -                  | 254  |
| <b>ERSR</b>         | High-efficiency heat recovery with rotary recovery unit                   | 1000-30000                           | -                  | -                  | 258  |

## RPS

## Counter-current flow heat recovery unit with inverter motor

Nominal air flow rate 800 m<sup>3</sup>/h

- VMC solution for classrooms, bars, restaurants, offices, hotels, shops
- Minimum air flow rate 800 m<sup>3</sup>/h
- Fully silent operation
- Ventilation management by VOC probe
- Photocatalytic device



### DESCRIPTION

RPS is a counter-current heat recovery unit ideal for retrofit solutions for classrooms, offices, hotels, bars, restaurants, shops. With versatile installation and compact dimensions, it can be adapted to any existing space by drilling just two 300mm holes in one of the perimeter walls of the building, thus avoiding outside air ducts.

Thanks to the high thermal efficiency of the heat recovery unit, the appropriately filtered and treated fresh air is introduced at a temperature close to that of the room.

### VERSIONS

**RPS800A:** With rear external air inlets and upper air delivery

**RPS800B:** With side external air inlets and upper air delivery

### FEATURES

#### Structure

The external metal casing is treated with RAL9003 anti-corrosion polyester paint and insulated internally with a 12mm thick high sound-absorbing mattress with low thermal conductivity.

The natural anodised aluminium delivery air distribution grille is adjustable. The stale air is suctioned through special micro-punched grilles directly in the unit casing.

#### Ventilation group

The ventilation unit consists of fan plug fans with rear-facing blades and a directly coupled Ec-type electric motor.

The use of fan plug fans reduces the power input compared to fans with front-facing blades.

#### Heat exchanger

Plate heat exchanger with counter-current flow.

#### Condensate drip

The aluminium condensate drip tray is thermally insulated and must be connected to a condensate discharge system.

#### Air filtration

As standard the fresh air is filtered through an ePM1 50% filter in accordance with ISO 16890 (F7 in accordance with EN 779).

As standard the exhaust air is filtered through an ePM10 50% filter in accordance with ISO 16890 (M5 in accordance with EN 779).

**For version A only, other Coarse 30% filters in accordance with ISO 16890 (G2 in accordance with EN 779) are fitted to the outside air vents to protect the unit from large components such as pollen, leaves and insects. The filters are easily accessible for maintenance and cleaning.**

#### Air sanitisation

**As standard, the fresh air flow has a latest-generation device with a photo-catalytic UV lamp for active sanitisation.**

The hydrogen peroxide produced by the photo-catalytic reaction, disseminated and carried by the air flow, makes this sanitisation action effective on the surfaces of the unit as well as in the air in the place of installation and by contact with the surfaces of the rooms treated.

#### Regulation

The power is supplied through the control board positioned on the inside panel of the heat recovery unit.

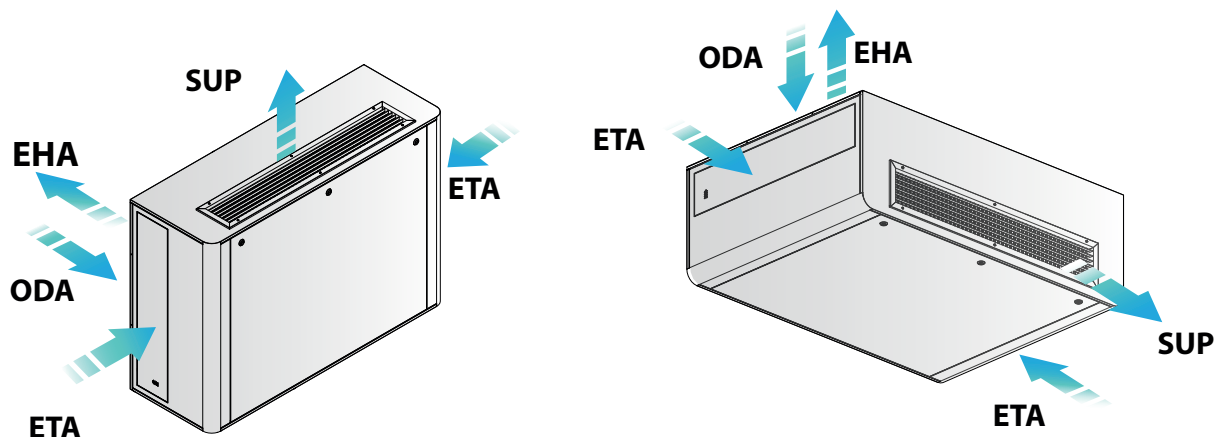
The unit is managed by a microprocessor control card and is controlled by the ultra-thin, flush-mounted control panel, which controls the functions from a capacitive touch screen with an LCD display.

The main adjustment functions are as follows:

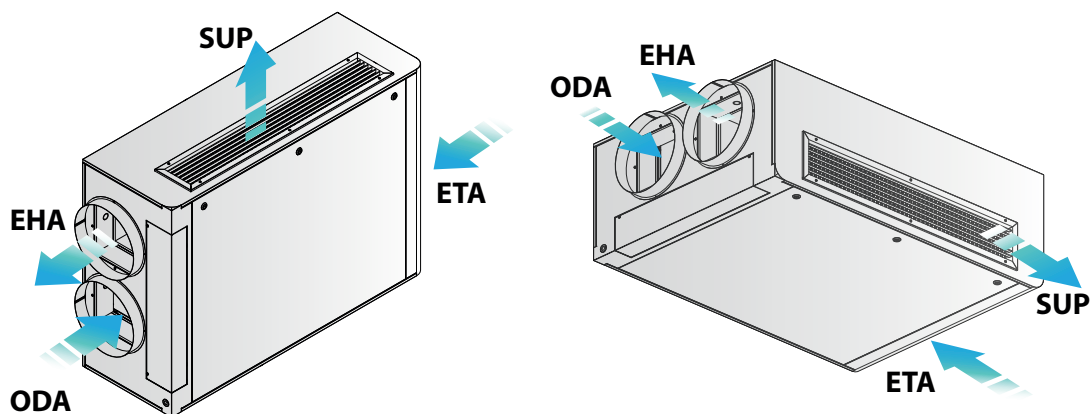
- Manual fresh and exhaust air ventilation speed control
- Fresh and exhaust air ventilation speed control according to the air quality (by VOC probe)
- Freecooling
- Heat recovery unit anti-freeze function
- Ambient air cleaning function
- Photo-catalytic device management
- ON/OFF from digital input
- Management via RS485 serial with Modbus RTU protocol

POSSIBLE INSTALLATIONS

RPS800A



RPS800B



- ODA = External air
- ETA = Extracted air
- SUP = Air introduced
- EHA = Exhaust air

ACCESSORIES

**AVM:** Anti-vibration supports.

**KVOC:** The kit consists of the VOC probe, the 230V/24V power supply and cables for connecting the VOC probe, power supply and controller.

ACCESSORIES COMPATIBILITY

VOC probe kit

| Accessory | RPS800A | RPS800B |
|-----------|---------|---------|
| KVOC800   | •       | •       |

Antivibration

| Accessory | RPS800A | RPS800B |
|-----------|---------|---------|
| AVM       | •       | •       |

The accessory is not required for horizontal installation.



## PERFORMANCE SPECIFICATIONS

| SIZE                              |                   |       | RPS800  |
|-----------------------------------|-------------------|-------|---|
| Power supply                      |                   |       | 230V ~ 50Hz   |
| Unit type                         |                   |       | UVNR - UVB (Non-residential 2-way ventilation unit) |
| Nominal/maximum fresh air rate    | m <sup>3</sup> /h |       | 800   |
| Nominal/maximum exhaust air rate  | m <sup>3</sup> /h |       | 750   |
| Heat recovery system type         |                   |       | Statico a flussi controcorrente                     |
| Winter thermal efficiency         | (1)               | %     | 81  |
| Heat capacity recovered in winter | (1)               | kW    | 4,4   |
| Summer thermal efficiency         | (2)               | %     | 77  |
| Heat capacity recovered in summer | (2)               | kW    | 1,9   |
| Maximum electric input power      |                   | kW    | 0,300   |
| Sound power L <sub>WA</sub>       |                   | dB(A) | 59,0  |
| Fans                              |                   |       |   |
| Type                              |                   |       | Plug fan EC   |
| Number                            |                   |       | 1+1   |
| Filters                           |                   |       |   |
| Fresh air filter                  |                   |       | EPM1 50% (F7)                                       |
| Exhaust air filter                |                   |       | EPM10 50% (M5)                                      |

(1) Fresh air: T<sub>bs</sub> = 0°C; RH = 80%; Exhaust air T<sub>bs</sub> = 20°C; RH = 50%; nominal air flow rate  
(2) Fresh air: T<sub>bs</sub> = 35°C; RH 50%; Exhaust air T<sub>bs</sub> = 26°C; RH = 50%; nominal air flow rate

## ROOM VENTILATION AIR FLOW RATES

### School classrooms

For the calculation of the ventilation rate in school classrooms, reference can be made to the UNI 10339 standard (which sets the air renewal flow rate per student and by type of institution) and to Decree No. 81 of 20/03/2009

(which establishes the minimum and maximum number of students per class and by type of institution).

| UNI10339 - Sheet 3           |    | Presidential decree no. 81 of 20/03/2009 |     | Fresh air rate |     | Max occupants (fresh air rate 800 m <sup>3</sup> /h) |
|------------------------------|----|--|-----|----------------|-----|--|
| Air flow rate per person     |    | Pupils per class                         |     |                |     | Persons  |
| M <sup>3</sup> /h per person |    | Min                                      | Max | Min            | Max | No.  |
| <b>Schools</b>               |    |  |     |                |     |  |
| Nursery school               | 14 | 18                                       | 29  | 259            | 418 | 56   |
| Primary school               | 18 | 15                                       | 27  | 270            | 486 | 44   |
| Middle school                | 22 | 18                                       | 30  | 389            | 648 | 37   |
| High school                  | 25 | 27                                       | 30  | 680            | 756 | 32   |

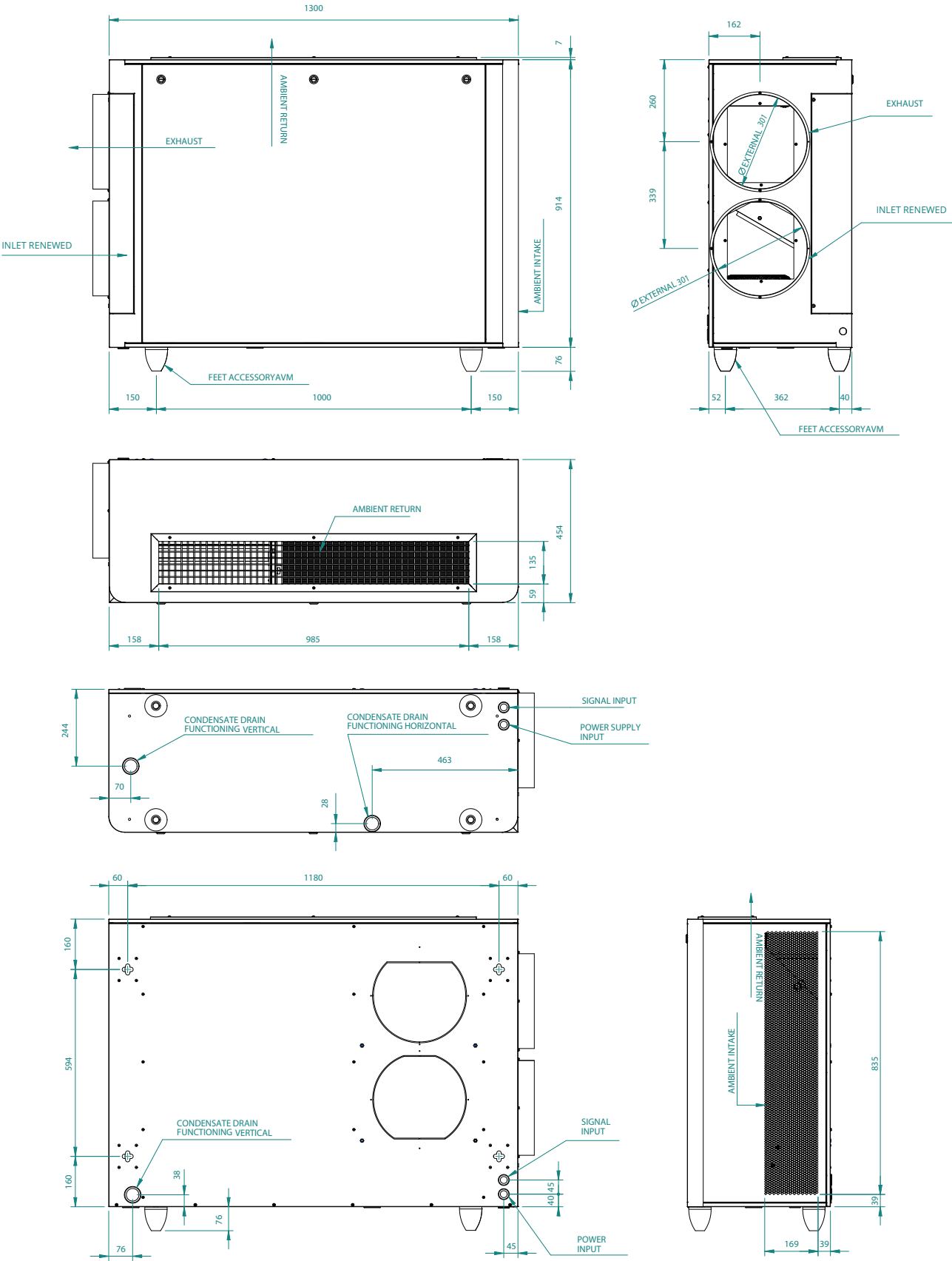
### Bar, restaurants, offices, hotels, shops or stores

For the calculation of the ventilation rate in other types of buildings, reference can be made to the UNI 10339 standard, which sets the air renewal flow rate per person based on the type of indoor space.

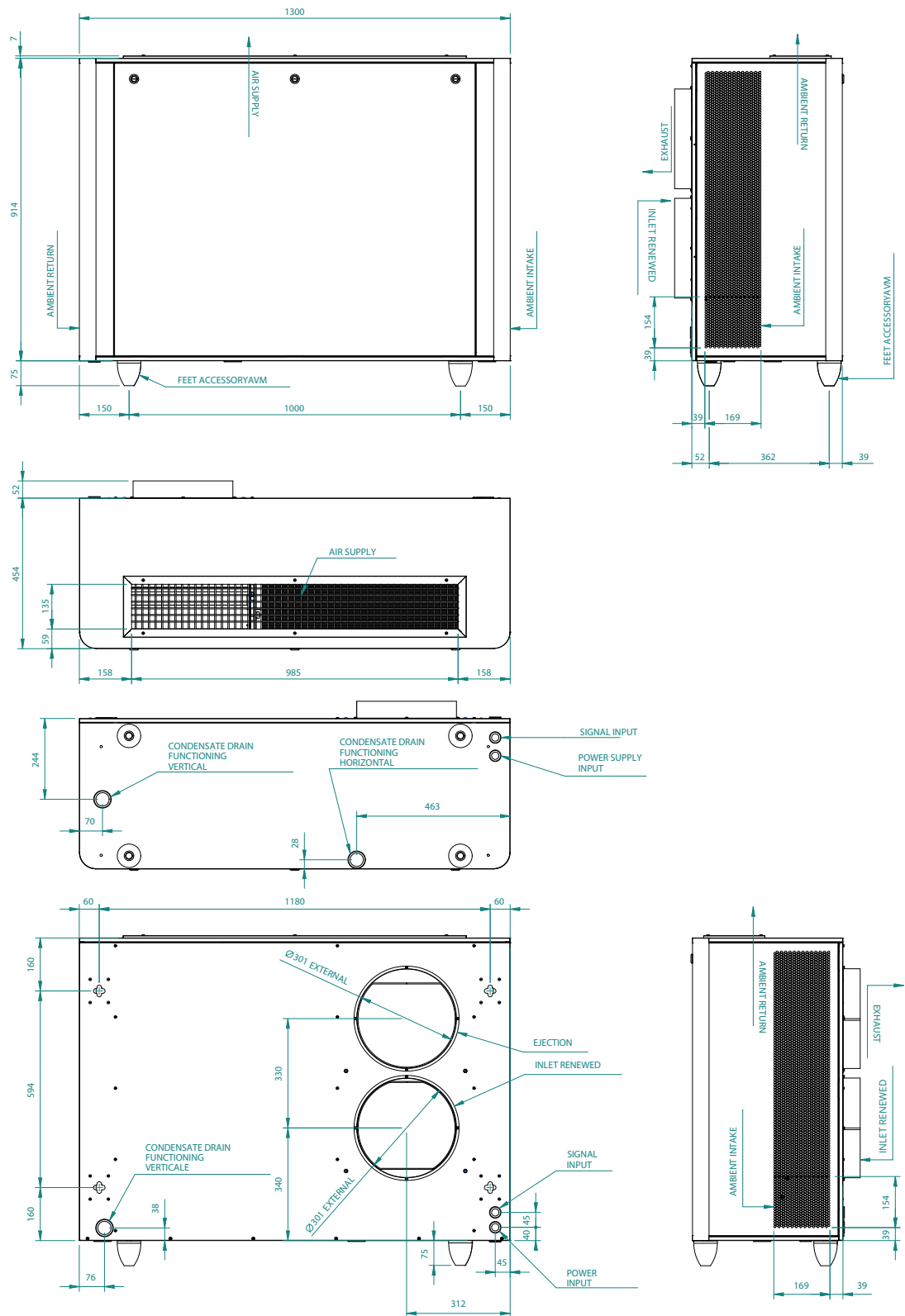
| UNI10339 - Sheet 3           |    | Max occupants (fresh air rate 800 m <sup>3</sup> /h) |
|------------------------------|----|--|
| Air flow rate per person     |    | Persons  |
| M <sup>3</sup> /h per person |    | No.  |
| <b>Bars, Restaurants</b>     |    |  |
| Bar                          | 40 | 20   |
| Dining rooms restaurants     | 36 | 22   |
| <b>Offices</b>               |    |  |
| Open space offices           | 40 | 20   |
| <b>Hotels</b>                |    |  |
| Hall, lounges                | 40 | 20   |
| Dining rooms                 | 36 | 22   |
| <b>Shops</b>                 |    |  |
| Beauty salons                | 50 | 16   |
| Stores                       | 41 | 19   |

**N.B.:** the values given are indicative, assess the correct VMC sizing during the design phase.

**DIMENSIONS**  
**RPS800B**



RPS800A



|                        | RPS800A | RPS800B |
|------------------------|---------|---------|
| Dimensions and weights |         |         |
| Empty weight           | kg 116  | 120     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# REPURO

## Duct-type residential 2-way ventilation unit with heat recovery

- **Compact dimensions**
- **High efficiency, reaching 90%+ (UNI EN 308)**
- **Cold Plasma purifier**



### DESCRIPTION

REPURO it's an innovative counter-current heat recovery system that ensures the right air renewal in closed areas.

Thanks to the use of high-efficiency heat exchangers, REPURO allows fresh air to be delivered at a temperature close to that of the room itself, thereby cutting the energy costs that would be incurred with a traditional air renewal system or mechanical ventilation alone.

### VERSIONS

. Standard

**R** With electric heater

#### Installation:

- **Ceiling or wall:** (100 - 170)
- **Floor or wall:** (250 - 650)

### FEATURES

- Hexagonal heat recovery unit with a wider heat exchange surface;
- Free-standing sheet metal panels with internal insulation;
- Standard G4 filter on the fresh air;
- Standard G2 filter on the exhaust air;
- The filters can be removed for cleaning or replacement;
- The unit has in-built protection against frost formation with temperatures > -10°C;
- High efficiency, reaching 90%+ (UNI EN 308);
- Free cooling in the intermediate seasons, thanks to the automatic bypass function (not available for sizes 100 - 170);
- "No frost" bypass (RePuro 450-550-650), with PLSNF accessory;
- Air purification guaranteed by the Cold Plasma purifier: this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionised air, free of foul odours;
- Nominal flow rate regulation from 0 to 100%;
- Centrifugal fans, directly coupled with the EC high-efficiency brushless electric motors with variable speed (ERP2015);
- Microprocessor control card that interfaces with the VMF system;

- Unit control by means of a wired panel (supplied as standard) with an innovative, extremely thin design. The functions are controlled via the capacitive touch keypad with an LCD display. Electric heater activation in the RePuro\_R versions. Light grey front panel PANTONE COOL GRAY 1C;
- The 6-metre wired cable is provided as standard;
- Easy mounting on the wall (with the plate (provided), or on the floor (with the AVM accessory);
- Can adapt to an existing system;
- Compact dimensions;
- Silent operation;
- Filter change warning;
- Installation requires a condensate discharge system.

### ACCESSORIES

**VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

**VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings.

**BC:** Condensate drip.

**AVM:** Anti-vibration supports.

**SSR:** Wall mounting kit

**FF7:** Filter with F7 efficiency class for the fresh air.

**BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACNet TCP-IP protocol.

**KSAE:** External air sensor.

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

### Plenum with multi-way flange

**PLS350:** Vacuum delivery plenum with sound-absorbent covering and multi-way flange.

**PLS350E:** Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.

**PLS350L:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.

**PLS350LE:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.

**PLS350W:** Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

**PLS350WE:** Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLS350WL:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLS350WLE:** Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

**PLS650:** Vacuum delivery plenum with sound-absorbent covering and multi-way flange.

**PLS650E:** Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.

**PLS650L:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.

**PLS650LE:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.

**PLS650W:** Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

**PLS650WE:** Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLS650WL:** Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLS650WLE:** Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

#### Plenum with 1-way flange

**PLSM350:** Vacuum delivery plenum with sound-absorbent covering and 1-way flange.

**PLSM350E:** Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.

**PLSM350L:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.

**PLSM350LE:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.

**PLSM350W:** Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

**PLSM350WE:** Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLSM350WL:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLSM350WLE:** Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

**PLSM650:** Vacuum delivery plenum with sound-absorbent covering and 1-way flange.

**PLSM650E:** Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.

**PLSM650L:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.

**PLSM650LE:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.

**PLSM650W:** Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

**PLSM650WE:** Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLSM650WL:** Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

**PLSM650WLE:** Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

#### VMF system

**VMF-E5B:** White recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.

**VMF-E5N:** Black recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.

**VMF-VOC:** Air quality detection accessory.

## ACCESSORIES COMPATIBILITY

| Model       | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|
| BMConverter | „R  | *   | *   | *   | *   | *   | *   | *   |
| KSAE        | „R  | *   | *   | *   | *   | *   | *   | *   |
| VMF-CRP     | „R  | *   | *   | *   | *   | *   | *   | *   |

## Plenum with multi-way flange

| Model         | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| PLS350        | .   | *   |     |     |     |     |     |     |
| PLS350E       | .   | *   |     |     |     |     |     |     |
| PLS350L       | .   | *   |     |     |     |     |     |     |
| PLS350LE      | .   | *   | *   | *   | *   |     |     |     |
|               | R   | *   | *   | *   |     |     |     |     |
| PLS350W (1)   | .   | *   |     |     |     |     |     |     |
| PLS350WE (1)  | .   | *   |     |     |     |     |     |     |
| PLS350WL (1)  | .   | *   |     |     |     |     |     |     |
| PLS350WLE (1) | .   | *   |     |     |     |     |     |     |
| PLS650        | „R  |     |     |     |     | *   | *   | *   |
| PLS650E       | „R  |     |     |     |     | *   | *   | *   |
| PLS650L       | „R  |     |     |     |     | *   | *   | *   |
| PLS650LE      | „R  |     |     |     |     | *   | *   | *   |
| PLS650W (1)   | „R  |     |     |     |     | *   | *   | *   |
| PLS650WE (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLS650WL (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLS650WLE (1) | „R  |     |     |     |     | *   | *   | *   |

(1) It is mandatory to also provide for the water valve.

## Water valves

## 3 way valve kit

| Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| „R  | VCH | VCH | VCH | VCH | VCH | VCH | VCH |

## 2 way valve kit

| Ver | 100  | 170  | 250  | 350  | 450  | 550  | 650  |
|-----|------|------|------|------|------|------|------|
| „R  | VCHD | VCHD | VCHD | VCHD | VCHD | VCHD | VCHD |

## Installation accessories

## Condensate drip

| Model    | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| BC10 (1) | „R  | *   | *   | *   | *   | *   | *   | *   |
| BC20 (2) | „R  | *   | *   | *   | *   | *   | *   | *   |

(1) For vertical installation.

(2) For horizontal installation.

## Anti-vibration support feet

| Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| „R  | -   | -   | AVM | AVM | AVM | AVM | AVM |

The accessory cannot be fitted on the configurations indicated with -

## Wall mounting kit

| Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| „R  | -   | -   | SSR | SSR | SSR | SSR | SSR |

The accessory cannot be fitted on the configurations indicated with -

## External air sensor

| Ver | 100         | 170         | 250         | 350         | 450         | 550         | 650         |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| „R  | BMConverter | BMConverter | BMConverter | BMConverter | BMConverter | BMConverter | BMConverter |

## Accessories

### Plenum with multi-way flange

| Model         | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|
| PLS350        | .   | *   |     |     |     |     |     |     |
| PLS350E       | .   | *   |     |     |     |     |     |     |
| PLS350L       | .   | *   |     |     |     |     |     |     |
| PLS350LE      | .   | *   | *   | *   | *   |     |     |     |
|               | R   | *   | *   | *   |     |     |     |     |
| PLS350W (1)   | .   | *   |     |     |     |     |     |     |
| PLS350WE (1)  | .   | *   |     |     |     |     |     |     |
| PLS350WL (1)  | .   | *   |     |     |     |     |     |     |
| PLS350WLE (1) | .   | *   |     |     |     |     |     |     |
| PLS650        | „R  |     |     |     |     | *   | *   | *   |
| PLS650E       | „R  |     |     |     |     | *   | *   | *   |
| PLS650L       | „R  |     |     |     |     | *   | *   | *   |
| PLS650LE      | „R  |     |     |     |     | *   | *   | *   |
| PLS650W (1)   | „R  |     |     |     |     | *   | *   | *   |
| PLS650WE (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLS650WL (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLS650WLE (1) | „R  |     |     |     |     | *   | *   | *   |

(1) It is mandatory to also provide for the water valve.

### Plenum with 1-way flange

| Model          | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|
| PLSM350        | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350E       | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350L       | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350LE      | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350W (1)   | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350WE (1)  | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350WL (1)  | „R  | *   | *   | *   | *   |     |     |     |
| PLSM350WLE (1) | „R  | *   | *   | *   | *   |     |     |     |
| PLSM650        | „R  |     |     |     |     | *   | *   | *   |
| PLSM650E       | „R  |     |     |     |     | *   | *   | *   |
| PLSM650L       | „R  |     |     |     |     | *   | *   | *   |
| PLSM650LE      | „R  |     |     |     |     | *   | *   | *   |
| PLSM650W (1)   | „R  |     |     |     |     | *   | *   | *   |
| PLSM650WE (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLSM650WL (1)  | „R  |     |     |     |     | *   | *   | *   |
| PLSM650WLE (1) | „R  |     |     |     |     | *   | *   | *   |

(1) It is mandatory to also provide for the water valve; if you intend to use the system with post heating battery, or in any case in all those cases in which the air temperature in the channels could cause condensation on the external surfaces of the pipes, it is mandatory to adequately isolate the components of the system.

### VMF system

| Model   | Ver | 100 | 170 | 250 | 350 | 450 | 550 | 650 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| VMF-ESB | „R  | *   | *   | *   | *   | *   | *   | *   |
| VMF-ESN | „R  | *   | *   | *   | *   | *   | *   | *   |
| VMF-VOC | „R  | *   | *   | *   | *   | *   | *   | *   |

## PERFORMANCE SPECIFICATIONS

| Size                           |           | 100 (1)     | 170 (1) | 250 (2) | 350 (2) | 450 (2) | 550 (2) | 650 (2) |
|--------------------------------|-----------|-------------|---------|---------|---------|---------|---------|---------|
| Heat recovery unit             |           |             |         |         |         |         |         |         |
| Power supply                   |           | 230V ~ 50Hz |         |         |         |         |         |         |
| Summer recovery (3)            |           |             |         |         |         |         |         |         |
| Recovery efficiency            | %         | 90          | 85      | 86      | 82      | 83      | 81      | 78      |
| Recovered heating power        | W         | 180         | 289     | 430     | 573     | 750     | 887     | 1015    |
| Winter recovery (4)            |           |             |         |         |         |         |         |         |
| Recovery efficiency            | %         | 94          | 91      | 91      | 89      | 90      | 88      | 87      |
| Recovered heating power        | W         | 957         | 1573    | 2329    | 3171    | 4118    | 4940    | 5734    |
| General data                   |           |             |         |         |         |         |         |         |
| SEC                            | kWh/(m²a) | -36         | -38     | -37     | -40     | -40     | -40     | -40     |
| CLASS                          |           | A           |         |         |         |         |         |         |
| Total input power              | W         | 45          | 65      | 160     | 180     | 220     | 280     | 360     |
| Heat recovery unit performance |           |             |         |         |         |         |         |         |
| Nominal air flow rate          | m³/h      | 100         | 170     | 250     | 350     | 450     | 550     | 650     |
| High static pressure           | Pa        | 85          | 20      | 195     | 133     | 100     | 120     | 70      |

(1) Ceiling or wall installation

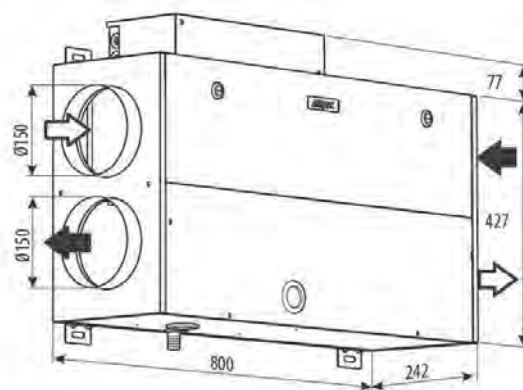
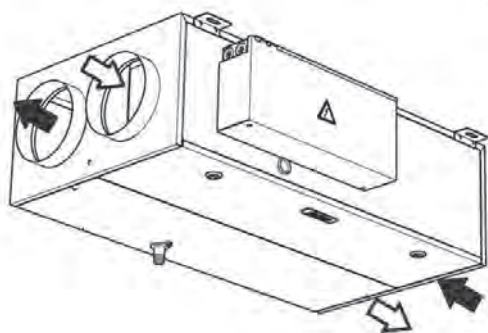
(2) Floor or wall installation

(3) Exhaust air temperature 26°C D.B., 50% R.H; Fresh air temperature 32°C D.B., 50% R.H.

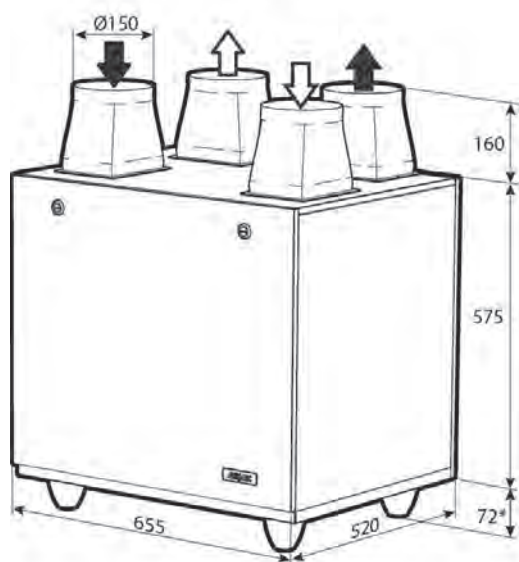
(4) Exhaust air temperature 20°C D.B., 50% R.H; Fresh air temperature -10°C D.B., 80% R.H.

## DIMENSIONS (MM) AND WEIGHTS

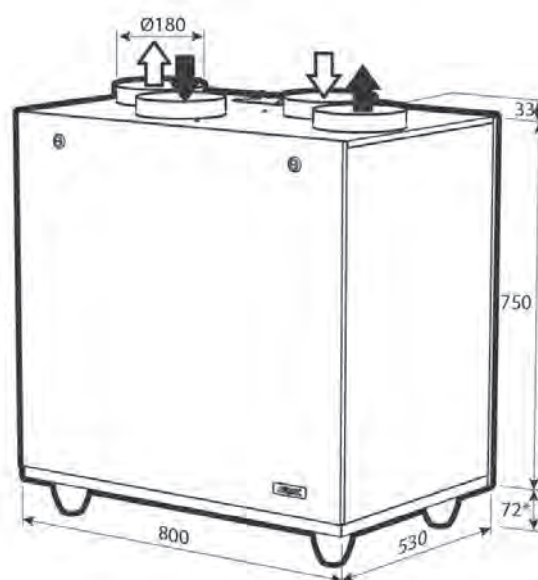
## RePuro 100 - 170



## RePuro 250 - 350



## RePuro 450 - 550 - 650



## VMF - E4 RePuro

| Size                             |    |    | 100 (1) | 170 (1) | 250 (2) | 350 (2) | 450 (2) | 550 (2) | 650 (2) |
|----------------------------------|----|----|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b>    |    |    |         |         |         |         |         |         |         |
| Empty weight                     | „R | kg | 25      | 25      | 48      | 48      | 55      | 55      | 55      |
| (1) Ceiling or wall installation |    |    |         |         |         |         |         |         |         |
| (2) Floor or wall installation   |    |    |         |         |         |         |         |         |         |



# RePuroDistribution

A complete range for air distribution which, combined with the innovative RePuro heat recovery and air purification units, provides designers, install-

ers and users with an efficient, practical installation solution that guarantees optimum comfort throughout the lifecycle of the system.

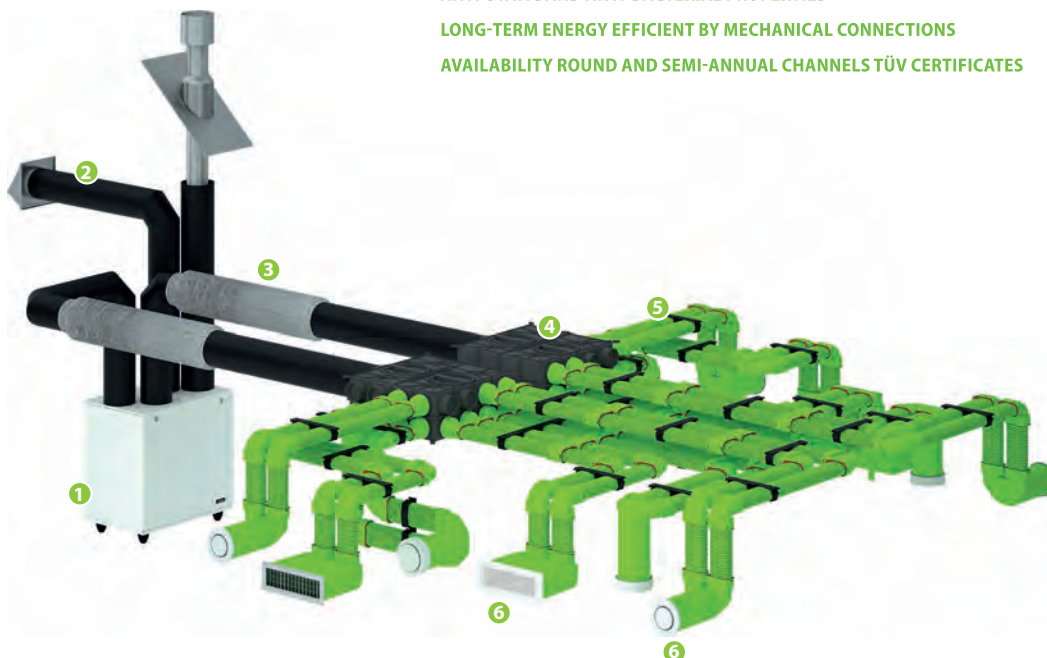
EASY "PLUG & PLAY" INSTALLATION

LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION

ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES

LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS

AVAILABILITY ROUND AND SEMI-ANNUAL CHANNELS TÜV CERTIFICATES



The picture is intended purely as an example of a system with semi-rigid, semi-oval, antibacterial ducts. This example consists of:

- 1 RePuro heat recovery units
- 2 Duct with fresh/exhaust air intake
- 3 Interconnection between RePuro and the distribution box
- 4 Hydronic box
- 5 Air distribution with semi-rigid, semi-oval, antibacterial ducts
- 6 Terminals with designer intakes or grilles

In addition to point 5, the Aermec range also includes a further 2 air distribution systems:

- Air distribution with semi-rigid, round ducts
- Air distribution with rigid, rectangular ducts

For more information about all the types and solutions available, refer to the "AerDistribution" selection program and the technical documentation, both available at [www.aermec.com](http://www.aermec.com)

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# TRS

## Heat recovery unit with enthalpy exchanger

- Compact dimensions
- Fans coupled to brushless Ec motors with low energy consumption
- Easy installation
- Horizontal installation



### DESCRIPTION

The TRS heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.

It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.

TRS intends to solve these problems using a static heat recovery unit that saves most of the energy that would otherwise be lost.

**The unit adopts high-efficiency heat recovery with countercurrent flows which consists of flat sheets of special paper that allow you to recover both sensible and latent heat (humidity). Therefore, no condensate drip tray or the relative drain pipe is required.**

The high static pressures available allow ducts to be mounted, thereby allowing the extraction or input of air across multiple environments simultaneously.

They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

### FEATURES

- Very compact units that can only be installed horizontally, which require simple maintenance of the heat exchanger and filters both removable from the side.
- Free-cooling in mid-season thanks to the automatic by-pass function;

- Centrifugal fans with Brushless EC motor, with the possibility to adjust the speed on 10 different levels through the obligatory accessory TRSPTS1, touch screen control panel. In the absence of this accessory it will only be possible, by acting on the remote on-off contact, to operate the fans always at maximum speed;
- Built-in electrical panel with electronic board for the control of ventilation and free-cooling functions;
- Hexagonal-shaped enthalpy recovery unit to increase the exchange surface;
- Self-supporting panels in galvanized sheet with insulation, both internal and external. Access via the side door;
- ISO 16890 ePM<sub>2.5</sub> 95% efficiency class filter with synthetic cleanable media and COARSE 50% pre-filter on fresh air, COARSE 50% filter on return air intake;
- Pressure switch with integrated dirty filter signal;
- Connections to funnels with plastic fittings;
- Silent operation;
- The installation does not require a condensate drain system.

### ACCESSORIES

**The following accessories are available for complete control of the TRS recovery units:**

**TRSPTS1:** Control panel with Touch Screen. Mandatory accessory.

**TRSQSW:** Wall CO<sub>2</sub> probe.

**TRSSW:** Wall humidity probe.

### ACCESSORIES COMPATIBILITY

| Accessory | TRS252 | TRS352 | TRS502 | TRS652 | TRS802 | TRS1002 | TRS1302 |
|-----------|--------|--------|--------|--------|--------|---------|---------|
| TRSPTS1   | •      | •      | •      | •      | •      | •       | •       |
| TRSQSW    | •      | •      | •      | •      | •      | •       | •       |
| TRSSW     | •      | •      | •      | •      | •      | •       | •       |

## PERFORMANCE SPECIFICATIONS

|                                 |                       | TRS252           | TRS352 | TRS502 | TRS652 | TRS802 | TRS1002 | TRS1302 |
|---------------------------------|-----------------------|------------------|--------|--------|--------|--------|---------|---------|
| <b>Fans (1)</b>                 |                       |                  |        |        |        |        |         |         |
| Nominal air flow rate           | m <sup>3</sup> /h     | 250              | 350    | 500    | 650    | 800    | 1000    | 1300    |
| Nominal useful head             | Pa                    | 90               | 140    | 110    | 100    | 140    | 140     | 140     |
| Maximum input power             | A                     | 0,5              | 0,6    | 0,6    | 1,2    | 1,4    | 2,1     | 2,7     |
| Type                            | type                  |                  |        |        | EC     |        |         |         |
| Speed number                    | no.                   | 10               | 10     | 10     | 10     | 10     | 10      | 10      |
| SFP int.                        | W/(m <sup>3</sup> /s) | 812,00           | 670,00 | 547,00 | 846,00 | 865,00 | 881,00  | 873,00  |
| Maximum input power             | kW                    | 0,08             | 0,13   | 0,15   | 0,23   | 0,32   | 0,39    | 0,50    |
| <b>Sound data (2)</b>           |                       |                  |        |        |        |        |         |         |
| Sound pressure level (1 m)      | dB(A)                 | 34,0             | 37,0   | 39,0   | 40,0   | 42,0   | 43,0    | 44,0    |
| <b>Heating performances (3)</b> |                       |                  |        |        |        |        |         |         |
| Winter thermal efficiency       | %                     | 73,0             | 74,0   | 76,0   | 74,0   | 76,0   | 76,0    | 74,2    |
| Enthalpy winter efficiency      | %                     | 65,0             | 65,0   | 67,0   | 65,0   | 65,0   | 62,0    | 59,0    |
| <b>Cooling performances (4)</b> |                       |                  |        |        |        |        |         |         |
| Summer thermal efficiency       | %                     | 73,0             | 74,0   | 76,0   | 74,0   | 76,0   | 76,0    | 74,0    |
| Summer enthalpy efficiency      | %                     | 62,0             | 62,0   | 63,0   | 60,0   | 63,0   | 60,0    | 58,0    |
| <b>Heat recovery unit</b>       |                       |                  |        |        |        |        |         |         |
| Dry heating efficiency (5)      | %                     | 73,0             | 74,0   | 76,0   | 74,0   | 76,0   | 76,0    | 74,0    |
| Power supply                    |                       | 230V~50Hz - 60Hz |        |        |        |        |         |         |

(1) Performances referring to clean filters

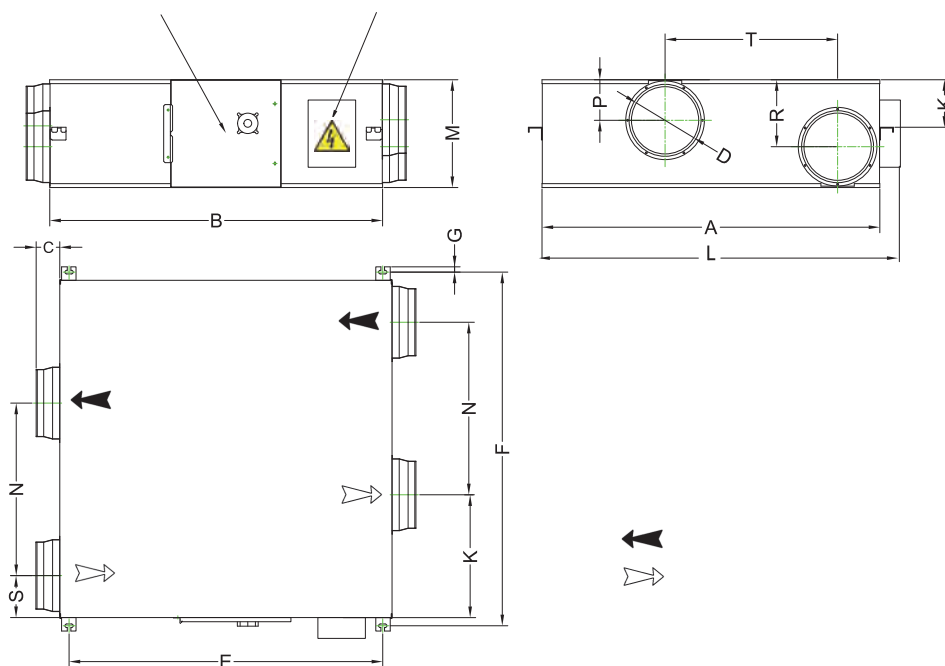
(2) Sound pressure level assessed at 1m from suction / discharge ports and the inspection side at nominal conditions in free field.

(3) Recovery air 20 °C 50%; External air 5 °C 80%.

(4) Recovery air 26 °C 50%; External air 34 °C 50%.

(5) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

## DIMENSIONS AND WEIGHTS



| Model   | Dimension / [mm] |      |     |     |      |      |    |      |     |     |     |     |     |     |     |     | Net weight / Gross weight [kg] |
|---------|------------------|------|-----|-----|------|------|----|------|-----|-----|-----|-----|-----|-----|-----|-----|--------------------------------|
|         | A                | B    | C   | D   | E    | F    | G  | L    | T   | K   | M   | N   | P   | R   | S   | Y   |                                |
| TRS252  | 599              | 814  | 100 | 150 | 675  | 657  | 19 | 650  | 315 | 111 | 270 | 315 | 111 | 111 | 142 | 142 | 30/33                          |
| TRS352  | 804              | 814  | 100 | 150 | 675  | 862  | 19 | 855  | 480 | 111 | 270 | 480 | 111 | 111 | 162 | 162 | 37/41                          |
| TRS502  | 904              | 894  | 107 | 200 | 754  | 960  | 19 | 955  | 500 | 135 | 270 | 500 | 135 | 135 | 202 | 202 | 43/47                          |
| TRS652  | 884              | 1186 | 85  | 250 | 1115 | 940  | 19 | 945  | 428 | 170 | 388 | 428 | 170 | 170 | 228 | 228 | 65/70                          |
| TRS802  | 1134             | 1186 | 85  | 250 | 1115 | 1190 | 19 | 1200 | 678 | 170 | 388 | 678 | 170 | 170 | 228 | 228 | 71/76                          |
| TRS1002 | 1216             | 1199 | 85  | 250 | 1130 | 1273 | 19 | 1290 | 621 | 171 | 388 | 621 | 146 | 241 | 151 | 442 | 83/88                          |
| TRS1302 | 1216             | 1199 | 85  | 250 | 1130 | 1273 | 19 | 1290 | 621 | 171 | 388 | 621 | 146 | 241 | 151 | 442 | 83/88                          |

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Tel. 0442633111 - Telefax 044293577  
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# RPLI

## Counter-current flow heat recovery unit with inverter motor

- Compact dimensions
- EC fan Plug-fan
- Versions with water coil or electric for the post-heating
- Horizontal installation



### DESCRIPTION

The RPLI heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.

It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.

The unit is equipped with a counter-current heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air.

They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

### VERSIONS

#### Horizontal installation:

RPLI (L o P): L low, P high, useful static pressure

RPLI\_E: With electric heating coil.

**RPLI\_W: With water coil: Cooled / hot**

#### Also to be used with cooled water:

- For sizes 030-100 in flow orientation 1 (°);
- Sizes 070-100 with flow orientation 2 (X), **in this configuration, the coil is not available for sizes 030-050;**

#### The following can only be used with hot water:

- **Sizes 140-400 with any type of flow configuration (° and X).**

### FEATURES

- Plug-fan radial fan with EC motors;
- **Aluminium plate counter-current flow heat recovery unit with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin;**
- **Ventilation by-pass of the external air flow equipped with internal damper, with free cooling and even anti-freeze function;**
- **Synthetic filter class M5 according to EN779 placed on the expelled air intake;**
- **Synthetic filter class F7 according to EN779 placed on the external air inlet;**
- Filters fouling pressure switches assembled;
- Self-supporting sandwich panels in galvanised sheet metal with injected polyurethane insulation density 45 kg/m<sup>3</sup> and a thickness of 25 mm.

The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1;

- Condensate collection basin in galvanised steel;
- Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400;
- Accessible filters, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400;
- The fan can be controlled with a 0-10 Vdc controller, RVC or RVCL accessory.

### ACCESSORIES

#### Regulation

**HRB:** Electrical panel (IP56) to be installed outside the heat recovery unit. It is formed of a plastic electric box 300x220x120. It houses an electronic board for controlling the loads, 4 NTC temperature probes (6m long), a 4-pole serial cable + shield for connecting the control card to the user interface of the system, and an interface panel. Via the configuration of 10 DIP switches, the electronic board in the kit can control: an electric heater for pre-warming the air taken in from the room; up to 2 electric heaters (with cascade management) for the post-treatment of the fresh air delivered back into the room; a component for air purification (e.g. UV lamp, Plasmacluster, etc.).

**RVC:** Speed regulator supplied in n°2 pieces.

#### Additional modules

**M4F:** External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.

**MBF:** External module with water cooling coil and condensate collection basin (only for sizes 140-400).

**MBF\_X:** External module with water cooling coil and condensate collection basin (only for sizes 140X-400X).

**MBP:** Module with post-heating water coil.

**MBE:** Module with electric coil (anti-freeze and/or post-heating function).

**MSU:** Module equipped with silencer baffles. The accessory is supplied in n°1 piece.

**FGC:** Circular flanges. The accessory is supplied in n°1 piece.

### Adjustment accessories

**TWWV050:** 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 1.0 DN15.

**TWWV100:** 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 2.5 DN15.

**TWWV400:** 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 6.3 DN20.

**TF100:** DN15 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.

**TF400:** DN20 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.

**TWWVA:** Actuator for 3-way valve 24V, for receiving ON-OFF or modulating commands (0-10V), for correct operation provide the VMF-MOD accessory.

**FCDA:** Servomotor for free cooling damper.

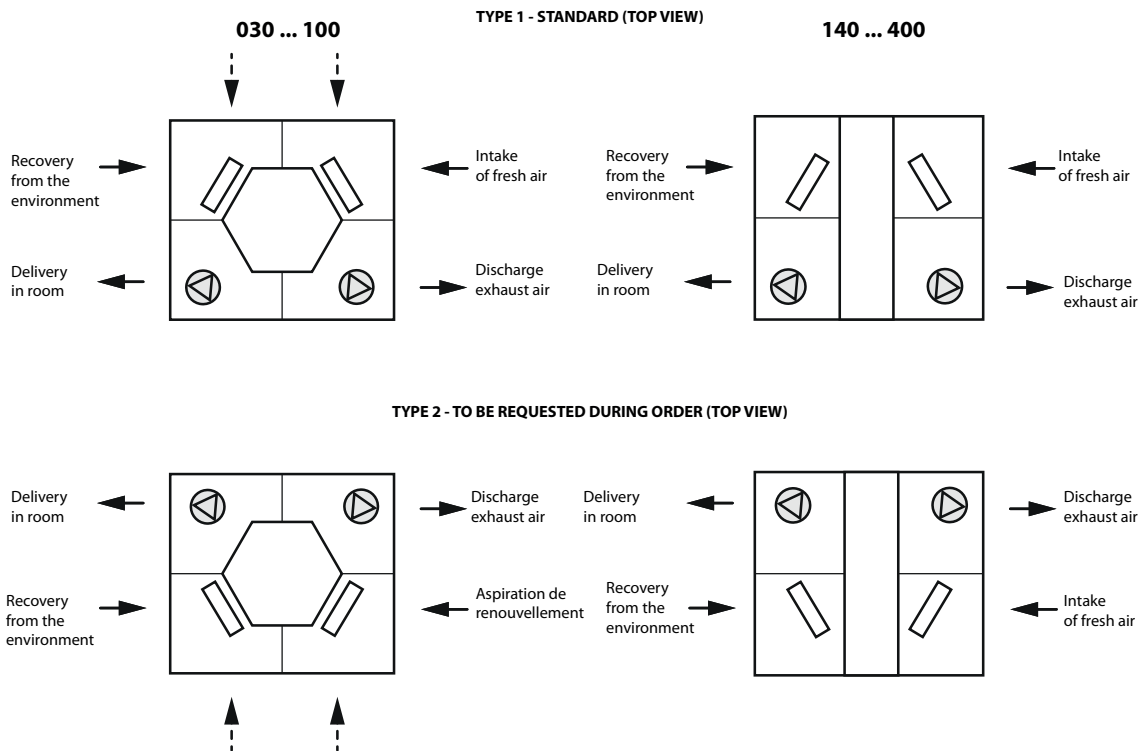
### CONFIGURATOR

| Field   | Description                                    |
|---------|--|
| 1,2,3,4 | RPLI   |
| 5,6,7   | Size<br>030, 050, 070, 100, 140, 200, 300, 400 |
| 8       | Version  |
| L       | Low useful static pressure                     |
| P       | High useful static pressure                    |
| 9       | Installation                                   |
| °       | Horizontal                                     |
| 10      | Flow orientation                               |
| X       | Type 2   |
| °       | Type 1   |
| 11      | Exchanger                                      |
| E       | Post-heating electric internal coil            |
| W       | Water coil (1)                                 |
| °       | No internal coil                               |

(1) Can also be used with chilled water: with sizes 030-100 in flow orientation 1 (°), 070-100 in flow orientation 2 (X); the coil is not available for sizes 030-050 with flow orientation 2 (X). Sizes 140-400 can only

be used with hot water.

### AVAILABLE ORIENTATION



## ACCESSORIES COMPATIBILITY

### Regulation

#### Regulation and control panel (outside the heat recovery unit)

| Ver  | 030 | 050 | 070 | 100 | 140 | 200 | 300 | 400 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|
| L, P | HRB | HRB | HRB | HRB | HRB | HRB | HRB | HRB |

#### Speed regulator

| Ver | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| L   | RVC40 | RVCL  | RVCL  | RVC40 | RVCL  | RVC40 | RVC40 | RVC40 |
| P   | RVC40 | RVC40 | RVC40 | RVC40 | RVC40 | RVC40 | RVC40 | RVC40 |

### Additional modules

#### External module equipped with pre-filters

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | M4F03 | M4F05 | M4F07 | M4F10 | M4F14 | M4F20 | M4F30 | M4F40 |

#### External module with water cooling coil

| Ver  | 030 | 050 | 070 | 100 | 140   | 200   | 300   | 400   |
|------|-----|-----|-----|-----|-------|-------|-------|-------|
| L, P | -   | -   | -   | -   | MBF14 | MBF20 | MBF30 | MBF40 |

The accessory cannot be fitted on the configurations indicated with -

| Ver  | 030 | 050 | 070 | 100 | 140    | 200    | 300    | 400    |
|------|-----|-----|-----|-----|--------|--------|--------|--------|
| L, P | -   | -   | -   | -   | MBF14X | MBF20X | MBF30X | MBF40X |

The accessory cannot be fitted on the configurations indicated with -

#### 3 way valve kit

| Accessory | MBF14 | MBF14X | MBF20 | MBF20X | MBF30 | MBF30X | MBF40 | MBF40X |
|-----------|-------|--------|-------|--------|-------|--------|-------|--------|
| TWWV020   | *     | *      | *     | *      |       |        |       |        |
| TWWV400   |       |        |       |        | *     | *      | *     | *      |

#### Threaded coupling

| Accessory | MBF14 | MBF14X | MBF20 | MBF20X | MBF30 | MBF30X | MBF40 | MBF40X |
|-----------|-------|--------|-------|--------|-------|--------|-------|--------|
| TF100     | *     | *      | *     | *      |       |        |       |        |
| TF400     |       |        |       |        | *     | *      | *     | *      |

#### Actuator for valves

| Accessory | MBF14 | MBF14X | MBF20 | MBF20X | MBF30 | MBF30X | MBF40 | MBF40X |
|-----------|-------|--------|-------|--------|-------|--------|-------|--------|
| TWWVA     | *     | *      | *     | *      | *     | *      | *     | *      |

#### Module with post-heating water coil.

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | MBP03 | MBP05 | MBP07 | MBP10 | MBP14 | MBP20 | MBP30 | MBP40 |

#### Module with electric coil

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | MBE03 | MBE05 | MBE07 | MBE10 | MBE14 | MBE20 | MBE30 | MBE40 |

#### Module equipped with silencer baffles

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | MSU03 | MSU05 | MSU07 | MSU10 | MSU14 | MSU20 | MSU30 | MSU40 |

#### Circular flanges

| Ver  | 030    | 050    | 070    | 100    | 140    | 200    | 300    | 400    |
|------|--------|--------|--------|--------|--------|--------|--------|--------|
| L, P | FGC030 | FGC050 | FGC070 | FGC100 | FGC140 | FGC200 | FGC300 | FGC400 |

### Accessories

#### 3 way valve kit

| Ver  | 030     | 050     | 070     | 100     | 140     | 200     | 300     | 400     |
|------|---------|---------|---------|---------|---------|---------|---------|---------|
| L, P | TWWV050 | TWWV050 | TWWV100 | TWWV100 | TWWV400 | TWWV400 | TWWV400 | TWWV400 |

#### Threaded coupling

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | TF100 | TF100 | TF100 | TF100 | TF400 | TF400 | TF400 | TF400 |

#### Actuator for 3-way valves

| Ver  | 030   | 050   | 070   | 100   | 140   | 200   | 300   | 400   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|
| L, P | TWWVA | TWWVA | TWWVA | TWWVA | TWWVA | TWWVA | TWWVA | TWWVA |

#### Free cooling damper actuator

| Ver  | 030  | 050  | 070  | 100  | 140  | 200  | 300  | 400  |
|------|------|------|------|------|------|------|------|------|
| L, P | FCDA | FCDA | FCDA | FCDA | FCDA | FCDA | FCDA | FCDA |

## PERFORMANCE SPECIFICATIONS

### RPLI - L

| Size   |          | 030                                     | 050       | 070       | 100       | 140       | 200       | 300       | 400         |
|--|----------|---|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| <b>Heat recovery unit</b>  |          |   |           |           |           |           |           |           |             |
| Power supply   |          | 230V~50Hz                               | 230V~50Hz | 230V~50Hz | 230V~50Hz | 230V~50Hz | 230V~50Hz | 230V~50Hz | 400V 3~50Hz |
| Unit type  |          | UVNR (non-residential ventilation unit) |           |           |           |           |           |           |             |
| Heat recovery system type  | Type/n°  | Static at counter-current flow / 1      |           |           |           |           |           |           |             |
| Heat capacity recovered (EN308) (1)  | kW       | 1,6                                     | 2,4       | 3,6       | 4,8       | 7,1       | 10,0      | 14,9      | 19,7        |
| Dry heating efficiency (2)   | %        | 81,1                                    | 78,1      | 76,8      | 75,3      | 76,0      | 76,3      | 75,5      | 75,6        |
| <b>Information in compliance with Annex V of regulation EU no. 1253/2014</b> |          |   |           |           |           |           |           |           |             |
| Nominal air flow rate supply / recovery                                      | m³/s     | 0,08                                    | 0,13      | 0,19      | 0,26      | 0,39      | 0,54      | 0,82      | 1,08        |
| Nominal air flow rate supply / recovery                                      | m³/h     | 300                                     | 450       | 700       | 950       | 1400      | 1950      | 2950      | 3900        |
| Minimum air flow rate  | m³/h     | 200                                     | 250       | 400       | 550       | 800       | 1150      | 1750      | 2350        |
| <b>Fans (3)</b>  |          |   |           |           |           |           |           |           |             |
| Commissioning  | type     | Analogue signal of EC fan (0-10Vdc)     |           |           |           |           |           |           |             |
| Type   | type     | EC                                      |           |           |           |           |           |           |             |
| Number   | no.      | 2                                       | 2         | 2         | 2         | 4         | 2         | 2         | 2           |
| Supplied electrical power consumption  | kW       | 0,07                                    | 0,09      | 0,14      | 0,21      | 0,33      | 0,45      | 0,47      | 0,73        |
| Recovered electrical power consumption                                       | kW       | 0,06                                    | 0,09      | 0,14      | 0,20      | 0,31      | 0,41      | 0,44      | 0,69        |
| Total input electric power   | kW       | 0,13                                    | 0,17      | 0,28      | 0,41      | 0,64      | 0,86      | 0,91      | 1,42        |
| SFP int.   | W/(m³/s) | 820,00                                  | 953,00    | 907,00    | 1120,00   | 1132,00   | 1103,00   | 748,00    | 928,00      |
| SFP int. lim. 2018   | W/(m³/s) | 1329                                    | 1234      | 1185      | 1131      | 1132      | 1118      | 1053      | 1015        |
| Filters face velocity  | m/s      | 0,8                                     | 1,2       | 1,0       | 1,4       | 2,2       | 2,2       | 1,9       | 2,5         |
| Nominal external pressure Δp (3)   | Pa       | 100                                     | 100       | 110       | 110       | 110       | 110       | 110       | 110         |
| Useful static supply pressure  | Pa       | 323                                     | 401       | 191       | 143       | 112       | 110       | 132       | 196         |
| Useful static recovery pressure  | Pa       | 328                                     | 416       | 198       | 161       | 154       | 149       | 164       | 242         |
| Supplied internal pressure drop Δps int.                                     | Pa       | 115                                     | 228       | 189       | 293       | 268       | 270       | 245       | 290         |
| Recovered internal pressure drop Δps int.                                    | Pa       | 110                                     | 213       | 182       | 274       | 228       | 230       | 213       | 244         |
| Fans static efficiency (4)   | %        | 35.8%                                   | 57.0%     | 57.0%     | 59.7%     | 57.0%     | 49.2%     | 67.2%     | 66.9%       |
| Internal leakage (5)   | %        | 3.9%                                    | 3.9%      | 3.9%      | 3.9%      | 3.9%      | 3.9%      | 3.9%      | 3.9%        |
| External leakage   | %        | <3%                                     | <3%       | <3%       | <3%       | <3%       | <3%       | <3%       | <3%         |
| <b>Air filter</b>  |          |   |           |           |           |           |           |           |             |
| Expelled air filter  | Type/n°  | M5/1                                    |           |           |           |           |           |           |             |
| Delivery air filter  | Type/n°  | F7/1                                    |           |           |           |           |           |           |             |
| Delivery filter energy classification  |          | On request                              |           |           |           |           |           |           |             |
| Recovery filter energy classification  |          | On request                              |           |           |           |           |           |           |             |

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.

(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

(3) Performances referring to clean filters

(4) According to regulation EU 327/2011

(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

**RPLI - P**

| Size   |          | 030                                     | 050       | 070       | 100       | 140       | 200       | 300         | 400         |
|--|----------|---|-----------|-----------|-----------|-----------|-----------|-------------|-------------|
| <b>Heat recovery unit</b>  |          |   |           |           |           |           |           |             |             |
| Power supply   |          | 230V~50Hz                               | 230V~50Hz | 230V~50Hz | 230V~50Hz | 230V~50Hz | 230V~50Hz | 400V 3~50Hz | 400V 3~50Hz |
| Unit type  |          | UVNR (non-residential ventilation unit) |           |           |           |           |           |             |             |
| Heat recovery system type  | Type/n°  | Static at counter-current flow / 1      |           |           |           |           |           |             |             |
| Heat capacity recovered (EN308) (1)  | kW       | 1,6                                     | 2,4       | 3,6       | 4,8       | 7,1       | 10,0      | 14,9        | 19,7        |
| Dry heating efficiency (2)   | %        | 81,1                                    | 78,1      | 76,8      | 75,3      | 76,0      | 76,3      | 75,5        | 75,6        |
| <b>Information in compliance with Annex V of regulation EU no. 1253/2014</b> |          |   |           |           |           |           |           |             |             |
| Nominal air flow rate supply / recovery                                      | m³/s     | 0,08                                    | 0,13      | 0,19      | 0,26      | 0,39      | 0,54      | 0,82        | 1,08        |
| Nominal air flow rate supply / recovery                                      | m³/h     | 300                                     | 450       | 700       | 950       | 1400      | 1950      | 2950        | 3900        |
| Minimum air flow rate  | m³/h     | 200                                     | 250       | 400       | 550       | 800       | 1150      | 1750        | 2300        |
| <b>Fans (3)</b>  |          |   |           |           |           |           |           |             |             |
| Commissioning  | type     | Analogue signal of EC fan (0-10Vdc)     |           |           |           |           |           |             |             |
| Type   | type     | EC                                      |           |           |           |           |           |             |             |
| Number   | no.      | 2                                       | 2         | 2         | 2         | 2         | 4         | 4           | 2           |
| Supplied electrical power consumption  | kW       | 0,04                                    | 0,08      | 0,11      | 0,22      | 0,35      | 0,41      | 0,55        | 0,87        |
| Recovered electrical power consumption                                       | kW       | 0,04                                    | 0,08      | 0,11      | 0,21      | 0,33      | 0,38      | 0,50        | 0,82        |
| Total input electric power   | kW       | 0,09                                    | 0,16      | 0,23      | 0,42      | 0,68      | 0,79      | 1,04        | 1,69        |
| SFP int.   | W/(m³/s) | 543,00                                  | 903,00    | 694,00    | 1116,00   | 1095,00   | 918,00    | 770,00      | 999,00      |
| SFP int. lim. 2018   | W/(m³/s) | 1329                                    | 1234      | 1185      | 1131      | 1132      | 1118      | 1053        | 1015        |
| Filters face velocity  | m/s      | 0,8                                     | 1,2       | 1,0       | 1,4       | 2,2       | 2,2       | 1,9         | 2,5         |
| Nominal external pressure Δp (3)   | Pa       | 100                                     | 100       | 125       | 125       | 145       | 145       | 150         | 150         |
| Useful static supply pressure  | Pa       | 506                                     | 338       | 279       | 638       | 412       | 469       | 462         | 303         |
| Useful static recovery pressure  | Pa       | 511                                     | 353       | 285       | 656       | 452       | 509       | 493         | 349         |
| Supplied internal pressure drop Δps int.                                     | Pa       | 115                                     | 228       | 189       | 293       | 268       | 270       | 245         | 290         |
| Recovered internal pressure drop Δps int.                                    | Pa       | 110                                     | 213       | 182       | 274       | 228       | 230       | 213         | 244         |
| Fans static efficiency (4)   | %        | 61,7                                    | 61,7      | 61,7      | 57,2      | 57,2      | 61,8      | 66,9        | 62,7        |
| Internal leakage (5)   | %        | 3.9%                                    | 3.9%      | 3.9%      | 3.9%      | 3.9%      | 3.9%      | 3.9%        | 3.9%        |
| External leakage   | %        | <3%                                     | <3%       | <3%       | <3%       | <3%       | <3%       | <3%         | <3%         |
| <b>Air filter</b>  |          |   |           |           |           |           |           |             |             |
| Expelled air filter  | Type/n°  | M5/1                                    |           |           |           |           |           |             |             |
| Delivery air filter  | Type/n°  | F7/1                                    |           |           |           |           |           |             |             |
| Delivery filter energy classification  |          | On request                              |           |           |           |           |           |             |             |
| Recovery filter energy classification  |          | On request                              |           |           |           |           |           |             |             |

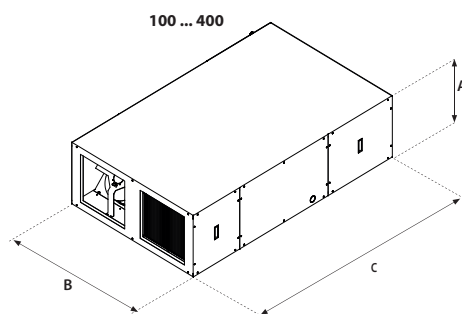
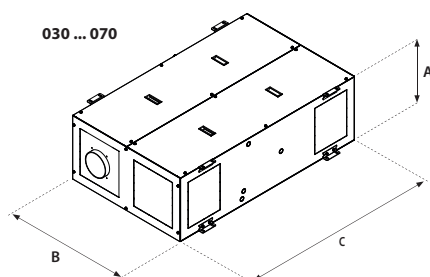
(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.

(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

(3) Performances referring to clean filters

(4) According to regulation EU 327/2011

(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

**DIMENSIONS AND WEIGHTS**

| Size                          |    | 030  | 050  | 070  | 100  | 140  | 200  | 300  | 400  |
|-------------------------------|----|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |      |      |      |      |      |      |      |      |
| A                             | mm | 400  | 400  | 435  | 435  | 460  | 460  | 600  | 600  |
| B                             | mm | 800  | 800  | 945  | 945  | 1100 | 1600 | 1700 | 2050 |
| C                             | mm | 1300 | 1300 | 1600 | 1600 | 1800 | 1800 | 2350 | 2350 |
| Empty weight                  | kg | 95   | 93   | 125  | 123  | 160  | 210  | 287  | 340  |

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

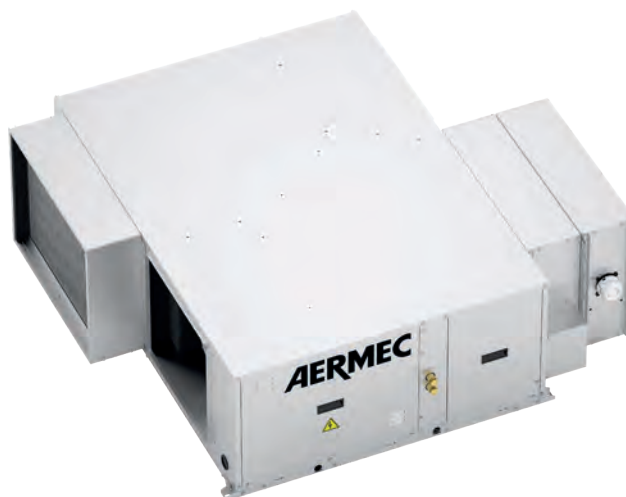


# RTD

## Thermodynamic recovery unit with integrated heat pump

Air flow rate 1100 - 3200 m<sup>3</sup>/h

- Compact dimensions
- Compressor with inverter
- EC fan Plug-fan
- Fixed point adjustment in delivery
- Horizontal installation



### DESCRIPTION

Is an air replacement, filtration and treatment unit equipped with high efficiency thermodynamic recovery performed by an integrated cooling circuit. The inverter compressor allows a high energy saving at the same time as maintaining the set delivery temperature. The unit can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

### FEATURES

#### Versions

##### Horizontal installation:

- **RTD:** Standard unit with constant flow-rate control.
- **RTD\_Q:** Units with flow modulation according to the concentration of CO<sub>2</sub>
- **RTD\_W:** Unit with internal hot/cold water coil complete with three-way valve, modulating servo-control and anti-freeze thermostat.

#### Main components

- Cooling circuit **BLDC inverter compressor**.
- Plug fans with EC inverter motor.
- Safety valve.
- Lower sandwich panels in galvanised sheet metal with injected polyurethane insulation; upper and side panel in galvanised sheet metal internally lined with insulating mat
- Synthetic filter class Coarse 85% according to EN16890 on the outside air inlet complete with fouling detection pressure switch.

- Condensate collection tank in aluminium alloy with side discharge.

### Regulation

- **Power and control electrical panel** on the machine.
- Programmable controller able to manage all the advanced functions present on the unit (with fixed point adjustment in delivery; cooling, heating, automatic, free cooling functions; compressor, fans and eventual water coil modulation).
- **Remote panel (mandatory accessory)** in graphic display version or Touch version.

### ACCESSORIES

**CPVR:** Recovery fan constant air flow rate control (accessory supplied separately; the function is enabled on the controller).

**PRGD1:** Control panel for wall or flush-mount installation with graphic display. Maximum installation distance of 10m.

**PRGDX:** Touch screen control panel for wall or flush-mount installation complete with black and white frame. Maximum installation distance of 150m.

**MRE:** Single-stage anti-freeze electric heater module 2 kW to be installed on the external air intake (required for outdoor air temperatures below -5° C).

**MF:** Coarse 85% efficiency filters module (EN16890) to be positioned in recovery (side extraction) complete with filter clogging pressure switch.

■ *The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDX.*

## ACCESSORIES COMPATIBILITY

### Recovery fan constant air flow rate control and xontrol panel

| Model     | Ver     | 11 | 14 | 17 | 21 | 26 | 32 |
|-----------|---------|----|----|----|----|----|----|
| CPVR (1)  | „Q,QW,W | •  | •  | •  | •  | •  | •  |
| PRGD1 (2) | „Q,QW,W | •  | •  | •  | •  | •  | •  |
| PRGDx     | „Q,QW,W | •  | •  | •  | •  | •  | •  |

(1) Accessory supplied separately.

(2) The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDx.

### Anti-freeze electric heater module

| Model | Ver     | 11 | 14 | 17 | 21 | 26 | 32 |
|-------|---------|----|----|----|----|----|----|
| MRE2M | „Q,QW,W | •  | •  |    |    |    |    |
| MRE3M | „Q,QW,W |    |    | •  |    |    |    |
| MRE3T | „Q,QW,W |    |    |    | •  |    |    |
| MREST | „Q,QW,W |    |    |    |    | •  | •  |

### Coarse 85% efficiency filters module (EN16890)

| Model | Ver     | 11 | 14 | 17 | 21 | 26 | 32 |
|-------|---------|----|----|----|----|----|----|
| MF5R1 | „Q,QW,W | •  | •  |    |    |    |    |
| MF5R2 | „Q,QW,W |    |    | •  | •  |    |    |
| MF5R3 | „Q,QW,W |    |    |    |    | •  | •  |
| MF7M1 | „Q,QW,W | •  | •  |    |    |    |    |
| MF7M2 | „Q,QW,W |    |    | •  | •  |    |    |
| MF7M3 | „Q,QW,W |    |    |    |    | •  | •  |

## CONFIGURATOR

| Field        | Description                           |
|--------------|---------------------------------------|
| <b>1,2,3</b> | <b>RTD</b>                            |
| <b>4,5</b>   | <b>Size</b><br>11, 14, 17, 21, 26, 32 |
| <b>6</b>     | <b>Ventilation control type</b>       |
| Q            | Control via air quality probe         |
| °            | Constant flow (standard unit)         |
| <b>7</b>     | <b>Internal hot/cold water coil</b>   |
| W            | Internal water coil                   |
| °            | No coil (standard unit)               |

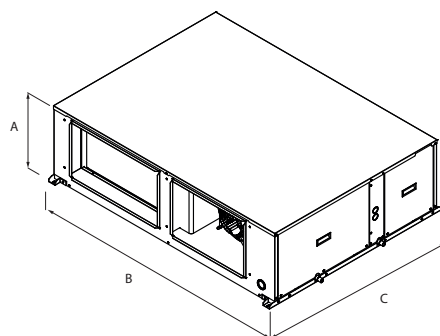
## PERFORMANCE SPECIFICATIONS

|  |                   | RTD11              | RTD14              | RTD17              | RTD21              | RTD26              | RTD32              |
|--|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Air flow rates</b>  |                   |                    |                    |                    |                    |                    |                    |
| Nominal air flow rate  | m <sup>3</sup> /h | 1100               | 1400               | 1700               | 2100               | 2600               | 3200               |
| Minimum air flow rate  | m <sup>3</sup> /h | 950                | 1200               | 1450               | 1800               | 2200               | 2700               |
| Maximum air flow rate  | m <sup>3</sup> /h | 1200               | 1550               | 1850               | 2300               | 2850               | 3500               |
| <b>Delivery fan</b>  |                   |                    |                    |                    |                    |                    |                    |
| Type   | type              | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           |
| Fan motor  | type              | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors |
| Number   | no.               | 1                  | 1                  | 1                  | 1                  | 1                  | 1                  |
| Nominal useful head  | Pa                | 150                | 150                | 150                | 150                | 150                | 150                |
| Maximum useful head  | Pa                | 510                | 580                | 520                | 360                | 570                | 380                |
| Cooling input power  | kW                | 0,19               | 0,20               | 0,23               | 0,32               | 0,43               | 0,62               |
| Heating input power  | kW                | 0,18               | 0,18               | 0,22               | 0,30               | 0,39               | 0,56               |
| <b>Expulsion fan</b>   |                   |                    |                    |                    |                    |                    |                    |
| Type   | type              | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           | Plug-fan           |
| Fan motor  | type              | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors | EC Inverter motors |
| Number   | no.               | 1                  | 1                  | 1                  | 1                  | 1                  | 1                  |
| Nominal useful head  | Pa                | 150                | 150                | 150                | 150                | 150                | 150                |
| Maximum useful head  | Pa                | 530                | 600                | 520                | 370                | 590                | 400                |
| Cooling input power  | kW                | 0,17               | 0,16               | 0,19               | 0,27               | 0,33               | 0,46               |
| Heating input power  | kW                | 0,18               | 0,18               | 0,22               | 0,31               | 0,39               | 0,54               |
| <b>Performance in cooling mode at maximum compressor speed (1)</b> |                   |                    |                    |                    |                    |                    |                    |
| Cooling capacity   | kW                | 6,70               | 8,00               | 8,80               | 11,20              | 14,10              | 16,30              |
| Sensible cooling capacity  | kW                | 5,70               | 6,80               | 7,80               | 9,80               | 12,10              | 13,80              |
| Compressors absorbed power   | kW                | 1,80               | 2,20               | 2,30               | 3,20               | 4,00               | 4,50               |
| Total input power EN14511 2017                                     | kW                | 2,09               | 2,43               | 2,58               | 3,55               | 4,48               | 5,15               |
| EER EN14511:2017   | W/W               | 3,20               | 3,30               | 3,42               | 3,16               | 3,14               | 3,16               |
| EER  | W/W               | 3,11               | 3,15               | 3,24               | 2,96               | 2,95               | 2,92               |
| <b>Performance in heating mode at maximum compressor speed</b>     |                   |                    |                    |                    |                    |                    |                    |
| Heating capacity   | kW                | 7,70               | 9,30               | 10,60              | 13,80              | 16,90              | 20,00              |
| Compressors absorbed power   | kW                | 1,60               | 2,00               | 2,20               | 2,90               | 3,30               | 4,10               |
| COP refrigerant circuit  | W/W               | 4,83               | 4,64               | 4,82               | 4,74               | 5,12               | 4,87               |
| COP EN14511:2017 (2)   | W/W               | 4,07               | 4,13               | 4,26               | 4,20               | 4,45               | 4,18               |
| COP  | W/W               | 3,94               | 3,92               | 4,02               | 3,91               | 4,15               | 3,84               |
| Total input power EN14511 2017                                     | kW                | 1,90               | 2,20               | 2,50               | 3,30               | 3,80               | 4,80               |
| Total input power  | kW                | 2,00               | 2,40               | 2,60               | 3,50               | 4,10               | 5,20               |
| <b>Compressor</b>  |                   |                    |                    |                    |                    |                    |                    |
| Type   | type              | Twin-rotary BLDC   | Twin-rotary BLDC   | Twin-rotary BLDC   | Twin-rotary BLDC   | Twin-rotary BLDC   | Twin-rotary BLDC   |
| Compressor regulation  | Type              | Inverter           | Inverter           | Inverter           | Inverter           | Inverter           | Inverter           |
| Number   | no.               | 1                  | 1                  | 1                  | 1                  | 1                  | 1                  |
| Refrigerant  | type              | R410A              | R410A              | R410A              | R410A              | R410A              | R410A              |
| <b>Electric data</b>   |                   |                    |                    |                    |                    |                    |                    |
| Input power at full load   | kW                | 4,30               | 4,50               | 4,50               | 5,30               | 6,10               | 6,10               |
| Input current at full load   | A                 | 14,40              | 13,80              | 13,80              | 17,90              | 16,90              | 16,90              |
| <b>Power supply</b>  |                   |                    |                    |                    |                    |                    |                    |
| Power supply   |                   | 230V 50Hz          | 230V 50Hz          | 230V 50Hz          | 400V 3N 50Hz       | 400V 3N 50Hz       | 400V 3N 50Hz       |

(1) Cooling mode: aire temperature 35°C Tbs / 24 °C Tbh ; ambient air 27°C Tbs /19°C Tbh .

(2) Heating mode: aire temperature 7°C Tbs / 6°C Tbh ; ambient air 20°C Tbs /15°C Tbh.

## DIMENSIONS



| Size                          |         |    | 11   | 14   | 17   | 21   | 26   | 32   |
|-------------------------------|---------|----|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |         |    |      |      |      |      |      |      |
| A                             | „Q,QW,W | mm | 430  | 430  | 530  | 530  | 630  | 630  |
| B                             | „Q,QW,W | mm | 1508 | 1508 | 1508 | 1508 | 1508 | 1508 |
| C                             | „Q,QW,W | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight                  | .       | kg | 133  | 135  | 148  | 160  | 179  | 179  |
|                               | Q       | kg | 135  | 137  | 150  | 162  | 181  | 181  |
|                               | QW      | kg | 135  | 142  | 161  | 172  | 197  | 197  |
|                               | W       | kg | 140  | 142  | 159  | 170  | 195  | 195  |
| Weight functioning            | .       | kg | 133  | 135  | 148  | 160  | 179  | 179  |
|                               | Q,QW,W  | kg | -    | -    | -    | -    | -    | -    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# RPF

## High performance heat recovery unit with cross-current recuperator

Air flow rate 790 - 4250 m<sup>3</sup>/h

- **Cross-current heat recovery with performances superior than 90%**
- **Plug fans coupled with ec brushless motors for energy costs reduction**



### DESCRIPTION

Heat recovery units RPF have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving.

It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.

The units RPF thanks to the cross-current heat recuperator permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.

**RPF could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.**

### CONFIGURATIONS

**O** Horizontal right supply

**P** Horizontal left supply

**V** Vertical right supply

**Z** Vertical left supply

Each of the different configurations could be further customized thanks to the choice of the accessories.

For further information, please refer to the technical documentation on the website.

### STRUCTURE

**The structure is formed by aluminium profiles with thermic cut, connected by nylon angles charged with glassfibre.**

The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with density 45 kg/m<sup>3</sup>. The expandent of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential).

The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986. Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

### Fans

Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.

### Air filters

Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow.

The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available. The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air.

**Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].**

### Heat recovery unit

**Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate.**

The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed. Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract.

It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

### REGULATION

Constituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position. The function of regulation are:

- Ventilation control (manual control of the standard fans speed);
- Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);

- Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation, ranges of time;
- Complete interfaceability with BMS systems.

### FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.

The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building.

For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

#### Very high ventilation efficiency

**Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.**

Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.

A particular adaptative logic permits to adjust the effective air capacity required from the system with more consequent advantages in terms of reduction of consumptions.

#### Maximum efficiencies

In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery.

The key-concept on which is based the RPF proposal are:

- Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
- Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for  $\text{m}^3/\text{h}$  of total processed capacity);
- High efficiency filtration and low pressure drops;
- Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
- Compactness of dimensions and logic of installation "plug and play".

#### Air quality in room

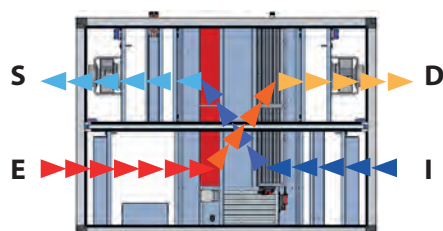
Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.

Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

### BASIC CONFIGURATION

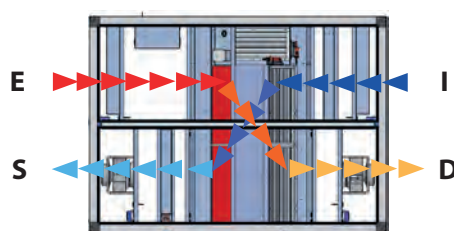
#### RPF O Horizontal configuration

Right supply (seen from above)



#### RPF P Horizontal configuration

Left supply (seen from above)



#### RPF V Vertical configuration

Right supply (seen from the accessible side)



#### RPF Z Vertical configuration

Left supply (seen from the accessible side)



D = Discharge  
I = Intake  
S = Supply  
E = Extract

## PERFORMANCE SPECIFICATIONS

|   |          | RPF008                                  | RPF010 | RPF013 | RPF020  | RPF031      | RPF042  |
|---|----------|---|--------|--------|---------|-------------|---------|
| Heat recovery unit  |          |   |        |        |         |             |         |
| Power supply  |          | 230V~50Hz                               |        |        |         | 400V 3~50Hz |         |
| Unit type   |          | UVNR (non-residential ventilation unit) |        |        |         |             |         |
| Heat recovery system type   | Type/n°  | Static at counter-current flow / 1      |        |        |         |             |         |
| Heat capacity recovered (EN308) (1)                                   | kW       | 4,2                                     | 5,4    | 7,0    | 10,7    | 16,6        | 22,8    |
| Dry heating efficiency (2)  | %        | 80,0                                    | 79,9   | 80,0   | 79,9    | 79,9        | 83,8    |
| Information in compliance with Annex V of regulation EU no. 1253/2014 |          |   |        |        |         |             |         |
| Nominal air flow rate supply / recovery                               | m³/s     | 0,22                                    | 0,28   | 0,36   | 0,56    | 0,86        | 1,18    |
| Nominal air flow rate supply / recovery                               | m³/h     | 790                                     | 1000   | 1300   | 2000    | 3100        | 4250    |
| Minimum air flow rate   | m³/h     | 200                                     | 200    | 400    | 1000    | 1000        | 1300    |
| Maximum air flow rate   | m³/h     | 980                                     | 1260   | 1530   | 2350    | 3700        | 4600    |
| Fans (3)  |          |   |        |        |         |             |         |
| Commissioning   | type     | Analogue signal of EC fan (0-10Vdc)     |        |        |         |             |         |
| Type  | type     | EC                                      |        |        |         |             |         |
| Number  | no.      | 2                                       | 2      | 2      | 2       | 2           | 2       |
| Supplied electrical power consumption                                 | kW       | 0,16                                    | 0,24   | 0,33   | 0,60    | 0,79        | 1,30    |
| Recovered electrical power consumption                                | kW       | 0,15                                    | 0,23   | 0,33   | 0,56    | 0,76        | 1,20    |
| Total input electric power  | kW       | 0,31                                    | 0,47   | 0,66   | 1,16    | 1,55        | 2,50    |
| Maximum input power   | kW       | 0,60                                    | 1,24   | 1,26   | 1,66    | 5,26        | 5,26    |
| Maximum input power   | A        | 4,6                                     | 7,5    | 7,5    | 9,3     | 11,1        | 11,1    |
| SFP int.  | W/(m³/s) | 625,00                                  | 667,00 | 743,00 | 1142,00 | 919,00      | 1211,00 |
| SFP int. lim. 2018  | W/(m³/s) | 1127                                    | 1118   | 1109   | 1227    | 1031        | 1253    |
| Filters face velocity   | m/s      | 1,8                                     | 2,0    | 1,8    | 2,2     | 2,2         | 2,1     |
| Nominal external pressure Δp (3)                                      | Pa       | 200                                     | 250    | 250    | 250     | 250         | 225     |
| Useful static supply pressure   | Pa       | 191                                     | 218    | 169    | 134     | 215         | 143     |
| Useful static recovery pressure                                       | Pa       | 196                                     | 233    | 175    | 152     | 255         | 184     |
| Supplied internal pressure drop Δps int.                              | Pa       | 174                                     | 198    | 219    | 319     | 304         | 372     |
| Recovered internal pressure drop Δps int.                             | Pa       | 176                                     | 189    | 227    | 355     | 293         | 379     |
| Fans static efficiency (4)  | %        | 61,7                                    | 57,2   | 57,2   | 61,8    | 66,9        | 62,7    |
| Internal leakage (5)  | %        | 0,3                                     | 0,3    | 0,3    | 0,1     | 0,3         | 0,2     |
| External leakage  | %        | < 3                                     | < 3    | < 3    | < 3     | < 3         | < 3     |
| Air filter  |          |   |        |        |         |             |         |
| Delivery filter energy classification                                 |          | B                                       |        |        |         |             |         |
| Recovery filter energy classification                                 |          | On request                              |        |        |         |             |         |

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.

(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

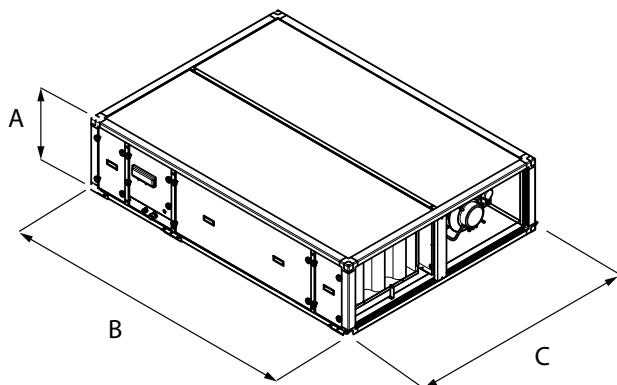
(3) Performances referring to clean filters

(4) According to regulation EU 327/2011

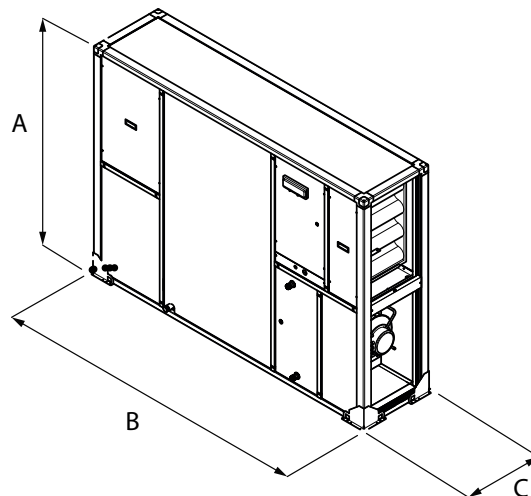
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

## DIMENSIONS

**RPF 008 - 031**  
Horizontal Installation



**RPF 008 - 042**  
Vertical Installation



| Size                          |     |    | 008  | 010  | 013  | 020  | 031  | 042  |
|-------------------------------|-----|----|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |     |    |      |      |      |      |      |      |
| A                             | O,P | mm | 450  | 450  | 524  | 560  | 700  | -    |
|                               | V,Z | mm | 1054 | 1258 | 1374 | 1694 | 1948 | 1550 |
| B                             | O,P | mm | 1915 | 1915 | 2174 | 2334 | 2654 | -    |
|                               | V,Z | mm | 1915 | 1915 | 2174 | 2334 | 2654 | 2974 |
| C                             | O,P | mm | 1054 | 1258 | 1374 | 1694 | 1948 | -    |
|                               | V,Z | mm | 450  | 450  | 524  | 560  | 700  | 1130 |
| Empty weight                  | O,P | kg | 194  | 220  | 264  | 328  | 452  | -    |
|                               | V,Z | kg | 194  | 220  | 264  | 328  | 452  | 585  |

■ The weights are standard configuration units without accessories.

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# URX-CF

## Heat recovery unit with refrigerant circuit

Air flow rate 750 - 3300 m<sup>3</sup>/h

- Heat pump cooling circuit with high yield and low noise scroll compressors.



### DESCRIPTION

The URX-CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.

**The URX-CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.**

The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A.

This allows for a complete machine, with autonomous operation during every season and able to provide both the required air renewal for rooms and an efficient heat recovery.

The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

### FEATURES

#### Panels

Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m<sup>3</sup>).

#### Heat recovery

Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

#### Air filters

Class G4, located before the heat recovery both in the supply and return air flow.

#### Fans

Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

#### Refrigerant circuit

Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight

glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

#### Accessibility

From below for the heat recovery, the filters, the condensate drain tray and the fans.

#### Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

- NTC return air temperature sensor;
- External air temperature sensor;
- Dampers and actuators in the free-cooling version;
- Pressure switch in the supply air filter;
- Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

## ACCESSORIES COMPATIBILITY

### Circular flanges

| Accessory | URX07CF | URX10CF | URX15CF | URX21CF |
|-----------|---------|---------|---------|---------|
| FGC07     | •       |         |         |         |
| FGC10     |         | •       |         |         |
| FGC15     |         |         | •       |         |
| FGC21     |         |         |         | •       |

### Hot water coil module

| Accessory | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|-----------|---------|---------|---------|---------|---------|
| MBC07     | •       |         |         |         |         |
| MBC10     |         | •       |         |         |         |
| MBC15     |         |         | •       |         |         |
| MBC21     |         |         |         | •       |         |
| MBC33     |         |         |         |         | •       |

### Free-cooling module

| Accessory | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|-----------|---------|---------|---------|---------|---------|
| FCE07     | •       |         |         |         |         |
| FCE10     |         | •       |         |         |         |
| FCE15     |         |         | •       |         |         |
| FCE21     |         |         |         | •       |         |
| FCE33     |         |         |         |         | •       |

### Module with electric coil

| Accessory | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|-----------|---------|---------|---------|---------|---------|
| MBX07     | •       |         |         |         |         |
| MBX10     |         | •       |         |         |         |
| MBX15     |         |         | •       |         |         |
| MBX21     |         |         |         | •       |         |
| MBX33     |         |         |         |         | •       |

### Module equipped with silencer baffles

| Accessory | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|-----------|---------|---------|---------|---------|---------|
| SUF07     | •       |         |         |         |         |
| SUF10     |         | •       |         |         |         |
| SUF15     |         |         | •       |         |         |
| SUF21     |         |         |         | •       |         |
| SUF33     |         |         |         |         | •       |

## PERFORMANCE SPECIFICATIONS

|  |      | URX07CF     | URX10CF     | URX15CF       | URX21CF       | URX33CF       |
|--|------|-------------|-------------|---------------|---------------|---------------|
| <b>Heat recovery unit</b>                                    |      |             |             |               |               |               |
| Power supply   |      | 230V~50Hz   | 230V~50Hz   | 400V~ 3N 50Hz | 400V~ 3N 50Hz | 400V~ 3N 50Hz |
| <b>Cooling performances (1)</b>                              |      |             |             |               |               |               |
| Total cooling capacity (heat recovery + refrigerant circuit) | kW   | 6,1         | 7,3         | 10,2          | 15,0          | 23,0          |
| Cooling capacity available                                   | kW   | 1,4         | 1,7         | 2,2           | 3,4           | 5,1           |
| Cooling capacity recovered                                   | kW   | 0,9         | 1,3         | 2,0           | 2,8           | 4,2           |
| Summer thermal efficiency                                    | %    | 46,2        | 51,2        | 53,2          | 53,6          | 53,6          |
| Total input power  | kW   | 2,60        | 2,80        | 3,80          | 5,00          | 6,90          |
| <b>Heating performances (2)</b>                              |      |             |             |               |               |               |
| Heating capacity total (heat recovery + refrigerant circuit) | kW   | 8,8         | 10,8        | 15,8          | 22,8          | 33,3          |
| Heating capacity available                                   | kW   | 2,4         | 2,3         | 3,0           | 4,8           | 5,2           |
| Recovered heating power                                      | kW   | 2,9         | 4,3         | 7,1           | 10,1          | 14,3          |
| Winter thermal efficiency                                    | %    | 46,2        | 51,2        | 53,2          | 53,6          | 53,6          |
| Total input power  | kW   | 2,00        | 2,00        | 3,30          | 4,00          | 5,50          |
| <b>Compressor</b>  |      |             |             |               |               |               |
| Type   | type | Scroll      | Scroll      | Scroll        | Scroll        | Scroll        |
| Compressor regulation  | Type | On-Off      | On-Off      | On-Off        | On-Off        | On-Off        |
| Number   | no.  | 1           | 1           | 1             | 1             | 1             |
| Refrigerant  | type | R410A       | R410A       | R410A         | R410A         | R410A         |
| Refrigerant charge (3)                                       | kg   | 2,4         | 2,9         | 3,0           | 3,7           | 4,5           |
| <b>Delivery fan</b>  |      |             |             |               |               |               |
| Type   | type | Centrifugal | Centrifugal | Centrifugal   | Centrifugal   | Centrifugal   |
| Number   | no.  | 1           | 1           | 1             | 1             | 1             |
| Nominal air flow rate  | m³/h | 750         | 1000        | 1500          | 2100          | 3300          |
| Minimum air flow rate  | m³/h | 640         | 850         | 1275          | 1785          | 2800          |
| High static pressure   | Pa   | 278         | 233         | 239           | 166           | 289           |
| Total fan input power  | kW   | 0,37        | 0,42        | 0,51          | 0,62          | 1,25          |
| Total fan input current                                      | A    | 2,4         | 2,4         | 3,6           | 3,6           | 6,6           |
| <b>Recovery fan</b>  |      |             |             |               |               |               |
| Type   | type | Centrifugal | Centrifugal | Centrifugal   | Centrifugal   | Centrifugal   |
| Number   | no.  | 1           | 1           | 1             | 1             | 1             |
| Nominal air flow rate  | m³/h | 750         | 1000        | 1500          | 2100          | 3300          |
| Minimum air flow rate  | m³/h | 640         | 850         | 1275          | 1785          | 2800          |
| High static pressure   | Pa   | 248         | 218         | 233           | 163           | 273           |
| Total fan input power  | kW   | 0,37        | 0,42        | 0,51          | 0,62          | 1,25          |
| Total fan input current                                      | A    | 2,4         | 2,4         | 3,6           | 3,6           | 6,6           |

(1) Recovery air 26 °C 50%; External air 34 °C 50%.

(2) Recovery air 20 °C 50%; External air 5 °C 80%.

(3) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

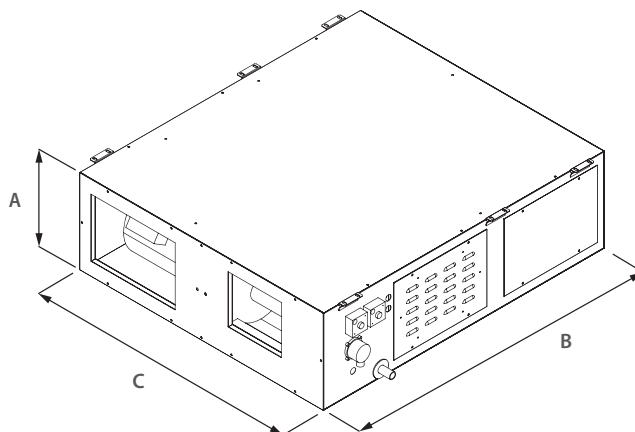
|   |     | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|---|-----|---------|---------|---------|---------|---------|
| <b>Hot water coil (accessory)</b>           |     |         |         |         |         |         |
| Row   | no. | 2       | 2       | 2       | 2       | 2       |
| Pressure drop - air side                    | Pa  | 11      | 18      | 23      | 42      | 78      |
| <b>Heating operations 70 °C / 60 °C (1)</b> |     |         |         |         |         |         |
| Heating capacity                            | kW  | 5,00    | 6,00    | 8,70    | 10,30   | 16,80   |
| Water flow rate                             | l/h | 442     | 523     | 763     | 902     | 1475    |
| Pressure drop                               | kPa | 16      | 22      | 9       | 12      | 31      |
| <b>Heating operations 45 °C / 40 °C (2)</b> |     |         |         |         |         |         |
| Heating capacity                            | kW  | 1,90    | 2,20    | 3,40    | 3,70    | 7,50    |
| Water flow rate                             | l/h | 336     | 382     | 584     | 638     | 1306    |
| Pressure drop                               | kPa | 11      | 14      | 6       | 7       | 28      |

(1) Water temperature (in/out) 70°C / 60°C; Compressor operating.

(2) Water temperature (in/out) 45°C / 40°C; Compressor operating.

|  |     | URX07CF | URX10CF | URX15CF       | URX21CF | URX33CF |
|--|-----|---------|---------|---------------|---------|---------|
| <b>Electric heating coil - (accessory)</b> |     |         |         |               |         |         |
| Power supply                               |     |         |         | 400V 3 ~ 50Hz |         |         |
| Stages                                     | no. | 1       | 1       | 1             | 1       | 1       |
| Heating capacity                           | kW  | 3,00    | 4,50    | 6,00          | 9,00    | 12,00   |
| Input current                              | A   | 4,6     | 6,8     | 11,4          | 17,2    | 26,0    |
| Pressure drop - air side                   | Pa  | 10      | 10      | 10            | 10      | 10      |

## DIMENSIONS



|                               |    | URX07CF | URX10CF | URX15CF | URX21CF | URX33CF |
|-------------------------------|----|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |
| A                             | mm | 450     | 450     | 550     | 550     | 600     |
| B                             | mm | 1300    | 1300    | 1500    | 1500    | 1600    |
| C                             | mm | 1500    | 1500    | 1800    | 1800    | 1800    |
| Empty weight                  | kg | 205     | 218     | 272     | 298     | 328     |

■ The weights are standard configuration units without accessories.

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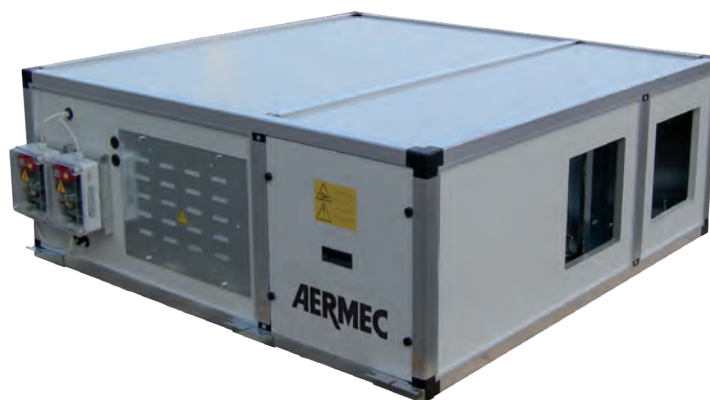
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# URHE-CF

## Heat recovery unit with refrigerant circuit

Air flow rate 1000 - 3300 m<sup>3</sup>/h

- Heat pump cooling circuit with high yield and low noise scroll compressors.
- High efficiency



### DESCRIPTION

The units of the series URHE-CF are a highly efficient solution for satisfying the requirements of thermohygrometric wellness and air changes in air conditioning systems that are used in civil and service sector environments such as offices, bars, restaurants, etc.

**The URHE-CF units are perfectly efficient machines in that they use a high performance plate cross flow heat recovery unit together with a heat pump refrigerant circuit operating with the R410A. refrigerant.**

The use of the high performance cross flow heat recovery unit allows you to substantially reduce the start-up period of the refrigerant circuit during the year, thereby minimizing electrical energy consumption.

The unit's small size makes it easy to install also in false ceilings, maintaining excellent accessibility for the upkeep of all its internal components.

The numerous accessories that are available upon request, like for example the compact high efficiency filters, the water coils or the silencers, complete the functions of the machine that is generally combined with an air conditioning system.

### FEATURES

#### Panels

Structure made of aluminium profiles with fibreglass reinforced nylon corners.

Sandwich panels, 25 mm thick, in galvanised sheet metal for the inner surface, pre-painted for the external surface with injected polyurethane insulation (density 42 kg/m<sup>3</sup>).

#### Heat recovery

Aluminium cross flow plates optimised to guarantee elevated performance.

### Air filters

Class G4, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

### Fans

Centrifugal fans with forward-curved blades with high pressure head motor directly attached. The air flow rate is kept constant by means of an electronic control device.

### Refrigerant circuit

Heat pump with R410A refrigerant, equipped with high performance, quiet rotary or scroll compressors (depending on the size), 4-way cycle inversion valves, evaporator coil, condenser coil, liquid receiver, thermostatic valve, liquid indicator, filter-drier, high pressure switch, low pressure switch, safety valve, bypass valve (for smaller sizes).

### Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

- NTC return air temperature sensor;
- External air temperature sensor;
- Dampers and actuators in the free-cooling version;
- Pressure switch in the supply air filter;
- Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

### ACCESSORIES COMPATIBILITY

#### Hot water coil module

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| MBCH1     | •        | •        | •        |          |
| MBCH2     |          |          |          | •        |

**Module with electric coil**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| MBCX1     | .        |          |          |          |
| MBCX2     |          | .        |          |          |
| MBCX3     |          |          | .        |          |
| MBCX4     |          |          |          | .        |

**F7 compact high efficiency filters.**

| Accessory | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|
| FCT1      | .        |          |          |
| FCT2      |          | .        |          |
| FCT3      |          |          | .        |

**Module equipped with silencer baffles.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| MSS1      | .        | .        | .        |          |
| MSS2      |          |          |          | .        |

**Free-cooling module**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| FGE1      | .        | .        | .        | .        |

**Base for floor installation.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| BIT1      | .        | .        |          |          |
| BIT2      |          |          | .        |          |
| BIT3      |          |          |          | .        |

**Base for floor installation of the additional modules.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| BIM1      | .        | .        | .        | .        |

**Roof for outdoor installation.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| TPE1      | .        | .        |          |          |
| TPE2      |          |          | .        |          |
| TPE3      |          |          |          | .        |

**Roof for outdoor installation of the additional modules.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| TPM1      | .        | .        | .        |          |
| TPM2      |          |          |          | .        |

**Kit free-cooling.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| FCH1      | .        | .        |          |          |
| FCH2      |          |          | .        | .        |

**Roof for silencer baffles.**

| Accessory | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-----------|----------|----------|----------|----------|
| TPMSS1    | .        | .        | .        |          |
| TPMSS2    |          |          |          | .        |

## PERFORMANCE SPECIFICATIONS

|  |      | URHE10CF    | URHE15CF    | URHE25CF      | URHE33CF      |
|--|------|-------------|-------------|---------------|---------------|
| <b>Heat recovery unit</b>                                    |      |             |             |               |               |
| Power supply   |      | 230V~50Hz   | 230V~50Hz   | 400V~ 3N 50Hz | 400V~ 3N 50Hz |
| <b>Cooling performances (1)</b>                              |      |             |             |               |               |
| Total cooling capacity (heat recovery + refrigerant circuit) | kW   | 6,6         | 8,7         | 13,8          | 19,8          |
| Cooling capacity available                                   | kW   | 1,8         | 3,1         | 3,3           | 5,4           |
| Cooling capacity recovered                                   | kW   | 2,2         | 3,2         | 4,5           | 5,8           |
| Summer thermal efficiency                                    | %    | 82,0        | 80,0        | 68,0          | 65,0          |
| Total input power  | kW   | 2,60        | 2,90        | 5,10          | 6,50          |
| <b>Heating performances (2)</b>                              |      |             |             |               |               |
| Heating capacity total (heat recovery + refrigerant circuit) | kW   | 10,9        | 14,2        | 24,8          | 33,1          |
| Heating capacity available                                   | kW   | 2,8         | 2,9         | 3,9           | 7,0           |
| Recovered heating power                                      | kW   | 3,6         | 10,0        | 15,3          | 19,6          |
| Winter thermal efficiency                                    | %    | 82,0        | 80,0        | 73,0          | 71,0          |
| Total input power  | kW   | 2,20        | 2,40        | 4,20          | 4,90          |
| <b>Compressor</b>  |      |             |             |               |               |
| Number   | no.  | 1           | 1           | 1             | 1             |
| Refrigerant  | type | R410A       | R410A       | R410A         | R410A         |
| <b>Delivery fan</b>  |      |             |             |               |               |
| Type   | type | Centrifugal | Centrifugal | Centrifugal   | Centrifugal   |
| Number   | no.  | 1           | 1           | 1             | 1             |
| Nominal air flow rate  | m³/h | 1000        | 1500        | 2500          | 3300          |
| Minimum air flow rate  | m³/h | 800         | 1100        | 2000          | 2500          |
| High static pressure   | Pa   | 320         | 245         | 140           | 220           |
| Total fan input power  | kW   | 0,42        | 0,46        | 1,10          | 1,10          |
| Total fan input current                                      | A    | 3,1         | 3,1         | 5,3           | 5,3           |
| <b>Recovery fan</b>  |      |             |             |               |               |
| Type   | type | Centrifugal | Centrifugal | Centrifugal   | Centrifugal   |
| Number   | no.  | 1           | 1           | 1             | 1             |
| Nominal air flow rate  | m³/h | 1000        | 1500        | 2500          | 3300          |
| Minimum air flow rate  | m³/h | 800         | 1100        | 2000          | 2500          |
| High static pressure   | Pa   | 320         | 245         | 140           | 220           |
| Total fan input power  | kW   | 0,42        | 0,46        | 1,10          | 1,10          |
| Total fan input current                                      | A    | 3,1         | 3,1         | 5,3           | 5,3           |

(1) Recovery air 26 °C 50%; External air 34 °C 50%.

(2) Recovery air 20 °C 50%; External air 5 °C 80%.

### Technical data MBCH - Hot water coil (accessory)

|   |     | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|---|-----|----------|----------|----------|----------|
| <b>Hot water coil (accessory)</b>           |     |          |          |          |          |
| Row   | no. | 2        | 2        | 2        | 2        |
| Pressure drop - air side                    | Pa  | 7        | 18       | 37       | 37       |
| <b>Heating operations 70 °C / 60 °C (1)</b> |     |          |          |          |          |
| Heating capacity                            | kW  | 7,70     | 10,30    | 15,60    | 19,70    |
| Water flow rate                             | l/h | 673      | 906      | 1363     | 1725     |
| Pressure drop                               | kPa | 11       | 8        | 18       | 32       |
| <b>Heating operations 45 °C / 40 °C (2)</b> |     |          |          |          |          |
| Heating capacity                            | kW  | 2,60     | 4,00     | 6,50     | 7,60     |
| Water flow rate                             | l/h | 446      | 700      | 1118     | 1311     |
| Pressure drop                               | kPa | 3        | 6        | 14       | 22       |

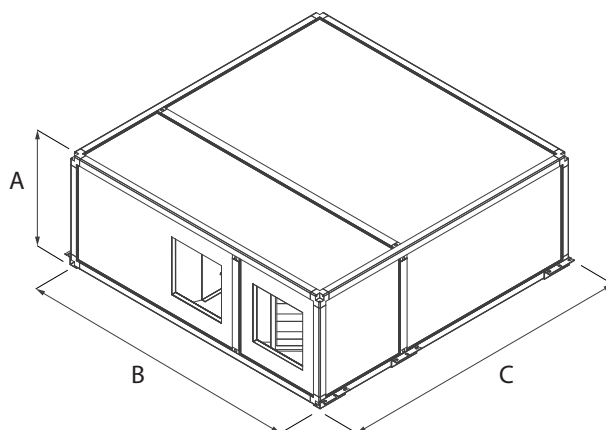
(1) Water temperature (in/out) 70 °C / 60 °C; Compressor operating.

(2) Water temperature (in/out) 45 °C / 40 °C; Compressor operating.

### Technical data MBCX - Electric heating coil - (accessory)

|  |     | URHE10CF    | URHE15CF | URHE25CF | URHE33CF |
|--|-----|-------------|----------|----------|----------|
| <b>Electric heating coil - (accessory)</b> |     |             |          |          |          |
| Power supply                               |     | 400V/3/50Hz |          |          |          |
| Stages                                     | no. | 1           | 1        | 1        | 1        |
| Heating capacity                           | kW  | 5,00        | 7,50     | 12,50    | 10,00    |
| Input current                              | A   | 7,6         | 11,4     | 19,0     | 25,1     |
| Pressure drop - air side                   | Pa  | 10          | 10       | 10       | 10       |

## DIMENSIONS



|                               |    | URHE10CF | URHE15CF | URHE25CF | URHE33CF |
|-------------------------------|----|----------|----------|----------|----------|
| <b>Dimensions and weights</b> |    |          |          |          |          |
| A                             | mm | 580      | 580      | 580      | 580      |
| B                             | mm | 1640     | 1640     | 1640     | 1970     |
| C                             | mm | 1500     | 1500     | 1990     | 2310     |
| Empty weight                  | kg | 300      | 310      | 373      | 410      |

■ The weights are standard configuration units without accessories.

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



## ERSR

## High-efficiency heat recovery with rotary recovery unit

Air flow rate 1000 - 30000 m<sup>3</sup>/h

- Technology high efficiency
- Mechanically controlled ventilation
- Recovery of up to 80% of the energy of the expelled air
- Air purification



### DESCRIPTION

The ERSR heat recovery units for indoor and outdoor installation are designed for commercial applications and are able to combine maximum environmental comfort with definite energy saving.

It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.

But ERSR units are equipped with a rotary heat recovery unit (upon request, also hygroscopic rotary) that enables you to save more than 80% of the energy that would otherwise be lost with the expelled stale air.

These units can be integrated with fan coils and chillers, and can operate both in winter and summer.

### VERSIONS

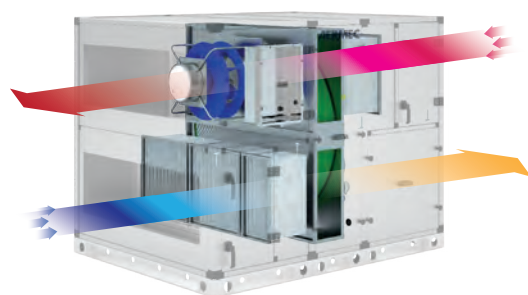
**H** With a hygroscopic rotary recovery

**T** With a sensitive rotary recovery

### STRUCTURE

- Rotary heat recovery unit (with the option in hygroscopic material), high-efficiency and low pressure drops.
- Soft air bag F7 filters (flow and recovery) equipped with a standard differential pressure switch, which can be extracted from either side facilitate their periodic cleaning.
- **Fans (intake and flow), Plug fan with back curved blades with a directly coupled, electronically controlled motor for sizes 07-17 and with an inverter for sizes 21-24.**
- Support frame and sandwich panels, 50 mm thick, in galvanised sheet steel for internal surfaces and pre-painted externally, and with mineral wool insulation (density 40 kg/m<sup>3</sup>). Base in galvanised sheet steel continuous profiles. Sizes 07 to 09 are monoblocs whilst the other sizes are divided into sections. The unit can be inspected from both sides.
- The unit is equipped with a power electric control board on the machine and adjustment purposely designed to reduce energy consumption. Equipped with a communication serial port on RS485 with MODBUS Master/Slave protocol.

## FEATURES



- Air expelled
- Air recovery from the room
- Outdoor fresh air
- Air introduced into the room

### Quality of the air

Nowadays, the quality of air inside rooms is fundamental. The mechanically controlled ventilation system is not only indispensable from an energetic point of view, but also for the comfort of the rooms.

### ACCESSORIES

**CAP:** Intake waterproof cover.

**BDL:** Delivery waterproof cover.

**TDP:** Roof for outdoor installation.

**VRC:** Condensate drip tray.

**VVR:** Variable speed recovery unit.

**KDP:** Dehumidification and post-heating management kit.

**RBC:** 3-way valve hot water coil module.

**RBF:** 3-way valve cold water coil module.

Harmful elements and smells in the air are eliminated by the efficient filtration system with bag filters (F7), which are easily extracted and regenerated.

**High-efficiency air circulation thanks to plug-fans with electronically controlled motors or inverters, depending on the sizes**

### Freecooling: free comfort

During in-between seasons, outdoor climatic conditions can be more pleasant than those indoors. In such situations, the ERSRs stop the recovery unit enabling the intake of fresh outdoor air to air-condition indoor rooms at zero cost.

### High-efficiency recovery unit (80% of the energy of the expelled air)

Air heat recovery both in summer and winter, thanks to the rotary recovery unit (hygroscopic version also available). Air introduced into the room is always optimised, thanks to the heat exchange between the air recovery and outdoor fresh air.

### State of the art electronic control

Naturally, all these technological advantages are controlled by state of the art heat regulation, thus ensuring maximum energy savings in every condition of use.

**RBE:** Electric coil module.

**RBP:** 3-way valve cold water and post-heating coil module.

**MSS:** Module equipped with silencer baffles.

**FRR:** Rectangular flange.

**GAR:** Rectangular anti-vibration joint.

**HSR:** Fresh air intake damper with servocontrol.

**RSR:** Recirculation damper module.

**HG4:** Flat filters efficiency G4.

### ACCESSORIES COMPATIBILITY

#### Regulation

##### Rectangular flange.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | FRR09 | FRR09 | FRR12 | FRR15 | FRR17 | FRR21 | FRR24 |

##### Condensate drain tray.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | VRC07 | VRC09 | VRC12 | VRC15 | VRC17 | VRC21 | VRC24 |

#### Additional modules

##### Rectangular anti-vibration joint.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | GAR07 | GAR09 | GAR12 | GAR15 | GAR17 | GAR21 | GAR24 |

##### Recirculation damper module.

| Ver | 07 | 09 | 12    | 15    | 17    | 21    | 24    |
|-----|----|----|-------|-------|-------|-------|-------|
| H,T | -  | -  | RSR12 | RSR15 | RSR17 | RSR21 | RSR24 |

The accessory cannot be fitted on the configurations indicated with -

##### Flat filters efficiency G4.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | HG407 | HG409 | HG412 | HG415 | HG417 | HG421 | HG424 |

##### Fresh air intake damper with servocontrol.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | HSR07 | HSR09 | HSR12 | HSR15 | HSR17 | HSR21 | HSR24 |

##### Roof protection for basic unit in the case of outdoor installation.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | TDP07 | TDP09 | TDP12 | TDP15 | TDP17 | TDP21 | TDP24 |

##### Delivery waterproof cover.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | BDL07 | BDL09 | BDL12 | BDL15 | BDL17 | BDL21 | BDL24 |

## Accessories

### Air quality probe (VOC).

| Ver | 07 | 09 | 12 | 15 | 17 | 21 | 24 |
|-----|----|----|----|----|----|----|----|
| H,T | QP | QP | QP | QP | QP | QP | QP |

### Variable speed recovery unit.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | VVR07 | VVR09 | VVR12 | VVR15 | VVR17 | VVR21 | VVR24 |

### Dehumidification and post-heating management kit.

| Ver | 07  | 09  | 12  | 15  | 17  | 21  | 24  |
|-----|-----|-----|-----|-----|-----|-----|-----|
| H,T | KDP | KDP | KDP | KDP | KDP | KDP | KDP |

### Intake waterproof cover.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | CAP07 | CAP09 | CAP12 | CAP15 | CAP17 | CAP21 | CAP24 |

### 3-way valve hot water coil module.

| Ver | 07    | 09    | 12    | 15    | 17    | 21    | 24    |
|-----|-------|-------|-------|-------|-------|-------|-------|
| H,T | RBC07 | RBC09 | RBC12 | RBC15 | RBC17 | RBC21 | RBC24 |

## PERFORMANCE SPECIFICATIONS

| Size   |          | 07                                      | 09     | 12     | 15     | 17     | 21     | 24     |
|--|----------|---|--------|--------|--------|--------|--------|--------|
| <b>Heat recovery unit</b>  |          |   |        |        |        |        |        |        |
| Power supply   |          | 400V 3N ~ 50Hz                          |        |        |        |        |        |        |
| Unit type  |          | UVNR (Unit ventilation not residential) |        |        |        |        |        |        |
| Heat recovery system type  | Type/n°  |   |        |        |        |        |        |        |
| Heat capacity recovered (EN308) (1)  | kW       | 5,8                                     | 10,3   | 19,4   | 31,4   | 41,3   | 64,3   | 85,0   |
| Dry heating efficiency (2)   | %        | 79,0                                    | 78,9   | 78,3   | 78,8   | 78,9   | 78,5   | 78,7   |
| <b>Information in compliance with Annex V of regulation EU no. 1253/2014</b> |          |   |        |        |        |        |        |        |
| Nominal air flow rate supply / recovery                                      | m³/s     | 0,31                                    | 0,54   | 1,03   | 1,65   | 2,17   | 3,39   | 4,47   |
| Nominal air flow rate supply / recovery                                      | m³/h     | 1100                                    | 1950   | 3700   | 5950   | 7800   | 12200  | 16100  |
| Minimum air flow rate  | m³/h     | -                                       | -      | -      | -      | -      | -      | -      |
| <b>Fans (3)</b>  |          |   |        |        |        |        |        |        |
| Commissioning  | type     | Analog signal of EC fan                 |        |        |        |        |        |        |
| Type   | type     | Plug-fan                                |        |        |        |        |        |        |
| Number   | no.      | 1                                       | 1      | 1      | 1      | 1      | 1      | 1      |
| Supplied electrical power consumption  | kW       | 0,27                                    | 0,48   | 0,85   | 1,31   | 1,90   | 2,20   | 2,80   |
| Recovered electrical power consumption                                       | kW       | 0,27                                    | 0,48   | 0,86   | 1,30   | 1,90   | 2,20   | 2,80   |
| Total input electric power   | kW       | 0,84                                    | 2,04   | 6,10   | 8,78   | 10,20  | 22,37  | 30,37  |
| SFP int.   | W/(m³/s) | 1061,00                                 | 994,00 | 927,00 | 733,00 | 669,00 | 778,00 | 759,00 |
| SFP int. lim. 2018   | W/(m³/s) | 1141                                    | 1106   | 1033   | 942    | 887    | 886    | 887    |
| Filters face velocity  | m/s      | 1,8                                     | 1,9    | 1,8    | 1,8    | 1,8    | 1,6    | 1,7    |
| Nominal external pressure Δp (3)   | Pa       | 100                                     | 100    | 100    | 100    | 100    | 100    | 100    |
| Useful static supply pressure  | Pa       | 360                                     | 520    | 1000   | 1100   | 900    | 1440   | 1500   |
| Useful static recovery pressure  | Pa       | 360                                     | 520    | 1000   | 1100   | 900    | 1440   | 1500   |
| Supplied internal pressure drop Δps int.                                     | Pa       | 269                                     | 262    | 276    | 222    | 216    | 240    | 241    |
| Recovered internal pressure drop Δps int.                                    | Pa       | 272                                     | 265    | 280    | 225    | 219    | 243    | 244    |
| Fans static efficiency (4)   | %        | 64,5                                    | 65,5   | 62,8   | 64,1   | 67,2   | 64,7   | 65,8   |
| Internal leakage (5)   | %        | < 3                                     | < 3    | < 3    | < 3    | < 3    | < 3    | < 3    |
| External leakage   | %        | 0,2                                     | 0,2    | 0,1    | 0,1    | 0,1    | 0,1    | 0,1    |
| <b>Air filter</b>  |          |   |        |        |        |        |        |        |
| Expelled air filter  | Type/n°  |   |        |        |        |        |        |        |
| Delivery air filter  | Type/n°  |   |        |        |        |        |        |        |
| Delivery filter energy classification  |          | D                                       |        |        |        |        |        |        |
| Recovery filter energy classification  |          | D                                       |        |        |        |        |        |        |

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.

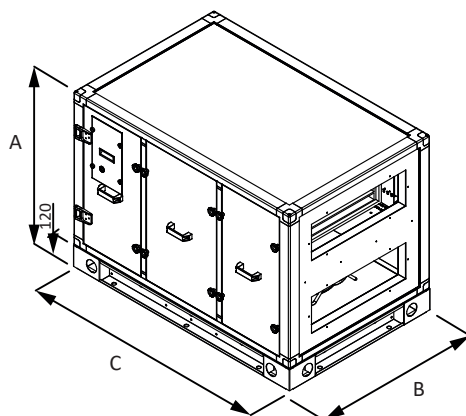
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

(3) Performances referring to clean filters

(4) According to regulation EU 327/2011

(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

## DIMENSIONS AND WEIGHTS



| Size                          |    | 07   | 09   | 12   | 15   | 17   | 21   | 24   |
|-------------------------------|----|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |      |      |      |      |      |      |      |
| A                             | mm | 965  | 1285 | 1445 | 1765 | 2085 | 2405 | 2725 |
| B                             | mm | 895  | 1005 | 1375 | 1695 | 1855 | 2335 | 2665 |
| C                             | mm | 1375 | 1535 | 2045 | 2365 | 2365 | 3005 | 3005 |
| Empty weight                  | kg | 240  | 340  | 570  | 820  | 1010 | 1610 | 1980 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# AIR CONDITIONING

The air handling units customized according to different needs of the installer to carry the best comfort and the best quality in civil commercial and industrial.



# TVS

## Air handling unit

- Centrifugal fan with EC motor
- Horizontal and vertical installation
- Available units with heat exchanger with 4-6 rows
- Large range of available static pressure
- Ductable unit



### DESCRIPTION

TVS is a thermoventilation unit designed to guarantee high heads in small to medium-sized rooms with nominal air flow rates from 800 to 5200 m<sup>3</sup>/h. As standard, it is suitable for 2-pipe systems, however the availability (as an accessory) of the secondary water coil, which can be installed inside the unit downstream of the main coil, makes it also suitable for 4-pipe systems. The unit is suitable for both horizontal installation in suspended ceilings and vertical installation on walls for greater versatility in use.

### FEATURES

#### Structure

The supporting structure is made of galvanised steel sheet panels of suitable thickness. The panels are internally insulated with M1 fire reaction class insulation according to French standard NFP 92-501.

The bottom panels, which can be inspected, are of the sandwich type made of galvanised steel sheet with 15 mm thick polyurethane insulation (density 45 kg/m<sup>3</sup>).

**The particular formulation of the polyurethane foam provides the sandwich panels with reaction to fire class M1 according to NFP standard 92-501. The polyurethane foam was developed with precise specifications to achieve the exceptional value of GWP = 0 (Global Warming Potential), not contributing to the greenhouse effect.**

The presence of sandwich type panels on the bottom of the machine enables to significantly reduce the noise outside the unit in typical horizontal suspended ceiling installations.

The unit is supplied with specific brackets for attaching it to the wall.

#### Heat exchanger coil

Heat exchanger made with copper pipes and aluminium louvers blocked by the mechanical expansion of the pipes.

The main heat exchanger can be 4 or 6-row.

The secondary heat exchanger, available as an accessory, is 2-row.

#### Hydraulic connections

The hydraulic connections are on the right and are made with female threaded connections, however male-male threaded sleeves, with air release valves, are supplied to facilitate hydraulic connections.

**The side of the hydraulic connections can be reversed on site by turning the coil.**

■ *The definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).*

#### Condensate drip

The galvanised steel condensate drip tray is thermally insulated and has a double drain on the right and left. The unused condensate drain must be sealed.

#### Ventilation group

The ventilation unit consists of double intake centrifugal fans with blades facing forwards.

The electric motor, directly coupled to the impeller, is of the EC type. The use of the EC motor allows significant energy savings when compared to traditional AC motors and a continuous control of the rotation speed, simplifying air flow rate calibration operations on site.

**Except for the first two sizes, Sensorless fans with integrated flow control are installed, without the need for additional accessories.**

#### Air filtration

**Air filtration is provided, as standard, by 48 mm thick corrugated synthetic filters with Coarse 55% efficiency according to EN ISO 16890 (G4 according to EN 779) positioned in the intake.**

The filters are easily accessible for servicing and cleaning. Extraction is carried out by pulling them out from below by removing the respective panel.

#### Electrical wiring

On the side of the hydraulic connections there is an electric box, with IP55 protection rating, for connecting power and the 0-10V control signal or a potentiometer of the ventilation unit.

**In the case of reversing the side of the hydraulic connections, there is no need to reverse the position of the electrical connections.**

#### VENTILATION EFFICIENCY

All fans in the range TVS use an EC motor that, operating without slip losses, consumes less energy than conventional AC motors.

This applies to all speeds, i.e. also to partial load operation. The EC motor therefore uses less energy than the AC motor under all operating conditions

and has a significantly higher level of efficiency of the drive system (motor and control).

In addition, continuous speed control via the 0-10V signal allows the air flow rate to be varied, and the static pressure can be adapted to the system's pressure drop, making unit start-up particularly easy.



Fans in sizes from TVS204 to TVS526 use an innovative "driver" that provides advanced functions that go far beyond simple speed control via the 0-10V signal (factory setting) and monitoring of operating limits to enable safe operation.

## CONFIGURATOR

### ACCESSORIES

**BS2x: 2 row water coil:** 2-row water coil for 4-pipe system, located internally, downstream of the main coil. The threaded sleeves for the hydraulic connections and the air vent valve are supplied.

**F7x: filter with ePM1 50% efficiency:** Filter with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be placed inside the unit in place of the standard filter.

**F7x: filter with ePM1 80% efficiency:** Filter with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be placed inside the unit in place of the standard filter.

**SMBEx:** Electric coil module with double safety thermostat (manual and automatic) to be installed on the unit's flow side. Not compatible for vertical installation.

**SMF7x:** Filter module with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.

**SMF9x:** Filter module with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.

**SM2Sx:** Mixing chamber module complete with two galvanised steel calibration dampers to be positioned at the intake of the unit. The damper pins are equipped with an easily removable hand control.

**SMLFx:** Module consisting of state-of-the-art devices with UV germicidal lamp with photocatalytic effect for active disinfection. To be placed at the discharge of the unit. The complete elimination of germs, bacteria and viruses cannot be achieved by using SMLFx modules alone, but a reduction in microbial load means less exposure to infection.

**FAIx:** Filter holder flange to allow intake in a direction perpendicular to the air flow through the unit. The use of the flange does not allow the installation of other accessories or the ducting of the unit to the intake.

**SERx:** Galvanised steel damper to be installed on the intake or flow side of the unit. The damper pin is equipped with an easily removable hand control.

**GRAx:** Natural anodised aluminium intake grid with fixed louvers inclined at 45°. To be installed at the intake of the unit via the supplied flange.

**GRMx:** Natural anodised aluminium flow grille with two rows of adjustable louvers. To be installed on the unit's flow side via the flange supplied.

**V2Vx for main and secondary coil:** 2-way valve for main and secondary coil.

**V3Vx for main and secondary heat exchanger:** 3-way valve for main and secondary coil.

**AV24F - 24V / ON-OFF actuator for main and secondary coil:** 24V / ON-OFF actuator for main and secondary coil.

In fact, advanced operating modes can be activated through the use of free PC software, an RS485 interface cable and a commercially available USB to RS485 converter.

**Particularly innovative is the operating mode with constant flow rate control. The air flow rate can be varied via an analogue 0-10V signal or the desired value can be set via the dedicated software.**

### Sensorless constant flow rate

Sensorless constant flow rate control is performed without the use of pressure probes.

The driver determines the operating point by measuring the rotational speed and input power of the fan and then adjusts the rotational speed to maintain the set value of the air flow rate within a predetermined range.

This control system can compensate for a change in system pressure loss or a change in unit pressure loss due to e.g. filter fouling.



**AV24FM - 24V / ON-OFF - 0-10V actuator for main and secondary coil:** Actuator with 24V power supply for ON-OFF or modulating 0-10V control of 2-way and 3-way main and secondary coil valves.

**AV24M - 24V / 0-10V actuator for main and secondary coil:** Actuator with 24V power supply for modulating 0-10V control of 2-way and 3-way main and secondary coil valves.

**GT2x - 2-way valve tube assembly for main coil:** Hose assembly and hydraulic fittings for connecting the 2-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT2Px - 2-way valve hose assembly for secondary coil:** Hose assembly and hydraulic fittings for connecting the 2-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT3x - 3-way valve hose assembly for main coil:** Hose assembly and hydraulic fittings for connecting the 3-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT3Px - 3-way valve hose assembly for secondary coil:** Hose assembly and hydraulic fittings for connecting the 3-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**PVV:** Potentiometer for fan speed control. The +10V signal is available directly on the electrical connection box located outside the unit.

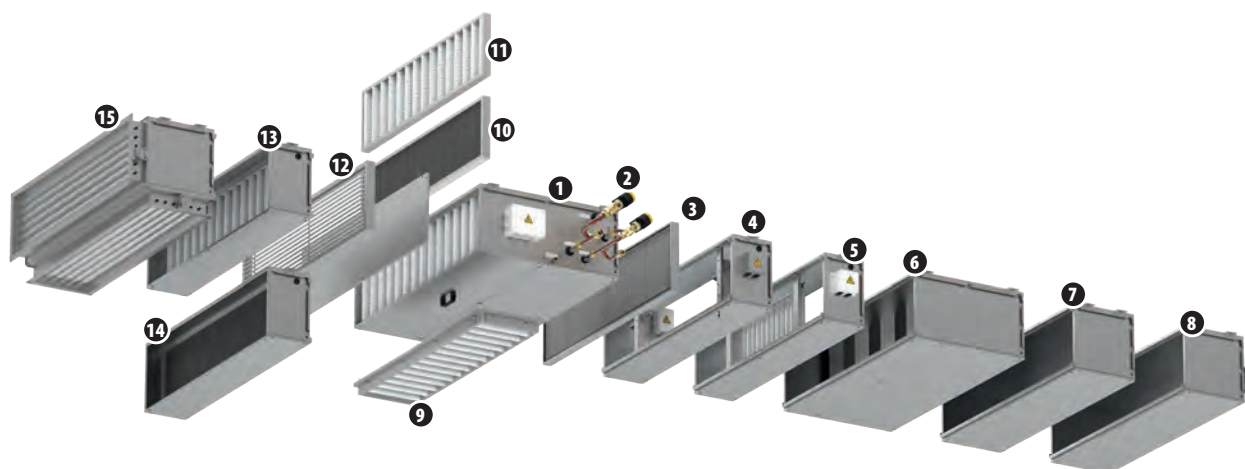
**SMSSx - Silencer baffles module:** Module consisting of rock wool silencing baffles covered with polyethylene film and protective mesh to prevent flaking. To be installed on the flow and/or intake side of the unit.

**SPCx:** Closed plenum to be positioned at the flow or intake of the unit. Depending on the opening of the flow/intake hole, the accessory allows flow/intake in both longitudinal and perpendicular directions to the air flow through the unit.

**SPMx:** Plenum with circular flows to be positioned at the flow and/or intake of the unit. The multi-diameter (200mm, 180mm, 150mm) circular plastic



couplings allow the connection of circular ducts. Flow/intake is allowed in the longitudinal direction of the air flow through the unit.



Key:

- 1 **TVS**
- 2 **Valvola (V3V, AV24, GT3, GT3P)**
- 3 **GRM**
- 4 **SMLF**
- 5 **SMBE**

- 6 **SMSS**
- 7 **SPC**
- 8 **SPM**
- 9 **FAI**
- 10 **F7**
- 11 **F9**

- 12 **GRA**
- 13 **SMF9**
- 14 **SMF7**
- 15 **SM2S**

## ACCESSORIES COMPATIBILITY

### Control

#### Potentiometer for fan speed control

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PVV       | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      |

### Water valves

#### 2 way valve kit

|                              | TVS084      | TVS154      | TVS204 | TVS274 | TVS344 | TVS404 | TVS524 |
|------------------------------|-------------|-------------|--------|--------|--------|--------|--------|
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| 2 way valve                  | V2V2        | V2V3        | V2V4   | V2V5   | V2V5   | V2V6   | V2V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT21        | GT21        | GT22   | GT23   | GT23   | GT24   | GT24   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| 2 way valve                  | V2V1        | V2V1        | V2V4   | V2V4   | V2V4   | V2V5   | V2V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT2P1       | GT2P1       | GT2P2  | GT2P2  | GT2P2  | GT2P3  | GT2P3  |
| <b>Table 3 way valve kit</b> |             |             |        |        |        |        |        |
|                              | TVS084      | TVS154      | TVS204 | TVS274 | TVS344 | TVS404 | TVS524 |
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| Three-way valve              | V3V2        | V3V2        | V3V4   | V3V5   | V3V5   | V3V6   | V3V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT31        | GT31        | GT32   | GT33   | GT33   | GT34   | GT34   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| Three-way valve              | V3V1        | V3V1        | V3V4   | V3V4   | V3V4   | V3V5   | V3V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT3P1       | GT3P1       | GT3P2  | GT3P2  | GT3P2  | GT3P3  | GT3P3  |
| <b>Table 3 way valve kit</b> |             |             |        |        |        |        |        |
|                              | TVS086      | TVS156      | TVS206 | TVS276 | TVS346 | TVS406 | TVS526 |
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| Three-way valve              | V3V2        | V3V2        | V3V4   | V3V5   | V3V5   | V3V6   | V3V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT31        | GT31        | GT32   | GT33   | GT33   | GT34   | GT34   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| Three-way valve              | V3V1        | V3V1        | V3V4   | V3V4   | V3V4   | V3V5   | V3V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT3P1       | GT3P1       | GT3P2  | GT3P2  | GT3P2  | GT3P3  | GT3P3  |

### Heating only additional coil

#### 2 row water coil

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| BS21      | *      | *      |        |        |        |        |        |        |        |        |        |        |        |        |
| BS22      |        |        | *      | *      |        |        |        |        |        |        |        |        |        |        |
| BS23      |        |        |        |        | *      | *      |        |        |        |        |        |        |        |        |
| BS24      |        |        |        |        |        |        | *      | *      | *      | *      |        |        |        |        |
| BS25      |        |        |        |        |        |        |        |        |        |        | *      | *      | *      | *      |

### Electric coil module

#### 2-stage electric coil module

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SMBE1 (1) | *      | *      |        |        |        |        |        |        |        |        |        |        |        |        |
| SMBE2 (1) |        |        | *      | *      |        |        |        |        |        |        |        |        |        |        |
| SMBE3 (1) |        |        |        |        | *      | *      |        |        |        |        |        |        |        |        |
| SMBE4 (1) |        |        |        |        |        |        | *      | *      | *      | *      |        |        |        |        |
| SMBE5 (1) |        |        |        |        |        |        |        |        |        |        | *      | *      | *      | *      |

(1) Module not compatible for vertical installation.

## Installation accessories

### Filter module with ePM1 50% efficiency

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SMF71     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SMF72     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SMF73     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SMF74     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SMF75     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Filter module with ePM1 80% efficiency

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SMF91     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SMF92     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SMF93     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SMF94     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SMF95     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Silencer baffles module

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SMSS1     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SMSS2     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SMSS3     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SMSS4     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SMSS5     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Photocatalytic device module

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SMLF1     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SMLF2     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SMLF3     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SMLF4     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SMLF5     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Mixing chamber module complete with two calibration dampers

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SM2S1     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SM2S2     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SM2S3     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SM2S4     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SM2S5     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Closed plenum

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SPC1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SPC2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SPC3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SPC4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SPC5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Plenum with circular deliveries

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SPM1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SPM2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SPM3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SPM4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SPM5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Table Filter flange

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| FAI1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| FAI2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| FAI3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| FAI4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| FAI5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Galvanised steel dampers

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SER1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SER2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SER3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SER4      |        |        |        |        |        |        | .      | .      | .      | .      | .      |        |        |        |
| SER5      |        |        |        |        |        |        |        |        |        |        |        |        | .      | .      |

**Alluminium Intake grids**

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GRA1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| GRA2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| GRA3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| GRA4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| GRA5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Alluminium delivery grille**

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GRM1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| GRM2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| GRM3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| GRM4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| GRM5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Filter with ePM1 50% efficiency**

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| F71       | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| F72       |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| F73       |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| F74       |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| F75       |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |
| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
| F71       |        | .      | .      |        |        |        |        |        |        |        |        |        |        |        |
| F72       |        |        |        | .      | .      |        |        |        |        |        |        |        |        |        |
| F73       |        |        |        |        |        | .      | .      |        |        |        |        |        |        |        |
| F74       |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| F75       |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Filter with ePM1 80% efficiency**

| Accessory | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| F91       | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| F92       |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| F93       |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| F94       |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| F95       |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

#### 4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

|   |       | TVS084          | TVS154          | TVS204          | TVS274          | TVS344          | TVS404          | TVS524          |
|---|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)</b>      |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 10,50           | 18,80           | 25,10           | 31,90           | 41,40           | 54,20           | 66,40           |
| Water flow rate   | l/h   | 901             | 1615            | 2157            | 2738            | 3557            | 4659            | 5705            |
| Pressure drop   | kPa   | 26              | 25              | 37              | 23              | 41              | 38              | 55              |
| <b>Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)</b> |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 5,20            | 9,30            | 12,40           | 15,80           | 20,50           | 26,80           | 32,70           |
| Water flow rate   | l/h   | 896             | 1600            | 2139            | 2718            | 3525            | 4610            | 5640            |
| Pressure drop   | kPa   | 28              | 27              | 40              | 24              | 44              | 40              | 58              |
| <b>Heating performance 65 °C / 55 °C - Secondary coil 4-pipe system (3)</b>         |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 4,40            | 8,10            | 14,40           | 18,40           | 23,60           | 28,30           | 32,90           |
| Water flow rate   | l/h   | 380             | 697             | 1235            | 1579            | 2031            | 2433            | 2828            |
| Pressure drop   | kPa   | 6               | 26              | 18              | 20              | 32              | 19              | 25              |
| <b>Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)</b>              |       |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity  | kW    | 4,40            | 7,70            | 10,90           | 13,20           | 17,90           | 23,20           | 27,80           |
| Sensible cooling capacity   | kW    | 3,30            | 6,00            | 8,20            | 10,40           | 13,60           | 17,10           | 20,70           |
| Water flow rate   | l/h   | 753             | 1322            | 1870            | 2266            | 3078            | 3979            | 4766            |
| Pressure drop   | kPa   | 22              | 20              | 33              | 20              | 36              | 34              | 46              |
| <b>Fan</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     |
| Fan motor   | type  | EC              | EC              | EC              | EC              | EC              | EC              | EC              |
| Number  | no.   | 1               | 2               | 1               | 1               | 2               | 2               | 2               |
| Nominal air flow rate   | m³/h  | 800             | 1500            | 2000            | 2600            | 3400            | 4000            | 5200            |
| Nominal useful head   | Pa    | 150             | 150             | 200             | 200             | 200             | 200             | 200             |
| Maximum useful head (2-pipes) (5)   | Pa    | 213             | 242             | 351             | 361             | 380             | 403             | 414             |
| Maximum useful head (4-pipes) (5)   | Pa    | 194             | 217             | 321             | 337             | 342             | 377             | 375             |
| Input power (2-pipes) (6)   | W     | 199             | 358             | 545             | 825             | 826             | 998             | 1494            |
| Input power (4 pipes) (6)   | W     | 207             | 377             | 574             | 859             | 896             | 1044            | 1608            |
| <b>Sound data (7)</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Sound power level (inlet + radiated)  | dB(A) | 66,0            | 68,0            | 77,0            | 77,0            | 78,0            | 80,0            | 80,0            |
| Sound power level (outlet)  | dB(A) | 66,0            | 68,0            | 74,0            | 76,0            | 74,0            | 77,0            | 78,0            |
| <b>Diameter hydraulic fittings</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Main heat exchanger   | Ø     | 3/4" F          | 3/4" F          | 1" F            | 1" F            | 1" F            | 1" F            | 1" F            |
| Secondary heat exchanger  | Ø     | 1/2" F          | 1/2" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          |
| Condensate discharge diameter   | mm    | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          |
| <b>Power supply</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Power supply  |       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       |
| <b>Air filter</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) |
| <b>Electric coil</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Electric coil capacity  | kW    | 1,5 + 1,5       | 2,5 + 2,5       | 4 + 4           | 6 + 6           | 6 + 6           | 7,5 + 7,5       | 7,5 + 7,5       |
| Stages  | no.   | 2               | 2               | 2               | 2               | 2               | 2               | 2               |
| Power supply  |       | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C / 60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C

(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C

(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C

(5) Maximum high static pressure at nominal air flow rate, in heating mode

(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode

(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

## 6-ROW COIL UNIT PERFORMANCE DATA

|   |       | TVS086          | TVS156          | TVS206          | TVS276          | TVS346          | TVS406          | TVS526          |
|---|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)</b>      |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 11,50           | 20,60           | 27,40           | 35,10           | 45,40           | 58,30           | 72,00           |
| Water flow rate   | l/h   | 986             | 1774            | 2359            | 3017            | 3900            | 5009            | 6189            |
| Pressure drop   | kPa   | 40              | 27              | 30              | 23              | 42              | 31              | 45              |
| <b>Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)</b> |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 5,70            | 10,20           | 13,60           | 17,30           | 22,50           | 28,90           | 35,80           |
| Water flow rate   | l/h   | 978             | 1762            | 2342            | 2985            | 3876            | 4980            | 6166            |
| Pressure drop   | kPa   | 42              | 29              | 32              | 25              | 44              | 33              | 48              |
| <b>Heating performance 65 °C / 55 °C - Secondary coil 4-pipe system (3)</b>         |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 4,40            | 8,10            | 14,40           | 18,40           | 23,60           | 28,30           | 32,90           |
| Water flow rate   | l/h   | 380             | 697             | 1235            | 1579            | 2031            | 2433            | 2828            |
| Pressure drop   | kPa   | 6               | 26              | 18              | 20              | 32              | 19              | 25              |
| <b>Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)</b>              |       |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity  | kW    | 5,30            | 9,00            | 12,30           | 15,40           | 20,70           | 25,90           | 31,60           |
| Sensible cooling capacity   | kW    | 3,80            | 6,70            | 9,00            | 11,60           | 15,00           | 18,70           | 22,90           |
| Water flow rate   | l/h   | 912             | 1538            | 2104            | 2649            | 3554            | 4443            | 5427            |
| Pressure drop   | kPa   | 39              | 24              | 28              | 23              | 41              | 30              | 42              |
| <b>Fan</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     | Centrifugal     |
| Fan motor   | type  | EC              | EC              | EC              | EC              | EC              | EC              | EC              |
| Number  | no.   | 1               | 2               | 1               | 1               | 2               | 2               | 2               |
| Nominal air flow rate   | m³/h  | 800             | 1500            | 2000            | 2600            | 3400            | 4000            | 5200            |
| Nominal useful head   | Pa    | 150             | 150             | 200             | 200             | 200             | 200             | 200             |
| Maximum useful head (2-pipes) (5)   | Pa    | 204             | 230             | 338             | 351             | 364             | 392             | 397             |
| Maximum useful head (4-pipes) (5)   | Pa    | 185             | 205             | 308             | 327             | 326             | 366             | 358             |
| Input power (2-pipes) (6)   | W     | 203             | 368             | 557             | 839             | 856             | 1016            | 1544            |
| Input power (4 pipes) (6)   | W     | 211             | 387             | 588             | 873             | 932             | 1064            | 1658            |
| <b>Sound data (7)</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Sound power level (inlet + radiated)  | dB(A) | 67,0            | 69,0            | 78,0            | 77,0            | 78,0            | 81,0            | 80,0            |
| Sound power level (outlet)  | dB(A) | 67,0            | 69,0            | 74,0            | 77,0            | 74,0            | 78,0            | 79,0            |
| <b>Diameter hydraulic fittings</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Main heat exchanger   | Ø     | 3/4" F          | 3/4" F          | 1" F            | 1" F            | 1" F            | 1" F            | 1" F            |
| Secondary heat exchanger  | Ø     | 1/2" F          | 1/2" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          |
| Condensate discharge diameter   | mm    | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          | 1/2" M          |
| <b>Power supply</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Power supply  |       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       |
| <b>Air filter</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) |
| <b>Electric coil</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Electric coil capacity  | kW    | 1,5 + 1,5       | 2,5 + 2,5       | 4 + 4           | 6 + 6           | 6 + 6           | 7,5 + 7,5       | 7,5 + 7,5       |
| Stages  | no.   | 2               | 2               | 2               | 2               | 2               | 2               | 2               |
| Power supply  |       | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C / 60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C

(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C

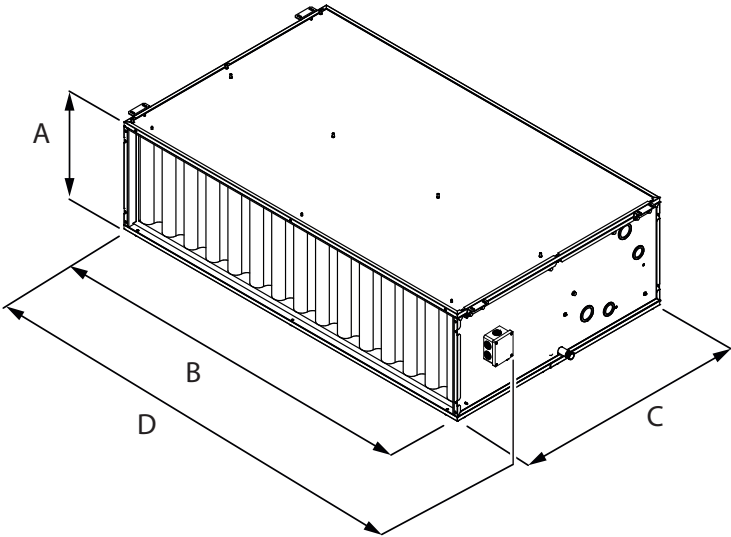
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C

(5) Maximum high static pressure at nominal air flow rate, in heating mode

(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode

(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

DIMENSIONS



Unit for horizontal installation

|                        |    | TVS084 | TVS086 | TVS154 | TVS156 | TVS204 | TVS206 | TVS274 | TVS276 | TVS344 | TVS346 | TVS404 | TVS406 | TVS524 | TVS526 |
|------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Dimensions and weights |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                      | mm | 300    | 300    | 300    | 300    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    |
| B                      | mm | 700    | 700    | 1000   | 1000   | 1000   | 1000   | 1400   | 1400   | 1400   | 1400   | 2000   | 2000   | 2000   | 2000   |
| C                      | mm | 700    | 700    | 700    | 700    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    |
| D                      | mm | 770    | 770    | 1070   | 1070   | 1070   | 1070   | 1470   | 1470   | 1470   | 1470   | 2070   | 2070   | 2070   | 2070   |
| Net weight             | kg | 27,0   | 28,0   | 42,0   | 44,0   | 56,0   | 59,0   | 79,0   | 83,0   | 89,0   | 94,0   | 119,0  | 125,0  | 120,0  | 126,0  |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## TVH

## Air handling unit

- Plug fan with EC motor
- Horizontal installation only
- Available units with heat exchanger with 4-6 rows
- Large range of available static pressure
- Ductable unit
- 15 mm thick sandwich panelling



### DESCRIPTION

TVH is a thermoventilation unit designed to guarantee high heads in small to medium-sized rooms with nominal air flow rates from 800 to 5200 m<sup>3</sup>/h. As standard, it is suitable for 2-pipe systems, however the availability (as an accessory) of the secondary water coil, which can be installed inside the unit downstream of the main coil, makes it also suitable for 4-pipe systems. **The unit is suitable for horizontal installation.**

### FEATURES

#### Structure

The load-bearing structure is made of sandwich-type panels made of galvanised steel sheet with 15 mm thick polyurethane insulation (density 45 kg/m<sup>3</sup>).

**The particular formulation of the polyurethane foam provides the sandwich panels with reaction to fire class M1 according to NFP standard 92-501. The polyurethane foam was developed with precise specifications to achieve the exceptional value of GWP = 0 (Global Warming Potential), not contributing to the greenhouse effect.**

**The presence of sandwich type panels enables to significantly reduce the noise outside the unit in typical horizontal suspended ceiling installations.**

Specific brackets supplied with the unit make it easier to secure it to the wall.

#### Heat exchanger coil

Heat exchanger made with copper pipes and aluminium louvers blocked by the mechanical expansion of the pipes.

The main heat exchanger can be 4 or 6-row.

The secondary heat exchanger, available as an accessory, is 2-row.

#### Hydraulic connections

The hydraulic connections are on the right and are made with female threaded connections, however male-male threaded sleeves, with air release valves, are supplied to facilitate hydraulic connections.

**The side of the hydraulic connections can be reversed on site by turning the coil.**

■ *The definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).*

#### Condensate drip

The galvanised steel condensate drip tray is thermally insulated and has a double drain on the right and left. The unused condensate drain must be sealed.

#### Ventilation group

The ventilation unit consists of plug fans with reversed blades. The use of plug fans allows a reduction in input power compared to fans with forward-facing blades.

**The electric motor, directly coupled to the impeller, is of the EC type.**

The use of the EC motor allows significant energy savings when compared to traditional AC motors and a continuous control of the rotation speed, simplifying air flow rate calibration operations on site.

#### Air filtration

**Air filtration is provided, as standard, by 48 mm thick corrugated synthetic filters with Coarse 55% efficiency according to EN ISO 16890 (G4 according to EN 779) positioned in the intake.**

The filters are easily accessible for servicing and cleaning. Extraction is carried out by pulling them out from below by removing the respective panel.

#### Electrical wiring

On the side of the hydraulic connections there is an electric box, with IP55 protection rating, for connecting power and the 0-10V control signal or a potentiometer of the ventilation unit.

**In the case of reversing the side of the hydraulic connections, there is no need to reverse the position of the electrical connections.**

#### VENTILATION EFFICIENCY

All fans in the range TVH use an EC motor, which, due to the special efficiency of the system, consumes less energy than conventional AC motors.

This applies to all speeds, i.e. also to partial load operation.

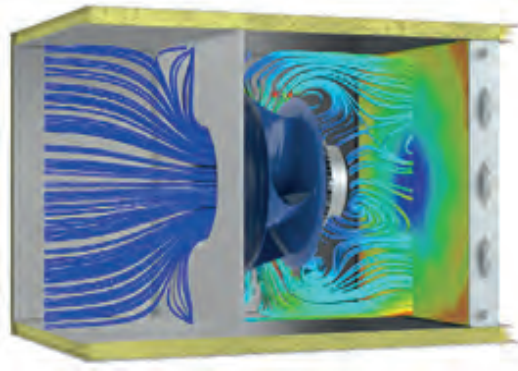
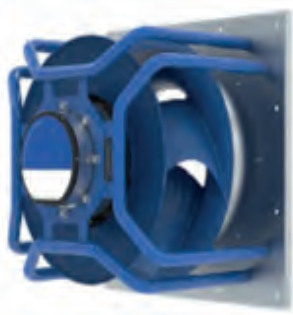
In addition, continuous speed control via the 0-10V signal allows the air flow rate to be varied, and the static pressure can be adapted to the system's pressure drop, allowing a perfect machine - system match.



The innovative mixed-flow geometry of the composite impeller allows a particularly homogenous aerodynamic distribution over the next component. The positive effect of homogeneous aerodynamic distribution is reflected in a decrease in pressure drops and an increase in the cooling efficiency of the heat exchange coil located downstream of the fan.

For the same processed air flow rate there is therefore less electric input power and a higher cooling efficiency.

In addition, by means of the pressure probe (relying on an external controller) or the flow rate/pressure regulator, which are supplied as accessories, it is possible to carry out ventilation control in constant flow rate or constant pressure on the flow channel.



## CONFIGURATOR

| Field | Description   |
|-------|---|
| 1,2,3 | TVH   |
| 4,5   | Size<br>08, 15, 20, 27, 34, 40, 52                                |
| 6     | Version   |
| 4     | 4-row finned pack main heat exchanger with right-hand connections |
| 6     | 6-row finned pack main heat exchanger with right-hand connections |

## ACCESSORIES

**BS2x: 2 row water coil:** 2-row water coil for 4-pipe system, located internally, downstream of the main coil. The threaded sleeves for the hydraulic connections and the air vent valve are supplied.

**F7x: filter with ePM1 50% efficiency:** Filter with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be placed inside the unit in place of the standard filter.

**F7x: filter with ePM1 80% efficiency:** Filter with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be placed inside the unit in place of the standard filter.

**SERx:** Galvanised steel damper to be installed on the intake or flow side of the unit. The damper pin is equipped with an easily removable hand control.

**GRAx:** Natural anodised aluminium intake grid with fixed louvers inclined at 45°. To be installed at the intake of the unit via the supplied flange.

**GRMx:** Natural anodised aluminium flow grille with two rows of adjustable louvers. To be installed on the unit's flow side via the flange supplied.

**V2Vx for main and secondary coil:** 2-way valve for main and secondary coil.

**V3Vx for main and secondary heat exchanger:** 3-way valve for main and secondary coil.

**AV24F - 24V / ON-OFF actuator for main and secondary coil:** 24V / ON-OFF actuator for main and secondary coil.

**AV24FM - 24V / ON-OFF - 0-10V actuator for main and secondary coil:** Actuator with 24V power supply for ON-OFF or modulating 0-10V control of 2-way and 3-way main and secondary coil valves.

**AV24M - 24V / 0-10V actuator for main and secondary coil:** Actuator with 24V power supply for modulating 0-10V control of 2-way and 3-way main and secondary coil valves.

**GT2x - 2-way valve tube assembly for main coil:** Hose assembly and hydraulic fittings for connecting the 2-way valve to the main coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT2Px - 2-way valve hose assembly for secondary coil:** Hose assembly and hydraulic fittings for connecting the 2-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT3x - 3-way valve hose assembly for main coil:** Hose assembly and hydraulic fittings for connecting the 3-way valve to the main coil. The hose

assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**GT3Px - 3-way valve hose assembly for secondary coil:** Hose assembly and hydraulic fittings for connecting the 3-way valve to the secondary coil. The hose assembly allows the coil to be operated in countercurrent in the case of the right-hand side connections (standard configuration) and in direct current operation in the case of the left-hand side connections (modification to be carried out on site).

**PVV:** Potentiometer for fan speed control. The +10V signal is available directly on the electrical connection box located outside the unit.

**HMBEx:** Electric coil module with double safety thermostat (manual and automatic) to be installed on the unit's flow side.

**HMF7x:** Filter module with ePM1 50% efficiency according to EN ISO 16890 (F7 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.

**HMF9x:** Filter module with ePM1 80% efficiency according to EN ISO 16890 (F9 according to EN 779) to be positioned at the unit's flow or intake in order to carry out a two-stage filtration. Filter extraction from below.

**HMLFx:** Module consisting of state-of-the-art devices with UV germicidal lamp with photocatalytic effect for active disinfection. To be placed at the discharge of the unit. The complete elimination of germs, bacteria and viruses cannot be achieved by using SMLFx modules alone, but a reduction in microbial load means less exposure to infection.

**HM2Sx:** Mixing chamber module complete with two galvanised steel calibration dampers to be positioned at the intake of the unit. The damper pins are equipped with an easily removable hand control.

**HMSx - Silencer baffles module:** Module consisting of rock wool silencing baffles covered with polyethylene film and protective mesh to prevent flaking. To be installed on the flow and/or intake side of the unit.

**RPx:** Regulator to control ventilation in constant flow rate or constant pressure on the flow duct. An external regulator must be provided for thermoregulation.

**SPD:** Pressure probe for constant flow rate or constant pressure control on the flow duct. In order to carry out the control, the pressure probe must be controlled by an external regulator.

**SPF:** Differential pressure switch to signal filter fouling status.

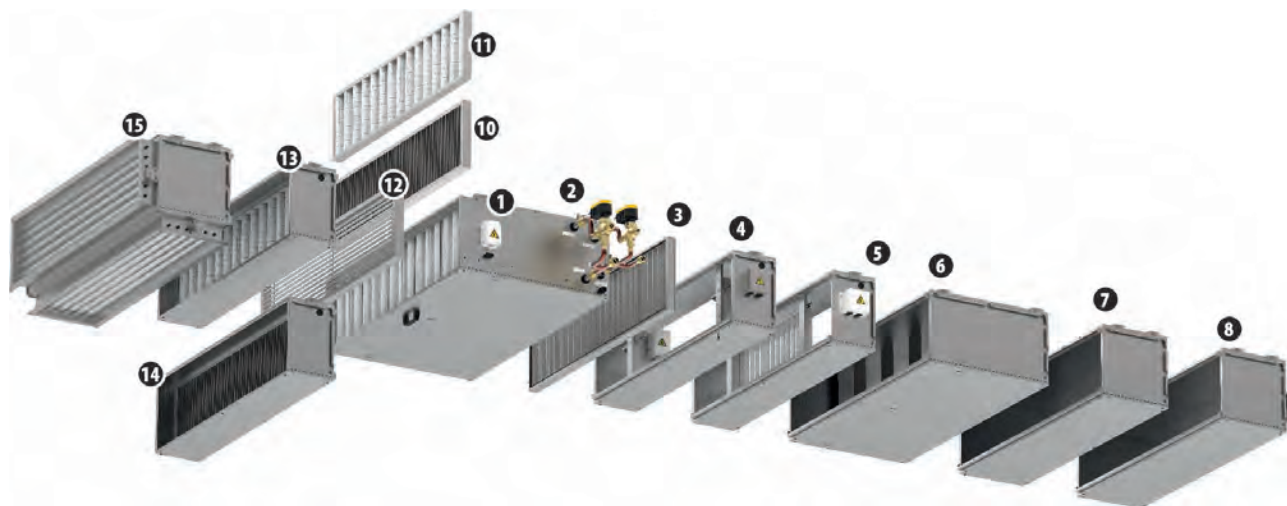
**HPCx:** Closed plenum to be positioned at the flow or intake of the unit. Depending on the opening of the flow/intake hole, the accessory allows

flow/intake in both longitudinal and perpendicular directions to the air flow through the unit.

**HPMx:** Plenum with circular flows to be positioned at the flow and/or intake of the unit. The multi-diameter (200mm, 180mm, 150mm) circular plastic

couplings allow the connection of circular ducts. Flow/intake is allowed in the longitudinal direction of the air flow through the unit.

**SCS:** Servocontrol with 24V power supply for 0-10V modulating control of the SER damper or the HM2S mixing chamber dampers.



Key:

- 1 TVH
- 2 Valvola (V3V, AV24, GT3, GT3P)
- 3 GRM
- 4 HMLF
- 5 HMBE

- 6 HMSS
- 7 HPC
- 8 HPM
- 9 FAI
- 10 F7
- 11 F9

- 12 GRA
- 13 HMF9
- 14 HMF7
- 15 HM2S

## ACCESSORIES COMPATIBILITY

### Control

#### Potentiometer for fan speed control

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PVV       | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      | *      |

### Water valves

#### 2 way valve kit

|                              | TVH084      | TVH154      | TVH204 | TVH274 | TVH344 | TVH404 | TVH524 |
|------------------------------|-------------|-------------|--------|--------|--------|--------|--------|
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| 2 way valve                  | V2V2        | V2V3        | V2V4   | V2V5   | V2V5   | V2V6   | V2V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT21        | GT21        | GT22   | GT23   | GT23   | GT24   | GT24   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| 2 way valve                  | V2V1        | V2V1        | V2V4   | V2V4   | V2V4   | V2V5   | V2V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT2P1       | GT2P1       | GT2P2  | GT2P2  | GT2P2  | GT2P3  | GT2P3  |
| <b>Table 3 way valve kit</b> |             |             |        |        |        |        |        |
|                              | TVH084      | TVH154      | TVH204 | TVH274 | TVH344 | TVH404 | TVH524 |
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| Three-way valve              | V3V2        | V3V3        | V3V4   | V3V5   | V3V5   | V3V6   | V3V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT31        | GT31        | GT32   | GT33   | GT33   | GT34   | GT34   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| Three-way valve              | V3V1        | V3V1        | V3V4   | V3V4   | V3V4   | V3V5   | V3V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT3P1       | GT3P1       | GT3P2  | GT3P2  | GT3P2  | GT3P3  | GT3P3  |
| <b>Table 3 way valve kit</b> |             |             |        |        |        |        |        |
|                              | TVH084      | TVH154      | TVH204 | TVH274 | TVH344 | TVH404 | TVH524 |
| <b>Main coil</b>             |             |             |        |        |        |        |        |
| Three-way valve              | V3V2        | V3V3        | V3V4   | V3V5   | V3V5   | V3V6   | V3V6   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT31        | GT31        | GT32   | GT33   | GT33   | GT34   | GT34   |
| <b>Secondary coil</b>        |             |             |        |        |        |        |        |
| Three-way valve              | V3V1        | V3V1        | V3V4   | V3V4   | V3V4   | V3V5   | V3V5   |
| Actuator                     | AV24F/AV24M | AV24F/AV24M | AV24FM | AV24FM | AV24FM | AV24FM | AV24FM |
| Pipe assembly                | GT3P1       | GT3P1       | GT3P2  | GT3P2  | GT3P2  | GT3P3  | GT3P3  |

### Heating only additional coil

#### 2 row water coil

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| BS21      | *      | *      |        |        |        |        |        |        |        |        |        |        |        |        |
| BS22      |        |        | *      | *      |        |        |        |        |        |        |        |        |        |        |
| BS23      |        |        |        |        | *      | *      |        |        |        |        |        |        |        |        |
| BS24      |        |        |        |        |        |        | *      | *      | *      | *      |        |        |        |        |
| BS25      |        |        |        |        |        |        |        |        |        |        | *      | *      | *      | *      |

### Electric coil module

#### 2-stage electric coil module

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HMBE1     | *      | *      |        |        |        |        |        |        |        |        |        |        |        |        |
| HMBE2     |        |        | *      | *      |        |        |        |        |        |        |        |        |        |        |
| HMBE3     |        |        |        |        | *      | *      |        |        |        |        |        |        |        |        |
| HMBE4     |        |        |        |        |        |        | *      | *      | *      | *      |        |        |        |        |
| HMBE5     |        |        |        |        |        |        |        |        |        |        | *      | *      | *      | *      |

## Installation accessories

### Filter module with ePM1 50% efficiency

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HMF71     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HMF72     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HMF73     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HMF74     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HMF75     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Filter module with ePM1 80% efficiency

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HMF91     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HMF92     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HMF93     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HMF94     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HMF95     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Silencer baffles module

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HMS51     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HMS52     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HMS53     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HMS54     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HMS55     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Photocatalytic device module

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HMLF1     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HMLF2     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HMLF3     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HMLF4     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HMLF5     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Mixing chamber module complete with two calibration dampers

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HM251     | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HM252     |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HM253     |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HM254     |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HM255     |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Closed plenum

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HPC1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HPC2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HPC3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HPC4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HPC5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Plenum with circular deliveries

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| HPM1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| HPM2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| HPM3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| HPM4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| HPM5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Galvanised steel dampers

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SER1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| SER2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| SER3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| SER4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| SER5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

### Aluminium Intake grids

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GRA1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| GRA2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| GRA3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| GRA4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| GRA5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Alluminium delivery grille**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| GRM1      | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| GRM2      |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| GRM3      |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| GRM4      |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| GRM5      |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Filter with ePM1 50% efficiency**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| F71       | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| F72       |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| F73       |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| F74       |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| F75       |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Filter with ePM1 80% efficiency**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| F91       | .      | .      |        |        |        |        |        |        |        |        |        |        |        |        |
| F92       |        |        | .      | .      |        |        |        |        |        |        |        |        |        |        |
| F93       |        |        |        |        | .      | .      |        |        |        |        |        |        |        |        |
| F94       |        |        |        |        |        |        | .      | .      | .      | .      |        |        |        |        |
| F95       |        |        |        |        |        |        |        |        |        |        | .      | .      | .      | .      |

**Flow rate adjuster**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| RP1       | .      | .      | .      | .      |        |        |        |        |        |        |        |        |        |        |
| RP2       |        |        |        |        | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      |

**Differential pressure probe**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SPD       | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      |

**Filter fouling pressure switch**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SPF       | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      |

**Servocontrol**

| Accessory | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SCS       | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      | .      |

## 4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

|   |       | TVH084          | TVH154          | TVH204          | TVH274          | TVH344          | TVH404          | TVH524          |
|---|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)</b>      |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 11,60           | 20,80           | 28,50           | 36,60           | 47,10           | 60,30           | 73,90           |
| Water flow rate   | l/h   | 994             | 1787            | 2454            | 3150            | 4054            | 5189            | 6353            |
| Pressure drop   | kPa   | 31              | 31              | 48              | 31              | 53              | 42              | 60              |
| <b>Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)</b> |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 5,70            | 10,30           | 14,10           | 18,20           | 23,40           | 29,80           | 36,50           |
| Water flow rate   | l/h   | 985             | 1769            | 2431            | 3123            | 4017            | 5125            | 6270            |
| Pressure drop   | kPa   | 33              | 32              | 51              | 33              | 56              | 45              | 64              |
| <b>Heating performance 65 °C / 55 °C - Secondary coil 4-pipe system (3)</b>         |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 4,40            | 8,10            | 14,40           | 18,40           | 23,60           | 28,30           | 32,90           |
| Water flow rate   | l/h   | 380             | 697             | 1235            | 1579            | 2031            | 2433            | 2828            |
| Pressure drop   | kPa   | 6               | 26              | 18              | 20              | 32              | 19              | 25              |
| <b>Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)</b>              |       |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity  | kW    | 4,70            | 8,30            | 11,90           | 14,30           | 19,30           | 24,90           | 29,30           |
| Sensible cooling capacity   | kW    | 3,50            | 6,20            | 8,50            | 10,80           | 14,10           | 17,60           | 21,40           |
| Water flow rate   | l/h   | 815             | 1422            | 2038            | 2447            | 3316            | 4267            | 5032            |
| Pressure drop   | kPa   | 27              | 25              | 41              | 23              | 44              | 38              | 51              |
| <b>Fan</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        |
| Fan motor   | type  | EC              | EC              | EC              | EC              | EC              | EC              | EC              |
| Number  | no.   | 1               | 2               | 1               | 1               | 2               | 2               | 2               |
| Nominal air flow rate   | m³/h  | 800             | 1500            | 2000            | 2600            | 3400            | 4000            | 5200            |
| Nominal useful head   | Pa    | 150             | 150             | 200             | 200             | 200             | 200             | 200             |
| Maximum useful head (2-pipes) (5)   | Pa    | 202             | 232             | 438             | 536             | 540             | 443             | 521             |
| Maximum useful head (4-pipes) (5)   | Pa    | 183             | 207             | 408             | 512             | 502             | 417             | 482             |
| Input power (2-pipes) (6)   | W     | 151             | 287             | 313             | 491             | 533             | 620             | 1006            |
| Input power (4 pipes) (6)   | W     | 159             | 305             | 335             | 511             | 581             | 656             | 1074            |
| <b>Sound data (7)</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Sound power level (inlet + radiated)  | dB(A) | 74,0            | 74,0            | 70,0            | 76,0            | 72,0            | 73,0            | 79,0            |
| Sound power level (outlet)  | dB(A) | 72,0            | 75,0            | 72,0            | 78,0            | 73,0            | 75,0            | 81,0            |
| <b>Diameter hydraulic fittings</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Main heat exchanger   | Ø     | 3/4" F          | 3/4" F          | 1" F            | 1" F            | 1" F            | 1" F            | 1" F            |
| Secondary heat exchanger  | Ø     | 1/2" F          | 1/2" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          |
| Condensate discharge diameter   | mm    | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          |
| <b>Power supply</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Power supply  |       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       |
| <b>Air filter</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) |
| <b>Electric coil</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Electric coil capacity  | kW    | 1,5 + 1,5       | 2,5 + 2,5       | 4 + 4           | 6 + 6           | 6 + 6           | 7,5 + 7,5       | 7,5 + 7,5       |
| Stages  | no.   | 2               | 2               | 2               | 2               | 2               | 2               | 2               |
| Power supply  |       | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C / 60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C

(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C

(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C

(5) Maximum high static pressure at nominal air flow rate, in heating mode

(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode

(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

## 6-ROW COIL UNIT PERFORMANCE DATA

|   |       | TVH086          | TVH156          | TVH206          | TVH276          | TVH346          | TVH406          | TVH526          |
|---|-------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Performance in heating mode 70 °C / 60 °C - Main coil 2-pipe system (1)</b>      |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 12,40           | 22,60           | 30,80           | 39,40           | 51,30           | 64,90           | 80,10           |
| Water flow rate   | l/h   | 1070            | 1941            | 2652            | 3391            | 4407            | 5578            | 6889            |
| Pressure drop   | kPa   | 54              | 32              | 37              | 31              | 53              | 34              | 50              |
| <b>Performance in heating mode 45 °C / 40 °C - Main coil for 2-pipe systems (2)</b> |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 6,20            | 11,20           | 15,30           | 19,60           | 25,50           | 32,20           | 39,90           |
| Water flow rate   | l/h   | 1063            | 1923            | 2630            | 3369            | 4377            | 5537            | 6855            |
| Pressure drop   | kPa   | 58              | 34              | 40              | 33              | 57              | 37              | 53              |
| <b>Heating performance 65 °C / 55 °C - Secondary coil 4-pipe system (3)</b>         |       |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity  | kW    | 4,40            | 8,10            | 14,40           | 18,40           | 23,60           | 28,30           | 32,90           |
| Water flow rate   | l/h   | 380             | 697             | 1235            | 1579            | 2031            | 2433            | 2828            |
| Pressure drop   | kPa   | 6               | 26              | 18              | 20              | 32              | 19              | 25              |
| <b>Cooling performances 7 °C / 12 °C - Main coil 2 pipe system (4)</b>              |       |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity  | kW    | 5,60            | 9,70            | 13,60           | 16,70           | 22,30           | 28,10           | 33,70           |
| Sensible cooling capacity   | kW    | 4,00            | 6,90            | 9,50            | 12,10           | 15,80           | 19,60           | 24,00           |
| Water flow rate   | l/h   | 965             | 1666            | 2329            | 2862            | 3827            | 4819            | 5789            |
| Pressure drop   | kPa   | 46              | 30              | 36              | 26              | 49              | 34              | 47              |
| <b>Fan</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        | Plug Fan        |
| Fan motor   | type  | EC              | EC              | EC              | EC              | EC              | EC              | EC              |
| Number  | no.   | 1               | 2               | 1               | 1               | 2               | 2               | 2               |
| Nominal air flow rate   | m³/h  | 800             | 1500            | 2000            | 2600            | 3400            | 4000            | 5200            |
| Nominal useful head   | Pa    | 150             | 150             | 200             | 200             | 200             | 200             | 200             |
| Maximum useful head (2-pipes) (5)   | Pa    | 193             | 219             | 425             | 525             | 524             | 432             | 505             |
| Maximum useful head (4-pipes) (5)   | Pa    | 174             | 194             | 395             | 501             | 486             | 406             | 466             |
| Input power (2-pipes) (6)   | W     | 155             | 297             | 322             | 500             | 555             | 635             | 1036            |
| Input power (4 pipes) (6)   | W     | 163             | 315             | 344             | 520             | 601             | 671             | 1102            |
| <b>Sound data (7)</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Sound power level (inlet + radiated)  | dB(A) | 74,0            | 75,0            | 70,0            | 76,0            | 73,0            | 73,0            | 79,0            |
| Sound power level (outlet)  | dB(A) | 73,0            | 75,0            | 72,0            | 78,0            | 73,0            | 75,0            | 82,0            |
| <b>Diameter hydraulic fittings</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Main heat exchanger   | Ø     | 3/4" F          | 3/4" F          | 1" F            | 1" F            | 1" F            | 1" F            | 1" F            |
| Secondary heat exchanger  | Ø     | 1/2" F          | 1/2" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          | 3/4" F          |
| Condensate discharge diameter   | mm    | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          | 3/4" M          |
| <b>Power supply</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Power supply  |       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       | 230V~50Hz       |
| <b>Air filter</b>   |       |                 |                 |                 |                 |                 |                 |                 |
| Type  | type  | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) | Coarse 55% (G4) |
| <b>Electric coil</b>  |       |                 |                 |                 |                 |                 |                 |                 |
| Electric coil capacity  | kW    | 1,5 + 1,5       | 2,5 + 2,5       | 4 + 4           | 6 + 6           | 6 + 6           | 7,5 + 7,5       | 7,5 + 7,5       |
| Stages  | no.   | 2               | 2               | 2               | 2               | 2               | 2               | 2               |
| Power supply  |       | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     | 400V~3 50Hz     |

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C / 60 °C

(2) Room air temperature 20 °C d.b.; Water (in/out) 45 °C / 40 °C

(3) Room air temperature 20 °C d.b.; Water (in/out) 65 °C / 55 °C

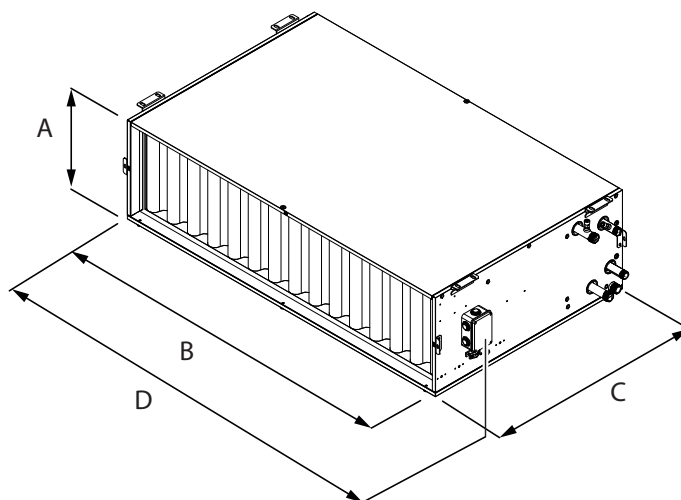
(4) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C

(5) Maximum high static pressure at nominal air flow rate, in heating mode

(6) Input power at nominal air flow rate, at nominal high static pressure, in heating mode

(7) Sound data in 2-pipe configuration, at nominal air flow rate, at nominal high static pressure, in heating mode

## DIMENSIONS



### Unit for horizontal installation

|                               |    | TVH084 | TVH086 | TVH154 | TVH156 | TVH204 | TVH206 | TVH274 | TVH276 | TVH344 | TVH346 | TVH404 | TVH406 | TVH524 | TVH526 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                             | mm | 300    | 300    | 300    | 300    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    |
| B                             | mm | 700    | 700    | 1000   | 1000   | 1000   | 1000   | 1400   | 1400   | 1400   | 1400   | 2000   | 2000   | 2000   | 2000   |
| C                             | mm | 700    | 700    | 700    | 700    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    | 850    |
| D                             | mm | 758    | 758    | 1058   | 1058   | 1058   | 1058   | 1458   | 1458   | 1458   | 1458   | 2058   | 2058   | 2058   | 2058   |
| Net weight                    | kg | 30,0   | 31,0   | 43,0   | 45,0   | 55,0   | 58,0   | 69,0   | 73,0   | 80,0   | 85,0   | 110,0  | 116,0  | 110,0  | 116,0  |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# TS

## Air handling unit



- **Very quiet**
- **Available units with heat exchanger with 3-4-6 rows**
- **Ductable units**



### DESCRIPTION

The air-conditioning units of the TS series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

### STRUCTURE

#### Case

Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation.

#### Ventilation group

Statically and dynamically balanced centrifugal fans:

- Three-speed electrical motor with running capacitor permanently activated and internal thermal protection
- Transmission system relay card for each speed (excluding the models TS13 and TS16)
- Useful static pressure available for any canalisation

#### Heat exchanger coil

3, 4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.

The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

#### Condensate drip

Condensate drip tray in stainless steel AISI 304 with insulation.

### ACCESSORIES

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant

panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**FMT10:** Electronic thermostat for fan coil in to 2/4 pipe systems.

**PXAE:** Electronic thermostat with thermostated or continuous ventilation.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**TX:** Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

**TSBA:** 2-row coil for post-heating, contained in a delivery installation plenum.

**TSFA:** Air filter class Coarse 50%

**TSGA:** Horizontal suction grille with fixed louvers to produce suction from below together with the TSPA accessory.

**TSMX:** Section that mixes the recirculating air and the external air. Calibration of the mix via the damper, motorisation is possible.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCTK:** The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

**TSFM:** Delivery flange with rectangular section.

**VCTKM:** The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | 13 | 16 | 23 | 34 | 36 | 43 | 46 | 53 | 56 | 63 | 74 | 76 |
|--------------|----|----|----|----|----|----|----|----|----|----|----|----|
| AERS03IR (1) | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| FMT10        | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| PXAE         | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| SA5 (2)      | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| SW5 (2)      | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| TX (3)       | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT10 (3)    | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16 (3)    | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16CV (3)  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### 2-row coil for post-heating

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSBA10 | TSBA10 | TSBA20/30 | TSBA20/30 | TSBA20/30 | TSBA40 | TSBA40 | TSBA50 | TSBA50 | TSBA60/70 | TSBA60/70 | TSBA60/70 |

### Air filter

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSFA10 | TSFA10 | TSFA20/30 | TSFA20/30 | TSFA20/30 | TSFA40 | TSFA40 | TSFA50 | TSFA50 | TSFA60/70 | TSFA60/70 | TSFA60/70 |

### Intake grids

| 13     | 16     | 23        | 34        | 36        | 43        | 46        | 53        | 56        | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| TSGA10 | TSGA10 | TSGA20/40 | TSGA20/40 | TSGA20/40 | TSGA20/40 | TSGA20/40 | TSGA50/70 | TSGA50/70 | TSGA50/70 | TSGA50/70 | TSGA50/70 |

### Section that mixes

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSMX10 | TSMX10 | TSMX20/30 | TSMX20/30 | TSMX20/30 | TSMX40 | TSMX40 | TSMX50 | TSMX50 | TSMX60/70 | TSMX60/70 | TSMX60/70 |

### Plenum with suction

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSPA10 | TSPA10 | TSPA20/30 | TSPA20/30 | TSPA20/30 | TSPA40 | TSPA40 | TSPA50 | TSPA50 | TSPA60/70 | TSPA60/70 | TSPA60/70 |

### Delivery plenum

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSPM10 | TSPM10 | TSPM20/30 | TSPM20/30 | TSPM20/30 | TSPM40 | TSPM40 | TSPM50 | TSPM50 | TSPM60/70 | TSPM60/70 | TSPM60/70 |

### Delivery flange

| 13     | 16     | 23        | 34        | 36        | 43     | 46     | 53     | 56     | 63        | 74        | 76        |
|--------|--------|-----------|-----------|-----------|--------|--------|--------|--------|-----------|-----------|-----------|
| TSFM10 | TSFM10 | TSFM20/30 | TSFM20/30 | TSFM20/30 | TSFM40 | TSFM40 | TSFM50 | TSFM50 | TSFM60/70 | TSFM60/70 | TSFM60/70 |

### 2 way valve kit

| 13     | 16     | 23     | 34     | 36     | 43     | 46     | 53     | 56     | 63     | 74      | 76      |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| VCT102 | VCT102 | VCT102 | VCT102 | VCT102 | VCT202 | VCT202 | VCT202 | VCT402 | VCT402 | VCT402P | VCT402P |

### 3 way valve kit

| 13     | 16     | 23     | 34     | 36     | 43     | 46     | 53     | 56     | 63     | 74      | 76      |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| VCT103 | VCT103 | VCT103 | VCT103 | VCT103 | VCT203 | VCT203 | VCT203 | VCT403 | VCT403 | VCT403P | VCT403P |

### Actuator VCTK 230V

| 13   | 16   | 23   | 34   | 36   | 43   | 46   | 53   | 56   | 63   | 74   | 76   |
|------|------|------|------|------|------|------|------|------|------|------|------|
| VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK |

### Actuator 24V

| 13    | 16    | 23    | 34    | 36    | 43    | 46    | 53    | 56    | 63    | 74    | 76    |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM |

## PERFORMANCE SPECIFICATIONS

### 2-pipe

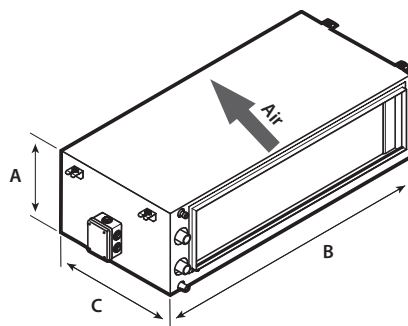
|                                       |      | TS13        |       |       | TS16  |       |       | TS23  |       |       | TS34  |       |       | TS36  |       |       | TS43  |       |       |
|---------------------------------------|------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                       |      | 1           | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     |
|                                       |      | L           | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     |
| Cooling performance 7 °C / 12 °C (1)  |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                      | kW   | 4,39        | 4,65  | 4,85  | 4,44  | 5,21  | 5,81  | 7,18  | 7,65  | 7,98  | 8,59  | 9,20  | 9,61  | 9,40  | 10,08 | 10,52 | 7,14  | 9,35  | 11,11 |
| Sensible cooling capacity             | kW   | 3,39        | 3,60  | 3,75  | 3,41  | 3,99  | 4,45  | 5,82  | 6,20  | 6,46  | 6,80  | 7,28  | 7,61  | 7,43  | 7,96  | 8,31  | 5,75  | 7,54  | 8,96  |
| Water flow rate system side           | l/h  | 754         | 800   | 835   | 764   | 896   | 999   | 1235  | 1315  | 1372  | 1478  | 1583  | 1653  | 1617  | 1733  | 1809  | 1227  | 1608  | 1912  |
| Pressure drop system side             | kPa  | 17          | 19    | 21    | 6     | 7     | 9     | 20    | 23    | 24    | 20    | 22    | 24    | 13    | 15    | 16    | 10    | 17    | 23    |
| Heating performance 70 °C / 60 °C (2) |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                      | kW   | 8,89        | 9,43  | 9,83  | 9,75  | 11,34 | 12,61 | 14,14 | 15,04 | 15,67 | 17,71 | 18,92 | 19,76 | 19,36 | 20,71 | 21,60 | 14,24 | 18,33 | 21,67 |
| Water flow rate system side           | l/h  | 780         | 827   | 862   | 856   | 995   | 1106  | 1240  | 1319  | 1375  | 1553  | 1660  | 1733  | 1698  | 1816  | 1894  | 1249  | 1068  | 1900  |
| Pressure drop system side             | kPa  | 10          | 12    | 13    | 5     | 7     | 8     | 10    | 12    | 12    | 17    | 19    | 21    | 11    | 13    | 14    | 8     | 13    | 18    |
| Fan                                   |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate                         | m³/h | 810         | 877   | 930   | 656   | 803   | 930   | 1316  | 1432  | 1518  | 1376  | 1507  | 1600  | 1376  | 1510  | 1601  | 1170  | 1631  | 2050  |
| High static pressure                  | Pa   | 68          | 80    | 90    | 27    | 41    | 55    | 77    | 91    | 102   | 62    | 75    | 85    | 33    | 40    | 45    | 37    | 72    | 114   |
| Input power                           | kW   | 0,1         | 0,1   | 0,2   | 0,1   | 0,1   | 0,2   | 0,2   | 0,3   | 0,3   | 0,2   | 0,3   | 0,3   | 0,2   | 0,3   | 0,3   | 0,3   | 0,3   | 0,4   |
| Type                                  | type | Centrifugal |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan motor                             | type | On-Off      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                | no.  | 1           |       |       | 1     |       |       | 2     |       |       | 2     |       |       | 2     |       |       | 2     |       |       |
| Diametre hydraulic fittings           |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                  | type | Gas         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Main heat exchanger                   | Ø    | 3/4"        |       |       | 1"    |       |       | 3/4"  |       |       | 3/4"  |       |       | 1"    |       |       | 3/4"  |       |       |
| Power supply                          |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 230V~50Hz                             |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                                       |      | TS46        |       |       | TS53  |       |       | TS56  |       |       | TS63  |       |       | TS74  |       |       | TS76  |       |       |
|                                       |      | 1           | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     | 1     | 2     | 3     |
|                                       |      | L           | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     | L     | M     | H     |
| Cooling performance 7 °C / 12 °C (1)  |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                      | kW   | 8,57        | 11,27 | 13,44 | 8,05  | 11,06 | 13,86 | 9,50  | 13,13 | 16,47 | 8,11  | 12,84 | 16,62 | 17,47 | 20,65 | 21,92 | 19,79 | 23,38 | 24,93 |
| Sensible cooling capacity             | kW   | 6,90        | 9,06  | 10,81 | 5,68  | 7,80  | 9,77  | 6,73  | 9,31  | 11,68 | 6,40  | 10,12 | 13,11 | 14,20 | 16,78 | 17,82 | 16,04 | 18,95 | 20,21 |
| Water flow rate system side           | l/h  | 1474        | 1938  | 2311  | 1385  | 1902  | 2384  | 1633  | 2260  | 2833  | 1395  | 2208  | 2858  | 3006  | 3551  | 3771  | 3405  | 4022  | 4289  |
| Pressure drop system side             | kPa  | 8           | 13    | 17    | 12    | 21    | 32    | 10    | 18    | 27    | 7     | 16    | 26    | 19    | 25    | 28    | 17    | 23    | 26    |
| Heating performance 70 °C / 60 °C (2) |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                      | kW   | 18,17       | 23,45 | 27,83 | 15,55 | 20,82 | 25,89 | 19,63 | 26,43 | 32,90 | 18,32 | 27,78 | 35,61 | 37,33 | 43,80 | 46,45 | 42,00 | 49,25 | 52,44 |
| Water flow rate system side           | l/h  | 1593        | 2056  | 2440  | 1364  | 1826  | 2270  | 1722  | 2321  | 2886  | 1607  | 2436  | 3123  | 3274  | 3841  | 4073  | 3683  | 4319  | 4599  |
| Pressure drop system side             | kPa  | 6           | 10    | 14    | 9     | 15    | 22    | 9     | 15    | 22    | 6     | 13    | 21    | 16    | 22    | 24    | 15    | 20    | 22    |
| Fan                                   |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate                         | m³/h | 1173        | 1642  | 2076  | 1211  | 1775  | 2387  | 1202  | 1777  | 2391  | 1493  | 2570  | 3599  | 3117  | 3869  | 4200  | 3119  | 3869  | 4225  |
| High static pressure                  | Pa   | 24          | 48    | 76    | 26    | 57    | 104   | 18    | 38    | 69    | 20    | 61    | 120   | 63    | 97    | 115   | 41    | 63    | 75    |
| Input power                           | kW   | 0,3         | 0,3   | 0,4   | 0,3   | 0,4   | 0,5   | 0,3   | 0,4   | 0,5   | 0,3   | 0,4   | 0,6   | 0,7   | 0,8   | 0,8   | 0,7   | 0,8   | 0,8   |
| Type                                  | type | Centrifugal |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan motor                             | type | On-Off      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                | no.  | 2           |       |       | 2     |       |       | 2     |       |       | 2     |       |       | 2     |       |       | 2     |       |       |
| Diametre hydraulic fittings           |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                  | type | Gas         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Main heat exchanger                   | Ø    | 1"          |       |       | 3/4"  |       |       | 1"    |       |       | 1"    |       |       | 1"    |       |       | 1"1/4 |       |       |
| Power supply                          |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| 230V~50Hz                             |      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;

(2) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C;

**Unit designed to operate with all recirculating air or maximum 10% of external air.**

## DIMENSIONS



| Size                          |    | 13  | 16  | 23   | 34   | 36   | 43   | 46   | 53   | 56   | 63   | 74   | 76   |
|-------------------------------|----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |     |     |      |      |      |      |      |      |      |      |      |      |
| A                             | mm | 295 | 295 | 295  | 295  | 295  | 325  | 325  | 325  | 325  | 375  | 375  | 375  |
| B                             | mm | 645 | 645 | 1000 | 1000 | 1000 | 1100 | 1100 | 1345 | 1345 | 1345 | 1345 | 1345 |
| C                             | mm | 520 | 520 | 520  | 520  | 520  | 600  | 600  | 600  | 600  | 600  | 600  | 600  |
| Empty weight                  | kg | 25  | 27  | 35   | 38   | 42   | 42   | 46   | 48   | 52   | 56   | 61   | 67   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# TA

## Air handling unit

- Horizontal or vertical, configurations
- Available units with heat exchanger with 4-6 rows
- Version with 4 row expansion coil using R410A
- Version with extractor



### DESCRIPTION

The air-conditioning units of the TA series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

### FEATURES

#### Structure

Made of galvanised steel sandwich panels with polyurethane insulation (density 45 kg/m<sup>3</sup>), 15 mm thick. The intake and delivery panels are fitted with flanges for the connection to any possible air channels or accessories. The unit is supplied with specific brackets for attaching it to the wall.

#### Air filtration

Filtration of the air entrusted to class G4 filters in compliance with EN779 (thickness 50mm) as per standard positioned at intake.

#### Ventilation group

Fans double intake centrifugal with forward blades and directly coupled motor. The 230V-50Hz single-phase motor has many speeds, of which three can be selected via the control panel.

#### Heat exchanger coil

4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site. The possibility to rotate the coils on site is envisioned.

■ Also available are coils with 4 rows with direct expansion operating with R410A fluid and post-heating coils with 2 rows realised in copper piping with aluminium louvers blocked via mechanical expansion of the pipes.

#### Condensate drip

Condensate drip tray interior isolated in aluminium alloy.

### ACCESSORIES

**AER503IR:** Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those

with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

**SA5:** air probe kit (L = 15 m) with probe-locking cable grommet.

**SIT3:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

**SW5:** water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

**WMT10:** Electronic thermostat, white, with thermostated or continuous ventilation.

**WMT16:** Electronic thermostat with thermostated ventilation.

**WMT16CV:** Electronic thermostat with continuous ventilation.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCT:** These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

**VCTK:** The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

**VCTKM:** The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

**M2S:** Galvanised steel mixing chamber with two dampers for air calibration. Louver pitch 50 mm, the galvanised steel adjustment knob (diameter 8 mm) can be motorised.

**M3S:** Galvanised steel mixing chamber with three air calibration dampers and galvanised steel plates. Must necessarily be paired with the VRF accessory.

**FTF:** Soft bag filters. Section in galvanised steel sheet metal with F6 soft bag filters. Must necessarily be paired in the powered units.

**B2R:** Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil.

**PBE:** Section with post heating coil composed of armoured heaters equipped with a double safety thermostat.

**SSL:** Module with seven galvanised steel sheet metal silencers and seven stone wool silencers covered by polyethylene film to prevent chipping.

**S2Z:** Galvanised steel opposed louvers dampers for mixing outside air with recirculating air.

**VRF:** Recovery fan unit equipped with electronic variable speed control. The unit is contained in a galvanised steel sheet metal section equipped with flat filters, efficiency level G4 (EN779).

**SAS:** Air calibration damper with galvanised sheet metal louvers to be positioned for intake. Louver pitch 50 mm; the galvanised steel adjustment knob can be motorised.

**GMD:** Air delivery grill with louvers that can be positioned for the delivery of air in the room to be treated. May be installed directly on the device by removing the flanges or installed on the wall.

**GAP:** Intake grille with louvers at a fixed 45° angle. May be installed directly on the device by removing the flanges or installed on the wall.

**FPI:** ISO COARSE 50% filter flange for intake at base.

**PMM:** Plenum with circular multiple delivery, thickness 1.5 mm. The plenum is equipped with multi-diameter circular connections (200 mm, 180 mm, 150 mm) made of plastic to permit the connection of circular conduits.

**PMC:** Closed delivery plenum in 1.5 mm thick hot-dip galvanised sheet metal. The plenum allows for flow to be rotated by 90°. Opening the delivery outlet is the installer's responsibility.

## ACCESSORIES COMPATIBILITY

### Control panels

| Model        | Ver              | 09 | 11 | 15 | 19 | 24 | 33 | 40 | 50 |
|--------------|------------------|----|----|----|----|----|----|----|----|
| AER503IR (1) | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| SAS (2)      | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| SIT3 (3)     | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| SW5 (2)      | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT10 (4)    | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16 (4)    | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |
| WMT16CV (4)  | H4,H6,HE,V4,V6,X | *  | *  | *  | *  | *  | *  | *  | *  |

(1) Wall-mount installation.

(2) Probe for AER503IR-TX thermostats, if fitted.

(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Wall-mounting. If the unit intake exceeds 0,7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.

### 2 way valve kit

| Ver            | 09     | 11     | 15     | 19     | 24     | 33     | 40      | 50      |
|----------------|--------|--------|--------|--------|--------|--------|---------|---------|
| H4, H6, V4, V6 | VCT102 | VCT102 | VCT202 | VCT202 | VCT202 | VCT402 | VCT402P | VCT402P |

### 3 way valve kit

| Ver            | 09     | 11     | 15     | 19              | 24              | 33 | 40 | 50 |
|----------------|--------|--------|--------|-----------------|-----------------|----|----|----|
| H4, H6, V4, V6 | VCT103 | VCT103 | VCT203 | VCT403, VCT403P | VCT403, VCT403P | -  | -  | -  |

The accessory cannot be fitted on the configurations indicated with -

### Actuator VCTK 230V

| Ver            | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|----------------|------|------|------|------|------|------|------|------|
| H4, H6, V4, V6 | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK | VCTK |

### Actuator 24V

| Ver            | 09    | 11    | 15    | 19    | 24    | 33    | 40    | 50    |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| H4, H6, V4, V6 | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM | VCTKM |

### 2-damper mixing chamber

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | M2S1 | M2S1 | M2S2 | M2S3 | M2S4 | M2S4 | M2S5 | M2S5 |

### 3-damper mixing chamber

| Ver                   | 09       | 11       | 15       | 19       | 24       | 33       | 40       | 50       |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| H4, H6, HE, V4, V6, X | M3S1 (1) | M3S1 (1) | M3S2 (1) | M3S3 (1) | M3S4 (1) | M3S4 (1) | M3S5 (1) | M3S5 (1) |

(1) It must necessarily be combined with the VRF accessory.

### Closed delivery plenum

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | PMC1 | PMC1 | PMC2 | PMC3 | PMC4 | PMC4 | PMC5 | PMC5 |

### Soft bag filter section

| Ver                   | 09       | 11       | 15       | 19       | 24       | 33       | 40       | 50       |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| H4, H6, HE, V4, V6, X | FTF1 (1) | FTF1 (1) | FTF2 (1) | FTF3 (1) | FTF4 (1) | FTF4 (1) | FTF5 (1) | FTF5 (1) |

(1) It must necessarily be combined in the enhanced units.

### 2-row coil

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | B2R1 | B2R1 | B2R2 | B2R3 | B2R4 | B2R4 | B2R5 | B2R5 |

### PMM

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | PMM1 | PMM1 | PMM2 | PMM3 | PMM4 | PMM4 | PMM5 | PMM5 |

**ISO COARSE 50% filter flange for intake at base.**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | FPI1 | FPI1 | FPI2 | FPI3 | FPI4 | FPI4 | FPI5 | FPI5 |

**Section with post-heating coil**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | PBE1 | PBE2 | PBE3 | PBE4 | PBE5 | PBE6 | PBE7 | PBE8 |

**Silencer baffles module**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | SSL1 | SSL1 | SSL2 | SSL3 | SSL4 | SSL4 | SSL5 | SSL5 |

**2 zone damper**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | SZ21 | SZ21 | SZ22 | SZ23 | SZ24 | SZ24 | SZ25 | SZ25 |

**Return ventilating section with a G4 filter**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | VRF1 | VRF2 | VRF3 | VRF4 | VRF5 | VRF6 | VRF7 | VRF8 |

**Suction damper**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | SAS1 | SAS1 | SAS2 | SAS3 | SAS3 | SAS3 | SAS5 | SAS5 |

**Outlet grille with adjustable louvers**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | GMD1 | GMD1 | GMD2 | GMD3 | GMD4 | GMD4 | GMD5 | GMD5 |

**Intake grids**

| Ver                   | 09   | 11   | 15   | 19   | 24   | 33   | 40   | 50   |
|-----------------------|------|------|------|------|------|------|------|------|
| H4, H6, HE, V4, V6, X | GAP1 | GAP1 | GAP2 | GAP3 | GAP4 | GAP4 | GAP5 | GAP5 |

## 4-ROW COIL UNIT PERFORMANCE DATA

Units designed to operate with all recirculating air or maximum 10% of external air.

### Versions H/V

|   |       | TA09H4      | TA09V4 | TA11H4 | TA11V4 | TA15H4 | TA15V4 | TA19H4 | TA19V4 | TA24H4 | TA24V4 | TA33H4 | TA33V4 | TA40H4 | TA40V4 | TA50H4 | TA50V4 |
|---|-------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling performances 7 °C / 12 °C - 2 pipe system (1) |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                      | kW    | 4,20        | 4,20   | 5,70   | 5,70   | 8,70   | 8,70   | 12,40  | 12,40  | 17,30  | 17,30  | 21,70  | 21,70  | 27,20  | 27,20  | 33,50  | 33,50  |
| Sensible cooling capacity                             | kW    | 3,50        | 3,50   | 4,20   | 4,20   | 6,20   | 6,20   | 8,30   | 8,30   | 11,20  | 11,20  | 14,30  | 14,30  | 18,00  | 18,00  | 20,90  | 20,90  |
| Water flow rate                                       | l/h   | 722         | 722    | 980    | 980    | 1496   | 1496   | 2132   | 2132   | 2975   | 2975   | 3732   | 3732   | 4678   | 4678   | 5761   | 5761   |
| Pressure drop   | kPa   | 6           | 6      | 6      | 6      | 7      | 7      | 12     | 12     | 16     | 16     | 23     | 23     | 11     | 11     | 31     | 31     |
| Heating performance 70 °C / 60 °C - 2 pipe system     |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 10,40       | 10,40  | 13,30  | 13,30  | 19,10  | 19,10  | 24,70  | 24,70  | 34,10  | 34,10  | 41,90  | 41,90  | 52,80  | 52,80  | 58,30  | 58,30  |
| Water flow rate                                       | l/h   | 894         | 894    | 1139   | 1139   | 1642   | 1642   | 2124   | 2124   | 2932   | 2932   | 3603   | 3603   | 4538   | 4538   | 5013   | 5013   |
| Pressure drop   | kPa   | 5           | 5      | 8      | 8      | 7      | 7      | 10     | 10     | 13     | 13     | 19     | 19     | 10     | 10     | 22     | 22     |
| 2-rows-heating coil with hot water - (accessory) (2)  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 3,90        | 3,90   | 8,50   | 8,50   | 12,70  | 12,70  | 16,00  | 16,00  | 21,70  | 21,70  | 26,70  | 26,70  | 34,80  | 34,80  | 40,00  | 40,00  |
| Water flow rate                                       | l/h   | 333         | 333    | 731    | 731    | 1092   | 1092   | 1371   | 1371   | 1866   | 1866   | 2291   | 2291   | 2988   | 2988   | 3439   | 3439   |
| Pressure drop   | kPa   | 8           | 8      | 11     | 11     | 13     | 13     | 14     | 14     | 18     | 18     | 26     | 26     | 18     | 18     | 23     | 23     |
| Electric heating coil - (accessory)                   |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 4,00        | 4,00   | 6,00   | 6,00   | 8,00   | 8,00   | 10,00  | 10,00  | 12,00  | 12,00  | 16,00  | 16,00  | 20,00  | 20,00  | 24,00  | 24,00  |
| Stages  | no.   | 2           | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Power supply  |       | 400V~3 50Hz |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan   |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | type  | Centrifugal |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number  | no.   | 1           | 1      | 2      | 2      | 2      | 2      | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      |
| Air flow rate   | m³/h  | 800         | 800    | 1100   | 1100   | 1500   | 1500   | 1900   | 1900   | 2400   | 2400   | 3300   | 3300   | 4000   | 4000   | 5000   | 5000   |
| High static pressure                                  | Pa    | 145         | 145    | 290    | 290    | 176    | 176    | 240    | 240    | 211    | 211    | 245    | 245    | 248    | 248    | 153    | 153    |
| Input power   | kW    | 0.25        |        | 0.31   |        | 0.38   |        | 0.61   |        | 0.83   |        | 0.81   |        | 0.98   |        | 1.28   |        |
| Air filter  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | type  | G4 / F6     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound data  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                     | dB(A) | 62,0        | 62,0   | 66,0   | 66,0   | 67,0   | 67,0   | 72,0   | 72,0   | 74,0   | 74,0   | 75,0   | 75,0   | 76,0   | 76,0   | 79,0   | 79,0   |
| Power supply  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Power supply  |       | 230V~50Hz   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

- (1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C  
 (2) Water temperature (in/out) 70°C / 60°C.

## 6-ROW COIL UNIT PERFORMANCE DATA

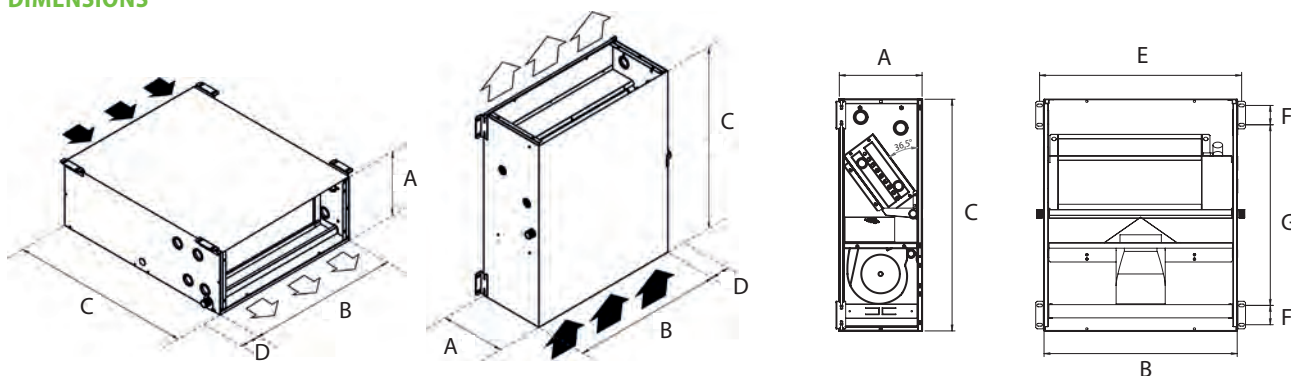
### Versions H/V

|   |       | TA09H6      | TA09V6 | TA11H6 | TA11V6 | TA15H6 | TA15V6 | TA19H6 | TA19V6 | TA24H6 | TA24V6 | TA33H6 | TA33V6 | TA40H6 | TA40V6 | TA50H6 | TA50V6 |
|---|-------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling performances 7 °C / 12 °C - 2 pipe system (1) |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                      | kW    | 5,10        | 5,10   | 6,70   | 6,70   | 11,70  | 11,70  | 15,50  | 15,50  | 20,60  | 20,60  | 26,30  | 26,30  | 33,50  | 33,50  | 39,60  | 39,60  |
| Sensible cooling capacity                             | kW    | 3,40        | 3,40   | 4,70   | 4,70   | 7,50   | 7,50   | 9,80   | 9,80   | 12,80  | 12,80  | 16,60  | 16,60  | 20,90  | 20,90  | 25,00  | 25,00  |
| Water flow rate                                       | l/h   | 868         | 868    | 1152   | 1152   | 2012   | 2012   | 2666   | 2666   | 3543   | 3543   | 4523   | 4523   | 5761   | 5761   | 6810   | 6810   |
| Pressure drop   | kPa   | 4           | 4      | 6      | 6      | 15     | 15     | 29     | 29     | 27     | 27     | 41     | 41     | 31     | 31     | 42     | 42     |
| Heating performance 70 °C / 60 °C - 2 pipe system     |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 11,40       | 11,40  | 14,80  | 14,80  | 21,40  | 21,40  | 27,40  | 27,40  | 35,60  | 35,60  | 46,60  | 46,60  | 58,30  | 58,30  | 72,80  | 72,80  |
| Water flow rate                                       | l/h   | 976         | 976    | 1273   | 1273   | 1838   | 1838   | 2356   | 2356   | 3058   | 3058   | 4005   | 4005   | 5013   | 5013   | 6260   | 6260   |
| Pressure drop   | kPa   | 4           | 4      | 7      | 7      | 16     | 16     | 23     | 23     | 21     | 21     | 34     | 34     | 22     | 22     | 30     | 30     |
| 2-rows-heating coil with hot water - (accessory) (2)  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 3,90        | 3,90   | 8,50   | 8,50   | 12,70  | 12,70  | 16,00  | 16,00  | 21,70  | 21,70  | 26,70  | 26,70  | 34,80  | 34,80  | 40,00  | 40,00  |
| Water flow rate                                       | l/h   | 333         | 333    | 731    | 731    | 1092   | 1092   | 1371   | 1371   | 1866   | 1866   | 2291   | 2291   | 2988   | 2988   | 3439   | 3439   |
| Pressure drop   | kPa   | 8           | 8      | 11     | 11     | 13     | 13     | 14     | 14     | 18     | 18     | 26     | 26     | 18     | 18     | 23     | 23     |
| Electric heating coil - (accessory)                   |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                                      | kW    | 4,00        | 4,00   | 6,00   | 6,00   | 8,00   | 8,00   | 10,00  | 10,00  | 12,00  | 12,00  | 16,00  | 16,00  | 20,00  | 20,00  | 24,00  | 24,00  |
| Stages  | no.   | 2           | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Power supply  |       | 400V~3 50Hz |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan   |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | type  | Centrifugal |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number  | no.   | 1           | 1      | 2      | 2      | 2      | 2      | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      |
| Air flow rate   | m³/h  | 800         | 800    | 1100   | 1100   | 1500   | 1500   | 1900   | 1900   | 2400   | 2400   | 3300   | 3300   | 4000   | 4000   | 5000   | 5000   |
| High static pressure                                  | Pa    | 131         | 131    | 265    | 265    | 158    | 158    | 224    | 224    | 199    | 199    | 224    | 224    | 234    | 234    | 131    | 131    |
| Input power   | kW    | 0.25        |        | 0.31   |        | 0.38   |        | 0.61   |        | 0.83   |        | 0.81   |        | 0.98   |        | 1.28   |        |
| Air filter  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | type  | G4 / F6     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound data  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                     | dB(A) | 62,0        | 62,0   | 66,0   | 66,0   | 67,0   | 67,0   | 72,0   | 72,0   | 74,0   | 74,0   | 75,0   | 75,0   | 76,0   | 76,0   | 79,0   | 79,0   |
| Power supply  |       |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Power supply  |       | 230V~50Hz   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

- (1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C  
 (2) Water temperature (in/out) 70°C / 60°C.



## DIMENSIONS



### Unit for horizontal installation

#### Unit H

|                               |    | TA09H4 | TA09H6 | TA11H4 | TA11H6 | TA15H4 | TA15H6 | TA19H4 | TA19H6 | TA24H4 | TA24H6 | TA33H4 | TA33H6 | TA40H4 | TA40H6 | TA50H4 | TA50H6 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                             | mm | 300    | 300    | 300    | 300    | 300    | 300    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    |
| B                             | mm | 700    | 700    | 700    | 700    | 1050   | 1050   | 1050   | 1050   | 1475   | 1475   | 1475   | 1475   | 2100   | 2100   | 2100   | 2100   |
| C                             | mm | 700    | 700    | 700    | 700    | 700    | 700    | 850    | 850    | 850    | 850    | 850    | 850    | 1000   | 1000   | 1000   | 1000   |
| D                             | mm | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     |
| E                             | mm | 732    | 732    | 732    | 732    | 732    | 732    | 1082   | 1082   | 1507   | 1507   | 1507   | 1507   | 2131   | 2131   | 2131   | 2131   |
| F                             | mm | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| G                             | mm | 655    | 655    | 655    | 655    | 655    | 655    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    |
| <b>Weights</b>                |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| With 4-row water coil         | kg | 28     | 28     | 33     | 33     | 45     | 45     | 60     | 60     | 78     | 78     | 86     | 86     | 135    | 135    | 140    | 140    |
| With 6-row water coil         | kg | 30     | 30     | 35     | 35     | 47     | 47     | 62     | 62     | 81     | 81     | 89     | 89     | 139    | 139    | 144    | 144    |

### Unit for vertical installation

#### Unit V

|                               |    | TA09V4 | TA09V6 | TA11V4 | TA11V6 | TA15V4 | TA15V6 | TA19V4 | TA19V6 | TA24V4 | TA24V6 | TA33V4 | TA33V6 | TA40V4 | TA40V6 | TA50V4 | TA50V6 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                             | mm | 300    | 300    | 300    | 300    | 300    | 300    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    | 390    |
| B                             | mm | 700    | 700    | 700    | 700    | 1050   | 1050   | 1050   | 1050   | 1475   | 1475   | 1475   | 1475   | 2100   | 2100   | 2100   | 2100   |
| C                             | mm | 700    | 700    | 700    | 700    | 700    | 700    | 850    | 850    | 850    | 850    | 850    | 850    | 1000   | 1000   | 1000   | 1000   |
| D                             | mm | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     | 82     |
| E                             | mm | 732    | 732    | 732    | 732    | 732    | 732    | 1082   | 1082   | 1507   | 1507   | 1507   | 1507   | 2131   | 2131   | 2131   | 2131   |
| F                             | mm | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| G                             | mm | 655    | 655    | 655    | 655    | 655    | 655    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    | 905    |
| <b>Weights</b>                |    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| With 4-row water coil         | kg | 28     | 28     | 33     | 33     | 33     | 45     | 45     | 60     | 60     | 78     | 78     | 86     | 86     | 135    | 135    | 140    |
| With 6-row water coil         | kg | 30     | 30     | 35     | 35     | 35     | 47     | 47     | 62     | 62     | 81     | 81     | 89     | 89     | 139    | 139    | 144    |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## TN

## Air handling unit

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Wide choice of accessories.**
- **Large range of capacities and static pressures.**
- **Versions available with water coil or with direct expansion.**



### DESCRIPTION

The TN range offers an alternative to the air treatment unit for flow rates from 2300 to 23000m<sup>3</sup>/h when the only treatment required is filtering, cooling and/or heating. Designed for domestic, commercial, industrial or hotel systems in small or medium sized contexts.

The units can be installed horizontally or vertically for greater flexibility of use.

**All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.**

TN series are characterised by their compact size, low noise levels, and the wide choice of accessories.

The units are available with a plug fan unit with EC motor, or with a transmission centrifugal fan unit with AC motor (the latter comes in both the standard version and the boosted high head version).

### FEATURES

#### Structure

The structure is made of aluminium profiles with sandwich cover paneling made of galvanised steel on the inside and pre-coated RAL 9003 galvanised steel on the outside with polyurethane insulation (density 40 kg/m<sup>3</sup>) with 25 mm thickness.

Both the panels of the base unit as well as the panels of the plenum have pre-shearing that render them compatible with the insertion of the accessories.

The fixing of the paneling using a panel block profile ensures a perfect seal between the panel and the frame and makes it extremely easy to mount and remove the panels. The 3-way corner joint is made of glass-fibre reinforced nylon.

The condensate drip tray, in galvanised steel, has a threaded drain connection on both sides and can be used whether the unit is installed horizontally or vertically.

#### Water heat exchanger coils

With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows for the main one (heating or cooling) and 2,3 or 4 rows for the secondary one (heating only).

#### Evaporative heat exchanger coils

##### An alternative to the main water coil.

Suitable for R410A refrigerant. With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows and both RH and LH versions.

#### Electric heating coil

Electric heating coil with finned, armoured elements. With twin safety thermostat (automatic and manual reset). Includes the implementation contactors (commanded with 24Volt AC voltage).

Can be used both for summer post-heating and winter heating. The coil has two asymmetric levels (1/3, 2/3 of the total power) so it can be commanded at up to 3 levels.

#### Air filter

The air is filtered through synthetic 50mm filters with an efficiency level of Coarse 55% (as per the ISO 16890 standard) on the intake points.

The filters are housed on guides in the main coil section, and can be easily removed for cleaning and maintenance; just remove the panel on the side of the water connections and then take out the filters.

With the FT7MxT accessory, filtering takes place via compact filters with an EPM1 55% efficiency level (as per the ISO 16890 standard).

### VENTILATION GROUP

The configurator allows you to choose between two different types of fan unit, to meet every possible system request.

#### Ventilation group with inverter EC fan plug fan

##### Fan

The fans are of the plug-fan type with reversed blades for excellent performance with single intake.

##### Motor

The electric motors with extremely high efficiency, directly coupled to the fans, have an external EC rotor with integrated electronic control. They can be controlled continuously by a 0-10V signal. IP55 Protection rating. The motors can be powered with 380-480V / 3ph / 50-60Hz (the range is however reduced to the power supply required by the ByExT or ByExTZ electric battery accessory, if required immediately or if installed at a later date).

A standard control option via the ModBus protocol.

## Fan unit with transmission

### Fan

The fans are of the double suction centrifugal variety with high performance forward blades.

### Motor

The single-speed (4-pole) electric motors are of the three-phase asynchronous type, with a closed construction and external ventilation, caged rotor

## ACCESSORIES

**PLxT:** Plenum composed of pre-sheared panels that can be opened on 3 sides, it can be mounted as an inlet or as an outlet; it is compatible with the accessories GAxT, GMxT, SAxT and TPPLxT. It includes mounting brackets and feet (for horizontal and vertical configurations).

**FT7MxT:** Compact filters with filtering degree ePM1 55% (according to ISO 16890), composed of a plenum that can be opened on two sides, which can be positioned on the outlet of the machine; it is compatible with the accessories GMxT, SAxT and TPPxT. It includes fixing plates and feet (for horizontal and vertical configurations).

**B2RxT:** Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

**B3RxT:** Hot water coil with 3 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

**B4RxT:** Hot water coil with 4 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

**SAxT:** Air calibration damper with galvanised steel louvers. Louvers pitch 50mm; galvanised steel adjusting pin : can be installed on the equipment base or the plenum.

**GMxT:** Outlet grille with double row of louvers that can be adjusted when emitting air into the room. Can be installed on the plenum.

**GAxT:** Suction grille with louvers fixed at an angle of 45°; Can be installed directly on the equipment base or on the plenum accessories.

**TPVSxT:** Protective roof for Vertical installation with top outlet. Composed of a pre-coated metal sheet, fastened to the side of the unit. To be installed on the unit base. The accessory is not compatible with units equipped with EC plug fans.

**TPVFXt:** Protective roof for Vertical installation with front delivery. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on: PLxT, FT7MxT and vertical unit base with front outlet.

**TPLxT:** Protective roof for horizontal installation with Front outlet. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on unit base.

and B3 configuration with horizontal shaft, complying with the IEC, CEI and UNEL standards. IP55 protection rating. They are powered at 400V-3ph-50Hz (standard) or 460V-3ph-60Hz (units with "Z" power supply).

### Transmission

The pulleys (supplied with a Taperlock-type conical shrink disk) are statically and dynamically balanced, with a variable diameter for improved fan calibration. The transmission belts may be of the SPA or SPB type.

**TPPLxT:** Protective roof for the plenum, for horizontal installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on PLxT and FT7MxT, from size 3 to size 8).

**TPFTLxT:** Protective roof for the bag filters, for line installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on FT7MxT, on sizes 1 and 2).

**P50MBT:** Corner support feet for both the horizontal and vertical version. Made of galvanised sheet: they can be fixed directly to the unit with the screws supplied. The accessory has 4 corner feet and 2 side feet.

**P50ACT:** Lateral support feet for the horizontal version. Made of galvanised sheet: they come with the accessories unit together with the bolts and screws.

**ByyExT:** Electric coil 400V/3ph/50Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

**BYyExTZ:** Electric coil 460V/3ph/60Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

**CPxT:** Adjustment module with sensor for volumetric flow rate (accessory for TNxxE version only).

**CPxTP:** Adjustment module with sensor for differential pressure (accessory for TNxxE version only).

**CPxTV:** Speed regulatory (accessory only for TNxxE versions).

## ACCESSORIES COMPATIBILITY

### Plenum

| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        |
|----------|----------|----------|----------|----------|----------|----------|----------|
| PL1T (1) | PL2T (1) | PL3T (1) | PL4T (1) | PL5T (1) | PL6T (1) | PL7T (1) | PL8T (1) |

(1) For horizontal and vertical configurations.

### Compact ePM1 55% filters on the fan delivery

| 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          |
|------------|------------|------------|------------|------------|------------|------------|------------|
| FT7M1T (1) | FT7M2T (1) | FT7M3T (1) | FT7M4T (1) | FT7M5T (1) | FT7M6T (1) | FT7M7T (1) | FT7M8T (1) |

(1) For horizontal and vertical configurations.

### Hot water coil with 2 rows for lines with 4 pipes

| 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
|-------|-------|-------|-------|-------|-------|-------|-------|
| B2R1T | B2R2T | B2R3T | B2R4T | B2R5T | B2R6T | B2R7T | B2R8T |

### Hot water coil with 3 rows for lines with 4 pipes

| 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
|-------|-------|-------|-------|-------|-------|-------|-------|
| B3R1T | B3R2T | B3R3T | B3R4T | B3R5T | B3R6T | B3R7T | B3R8T |

### Hot water coil with 4 rows for lines with 4 pipes

| 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
|-------|-------|-------|-------|-------|-------|-------|-------|
| B4R1T | B4R2T | B4R3T | B4R4T | B4R5T | B4R6T | B4R7T | B4R8T |

### Suction damper

| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|------|------|------|------|------|------|------|------|
| SA1T | SA2T | SA3T | SA4T | SA5T | SA6T | SA7T | SA8T |

### Outlet grille with adjustable louvers

| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|------|------|------|------|------|------|------|------|
| GM1T | GM2T | GM3T | GM4T | GM5T | GM6T | GM7T | GM8T |

### Intake grids

| 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|------|------|------|------|------|------|------|------|
| GA1T | GA2T | GA3T | GA4T | GA5T | GA6T | GA7T | GA8T |

### Protective roof for Vertical installation with top outlet

| 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          |
|------------|------------|------------|------------|------------|------------|------------|------------|
| TPVS1T (1) | TPVS2T (1) | TPVS3T (1) | TPVS4T (1) | TPVS5T (1) | TPVS6T (1) | TPVS7T (1) | TPVS8T (1) |

(1) The accessory is not compatible with units equipped with EC plug fans.

### Protective roof for Vertical installation with front outlet

| 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|--------|--------|--------|--------|--------|--------|--------|--------|
| TPVF1T | TPVF2T | TPVF3T | TPVF4T | TPVF5T | TPVF6T | TPVF7T | TPVF8T |

### Protective roof for horizontal installation with front outlet

| 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
|-------|-------|-------|-------|-------|-------|-------|-------|
| TPL1T | TPL2T | TPL3T | TPL4T | TPL5T | TPL6T | TPL7T | TPL8T |

### Protective roof for horizontal installation with Front outlet

| 1          | 2          | 3          | 4          | 5          | 6          | 7          | 8          |
|------------|------------|------------|------------|------------|------------|------------|------------|
| TPPL1T (1) | TPPL2T (1) | TPPL3T (1) | TPPL4T (1) | TPPL5T (1) | TPPL6T (1) | TPPL7T (1) | TPPL8T (1) |

(1) To be installed on PLxT and FT7MxT from size 3 to size 8.

### Roof for protecting pocket filters for installation on Line with Front outlet

| 1           | 2           | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|-------------|---|---|---|---|---|---|
| TPFTL1T (1) | TPFTL2T (1) | - | - | - | - | - | - |

(1) To be installed on FT7MxT on sizes 1 and 2.

The accessory cannot be fitted on the configurations indicated with -

### Corner support feet

| 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|--------|--------|--------|--------|--------|--------|--------|--------|
| P50MBT | P50MBT | P50MBT | P50MBT | P50MBT | P50MBT | P50MBT | P50MBT |

### Lateral support feet

| 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|--------|--------|--------|--------|--------|--------|--------|--------|
| P50ACT | P50ACT | P50ACT | P50ACT | P50ACT | P50ACT | P50ACT | P50ACT |

### Electric coil 400V~3 50Hz

| 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      |
|--------|--------|--------|--------|--------|--------|--------|--------|
| B07E1T | B10E2T | B14E3T | B18E4T | B25E5T | B30E6T | B40E7T | B50E8T |

### Electric coil 460V~3 60Hz

| 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       |
|---------|---------|---------|---------|---------|---------|---------|---------|
| B07E1TZ | B10E2TZ | B14E3TZ | B18E4TZ | B25E5TZ | B30E6TZ | B40E7TZ | B50E8TZ |

**Adjustment module with sensor for volumetric flow rate**

| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        |
|----------|----------|----------|----------|----------|----------|----------|----------|
| CP1T (1) | CP1T (1) | CP2T (1) | CP2T (1) | CP2T (1) | CP2T (1) | CP2T (1) | CP2T (1) |

(1) Accessory only available for TNxxE versions.

**Adjustment module with sensor for differential pressure**

| 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| CP1TP (1) | CP1TP (1) | CP1TP (1) | CP1TP (1) | CP1TP (1) | CP1TP (1) | CP1TP (1) | CP1TP (1) |

(1) Accessory only available for TNxxE versions.

**Speed regulatory**

| 1         | 2         | 3         | 4         | 5         | 6         | 7         | 8         |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| CP1TV (1) | CP1TV (1) | CP1TV (1) | CP1TV (1) | CP1TV (1) | CP1TV (1) | CP1TV (1) | CP1TV (1) |

(1) Accessory only available for TNxxE versions.

**CONFIGURATOR**

| Field      | Description  |
|------------|--|
| <b>1,2</b> | <b>TN</b>  |
| <b>3</b>   | <b>Size</b><br>1, 2, 3, 4, 5, 6, 7, 8  |
| <b>4</b>   | <b>Version</b>   |
| 4          | Water coil, 4 rows (LH side for connections - the connections side can be altered on site)                         |
| 6          | Water coil, 6 rows (LH side for connections - the connections side can be altered on site)                         |
| A          | R410A direct expansion coil, 4 rows (RH side for connections - the connections side cannot be altered on site) (1) |
| B          | R410A direct expansion coil, 4 rows (LH side for connections - the connections side cannot be altered on site) (2) |
| C          | R410A direct expansion coil, 6 rows (RH side for connections - the connections side cannot be altered on site) (1) |
| D          | R410A direct expansion coil, 6 rows (LH side for connections - the connections side cannot be altered on site) (2) |
| <b>5</b>   | <b>Fans (3)</b>  |
| B          | Centrifugal with AC motor (low head)   |
| E          | Plug fans with EC motor  |
| P          | Centrifugal with AC motor (high head)  |
| <b>6</b>   | <b>Power supply (4)</b>  |
| Z          | 460V ~ 3 60Hz  |
| °          | 400V ~ 3 50Hz  |

(1) With vertical configuration, the coil connections are on the opposite side to motor inspection. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or on the opposite side, depending on the type of conversion.

(2) With vertical configuration, the coil connections and motor inspection are on the same side. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or \* VERSION: the definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).

\*\* All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.

on the opposite side, depending on the type of conversion.

(3) The unit is always supplied with fan delivery directed upwards. The delivery flow direction can be altered on site.

(4) Field to be specified only in the case of a "B" or "P" fan unit. In the case of an "E" fan unit, the permitted power supply range is 380-480V ~ 3 50-60 Hz.

## PERFORMANCE SPECIFICATIONS

### TN 1-8 with 4-row water coil

| Size   |    | 1    | 2    | 3    | 4    | 5     | 6     | 7     | 8     |
|--|----|------|------|------|------|-------|-------|-------|-------|
| <b>Cooling performance 7 °C / 12 °C (1)</b>                                |    |      |      |      |      |       |       |       |       |
| Cooling capacity   | kW | 15,6 | 21,3 | 29,1 | 38,1 | 44,8  | 56,7  | 74,7  | 96,4  |
| Sensible cooling capacity  | kW | 10,7 | 14,7 | 20,1 | 26,2 | 33,3  | 41,7  | 55,1  | 70,9  |
| <b>Heating performance 70 °C / 60 °C (2)</b>                               |    |      |      |      |      |       |       |       |       |
| Heating capacity   | kW | 40,0 | 54,5 | 74,9 | 97,6 | 131,1 | 162,9 | 216,1 | 277,3 |
| <b>Performance in heating mode with additional coil for 4-pipe systems</b> |    |      |      |      |      |       |       |       |       |
| Heating capacity with 2 row water coil                                     | kW | 25,2 | 34,0 | 46,8 | 61,5 | 84,4  | 103,8 | 138,0 | 178,5 |
| Heating capacity with 3 row water coil                                     | kW | 33,5 | 45,6 | 62,7 | 82,0 | 110,8 | 137,3 | 182,5 | 234,4 |
| Heating capacity with 4 row water coil                                     | kW | 40,0 | 54,5 | 74,9 | 97,6 | 131,1 | 162,9 | 216,1 | 277,3 |
| <b>Heating performance 45 °C / 40 °C (3)</b>                               |    |      |      |      |      |       |       |       |       |
| Heating capacity   | kW | 23,4 | 31,9 | 43,7 | 57,0 | 76,3  | 94,8  | 125,8 | 161,4 |
| <b>Performance in heating mode with additional coil for 4-pipe systems</b> |    |      |      |      |      |       |       |       |       |
| Heating capacity with 2 row water coil                                     | kW | 14,7 | 19,8 | 27,3 | 36,0 | 49,0  | 60,3  | 80,1  | 103,8 |
| Heating capacity with 3 row water coil                                     | kW | 19,6 | 26,6 | 36,6 | 47,9 | 64,4  | 79,8  | 106,1 | 136,3 |
| Heating capacity with 4 row water coil                                     | kW | 23,4 | 31,9 | 43,7 | 57,0 | 76,3  | 94,8  | 125,8 | 161,4 |

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;

(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C

(3) Room air temperature 10 °C d.b.; Water (in/out) 45 °C/40 °C;

### TN 1-8 with 4-row direct expansion coil

| Size   |    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|--|----|------|------|------|------|------|------|------|------|
| <b>Performance in cooling mode with incoming air at 27 °C / 50% R.H. (1)</b> |    |      |      |      |      |      |      |      |      |
| Cooling capacity   | kW | 12,6 | 17,1 | 23,5 | 30,2 | 38,5 | 47,7 | 63,7 | 81,5 |
| Sensible cooling capacity  | kW | 9,9  | 13,5 | 18,5 | 24,1 | 30,4 | 38,0 | 50,7 | 65,2 |

(1) Temperatura dell'aria in entrata 27 °C b.s. 50% U.R.; Refrigerante R410A, t.at. EVAP. 10 °C, fino a 8 K, trasformazione inferiore a 0 K, vapore-vapore liquido da 0 a 1; consultare il software di selezione.

### TN 1-8 with 6-row water coil

| Size   |    | 1    | 2    | 3    | 4     | 5     | 6     | 7     | 8     |
|--|----|------|------|------|-------|-------|-------|-------|-------|
| <b>Cooling performance 7 °C / 12 °C (1)</b>                                |    |      |      |      |       |       |       |       |       |
| Cooling capacity   | kW | 20,0 | 27,4 | 37,7 | 49,2  | 58,3  | 74,5  | 98,9  | 127,8 |
| Sensible cooling capacity  | kW | 13,4 | 18,3 | 25,2 | 32,8  | 41,1  | 51,8  | 68,8  | 88,5  |
| <b>Heating performance 70 °C / 60 °C (2)</b>                               |    |      |      |      |       |       |       |       |       |
| Heating capacity   | kW | 48,7 | 66,6 | 91,5 | 119,2 | 157,5 | 196,8 | 260,4 | 334,1 |
| <b>Performance in heating mode with additional coil for 4-pipe systems</b> |    |      |      |      |       |       |       |       |       |
| Heating capacity with 2 row water coil                                     | kW | 25,2 | 34,0 | 46,8 | 61,5  | 84,4  | 103,8 | 138,0 | 178,5 |
| Heating capacity with 3 row water coil                                     | kW | 33,5 | 45,6 | 62,7 | 82,0  | 110,8 | 137,3 | 182,5 | 234,4 |
| Heating capacity with 4 row water coil                                     | kW | 40,0 | 54,5 | 74,9 | 97,6  | 131,1 | 162,9 | 216,1 | 277,3 |
| <b>Heating performance 45 °C / 40 °C (3)</b>                               |    |      |      |      |       |       |       |       |       |
| Heating capacity   | kW | 28,5 | 38,9 | 53,5 | 69,6  | 91,7  | 114,3 | 151,7 | 194,6 |
| <b>Performance in heating mode with additional coil for 4-pipe systems</b> |    |      |      |      |       |       |       |       |       |
| Heating capacity with 2 row water coil                                     | kW | 14,7 | 19,8 | 27,3 | 36,0  | 49,0  | 60,3  | 80,1  | 103,8 |
| Heating capacity with 3 row water coil                                     | kW | 19,6 | 26,6 | 36,6 | 47,9  | 64,4  | 79,8  | 106,1 | 136,3 |
| Heating capacity with 4 row water coil                                     | kW | 23,4 | 31,9 | 43,7 | 57,0  | 76,3  | 94,8  | 125,8 | 161,4 |

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;

(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C

(3) Room air temperature 10 °C d.b.; Water (in/out) 45 °C/40 °C;

## GENERAL TECHNICAL DATA

### Fans

| Size | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|---|---|---|---|---|---|---|---|
|------|---|---|---|---|---|---|---|---|

#### Fans: B

|   |             |      |      |      |      |      |      |       |       |
|---|-------------|------|------|------|------|------|------|-------|-------|
| <b>Fan</b>                              |             |      |      |      |      |      |      |       |       |
| Number                                  | 4,6,A,B,C,D | no.  | 1    | 1    | 1    | 1    | 1    | 1     | 1     |
| Nr. poles                               | 4,6,A,B,C,D | no.  | 4    | 4    | 4    | 4    | 4    | 4     | 4     |
| Maximum air flow rate with cooling coil | 4,6,A,B,C,D | m³/h | 3000 | 4100 | 5650 | 7350 | 9400 | 11700 | 15500 |
| Maximum air flow rate with heating coil | 4,6,A,B,C,D | m³/h | 3500 | 4700 | 6400 | 8000 | 9750 | 13400 | 20000 |
| High static pressure - maximum          | 4,6,A,B,C,D | Pa   | 425  | 455  | 452  | 440  | 383  | 425   | 436   |
| Total fan input power                   | 4,6,A,B,C,D | kW   | 0,8  | 1,1  | 1,5  | 2,2  | 2,2  | 4,0   | 5,5   |

#### Version without resistance

|                     |             |   |     |     |     |     |     |     |     |
|---------------------|-------------|---|-----|-----|-----|-----|-----|-----|-----|
| Rated current input | 4,6,A,B,C,D | A | 1,8 | 2,4 | 3,2 | 4,7 | 4,7 | 8,2 | 8,2 |
| Peak current        | 4,6,A,B,C,D | A | 5,3 | 6,2 | 6,8 | 6,4 | 6,4 | 7,0 | 5,9 |

#### Version with electric heater

|                     |             |   |      |      |      |      |      |      |      |
|---------------------|-------------|---|------|------|------|------|------|------|------|
| Rated current input | 4,6,A,B,C,D | A | 11,9 | 16,9 | 15,0 | 23,4 | 30,7 | 40,8 | 51,6 |
| Peak current        | 4,6,A,B,C,D | A | 11,9 | 16,9 | 23,4 | 30,7 | 40,8 | 51,6 | 66,0 |

|              |             |  |            |            |            |            |            |            |            |
|--------------|-------------|--|------------|------------|------------|------------|------------|------------|------------|
| <b>Fan</b>   |             |  |            |            |            |            |            |            |            |
| Power supply | 4,6,A,B,C,D |  | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz |

| Size | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|---|---|---|---|---|---|---|---|
|------|---|---|---|---|---|---|---|---|

#### Fans: E

|   |             |      |      |      |      |      |       |       |       |
|---|-------------|------|------|------|------|------|-------|-------|-------|
| <b>Fan</b>                              |             |      |      |      |      |      |       |       |       |
| Number                                  | 4,6,A,B,C,D | no.  | 1    | 1    | 1    | 1    | 1     | 2     | 2     |
| Nr. poles                               | 4,6,A,B,C,D | no.  | -    | -    | -    | -    | -     | -     | -     |
| Maximum air flow rate with cooling coil | 4,6,A,B,C,D | m³/h | 3000 | 4100 | 5650 | 7350 | 9400  | 11700 | 15500 |
| Maximum air flow rate with heating coil | 4,6,A,B,C,D | m³/h | 3500 | 4700 | 6400 | 8400 | 10500 | 13400 | 17800 |
| High static pressure - maximum          | 4,6,A,B,C,D | Pa   | 700  | 660  | 700  | 700  | 660   | 640   | 700   |
| Total fan input power                   | 4,6,A,B,C,D | kW   | 1,5  | 1,5  | 2,5  | 3,4  | 3,4   | 3,4   | 3,4   |

#### Version without resistance

|                     |             |   |     |     |     |     |     |     |       |
|---------------------|-------------|---|-----|-----|-----|-----|-----|-----|-------|
| Rated current input | 4,6,A,B,C,D | A | 2,4 | 2,4 | 4,0 | 5,4 | 5,4 | 5,4 | 2x5,4 |
| Peak current        | 4,6,A,B,C,D | A | -   | -   | -   | -   | -   | -   | -     |

#### Version with electric heater

|                     |             |   |      |      |      |      |      |      |      |
|---------------------|-------------|---|------|------|------|------|------|------|------|
| Rated current input | 4,6,A,B,C,D | A | 12,5 | 16,9 | 24,2 | 31,4 | 41,5 | 48,8 | 68,6 |
| Peak current        | 4,6,A,B,C,D | A | -    | -    | -    | -    | -    | -    | -    |

|              |             |  |            |            |            |            |            |            |            |
|--------------|-------------|--|------------|------------|------------|------------|------------|------------|------------|
| <b>Fan</b>   |             |  |            |            |            |            |            |            |            |
| Power supply | 4,6,A,B,C,D |  | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz |

| Size | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|---|---|---|---|---|---|---|---|
|------|---|---|---|---|---|---|---|---|

#### Fans: P

|   |             |      |      |      |      |      |       |       |       |
|---|-------------|------|------|------|------|------|-------|-------|-------|
| <b>Fan</b>                              |             |      |      |      |      |      |       |       |       |
| Number                                  | 4,6,A,B,C,D | no.  | 1    | 1    | 1    | 1    | 1     | 1     | 1     |
| Nr. poles                               | 4,6,A,B,C,D | no.  | 4    | 4    | 4    | 4    | 4     | 4     | 4     |
| Maximum air flow rate with cooling coil | 4,6,A,B,C,D | m³/h | 3000 | 4100 | 5650 | 7350 | 9400  | 11700 | 15500 |
| Maximum air flow rate with heating coil | 4,6,A,B,C,D | m³/h | 3500 | 4700 | 6400 | 8400 | 10500 | 13400 | 17800 |
| High static pressure - maximum          | 4,6,A,B,C,D | Pa   | 600  | 627  | 674  | 672  | 567   | 670   | 625   |
| Total fan input power                   | 4,6,A,B,C,D | kW   | 1,1  | 1,5  | 2,2  | 3,0  | 3,0   | 5,5   | 5,5   |

#### Version without resistance

|                     |             |   |     |     |     |     |     |      |      |
|---------------------|-------------|---|-----|-----|-----|-----|-----|------|------|
| Rated current input | 4,6,A,B,C,D | A | 2,4 | 3,2 | 4,7 | 6,3 | 6,3 | 11,1 | 11,1 |
| Peak current        | 4,6,A,B,C,D | A | 6,2 | 6,8 | 6,4 | 7,7 | 7,7 | 5,9  | 5,9  |

#### Version with electric heater

|                     |             |   |      |      |      |      |      |      |      |
|---------------------|-------------|---|------|------|------|------|------|------|------|
| Rated current input | 4,6,A,B,C,D | A | 12,5 | 17,7 | 24,9 | 32,3 | 42,4 | 54,5 | 68,9 |
| Peak current        | 4,6,A,B,C,D | A | 12,5 | 17,7 | 24,9 | 32,3 | 42,4 | 54,5 | 68,9 |

|              |             |  |            |            |            |            |            |            |            |
|--------------|-------------|--|------------|------------|------------|------------|------------|------------|------------|
| <b>Fan</b>   |             |  |            |            |            |            |            |            |            |
| Power supply | 4,6,A,B,C,D |  | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz | 400~3 50Hz |

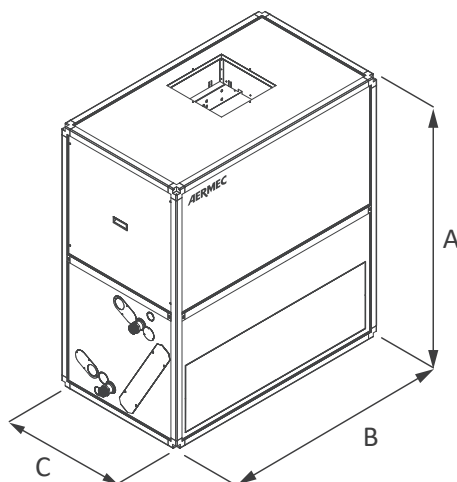
It is the maximum static pressure that can be supplied by the fan; it is equal to the internal pressure drops + the useful static pressure.

| Size | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------|---|---|---|---|---|---|---|---|
|------|---|---|---|---|---|---|---|---|

#### Finned pack heat exchanger

|   |    |     |     |     |     |     |     |     |     |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|
| H | mm | 475 | 475 | 550 | 550 | 720 | 720 | 960 | 960 |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|

## DIMENSIONS



| Size                          |             |    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|-------------------------------|-------------|----|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |             |    |      |      |      |      |      |      |      |      |
| A                             | 4,6,A,B,C,D | mm | 1334 | 1334 | 1497 | 1497 | 1822 | 1822 | 2309 | 2309 |
| B                             | 4,6,A,B,C,D | mm | 928  | 1172 | 1334 | 1659 | 1659 | 1984 | 1984 | 2472 |
| C                             | 4,6,A,B,C,D | mm | 684  | 684  | 765  | 765  | 928  | 928  | 1172 | 1172 |
| Size                          |             |    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| <b>Fans: B</b>                |             |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |             |    |      |      |      |      |      |      |      |      |
| Empty weight                  | 4           | kg | 187  | 216  | 270  | 314  | 408  | 466  | 619  | 793  |
|                               | 6           | kg | 190  | 220  | 275  | 320  | 415  | 475  | 630  | 807  |
|                               | A,B         | kg | 191  | 220  | 274  | 318  | 412  | 470  | 623  | 797  |
|                               | C,D         | kg | 195  | 225  | 280  | 325  | 420  | 480  | 635  | 812  |
| Size                          |             |    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| <b>Fans: E</b>                |             |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |             |    |      |      |      |      |      |      |      |      |
| Empty weight                  | 4           | kg | 175  | 199  | 249  | 304  | 388  | 466  | 611  | 769  |
|                               | 6           | kg | 178  | 203  | 254  | 310  | 395  | 475  | 622  | 783  |
|                               | A,B         | kg | 179  | 203  | 253  | 308  | 392  | 470  | 615  | 773  |
|                               | C,D         | kg | 183  | 208  | 259  | 315  | 400  | 480  | 627  | 788  |
| Size                          |             |    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| <b>Fans: P</b>                |             |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |             |    |      |      |      |      |      |      |      |      |
| Empty weight                  | 4           | kg | 197  | 219  | 279  | 316  | 410  | 493  | 646  | 799  |
|                               | 6           | kg | 200  | 223  | 283  | 321  | 417  | 502  | 657  | 813  |
|                               | A,B         | kg | 201  | 223  | 283  | 320  | 414  | 497  | 650  | 803  |
|                               | C,D         | kg | 205  | 228  | 289  | 327  | 422  | 507  | 662  | 818  |

Add 50mm to the height of the unit (A), to allow for the feet.  
The vertical configuration (B/D), the connections and motor inspection are on the same side.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NCD

## Air handling

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



### FEATURES

- Central air handling units with double panelling with panel thickness of 50 mm;
- Support structure realised in aluminium alloy sections and a large choice of panels;
- Wide range of sections and components to satisfy all plant engineering requirements
- Double intake centrifugal fans with forward or reverse blades.
- PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

### Structure

- In aluminium sections;
- Gaskets, able to guarantee reduced seepage in compliance with the EN1886 Standard;
- Reduction of noise emission thanks to the use of material with high sound-absorption power;
- Small dimensions and contained height.

### Internal components

- New high-efficiency heat exchangers with small pressure drops
- 3-damper mixing chamber.

### Mixing chamber with three dampers. The configurations for the mixing chambers with three dampers are the following:

- two upper dampers and an internal one for recirculation;
- two front dampers and a horizontal one for recirculation (for overlapping control units);
- two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake).

### Large availability of filters

- Filters with large surfaces to reduce the pressure drops and increase the duration;
- Cell pre-filters;
- Roll filters;
- Bag filters;
- Absolute filters;
- Activated carbon filters;
- Germicidal lamp;
- New efficient drop eliminator in PVC;

- New heat recoverers with high heat exchange.

### Electric components

- Electronic regulation available able to optimise the performance and simplify installation of the control unit itself;
- New high performance selection software.

### ACCESSORIES

#### Technical rooms;

#### Accessories for air intake/exhaust sections:

- Flange;
- Blank panel (to be perforated with care by the customer);
- Anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
- Aluminium grille (for internal dampers only);
- Manual command on the dampers;
- Proportional servo-control;
- Proportional servo-control with spring return;
- Pedestrian grill on the floor dampers.

#### Accessories for the fan-motor sections:

- Damper on the flow vent;
- Damper on the flow vent;
- Micro switch on the inspection hatch.

#### Accessories common to several sections:

- Spot light with window with 24V bulb (the installer must envision the 24V power supply);
- Manometer with dial;
- Pressure switch;
- Instruments-probes holder GJ 1/4" double sleeve;
- Floor reinforced with non-slip sheet steel.

## PERFORMANCE SPECIFICATIONS

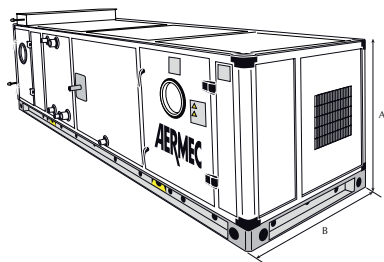
|        | Air flow rate m <sup>3</sup> /h | Section heating coil m <sup>2</sup> |
|--------|---------------------------------|-------------------------------------|
| NCD 1  | 1134                            | 0,13                                |
| NCD 2  | 1958                            | 0,22                                |
| NCD 3  | 2390                            | 0,27                                |
| NCD 4  | 3132                            | 0,35                                |
| NCD 5  | 3823                            | 0,42                                |
| NCD 6  | 4307                            | 0,48                                |
| NCD 7  | 5257                            | 0,58                                |
| NCD 8  | 6207                            | 0,69                                |
| NCD 9  | 8019                            | 0,89                                |
| NCD 10 | 9477                            | 1,05                                |
| NCD 11 | 11548                           | 1,28                                |
| NCD 12 | 14213                           | 1,58                                |
| NCD 13 | 16978                           | 1,89                                |
| NCD 14 | 19742                           | 2,19                                |
| NCD 15 | 25761                           | 2,86                                |
| NCD 16 | 30772                           | 3,42                                |
| NCD 17 | 37139                           | 4,13                                |
| NCD 18 | 47187                           | 4,80                                |
| NCD 19 | 49235                           | 5,47                                |
| NCD 20 | 55283                           | 6,14                                |
| NCD 21 | 61331                           | 6,81                                |
| NCD 22 | 67379                           | 7,49                                |
| NCD 23 | 73427                           | 8,16                                |
| NCD 24 | 79475                           | 8,83                                |

The performance refers to an air speed through the coils equal to 2.5 m/s.

|                  | EXT  |      | 734                            | 894                            | 1054                           | 1214                             | 1374                             | 1534                             | 1694                             | 1854                             | 2014                             |
|------------------|------|------|--------------------------------|--------------------------------|--------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Height with base | INT  |      | 620                            | 780                            | 940                            | 1100                             | 1260                             | 1420                             | 1580                             | 1740                             | 1900                             |
|                  |      |      | NCD1                           | NCD1A                          | NCD2                           | NCD2                             | NCD3C                            | NCD4B                            | NCD5B                            | NCD6B                            | NCD6D                            |
| 645              | 524  | 410  | 1370-1640<br>m <sup>3</sup> /h | 1880-2260<br>m <sup>3</sup> /h | 2350-2820<br>m <sup>3</sup> /h | 2350-2820<br>m <sup>3</sup> /h   | 3390-4070<br>m <sup>3</sup> /h   | 3890-4670<br>m <sup>3</sup> /h   | 4380-5250<br>m <sup>3</sup> /h   | 4860-5840<br>m <sup>3</sup> /h   | 5330-6400<br>m <sup>3</sup> /h   |
|                  |      |      | NCD1B                          | NCD3A                          | NCD4                           | NCD5                             | NCD6A                            | NCD7A                            | NCD8A                            | NCD8C                            | NCD8F                            |
| 805              | 684  | 570  | 1970-2360<br>m <sup>3</sup> /h | 2720-3260<br>m <sup>3</sup> /h | 3400-4080<br>m <sup>3</sup> /h | 4150-4980<br>m <sup>3</sup> /h   | 4900-5870<br>m <sup>3</sup> /h   | 5620-6740<br>m <sup>3</sup> /h   | 6320-7590<br>m <sup>3</sup> /h   | 7020-8430<br>m <sup>3</sup> /h   | 7700-9240<br>m <sup>3</sup> /h   |
|                  |      |      | NCD2A                          | NCD4A                          | NCD6                           | NCD7                             | NCD8                             | NCD8D                            | NCD9                             | NCD9C                            | NCD9F                            |
| 965              | 844  | 730  | 2580-3090<br>m <sup>3</sup> /h | 3550-4260<br>m <sup>3</sup> /h | 4440-5330<br>m <sup>3</sup> /h | 5420-6500<br>m <sup>3</sup> /h   | 6400-7680<br>m <sup>3</sup> /h   | 7350-8820<br>m <sup>3</sup> /h   | 8270-9920<br>m <sup>3</sup> /h   | 9180-11020<br>m <sup>3</sup> /h  | 10070-12090<br>m <sup>3</sup> /h |
|                  |      |      | NCD3B                          | NCD5A                          | NCD6E                          | NCD8B                            | NCD8H                            | NCD9A                            | NCD10                            | NCD10C                           | NCD11                            |
| 1125             | 1004 | 890  | 3180-3820<br>m <sup>3</sup> /h | 4390-5270<br>m <sup>3</sup> /h | 5490-6580<br>m <sup>3</sup> /h | 6700-8030<br>m <sup>3</sup> /h   | 7910-9490<br>m <sup>3</sup> /h   | 9080-10890<br>m <sup>3</sup> /h  | 10210-12250<br>m <sup>3</sup> /h | 11340-13610<br>m <sup>3</sup> /h | 12440-14930<br>m <sup>3</sup> /h |
|                  |      |      | NCD6C                          | NCD7B                          | NCD8G                          | NCD9E                            | NCD10A                           | NCD10F                           | NCD11A                           | NCD12                            |                                  |
| 1285             | 1164 | 1050 |                                | 5220-6270<br>m <sup>3</sup> /h | 6530-7830<br>m <sup>3</sup> /h | 7970-9560<br>m <sup>3</sup> /h   | 9410-11290<br>m <sup>3</sup> /h  | 10800-12960<br>m <sup>3</sup> /h | 12150-14580<br>m <sup>3</sup> /h | 13500-16200<br>m <sup>3</sup> /h | 14810-17770<br>m <sup>3</sup> /h |
|                  |      |      |                                | NCD8E                          | NCD9B                          | NCD10B                           | NCD10G                           | NCD11D                           | NCD12A                           | NCD12C                           |                                  |
| 1445             | 1324 | 1210 |                                |                                | 7570-9090<br>m <sup>3</sup> /h | 9240-11090<br>m <sup>3</sup> /h  | 10910-13100<br>m <sup>3</sup> /h | 12530-15040<br>m <sup>3</sup> /h | 14100-16920<br>m <sup>3</sup> /h | 15660-18800<br>m <sup>3</sup> /h | 17180-20610<br>m <sup>3</sup> /h |
|                  |      |      |                                |                                | NCD10D                         | NCD11B                           | NCD12B                           | NCD13A                           | NCD13D                           | NCD14B                           |                                  |
| 1765             | 1644 | 1530 |                                |                                |                                | 11790-14150<br>m <sup>3</sup> /h | 13920-16710<br>m <sup>3</sup> /h | 15990-19190<br>m <sup>3</sup> /h | 17990-21580<br>m <sup>3</sup> /h | 19980-23980<br>m <sup>3</sup> /h | 21920-26300<br>m <sup>3</sup> /h |
|                  |      |      |                                |                                |                                | NCD13B                           | NCD14A                           | NCD14E                           | NCD15                            |                                  |                                  |
| 2085             | 1964 | 1850 |                                |                                |                                |                                  | 19440-23330<br>m <sup>3</sup> /h | 21870-26250<br>m <sup>3</sup> /h | 24300-29160<br>m <sup>3</sup> /h | 26650-31980<br>m <sup>3</sup> /h |                                  |
|                  |      |      |                                |                                |                                |                                  |                                  | NCD15D                           | NCD15G                           |                                  |                                  |
| 2405             | 2284 | 2170 |                                |                                |                                |                                  |                                  |                                  | 28620-34350<br>m <sup>3</sup> /h | 31390-37670<br>m <sup>3</sup> /h |                                  |
|                  |      |      |                                |                                |                                |                                  |                                  |                                  |                                  | NCD16B                           |                                  |
| 2565             | 2444 | 2330 |                                |                                |                                |                                  |                                  |                                  |                                  |                                  | 33760-40510<br>m <sup>3</sup> /h |

|                  | EXT  |      | 2334  | 2654 | 2974 | 3294 | 3614 | 3934 | 4254 | 4574 |
|------------------|------|------|---|------|------|------|------|------|------|------|
| Height with base | INT  |      | 2220  | 2540 | 2860 | 3180 | 3500 | 3820 | 4140 | 4460 |
| 645              | 524  | 410  |   |      |      |      |      |      |      |      |
| 805              | 684  | 570  | NCD9D<br>9200-11040<br>m³/h   |      |      |      |      |      |      |      |
| 965              | 844  | 730  | NCD10E    NCD11C<br>12030-14440    13990-16790<br>m³/h    m³/h  |      |      |      |      |      |      |      |
| 1125             | 1004 | 890  | NCD11E    NCD12D    NCD13C<br>14860-17830    17280-20730    19700-23640<br>m³/h    m³/h    m³/h   |      |      |      |      |      |      |      |
| 1285             | 1164 | 1050 | NCD13    NCD14    NCD14C    NCD15B<br>17690-21230    20570-24680    23450-28140    26330-31590<br>m³/h    m³/h    m³/h    m³/h  |      |      |      |      |      |      |      |
| 1445             | 1324 | 1210 | NCD13E    NCD14D    NCD15C    NCD15E    NCD16A<br>20520-24620    23860-28630    27200-32640    30540-36650    33880-40660<br>m³/h    m³/h    m³/h    m³/h    m³/h   |      |      |      |      |      |      |      |
| 1765             | 1644 | 1530 | NCD15A    NCD15F    NCD16C    NCD17A    NCD17D    NCD18B<br>26180-31410    30440-36530    34700-41640    38970-46760    43230-51870    47490-56990<br>m³/h    m³/h    m³/h    m³/h    m³/h    m³/h  |      |      |      |      |      |      |      |
| 2085             | 1964 | 1850 | NCD16    NCD16D    NCD17C    NCD18C    NCD19A    NCD20A    NCD21A    NCD21C<br>31840-38200    37020-44430    42210-50650    47390-56870    52570-63090    57760-69310    62940-75530    68130-81750<br>m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h   |      |      |      |      |      |      |      |
| 2405             | 2284 | 2170 | NCD17    NCD18    NCD19    NCD20    NCD21    NCD22    NCD23    NCD24<br>37500-45000    43600-52320    49710-59650    55810-66980    61920-74300    68030-81630    74130-88960    80240-96280<br>m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h          |      |      |      |      |      |      |      |
| 2565             | 2444 | 2330 | NCD17B    NCD18A    NCD19B    NCD20B    NCD21B    NCD22A    NCD23A    NCD24A<br>40330-48390    46890-56270    53460-64150    60030-72030    66590-79910    73160-87790    79730-95670    86290-103550<br>m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h    m³/h |      |      |      |      |      |      |      |

## DIMENSIONS



|       | Section A (mm) | Section B (mm) |
|-------|----------------|----------------|
| NCD1  | 645            | 735            |
| NCD2  | 645            | 1055           |
| NCD3  | 645            | 1215           |
| NCD4  | 805            | 1055           |
| NCD5  | 805            | 1215           |
| NCD6  | 965            | 1055           |
| NCD7  | 965            | 1215           |
| NCD8  | 965            | 1375           |
| NCD9  | 965            | 1695           |
| NCD10 | 1130           | 1695           |
| NCD11 | 1130           | 2015           |
| NCD12 | 1285           | 2015           |
| NCD13 | 1285           | 2335           |
| NCD14 | 1285           | 2655           |
| NCD15 | 2085           | 2015           |
| NCD16 | 2085           | 2335           |
| NCD17 | 2405           | 2335           |
| NCD18 | 2405           | 2655           |
| NCD19 | 2405           | 2975           |
| NCD20 | 2405           | 3295           |
| NCD21 | 2405           | 3615           |
| NCD22 | 2405           | 3935           |
| NCD23 | 2405           | 4255           |
| NCD24 | 2405           | 4575           |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## SPL 025-130

## Swimming Pool Lines air handling unit for health centres

Air flow rate 4000 ÷ 13000 m<sup>3</sup>/h

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



### DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption.

The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost. The structure and all the internal components are built to ensure the maximum resistance to corrosion.

### FEATURES

Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

#### Structure

Anodised aluminium profile with reinforced nylon corner pieces.

Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m<sup>3</sup>, fixed without screws but with panel locking profiles, doors with keyless handles.

This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.

The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

#### Thermal recovery section

High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract.

All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

#### Refrigerant circuit

Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A.

The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged.

#### Fan section

Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

#### Filtration systems

#### Hot water heating coil

With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

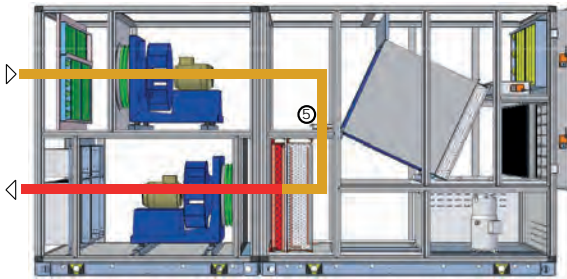
#### Electric power board

Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

## OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.

### "START UP" CYCLE



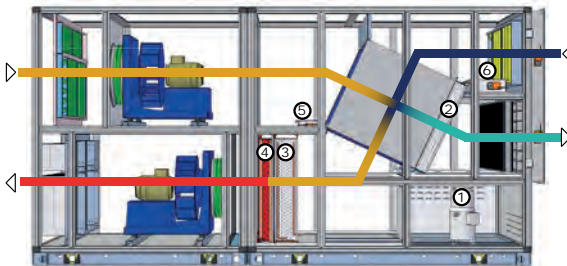
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.

The hot water coil is operational.

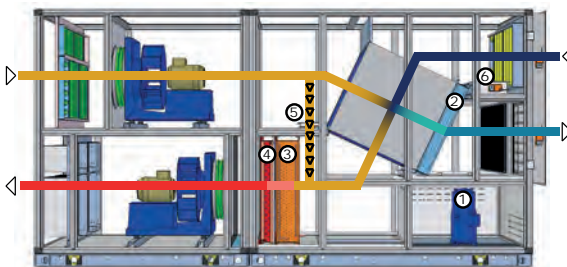
The "start up cycle" is activated for the time necessary to heat up the area.

### "DEHUMIDIFICATION" CYCLE



In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

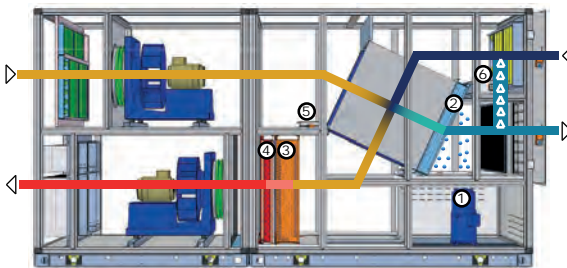
### Dehumidification with external air



The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.

The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

### Dehumidification with external air and primary cycle

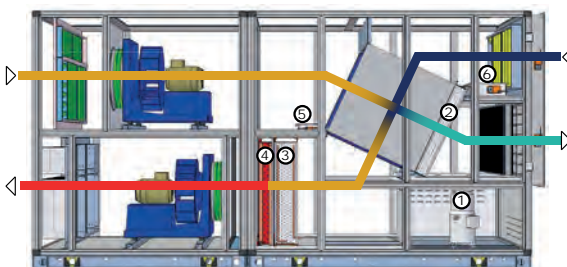


When required the compressor also assists in the dehumidification of the pool area.

The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.

As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

### Dehumidification with external air (night cycle)



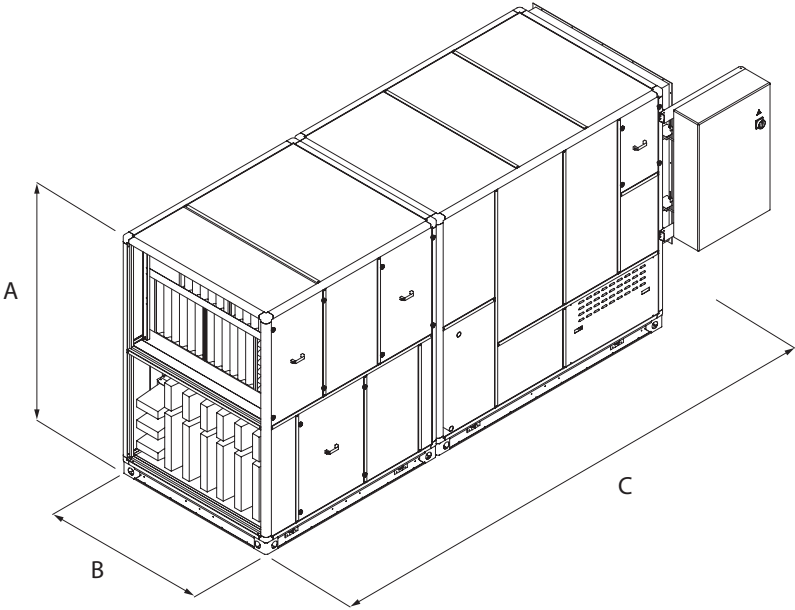
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

## PERFORMANCE SPECIFICATIONS

|  |     |                   | 025            | 040   | 060   | 100    | 130    |
|--|-----|-------------------|----------------|-------|-------|--------|--------|
| Nominal airflow (supply/extract)   |     | M <sup>3</sup> /h | 2500           | 4000  | 6300  | 10000  | 13000  |
| Available pressure (supply/extract)  |     | Pa                | 400            | 400   | 400   | 400    | 400    |
| Heat recovery capacity recovered   | (1) | KW                | 7,90           | 12,60 | 20,40 | 32,00  | 41,50  |
| Max heat recovery efficiency   | (1) | %                 | 80,80          | 79,30 | 80,10 | 79,50  | 79,40  |
| Refrigerant circuit recovered capacity                                     | (1) | KW                | 7,50           | 10,50 | 21,30 | 31,70  | 45,70  |
| Total recovered capacity   | (1) | KW                | 15,40          | 23,10 | 41,60 | 63,70  | 87,30  |
| Compressor absorbed power  | (1) | KW                | 1,30           | 1,60  | 3,70  | 6,00   | 8,40   |
| COP  | (1) | -                 | 11,80          | 14,40 | 11,20 | 10,60  | 10,40  |
| COP  | (2) | -                 | 3,90           | 4,00  | 4,10  | 4,00   | 4,10   |
| Total dehumidification capacity  | (1) | Kg/h              | 15,50          | 25,20 | 40,10 | 63,70  | 82,70  |
| Supply fan power input   |     | KW                | 1,60           | 2,60  | 3,70  | 5,90   | 7,60   |
| Extract fan power input  |     | KW                | 1,20           | 1,90  | 2,70  | 4,50   | 5,70   |
| Type / number of compressors   |     | No.               | Scroll / 1     |       |       |        |        |
| Hot water heating coil (standard)  |     |                   |                |       |       |        |        |
| Capacity (without recovery active)   | (1) | KW                | 26,10          | 35,40 | 61,60 | 95,30  | 124,50 |
| Water flow rate  | (3) | L/h               | 2250           | 3050  | 5300  | 8200   | 10700  |
| Water pressure drop  | (3) | KPa               | 23,50          | 43,70 | 33,10 | 48,80  | 46,30  |
| Plate heat exchanger R410A/non aggressive water (standard)                 |     |                   |                |       |       |        |        |
| Nominal water flow rate  | (4) | L/h               | 950            | 1120  | 2500  | 3600   | 5400   |
| Pressure drops   | (4) | KPa               | 19,00          | 19,00 | 31,00 | 32,00  | 33,00  |
| Plate heat exchanger accessible non aggressive water/pool water (standard) |     |                   |                |       |       |        |        |
| Water flow rate nominal pool   | (5) | L/h               | 1200           | 1400  | 3100  | 4500   | 6800   |
| Pressure drop pool side  | (5) | KPa               | 32,40          | 34,00 | 31,40 | 33,00  | 34,50  |
| Pressure drop intermediate circuit side                                    | (5) | KPa               | 21,20          | 22,30 | 20,60 | 21,60  | 22,50  |
| Electric data  |     |                   |                |       |       |        |        |
| Unit power supply  |     |                   | 400 V-3- 50 Hz |       |       |        |        |
| Maximum total current input supply fan                                     |     | A                 | 3,50           | 6,20  | 11,00 | 14,60  | 15,00  |
| Maximum total current input extract fan                                    |     | A                 | 2,60           | 4,90  | 6,40  | 11,30  | 11,30  |
| Unit maximum current input   |     | A                 | 11,60          | 17,10 | 32,40 | 49,30  | 61,30  |
| Unit starting current  |     | A                 | 32,10          | 46,10 | 91,40 | 181,90 | 184,30 |

1. External air 0°C,80% RH; internal air 29°C,60% RH.
2. Values as per conditions of D.M. 7 april 2008 for heating only operation
3. Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve
4. Water temperature inlet/outlet non aggressive 27/37°C
5. Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C

**DIMENSIONS**



|        |    | 025  | 040  | 060  | 100  | 130  |
|--------|----|------|------|------|------|------|
| A      | mm | 1765 | 1765 | 2245 | 2405 | 2405 |
| B      | mm | 895  | 895  | 1055 | 1375 | 1695 |
| C      | mm | 3230 | 3390 | 4190 | 4190 | 4670 |
| Weight | Kg | 900  | 1000 | 1350 | 2060 | 2600 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# SPL 160-250

## Swimming Pool Lines air handling unit for health centres

Air flow rate 16000 ÷ 25000 m<sup>3</sup>/h

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



### DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption.

The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost. The structure and all the internal components are built to ensure the maximum resistance to corrosion.

### FEATURES

#### Sizes

Indoor unit available in 3 sizes.

#### Structure

Anodised aluminium profile with reinforced nylon corner pieces.

Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m<sup>3</sup>, fixed without screws but with panel locking profiles, doors with keyless handles.

This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.

The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

#### Thermal recovery section

High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract.

All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

#### Refrigerant circuit

Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A.

The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged.

#### Fan section

Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

#### Filtration systems

Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

#### Hot water heating coil

With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

#### Electric power board

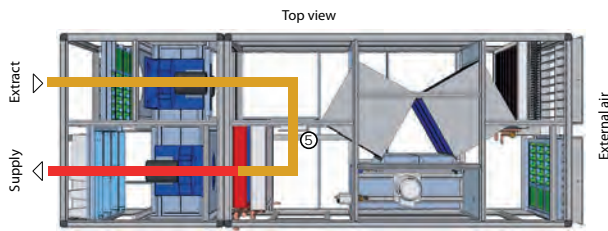
Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.



## OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.

### "START UP" CYCLE



In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

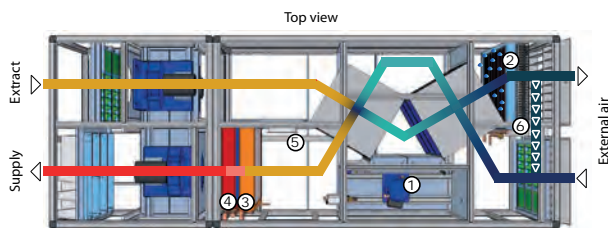
The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.

The hot water coil is operational.

The "start up cycle" is activated for the time necessary to heat up the area.

### "DEHUMIDIFICATION" CYCLE

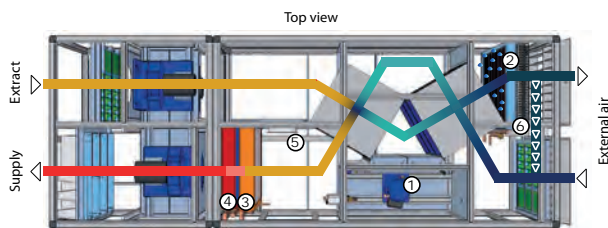
#### Dehumidification with external air



The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.

The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

#### Dehumidification with external air and primary cycle

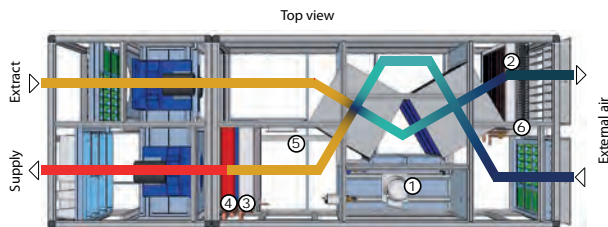


When required the compressor also assists in the dehumidification of the pool area.

The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.

As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

#### Dehumidification with external air (night cycle)



In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

## PERFORMANCE SPECIFICATIONS

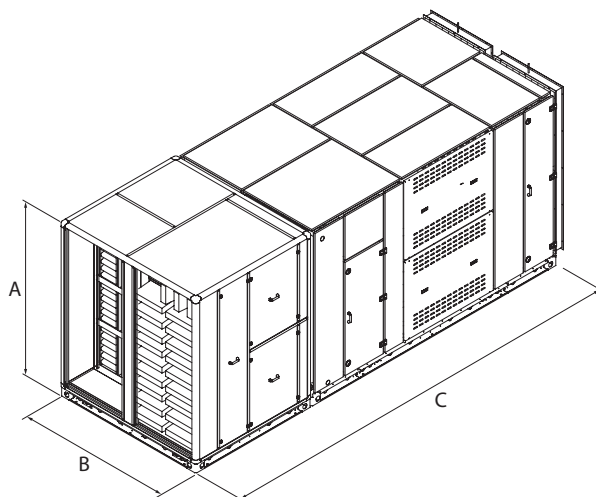
| SPL   |     |      | 160                  | 200   | 250   |
|---|-----|------|----------------------|-------|-------|
| Nominal air flow rate (supply / recovery)   |     | m³/h | 16000                | 20000 | 25000 |
| Available pressure (supply/recovery)  |     | Pa   | 400                  | 400   | 400   |
| Heat recovery capacity recovered  | (1) | kW   | 59,6                 | 68,6  | 89,2  |
| Max heat recovery efficiency  | (1) | %    | 93                   | 86    | 89    |
| Refrigerant circuit recovered capacity  | (1) | kW   | 46,3                 | 53,6  | 69,4  |
| Total recovered capacity  | (1) | kW   | 105,9                | 122,2 | 158,6 |
| Compressor absorbed power   | (1) | kW   | 8,5                  | 9,2   | 12,8  |
| COP   | (1) | -    | 12,5                 | 13,3  | 12,4  |
| COP   | (2) | -    | 4,0                  | 3,9   | 3,9   |
| Total dehumidification capacity   | (1) | kg/h | 102,2                | 127,6 | 159,5 |
| Supply fan power input  |     | kW   | 10,9                 | 13,7  | 17,7  |
| Extract fan power input   |     | kW   | 8,3                  | 9,8   | 12,4  |
| Type / number of compressors  |     | no.  | Scroll / 1           |       |       |
| <b>Hot water heating coil (standard)</b>  |     |      |                      |       |       |
| Capacity (without recovery active)  | (1) | kW   | 131,9                | 182,7 | 205,9 |
| Water flow rate   | (3) | l/h  | 11300                | 15700 | 17700 |
| Water pressure drop   | (3) | kPa  | 43,7                 | 37,9  | 42,2  |
| <b>Plate heat exchanger R410A/non aggressive water (standard)</b>                 |     |      |                      |       |       |
| Nominal water flow rate   | (4) | l/h  | 5760                 | 6450  | 8260  |
| Pressure drops  | (4) | kPa  | 33                   | 33    | 33    |
| <b>Plate heat exchanger accessible non aggressive water/pool water (standard)</b> |     |      |                      |       |       |
| Water flow rate nominal pool  | (5) | l/h  | 7200                 | 8100  | 10400 |
| Pressure drop pool side   | (5) | kPa  | 34,2                 | 34,7  | 34,2  |
| Pressure drop intermediate circuit side   | (5) | kPa  | 22,3                 | 22,7  | 22,2  |
| <b>Electric data</b>  |     |      |                      |       |       |
| Unit power supply   |     |      | 400 V - 3 ph - 50 Hz |       |       |
| Maximum total current input supply fan  |     | A    | 29,2                 | 41,0  | 42,0  |
| Maximum total current input extract fan   |     | A    | 22,0                 | 22,6  | 30,0  |
| Unit maximum current input  |     | A    | 86,2                 | 99,6  | 123,0 |
| Unit starting current   |     | A    | 209,0                | 223,0 | 287,0 |

1. External air 0°C,80% RH; internal air 29°C,60% RH.
2. Values as per conditions of D.M. 7 april 2008 for heating only operation
3. Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.

4. Water temperature inlet/outlet non aggressive 27/37°C.
5. Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C

**Preliminary technical data, subject to modification.**

## DIMENSIONS



| SPL                        |   |    | 160  | 200  | 250  |
|----------------------------|---|----|------|------|------|
| A (including base H=120mm) | * | mm | 2085 | 2405 | 2405 |
| B                          | * | mm | 2015 | 2175 | 2335 |
| C                          | * | mm | 5790 | 5790 | 6430 |
| Weight                     |   | kg | 2780 | 3250 | 3580 |

\* The dimensions remain unchanged even if the unit, on request, is supplied without a refrigerant circuit.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# RTG 060X-125X

## Roof-Top for applications in medium crowd

Cooling capacity 57,7 ÷ 128,1 kW  
Heating capacity 58,1 ÷ 124,6 kW

- For medium crowding applications
- R32 refrigerant gas
- High efficiency also at partial loads
- High power modulation capacity
- Compressors and fans with Inverter
- Upgraded thermodynamic heat recovery



### DESCRIPTION

Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration. These are outdoor units using environmentally friendly R32 gas. Being fitted to function with 50% external air (MB2, MB4, MBT and MBF versions), the units are designed for medium density applications like shopping malls, shops, offices and production areas. RTG 060X-125X Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 and MBT versions, there is thermodynamic recovery (enhanced in the MBT configuration) of the energy contained in the expelled air, allowing for higher performance and efficiency.

### VERSIONS

**H** Heat pump

### FEATURES

#### Refrigerant HFC R32

Thanks to the R32 refrigerant (A2L slightly flammable), the environmental impact of the units is significantly reduced. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

#### Inverter compressor

All models use inverter-driven scroll compressors, which allow them to perfectly comply with the energy levels required by European regulations. Inverter technology enables high seasonal energy efficiencies, reduced noise level at partial loads and high environmental comfort

#### Inverter fans

The air treatment cross-section ventilation, which represents the highest expense in terms of machine operating costs, is entrusted to the plug fans with EC brushless motors, efficiency class IE5, which enable high performance, easy flow rate adjustment, compactness, low noise, versatility and easy maintenance. Two types of flow fans are available: the standard one and the enhanced one for a higher useful static pressure.

#### Axial fans

The axial fans on the source side are helical, electrically and mechanically protected by grilles, and are equipped with **brushless EC motors, efficiency class IE5**.

Electronic control of summer condensation temperature and winter evaporation temperature is standard.

#### Air filtration

A Coarse 55% corrugated filter according to ISO 16890 (G4 according to EN 779), with synthetic fibre filter media protected by wire mesh on both sides and a galvanised sheet steel frame is included as per standard.

The filters are placed on guides and are easily removable from the side.

Downstream it is possible to insert an additional filtration stage with ePM1 50% efficiency according to ISO 16890 (F7 according to EN 779) or ePM1 80% efficiency according to ISO 16890 (F9 according to EN 779).

As an alternative to mechanical filters, electrostatic filters can be fitted for even higher filtration efficiency and lower maintenance costs.

Air quality control systems are also available (VOC and CO<sub>2</sub> probe).

#### Exchangers

The internal and external heat exchangers are made of copper pipes and aluminium louvers blocked by mechanical expansion of the pipes.

They are the high efficiency type with internally striped pipe and corrugated louvers.

To protect the louvers from corrosion, pre-painted aluminium louvers are available as an alternative.

#### Thermoregulation

Electronic controller able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use by means of special software. Interfaces to connect to remote supervision and control systems available as options. The electrical panel complete with all devices is easily accessible.

The free-cooling/heating and defrosting logics are particularly sophisticated. As soon as the external conditions allow it, the unit is able to automatically activate the free-cooling or free-heating mode, which cools or heats the served room, while keeping the compressors off and introducing suitably treated external air. This mode significantly reduces both energy consumption and wear of the compressors. These functions are also used when the external air energy content is not enough to cool or heat the room.

## Air flow management

There are different types of supply and exhaust (if present) air flow rate control.

With constant flow rate control, air flows are kept constant at the set value regardless of the heat load and varying pressure drops of the machine/plant system.

With variable flow rate control, the air flows vary depending on the heat load between the set nominal value and the minimum value of the unit.

## CONFIGURATIONS

### MB1: Single ventilating cross-section for recovery air.

Recovery air only configuration where no fresh air is required.

The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

### MB2: Single ventilating cross-section for recovery and external air.

Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

If there are no extraction systems, the room will be in overpressure.

Possibility of performing freecooling/freeheating.

### MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

Thermodynamic recovery is performed by conveying expelled air on the external heat exchangers.

Possibility of performing freecooling/freeheating.

### MBT: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, upgraded thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure.

With variable flow rate, in addition to the benefits in terms of environmental comfort, there are also economic benefits as the modulation of the air flow rate leads to a considerable reduction in the electricity consumption of the unit compared to a unit operating with a fixed flow rate.

A function can also be enabled that in Economy mode, when the temperature set-point is reached, allows ventilation to be switched off, with considerable economic advantages.

The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

Possibility of performing freecooling/freeheating.

The MBT configuration allows for the upgraded thermodynamic recovery on the exhaust air by fully exploiting the energy content still present in it. The exhaust flow rate, controlled by the dedicated exhaust fan, is conveyed to the innovative finned pack recovery coil, integrated in the cooling circuit of the unit.

The coil, perfectly hit by the air flow, recovers the energy still present in the exhaust flow and transfer it to the cooling circuit, increasing the treatment coil performance without increasing the input power of the compressors.

In summer functioning, the coil makes it possible to increase the liquid sub-cooling, while in winter functioning, the coil takes on part of the evaporation by operating the cooling circuit at more advantageous temperatures.

### MBF: single fan section for return air, outside air and exhaust air

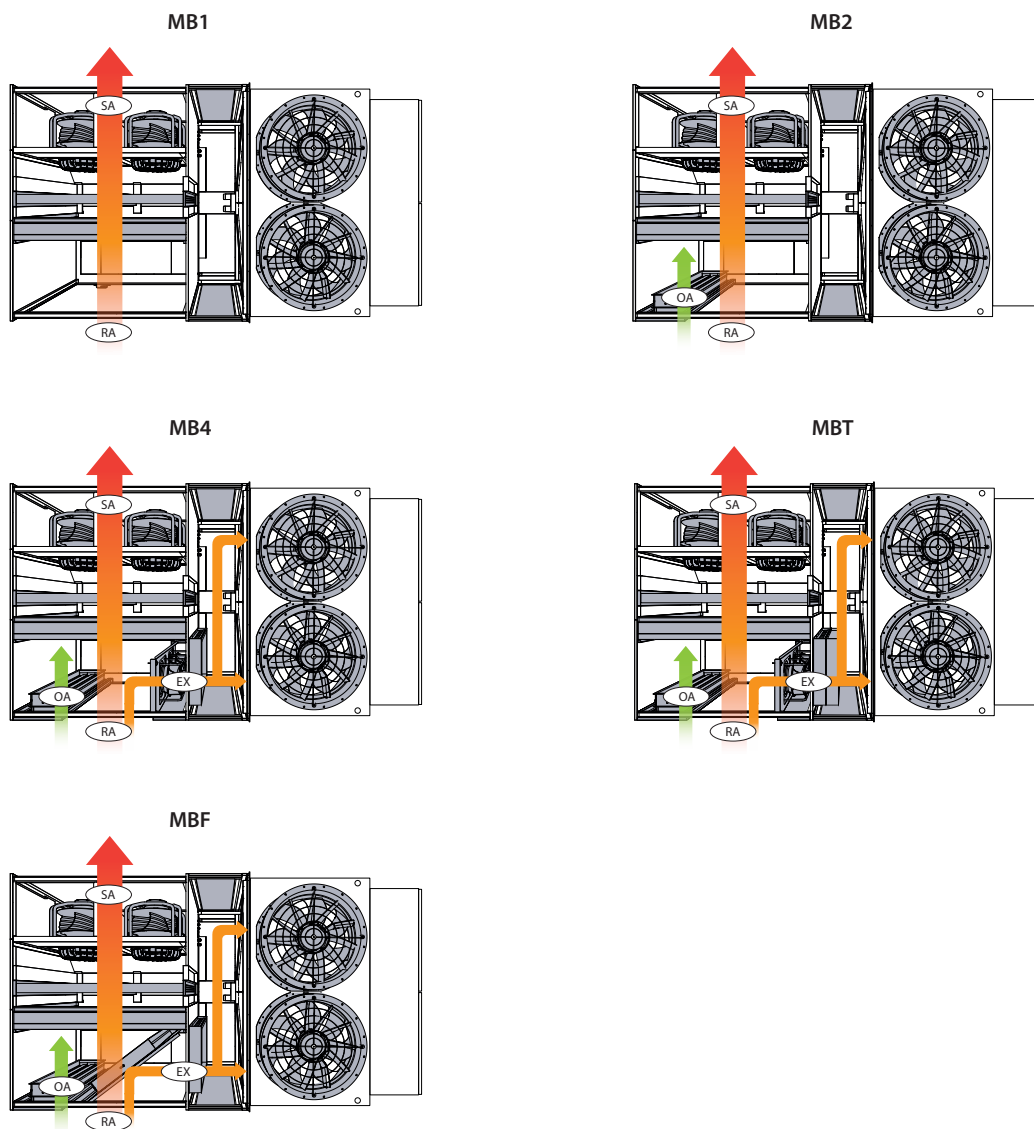
Recovery, external and exhaust air configuration.

The flow ventilating cross-section provides the flow and recovery useful static pressure.

The flow rate of fresh and exhaust air is achieved through the use of two modulating dampers (fresh and exhaust air) and one gravimetric damper (exhaust air).

The presence of the recirculation damper allows for total free-cooling (100% external air).

This configuration makes it possible to exploit the overpressure in the room to expel stale air (maximum 50 Pa leakage in the duct) without having to use a dedicated fan.



**SA:** Flow air  
**RA:** Return air  
**OA:** External air  
**EX:** Air expelled

## ACCESSORIES

Refer to the selection software for compatibility of accessories.

**MB1:** Single fan section - Recirculation  
**MB2:** Single fan section - Recirculation + Renewal  
**MB4:** Double fan section - Recirculation Renewal + Exhaust - Thermodynamic recovery  
**MBT:** Double fan section - Recirculation + Renewal + Exhaust - Enhanced thermodynamic recovery  
**MBF:** Single fan section - Recirculation + Renewal + Exhaust  
**MO:** Horizontal air flow  
**MI:** Lower air flow  
**MS:** Upper air flow  
**RO:** Horizontal air recovery  
**RI1:** Lower air recovery for MB1 configuration  
**RI2:** Lower air recovery for MB2 configuration  
**RI4:** Lower air recovery for MB4/MBT configuration  
**RS1:** Upper air recovery for MB1 configuration  
**RS2:** Upper air recovery for MB2 configuration  
**RS4:** Upper air recovery for MB4/MBT configuration  
**VSTD:** Fans with standard static pressure  
**VPWR:** Fans with increased static pressure  
**IAL:** Internal coil with aluminium louvers

**IPV:** Internal coil with pre-painted aluminium louvers  
**EAL:** External coil with aluminium louvers  
**EPV:** External coil with pre-painted aluminium louvers  
**IALT:** MBT internal coil with aluminium louvers  
**IPVT:** MBT internal coil with pre-painted aluminium louvers  
**EALT:** MBT external coil with aluminium louvers  
**EPVT:** MBT external coil with pre-painted aluminium louvers  
**FCT:** Thermal free-cooling  
**FCH:** Enthalpy free-cooling  
**CMAN:** Manual external damper control  
**SCM:** Modulating external damper servocontrol  
**SCM-F:** MBF modulating damper servocontrols  
**PCOST:** Constant air flow rate  
**PVAR:** Variable air flow rate  
**DML:** Demand limit  
**PFS:** Filter fouling control differential pressure switch  
**DEU:** Summer dehumidification  
**DEUP:** Summer dehumidification with post-heating  
**CUR:** Provision for humidification control (digital contact and analogue output)  
**BPGC:** Hot gas after-heating coil with aluminium louvers  
**BPGCPV:** Hot gas after-heating coil with pre-painted aluminium louvers  
**BW2:** Heating/Integration water coil with aluminium louvers



**BW2PV:** Heating/Integration water coil with pre-painted aluminium louvers  
**BW3:** Water coil for recovery from refrigerated display cabinets with aluminium louvers  
**BW3PV:** Water coil for recovery from refrigerated display cabinets with pre-painted aluminium louvers  
**V2V:** Modulating 2-way valve + connecting pipes  
**V3V:** Modulating 3-way valve + connecting pipes  
**BE:** 2-stage electric heating coil (3 steps)  
**F7:** F7 filters (ISO 16890 ePM1 55%)  
**F9:** F9 filters (ISO 16890 ePM1 80%)  
**FE1:** Electrostatic filters for MB1/MB2 configuration  
**FE4:** Electrostatic filters for MB4/MBT/MBF configuration  
**SCO2:** CO2 duct probe  
**SVOC:** VOC duct probe  
**SCO2+SVOC:** CO2 + VOC duct probe  
**ASCO2:** Room CO2 probe

**ASVOC:** Room VOC probe  
**ASCO2+SAVOC:** Room CO2 + VOC probe  
**STR:** Recovery temperature probe  
**STA:** Room temperature probe  
**STR+SUR:** Recovery temperature and humidity probe  
**STA+SUA:** Room temperature and humidity probe  
**PRT1:** Remote panel up to 50m  
**PRT2:** Remote panel up to 200m  
**AVG:** Anti-vibration supports  
**MIP:** Modbus TCP/IP communication protocol (standard)  
**MRTU:** Modbus RTU communication module  
**BIP:** Bacnet IP communication module  
**BMSTP:** Bacnet MS/TP communication module  
**KON:** KONNEX communication module  
**CAP:** Hoods function  
**CFE:** Fire/smoke contact

## PERFORMANCE SPECIFICATIONS

■ *Unit input power: at nominal air flow rate, nominal high static pressure and standard fans*

### MB1

| Size                        |   |    | 060   | 085   | 125    |
|-----------------------------|---|----|-------|-------|--------|
| <b>Configuration: MB1</b>   |   |    |       |       |        |
| <b>Cooling performances</b> |   |    |       |       |        |
| Cooling capacity            | H | kW | 57,70 | 77,70 | 121,30 |
| Sensible cooling capacity   | H | kW | 46,30 | 64,70 | 88,10  |
| Compressors absorbed power  | H | kW | 15,80 | 20,70 | 38,00  |
| EER compressors             | H |    | 3,65  | 3,75  | 3,19   |
| Unit input power            | H | kW | 20,1  | 26,9  | 45,5   |
| <b>Heating performances</b> |   |    |       |       |        |
| Heating capacity            | H | kW | 58,10 | 78,30 | 119,30 |
| Compressors absorbed power  | H | kW | 12,80 | 17,30 | 30,00  |
| Compressor COP              | H |    | 4,53  | 4,53  | 3,98   |
| Unit input power            | H | kW | 16,5  | 22,0  | 37,4   |

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.  
 Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.

### MB2

| Size                        |   |    | 060   | 085   | 125    |
|-----------------------------|---|----|-------|-------|--------|
| <b>Configuration: MB2</b>   |   |    |       |       |        |
| <b>Cooling performances</b> |   |    |       |       |        |
| Cooling capacity            | H | kW | 60,40 | 81,40 | 127,00 |
| Sensible cooling capacity   | H | kW | 49,00 | 68,70 | 92,10  |
| Compressors absorbed power  | H | kW | 15,90 | 20,80 | 38,40  |
| EER compressors             | H |    | 3,79  | 3,91  | 3,30   |
| Unit input power            | H | kW | 20,2  | 27,0  | 46,0   |
| <b>Heating performances</b> |   |    |       |       |        |
| Heating capacity            | H | kW | 58,50 | 78,80 | 119,70 |
| Compressors absorbed power  | H | kW | 11,70 | 15,90 | 27,60  |
| Compressor COP              | H |    | 5,02  | 4,96  | 4,33   |
| Unit input power            | H | kW | 15,3  | 20,6  | 35,1   |

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external air.  
 Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external air.

### MB4

| Size                        |   |    | 060   | 085   | 125    |
|-----------------------------|---|----|-------|-------|--------|
| <b>Configuration: MB4</b>   |   |    |       |       |        |
| <b>Cooling performances</b> |   |    |       |       |        |
| Cooling capacity            | H | kW | 60,90 | 81,90 | 128,10 |
| Sensible cooling capacity   | H | kW | 49,10 | 68,80 | 92,40  |
| Compressors absorbed power  | H | kW | 15,50 | 20,40 | 37,40  |
| EER compressors             | H |    | 3,92  | 4,02  | 3,42   |
| Unit input power            | H | kW | 20,5  | 27,6  | 46,5   |
| <b>Heating performances</b> |   |    |       |       |        |
| Heating capacity            | H | kW | 61,20 | 82,10 | 124,60 |
| Compressors absorbed power  | H | kW | 12,00 | 16,00 | 28,00  |
| Compressor COP              | H |    | 5,12  | 5,12  | 4,45   |
| Unit input power            | H | kW | 16,4  | 21,8  | 37,2   |

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.  
 Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external and expelled air.

**MBF**

| Size                        |   |    | 060   | 085   | 125    |
|-----------------------------|---|----|-------|-------|--------|
| <b>Configuration: MBF</b>   |   |    |       |       |        |
| <b>Cooling performances</b> |   |    |       |       |        |
| Cooling capacity            | H | kW | 60,40 | 81,40 | 127,00 |
| Sensible cooling capacity   | H | kW | 49,00 | 68,70 | 92,10  |
| Compressors absorbed power  | H | kW | 15,90 | 20,80 | 38,40  |
| EER compressors             | H |    | 3,79  | 3,91  | 3,30   |
| Unit input power            | H | kW | 20,2  | 27,0  | 46,0   |
| <b>Heating performances</b> |   |    |       |       |        |
| Heating capacity            | H | kW | 58,50 | 78,80 | 119,70 |
| Compressors absorbed power  | H | kW | 11,70 | 15,90 | 27,60  |
| Compressor COP              | H |    | 5,02  | 4,96  | 4,33   |
| Unit input power            | H | kW | 15,3  | 20,6  | 35,1   |

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external air.  
 Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external air.

**MBT**

| Size                        |   |    | 060   | 085   | 125    |
|-----------------------------|---|----|-------|-------|--------|
| <b>Configuration: MBT</b>   |   |    |       |       |        |
| <b>Cooling performances</b> |   |    |       |       |        |
| Cooling capacity            | H | kW | 66,00 | 88,80 | 139,10 |
| Sensible cooling capacity   | H | kW | 51,50 | 72,20 | 97,00  |
| Compressors absorbed power  | H | kW | 15,50 | 20,50 | 37,50  |
| EER compressors             | H |    | 4,25  | 4,34  | 3,71   |
| Unit input power            | H | kW | 20,5  | 27,7  | 46,6   |
| <b>Heating performances</b> |   |    |       |       |        |
| Heating capacity            | H | kW | 65,90 | 88,50 | 134,40 |
| Compressors absorbed power  | H | kW | 12,50 | 16,60 | 29,10  |
| Compressor COP              | H |    | 5,29  | 5,32  | 4,62   |
| Unit input power            | H | kW | 16,9  | 22,4  | 38,3   |

Cooling performances: Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.  
 Heating performances: Ambient air 20°C d.b./15°C w.b.; External air 7°C/6°C w.b.; Functioning with 30% of external and expelled air.

**ENERGY INDEX**

| Size                |   |     | 060    | 085    | 125    |
|---------------------|---|-----|--------|--------|--------|
| <b>Energy index</b> |   |     |        |        |        |
| SEER                | H | W/W | 5,94   | 6,41   | 5,81   |
| $\eta_{sc}$         | H | %   | 234,60 | 253,50 | 229,20 |
| SCOP                | H | W/W | 3,74   | 3,83   | 3,59   |
| $\eta_{sh}$         | H | %   | 146,70 | 150,30 | 140,70 |

■ In MB1 configuration according to EN 14825:2022

**INDICES FOR ACCESS TO INCENTIVES**

| Size                                    |   |     | 060   | 085   | 125 |
|---|---|-----|-------|-------|-----|
| <b>Configuration: MB1</b>               |   |     |       |       |     |
| <b>Indices for access to incentives</b> |   |     |       |       |     |
| Cooling capacity                        | H | kW  | 58,60 | 79,00 | -   |
| EER                                     | H | W/W | 3,10  | 3,14  | -   |
| Heating capacity                        | H | kW  | 56,90 | 76,70 | -   |
| COP                                     | H | W/W | 3,71  | 3,73  | -   |

■ In MB1 configuration according to EN 14511-3:2022

**GENERAL TECHNICAL DATA**

| Size                  |   |       | 060         | 085         | 125         |
|-----------------------|---|-------|-------------|-------------|-------------|
| <b>Power supply</b>   |   |       |             |             |             |
| Power supply          | H |       | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz |
| <b>Compressor</b>     |   |       |             |             |             |
| Type                  | H | type  | Scroll      | Scroll      | Scroll      |
| Number                | H | no.   | 2           | 2           | 2           |
| Circuits              | H | no.   | 2           | 2           | 2           |
| Refrigerant           | H | type  | R32         | R32         | R32         |
| Compressor regulation | H | Type  | Inverter    | Inverter    | Inverter    |
| <b>Sound data</b>     |   |       |             |             |             |
| Sound power level     | H | dB(A) | 84,0        | 85,0        | 89,0        |

■ Sound power in MB1 configuration at nominal operating conditions calculated on the basis of measurements in accordance with UNI EN ISO 9614-1/2

## FANS

### External fans

| External fans                          |   |      |            |            |            |
|--|---|------|------------|------------|------------|
| Size                                   |   |      | 060        | 085        | 125        |
| Configuration: MB1, MB2, MB4, MBF, MBT |   |      |            |            |            |
| External fans                          |   |      |            |            |            |
| Type                                   | H | type | Assiali EC | Assiali EC | Assiali EC |
| Number                                 | H | no.  | 2          | 2          | 2          |

### Internal flow fans

| Size                                   |   |      | 060         | 085   | 125   |
|--|---|------|-------------|-------|-------|
| Configuration: MB1, MB2, MB4, MBF, MBT |   |      |             |       |       |
| Delivery                               |   |      |             |       |       |
| Type                                   | H | type | Plug fan EC |       |       |
| Number                                 | H | no.  | 1           | 2     | 2     |
| Nominal air flow rate                  | H | m³/h | 12700       | 17500 | 23000 |
| Minimum air flow rate                  | H | m³/h | 9500        | 13000 | 17000 |
| Maximum air flow rate                  | H | m³/h | 14000       | 20500 | 25500 |
| Nominal high static pressure (EN14511) | H | Pa   | 200         | 200   | 250   |

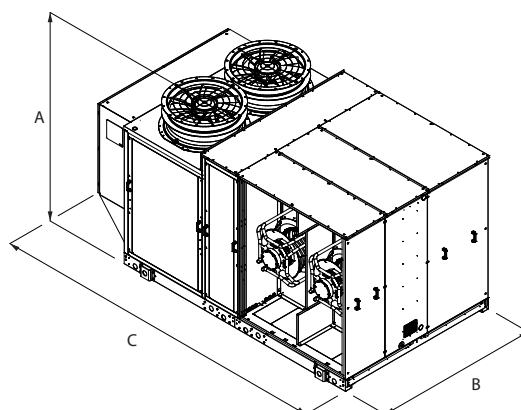
### Expulsion fan MB4

| Expansion fan MB4   |     |      |             |     |     |
|---------------------|-----|------|-------------|-----|-----|
| Size                | 060 |      | 085         |     | 125 |
| Configuration: MB4  |     |      |             |     |     |
| Exhaust             |     |      |             |     |     |
| Type                | H   | type | Plug fan EC |     |     |
| Number              | H   | no.  | 1           | 2   | 3   |
| Nominal useful head | H   | Pa   | 100         | 100 | 125 |

### Expulsion fan MBT

| Expansion fan MBT   |     |      |             |     |     |
|---------------------|-----|------|-------------|-----|-----|
| Size                | 060 |      | 085         |     | 125 |
| Configuration: MBT  |     |      |             |     |     |
| Exhaust             |     |      |             |     |     |
| Type                | H   | type | Plug fan EC |     |     |
| Number              | H   | no.  | 1           | 2   | 3   |
| Nominal useful head | H   | Pa   | 100         | 100 | 125 |

## DIMENSIONS



| Size                   |   |    | 060  | 085  | 125  |
|------------------------|---|----|------|------|------|
| Dimensions and weights |   |    |      |      |      |
| A                      | H | mm | 1570 | 1900 | 2165 |
| B                      | H | mm | 2200 | 2200 | 2200 |
| C                      | H | mm | 3305 | 3905 | 3905 |
| Empty weight           | H | kg | 1193 | 1518 | 1597 |

■ Empty weight: in MB1 configuration without accessories

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# RTX-N1-N8

## Roof-Top for applications in medium crowd

Cooling capacity 12,70 ÷ 49,95 kW  
Heating capacity 13,50 ÷ 50,79 kW

- For medium crowding applications
- Upgraded thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free-cooling / enthalpic free-cooling / photocatalytic system option



### DESCRIPTION

Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas.

Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

### CONFIGURATIONS

#### MB1: Single ventilating cross-section for recovery air.

Recovery air only configuration where no fresh air is required.

The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

#### MB2: Single ventilating cross-section for recovery and external air.

Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).

If there are no extraction systems, the room will be in overpressure.

#### MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

The double flow and exhaust ventilating cross-section allows for partial free-cooling and has the thermodynamic recovery function.

#### Advantages of thermodynamic recovery (MB4):

- Energy recovery from the exhaust air flow that would otherwise be lost
- No further components are introduced and, therefore, there are no additional pressure drops
- Cooling circuit functioning with heat sources at more advantageous temperatures

- Reduction of defrosting cycles
- Increase in thermal and cooling efficiency
- Efficiency increase (EER/COP)

### FEATURES

- 2 cooling circuits with electronic thermostatic expansion valve;
- High efficiency scroll compressors with low power consumption;
- Finned pack direct expansion internal and external exchangers;
- Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO<sub>2</sub> probe);
- The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
- The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

### CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

### FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

#### Very high ventilation efficiency

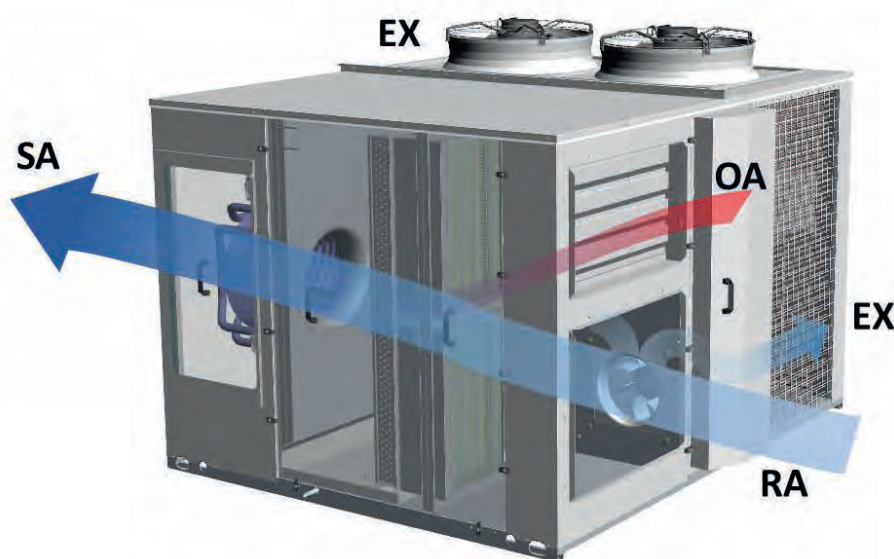
As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.

State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.

Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

### MB4 CONFIGURATION WITH DOUBLE VENTILATING SECTION FOR RETURN AIR, EXTERNAL AIR AND EXPELLED AIR. STANDARD FREE-COOLING AND THERMODYNAMIC HEAT RECOVERY FUNCTION



**SA** Supply air  
**EX** Exhaust air  
**OA** Fresh air  
**RA** Return air

### ACCESSORIES

**AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.

**AXECP:** EC axial fans with available useful static pressure.

**BAC:** Interface card BACnet MS/TP pConet.

**BE:** Electric heating coil 2 stages.

**BIP:** Interface card Ethernet-pCOWeb (BACNET IP)

**BPGC:** After heating coil with hot gas.

**BW:** 2-rows-heating coil with hot water.

**BWV2V:** 2-rows-heating coil with hot water, with 2-way modulating valve.

**BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.

**CA:** Waterproof covers on external air intake.

**DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present).

**FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions.

**FT7:** F7 efficiency pocket filters positioned on the supply air flow.

**GP:** External coil protection grid.

**LW:** Interface card LonWorks.

**PRT1:** Wall/recessed (up to 50 m) remote control panel.

**PRT2:** Wall/recessed (up to 200 m) remote control panel.

**PSF4:** Differential pressure switch signalling dirty recovery and renewal filters (if any).

### Room air quality

Special attention was paid to the quality of the room air, entrusted to the standard 55% COARSE efficiency filters. F7 filters are also available as optional.

### Active thermodynamic recovery

In the MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.

All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

**PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.

**RFC:** Smoke detector and damper management.

**RS:** Serial card BMS RS485.

**SCM:** Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).

**SCMRM:** Modulating Servo-control with spring return.

**SCO2:** Probe CO<sub>2</sub> (not available on MB1 fittings).

**STA:** Room temperature probe

**SUA:** Room humidity probe.

**SVOC:** Probe VOC (not available on MB1 fittings).

**VT:** Antivibration mounts.

## PERFORMANCE SPECIFICATIONS

| Size                            |    | N1    | N2    | N3    | N4    | N5    | N6    | N7    | N8    |
|---------------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Configuration: MB1</b>       |    |       |       |       |       |       |       |       |       |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |       |       |       |
| Cooling capacity                | kW | 12,70 | 15,50 | 19,10 | 22,20 | 28,60 | 33,00 | 43,00 | 47,00 |
| Sensible cooling capacity       | kW | 8,60  | 10,40 | 12,80 | 14,80 | 19,00 | 22,40 | 28,80 | 32,10 |
| Compressors absorbed power      | kW | 3,30  | 4,20  | 5,00  | 6,00  | 7,20  | 8,70  | 11,40 | 12,50 |
| EER compressors                 |    | 3,87  | 3,71  | 3,82  | 3,69  | 3,98  | 3,79  | 3,75  | 3,75  |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |       |       |       |
| Heating capacity                | kW | 13,50 | 16,10 | 19,90 | 23,00 | 29,60 | 34,00 | 44,70 | 48,50 |
| Compressors absorbed power      | kW | 3,07  | 3,65  | 4,28  | 5,15  | 6,23  | 6,86  | 9,43  | 10,02 |
| Compressor COP                  |    | 4,40  | 4,41  | 4,64  | 4,47  | 4,75  | 4,96  | 4,74  | 4,84  |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

| Size                            |    | N1    | N2    | N3    | N4    | N5    | N6    | N7    | N8    |
|---------------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Configuration: MB2</b>       |    |       |       |       |       |       |       |       |       |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |       |       |       |
| Cooling capacity                | kW | 13,42 | 16,34 | 20,16 | 23,35 | 30,21 | 34,79 | 45,26 | 49,44 |
| Sensible cooling capacity       | kW | 8,92  | 10,86 | 13,40 | 15,40 | 19,70 | 23,40 | 30,00 | 33,50 |
| Compressors absorbed power      | kW | 3,33  | 4,22  | 5,04  | 6,07  | 7,29  | 8,85  | 11,65 | 12,74 |
| EER compressors                 |    | 4,03  | 3,87  | 4,00  | 3,85  | 4,14  | 3,93  | 3,88  | 3,88  |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |       |       |       |
| Heating capacity                | kW | 13,65 | 16,24 | 20,02 | 23,18 | 29,87 | 34,22 | 45,17 | 48,94 |
| Compressors absorbed power      | kW | 2,77  | 3,31  | 3,86  | 4,65  | 5,62  | 6,15  | 8,58  | 9,22  |
| Compressor COP                  |    | 4,92  | 4,91  | 5,18  | 4,99  | 5,32  | 5,57  | 5,26  | 5,31  |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

| Size                            |    | N1    | N2    | N3    | N4    | N5    | N6    | N7    | N8    |
|---------------------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Configuration: MB4</b>       |    |       |       |       |       |       |       |       |       |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |       |       |       |
| Cooling capacity                | kW | 13,49 | 16,49 | 20,33 | 23,58 | 30,45 | 35,16 | 45,65 | 49,95 |
| Sensible cooling capacity       | kW | 8,93  | 10,91 | 13,40 | 15,50 | 19,80 | 23,50 | 30,20 | 33,60 |
| Compressors absorbed power      | kW | 3,27  | 4,12  | 4,92  | 5,90  | 7,13  | 8,59  | 11,39 | 12,43 |
| EER compressors                 |    | 4,13  | 4,00  | 4,13  | 4,00  | 4,27  | 4,10  | 4,01  | 4,02  |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |       |       |       |
| Heating capacity                | kW | 14,00 | 16,81 | 20,69 | 24,05 | 30,77 | 35,50 | 46,63 | 50,79 |
| Compressors absorbed power      | kW | 2,81  | 3,36  | 3,92  | 4,73  | 5,71  | 6,27  | 8,74  | 9,38  |
| Compressor COP                  |    | 4,98  | 5,00  | 5,28  | 5,08  | 5,39  | 5,67  | 5,33  | 5,41  |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

## ENERGY INDEX

| Size                 |   |     | N1     | N2     | N3     | N4     | N5     | N6     | N7     | N8     |
|----------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Energy index</b>  |   |     |        |        |        |        |        |        |        |        |
| SEER                 | H | W/W | 3,73   | 3,60   | 3,76   | 3,70   | 3,86   | 3,86   | 3,80   | 3,77   |
| η <sub>sc</sub>      | H | %   | 146.1% | 141.2% | 147.5% | 144.8% | 151.5% | 151.5% | 148.8% | 147.8% |
| P <sub>designh</sub> | H | kW  | 7      | 9      | 11     | 13     | 16     | 19     | 25     | 26     |
| SCOP                 | H | W/W | 3,47   | 3,34   | 3,46   | 3,36   | 3,29   | 3,50   | 3,47   | 3,44   |
| η <sub>sh</sub>      | H | %   | 135.6% | 130.5% | 135.4% | 131.2% | 128.7% | 137.1% | 135.7% | 134.4% |

## GENERAL TECHNICAL DATA

| Size                     |       | N1           | N2           | N3           | N4           | N5          | N6          | N7          | N8          |
|--------------------------|-------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|
| Power supply             |       |              |              |              |              |             |             |             |             |
| Power supply             |       | 400V~3N 50Hz | 400V~3N 50Hz | 400V~3N 50Hz | 400V~3N 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz |
| Compressor               |       |              |              |              |              |             |             |             |             |
| Type                     | type  | Scroll       |              |              |              |             |             |             |             |
| Number                   | no.   | 2            | 2            | 2            | 2            | 2           | 2           | 2           | 2           |
| Circuits                 | no.   | 2            | 2            | 2            | 2            | 2           | 2           | 2           | 2           |
| Refrigerant              | type  | R410A        |              |              |              |             |             |             |             |
| Sound data               |       |              |              |              |              |             |             |             |             |
| Sound power level        | dB(A) | 73,3         | 73,7         | 76,4         | 76,3         | 81,2        | 79,7        | 82,8        | 82,9        |
| Sound pressure level (1) | dB(A) | 65,3         | 65,8         | 68,5         | 68,3         | 73,2        | 71,7        | 74,8        | 74,9        |

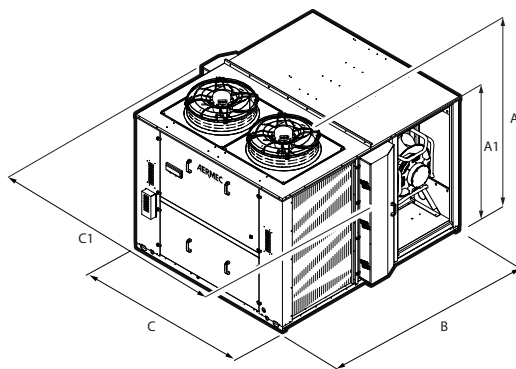
(1) MB1 configuration sound pressure measured in free field (Q=2), 1m away from the outer surface of the ducted unit, high static pressure 50 Pa (EN ISO 9614-2).. 3 dB(A) tolerance on sound power level (Eurovent 8/1).

## FANS

| Size                                |   |      | N1     | N2     | N3     | N4     | N5     | N6     | N7     | N8     |
|-------------------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB1, MB2, MB4</b> |   |      |        |        |        |        |        |        |        |        |
| <b>External fans</b>                |   |      |        |        |        |        |        |        |        |        |
| Type                                | H | type | axials | axials | axials | axials | axials | axials | axials | axials |
| Number                              | H | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |

| Size   |   |      | N1           | N2           | N3           | N4           | N5           | N6           | N7           | N8           |
|--|---|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Configuration: MB1, MB2, MB4                                       |   |      |              |              |              |              |              |              |              |              |
| Internal fans  |   |      |              |              |              |              |              |              |              |              |
| Nominal air flow rate  | H | m³/h | 2000         | 2800         | 3500         | 4000         | 5000         | 6500         | 8000         | 9500         |
| Minimum air flow rate  | H | m³/h | 1800         | 1800         | 2700         | 2700         | 4000         | 4000         | 6500         | 6500         |
| Maximum air flow rate  | H | m³/h | 2900         | 2900         | 4100         | 4100         | 6900         | 6900         | 10100        | 10100        |
| Size   |   |      | 09           | 10           | 11           | 12           | 13           | 14           | 15           | 16           |
| Configuration: MBT   |   |      |              |              |              |              |              |              |              |              |
| Exhaust  |   |      |              |              |              |              |              |              |              |              |
| Type   | H | type | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       |
| Number   | H | no.  | 1            | 1            | 1            | 2            | 2            | 2            | 2            | 2            |
| Size   |   |      | N1           | N2           | N3           | N4           | N5           | N6           | N7           | N8           |
| Configuration: MB1, MB2  |   |      |              |              |              |              |              |              |              |              |
| Delivery   |   |      |              |              |              |              |              |              |              |              |
| Type   | H | type | Brushless EC | Brushless EC | Brushless EC | Brushless EC | Brushless EC | Brushless EC | Brushless EC | Brushless EC |
| Number   | H | no.  | 1            | 1            | 1            | 1            | 1            | 1            | 1            | 1            |
| Maximum useful head (1)  | H | Pa   | 755          | 575          | 460          | 555          | 435          | 460          | 575          | 765          |
| High static pressure (EN14511) (1)                                 | H | Pa   | 100          | 100          | 124          | 124          | 124          | 150          | 150          | 200          |
| (1) At the nominal/maximum flow rate with a new, clean air filter. |   |      |              |              |              |              |              |              |              |              |
| Size   |   |      | N1           | N2           | N3           | N4           | N5           | N6           | N7           | N8           |
| Configuration: MB4   |   |      |              |              |              |              |              |              |              |              |
| Delivery   |   |      |              |              |              |              |              |              |              |              |
| Type   | H | type | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       | RAD EC       |
| Number   | H | no.  | 1            | 1            | 1            | 1            | 1            | 1            | 1            | 1            |
| Maximum useful head (1)  | H | Pa   | 755          | 575          | 460          | 555          | 435          | 460          | 575          | 765          |
| High static pressure (EN14511) (1)                                 | H | Pa   | 100          | 100          | 124          | 124          | 124          | 150          | 150          | 200          |
| (1) At the nominal/maximum flow rate with a new, clean air filter. |   |      |              |              |              |              |              |              |              |              |

## DIMENSIONS



| Size                          |   |    | N1   | N2   | N3   | N4   | N5   | N6   | N7   | N8   |
|-------------------------------|---|----|------|------|------|------|------|------|------|------|
| <b>Configuration: MB1</b>     |   |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |   |    |      |      |      |      |      |      |      |      |
| A                             | H | mm | 1170 | 1170 | 1470 | 1470 | 1610 | 1610 | 1710 | 1710 |
| A1                            | H | mm | 910  | 910  | 1210 | 1210 | 1410 | 1410 | 1510 | 1510 |
| B                             | H | mm | 1460 | 1460 | 1460 | 1460 | 1860 | 1860 | 2310 | 2310 |
| C                             | H | mm | 1560 | 1560 | 1560 | 1560 | 1910 | 1910 | 1910 | 1910 |
| C1                            | H | mm | -    | -    | -    | -    | -    | -    | -    | -    |
| Empty weight                  | H | kg | 335  | 335  | 405  | 405  | 594  | 594  | 745  | 745  |
| Size                          |   |    | N1   | N2   | N3   | N4   | N5   | N6   | N7   | N8   |
| <b>Configuration: MB2</b>     |   |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |   |    |      |      |      |      |      |      |      |      |
| A                             | H | mm | 1170 | 1170 | 1470 | 1470 | 1610 | 1610 | 1710 | 1710 |
| A1                            | H | mm | 910  | 910  | 1210 | 1210 | 1410 | 1410 | 1510 | 1510 |
| B                             | H | mm | 1460 | 1460 | 1460 | 1460 | 1860 | 1860 | 2310 | 2310 |
| C                             | H | mm | 1560 | 1560 | 1560 | 1560 | 1910 | 1910 | 1910 | 1910 |
| C1                            | H | mm | -    | -    | -    | -    | -    | -    | -    | -    |
| Empty weight                  | H | kg | 335  | 335  | 405  | 405  | 594  | 594  | 745  | 745  |
| Size                          |   |    | N1   | N2   | N3   | N4   | N5   | N6   | N7   | N8   |
| <b>Configuration: MB4</b>     |   |    |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |   |    |      |      |      |      |      |      |      |      |
| A                             | H | mm | 1170 | 1170 | 1470 | 1470 | 1610 | 1610 | 1710 | 1710 |
| A1                            | H | mm | 910  | 910  | 1210 | 1210 | 1410 | 1410 | 1510 | 1510 |
| B                             | H | mm | 1460 | 1460 | 1460 | 1460 | 1860 | 1860 | 2310 | 2310 |
| C                             | H | mm | -    | -    | -    | -    | -    | -    | -    | -    |
| C1                            | H | mm | 1850 | 1850 | 1850 | 1850 | 2200 | 2200 | 2200 | 2200 |
| Empty weight                  | H | kg | 345  | 345  | 429  | 429  | 619  | 619  | 775  | 775  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## RTX 09-16

## Roof-Top for applications in medium crowd

Cooling capacity 50 ÷ 135 kW  
Heating capacity 49 ÷ 141 kW

- For medium crowding applications
- Upgraded thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free-cooling / enthalpic free-cooling / photocatalytic system option



### DESCRIPTION

Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration.

RTX 09-16 units are designed for medium crowding applications, like shopping malls, shops, offices, production areas being designed for operation with 30% external and expelled air (version MB3).

The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exhaust air allowing higher performances and efficiencies.

### VERSIONS

|          |              |
|----------|--------------|
| <b>F</b> | Cooling only |
| <b>H</b> | Heat pump.   |

### FEATURES

#### Refrigerant circuit

functioning with R410A refrigerant, consisting of scroll compressors in "uneven" tandem configuration (except for sizes 09, 10 and 14) to ensure maximum energy savings at partial loads and better adaptability to system demands, providing only the energy actually needed. The compressors are equipped with electric resistances on the guards and thermal protection on the exhaust. The compressor compartment is isolated from the air flow.

#### Ventilation

The air treatment cross-section ventilation, which represents the highest expense in terms of machine operating costs, is entrusted to the plug fans with EC brushless motors which enable high performance, easy flow rate adjustment, compactness, low noise, versatility and easy maintenance. Furthermore, a special adaptive logic allows you to adjust the air flow rate to actual system demand with further advantages in terms of consumption reduction.

#### Axial fans

The axial fans, located in the condensing section of the unit, are the helical type, statically and dynamically balanced, protected electrically and mechanically by grids. Electronic condensation control is optional in F versions and condensation and evaporation during winter functioning in H versions.

The fans are also available with electronically controlled (EC) permanent magnet synchronous motor.

#### Exchangers

The internal and external heat exchangers are finned pack direct expansion, made with copper pipes arranged in staggered rows and mechanically expanded to better adhere to the collar of the louvers. The louvers are made of aluminium with a special corrugated surface, suitably spaced to ensure maximum heat exchange yield.

#### Air filtration

Entrusted to a filter with 55% Coarse efficiency (according to EN ISO 16890) on the fresh air flow.

Also available: compact filter with ePM1 50% efficiency or ePM1 80% efficiency (according to EN ISO 16890) and electronic filter on fresh air flow. Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO2 probe).

#### Cleaning system with photocatalytic lamp

The Photocatalytic Oxidation technology generates natural oxidising ions capable of attracting and destroying the pollutants present in the air and on surfaces, by means of the combined action of UV rays with a catalyst structure composed of a four-metal alloy, mainly consisting of TiO<sub>2</sub> (titanium dioxide).

#### Thermoregulation

Electronic controller able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use by means of special software. Interfaces to connect to remote supervision and control systems available as options. The electrical panel complete with all devices is easily accessible.

The free-cooling/heating and defrosting logics are particularly sophisticated. As soon as the external conditions allow it, the unit is able to automatically activate the free-cooling or free-heating mode, which cools or heats the served room, while keeping the compressors off and introducing suitably treated external air. This mode significantly reduces both energy consumption and wear of the compressors. These functions are also used when the external air energy content is not enough to cool or heat the room. In this case, the thermal cooling capacity is integrated by the compressors.



## CONFIGURATIONS

### MB1: Single ventilating cross-section for recovery air.

Recovery air only configuration where no fresh air is required.

The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

### MB2: Single ventilating cross-section for recovery and external air.

Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).

If there are no extraction systems, the room will be in overpressure.

### MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.

The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.

Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

### MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.

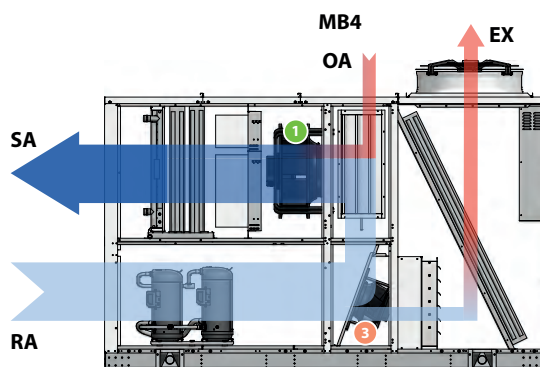
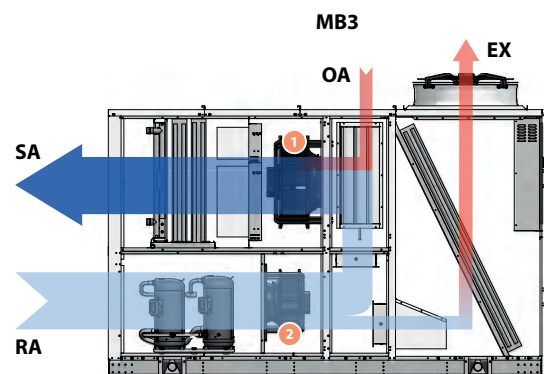
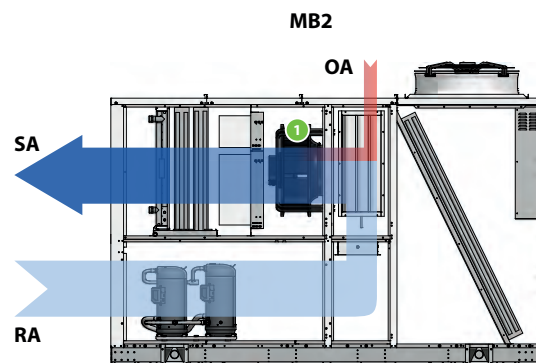
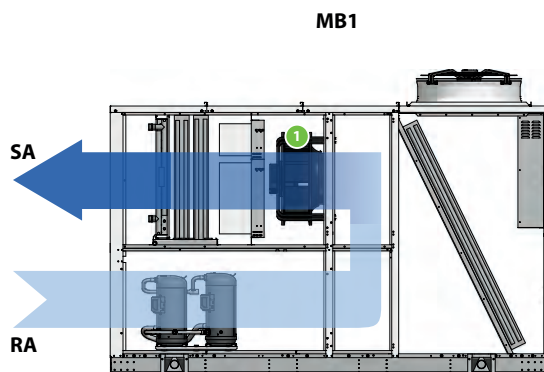
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

The double flow and exhaust ventilating cross-section allows for partial free-cooling.

As for the MB3 version, it has the thermodynamic recovery function.

#### Advantages of thermodynamic recovery (MB3 - MB4 version):

- Energy recovery from the exhaust air flow that would otherwise be lost
- No further components are introduced and, therefore, there are no additional pressure drops
- Cooling circuit functioning with heat sources at more advantageous temperatures
- Reduction of defrosting cycles
- Increase in thermal and cooling efficiency
- Efficiency increase (EER/COP)



SA supply air  
RA fresh air  
OA fresh air  
EX Exhaust air

1 Delivery fan  
2 Return fan  
3 Expulsion fan

### MBT: DOUBLE VENTILATING CROSS-SECTION (FLOW AND EXPULSION) FOR RECOVERY AIR, EXTERNAL AIR AND EXHAUST AIR, UPGRADED THERMODYNAMIC RECOVERY.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure.

The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

The double flow and exhaust ventilating cross-section allows for partial free-cooling.

The MBT configuration allows for the upgraded thermodynamic recovery on the exhaust air by fully exploiting the energy content still present in it. The exhaust flow rate, controlled by the dedicated exhaust fan, is conveyed to the innovative finned pack recovery coil, integrated in the cooling circuit of the unit.

The coil, perfectly hit by the air flow, recovers the energy still present in the exhaust flow and transfer it to the cooling circuit, increasing the treatment coil performance without increasing the input power of the compressors.

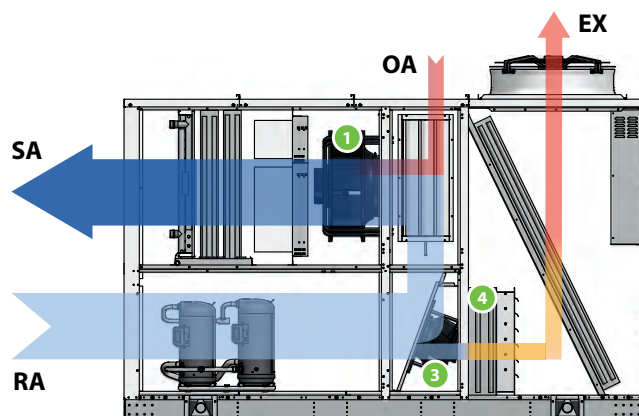
In summer functioning, the coil makes it possible to increase the liquid sub-cooling, while in winter functioning, the coil takes on part of the evaporation by operating the cooling circuit at more advantageous temperatures.

#### Advantages of upgraded thermodynamic recovery (MBT version):

- High heat exchange efficiency thanks to the dedicated recovery coil
- Further increase in unit cooling and heating capacity
- Further increase in unit efficiency (EER/COP)
- Reduced additional air side pressure drops (expelled air side only)

- The unit remains compact
- In heating functioning, the defrost cycles are further reduced due to the increase in evaporation temperature. The result is an increase in efficiency and greater room comfort.
- Compared to traditional passive recuperators, in heating functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (mild winters)

- Compared to traditional passive recuperators, in cooling functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (continental and temperate climate)
- The presence of the dedicated coil determines the recovery efficiency that can be used in the energy certification calculations.



**SA** supply air  
**RA** fresh air  
**OA** fresh air  
**EX** Exhaust air

- 1 Delivery fan
- 2 Return fan
- 3 Expulsion fan
- 4 Dedicated thermodynamic recovery coil

## ACCESSORIES

**AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.

**AXECP:** EC axial fans with available useful static pressure.

**BAC:** Interface card BACnet MS/TP pConet.

**BE:** Electric heating coil 2 stages.

**BEM:** Modulating electric heating coil.

**BIP:** Interface card Ethernet-pCOWeb (BACNET IP)

**BPGC:** After heating coil with hot gas.

**BW:** 2-rows-heating coil with hot water.

**BWV2V:** 2-rows-heating coil with hot water, with 2-way modulating valve.

**BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.

**CA:** Waterproof covers on external air intake.

**CF:** Flue, only on unit with gas burner module.

**CUR:** Humidification control (humidity probe in recovery, limit humidity probe in supply, contact ON/OFF and modulating analog output).

**DCPR:** AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.

**DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present).

**FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions.

**FT7:** F7 efficiency pocket filters positioned on the supply air flow.

**FT9:** Pocket filters F9 efficiency placed on the flow of supply air.

**FTE:** Electronic filters placed on the flow of supply air.

**FTH:** Enthalpy free-cooling.

**GP:** External coil protection grid.

**Gx:** Heating module with gas burner.

**LFX:** Device with photocatalytic effect.

**LW:** Interface card LonWorks.

**MAN:** High and low pressure gauges.

**MSSM:** Flow silencer module, only for rear flow.

**MSSR:** Recovery silencer module, only for rear air recovery.

**PRT1:** Wall/recessed (up to 50 m) remote control panel.

**PRT2:** Wall/recessed (up to 200 m) remote control panel.

**PSFT:** Differential pressure switch signalling dirty filters.

**PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.

**RF:** Smoke detector.

**RFC:** Smoke detector and damper management.

**RS:** Serial card BMS RS485.

**SCM:** Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).

**SCMRM:** Modulating Servo-control with spring return.

**SCO2:** Probe CO2 (not available on MB1 fittings).

**STA:** Room temperature probe

**SUA:** Room humidity probe.

**SVOC:** Probe VOC (not available on MB1 fittings).

**UP:** Manufacturer of immersed electrodes supplied and steam ramp installed.

**VT:** Antivibration mounts.



## PERFORMANCE SPECIFICATIONS

### MB1

| Size                            |    | 09    | 10    | 11    | 12    | 13    | 14     | 15     | 16     |
|---------------------------------|----|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Configuration: MB1</b>       |    |       |       |       |       |       |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |        |        |        |
| Cooling capacity                | kW | 50,00 | 60,10 | 68,60 | 81,00 | 93,40 | 103,50 | 114,00 | 125,30 |
| Sensible cooling capacity       | kW | 40,10 | 46,10 | 52,70 | 63,20 | 70,90 | 81,80  | 89,30  | 97,10  |
| Compressors absorbed power      | kW | 11,90 | 14,40 | 18,80 | 17,90 | 23,10 | 25,60  | 30,50  | 35,50  |
| EER compressors                 |    | 4,20  | 4,17  | 3,65  | 4,53  | 4,04  | 4,04   | 3,74   | 3,53   |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |        |        |        |
| Heating capacity                | kW | 49,40 | 61,10 | 69,30 | 80,60 | 93,70 | 102,20 | 113,70 | 126,60 |
| Compressors absorbed power      | kW | 9,80  | 12,20 | 15,50 | 15,70 | 20,60 | 21,00  | 24,40  | 28,40  |
| Compressor COP                  |    | 5,04  | 5,01  | 4,47  | 5,13  | 4,55  | 4,87   | 4,66   | 4,46   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB2

| Size                            |    | 09    | 10    | 11    | 12    | 13    | 14     | 15     | 16     |
|---------------------------------|----|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Configuration: MB2</b>       |    |       |       |       |       |       |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |        |        |        |
| Cooling capacity                | kW | 52,90 | 63,30 | 72,30 | 85,30 | 98,40 | 108,80 | 120,10 | 131,60 |
| Sensible cooling capacity       | kW | 42,70 | 48,80 | 55,90 | 67,10 | 75,00 | 86,70  | 94,80  | 102,80 |
| Compressors absorbed power      | kW | 12,10 | 14,60 | 19,00 | 18,10 | 23,30 | 25,90  | 30,90  | 35,90  |
| EER compressors                 |    | 4,37  | 4,34  | 3,81  | 4,71  | 4,22  | 4,20   | 3,89   | 3,67   |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |        |        |        |
| Heating capacity                | kW | 50,50 | 61,90 | 70,60 | 82,20 | 94,90 | 103,60 | 115,30 | 128,10 |
| Compressors absorbed power      | kW | 9,00  | 11,20 | 14,10 | 14,30 | 18,90 | 19,20  | 22,50  | 26,00  |
| Compressor COP                  |    | 5,61  | 5,53  | 5,01  | 5,75  | 5,02  | 5,40   | 5,12   | 4,93   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB3

| Size                            |    | 09    | 10    | 11    | 12    | 13    | 14     | 15     | 16     |
|---------------------------------|----|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Configuration: MB3</b>       |    |       |       |       |       |       |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |        |        |        |
| Cooling capacity                | kW | 53,40 | 63,70 | 73,10 | 86,10 | 99,30 | 110,00 | 121,30 | 133,30 |
| Sensible cooling capacity       | kW | 43,00 | 48,90 | 56,20 | 67,40 | 75,30 | 87,00  | 95,10  | 103,20 |
| Compressors absorbed power      | kW | 11,80 | 14,20 | 18,50 | 17,70 | 22,80 | 25,10  | 30,10  | 34,80  |
| EER compressors                 |    | 4,53  | 4,49  | 3,95  | 4,86  | 4,36  | 4,38   | 4,03   | 3,83   |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |        |        |        |
| Heating capacity                | kW | 52,10 | 64,10 | 74,10 | 85,00 | 98,60 | 107,80 | 120,60 | 134,30 |
| Compressors absorbed power      | kW | 9,20  | 11,40 | 14,40 | 14,60 | 19,10 | 19,40  | 22,90  | 26,70  |
| Compressor COP                  |    | 5,66  | 5,62  | 5,15  | 5,82  | 5,16  | 5,56   | 5,27   | 5,03   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB4

| Size                            |    | 09    | 10    | 11    | 12    | 13    | 14     | 15     | 16     |
|---------------------------------|----|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Configuration: MB4</b>       |    |       |       |       |       |       |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |        |        |        |
| Cooling capacity                | kW | 53,40 | 63,70 | 73,10 | 86,10 | 99,30 | 110,00 | 121,30 | 133,30 |
| Sensible cooling capacity       | kW | 43,00 | 48,90 | 56,20 | 67,40 | 75,30 | 87,00  | 95,10  | 103,20 |
| Compressors absorbed power      | kW | 11,80 | 14,20 | 18,50 | 17,70 | 22,80 | 25,10  | 30,10  | 34,80  |
| EER compressors                 |    | 4,53  | 4,49  | 3,95  | 4,86  | 4,36  | 4,38   | 4,03   | 3,83   |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |        |        |        |
| Heating capacity                | kW | 52,10 | 64,10 | 74,10 | 85,00 | 98,60 | 107,80 | 120,60 | 134,30 |
| Compressors absorbed power      | kW | 9,20  | 11,40 | 14,40 | 14,60 | 19,10 | 19,40  | 22,90  | 26,70  |
| Compressor COP                  |    | 5,66  | 5,62  | 5,15  | 5,82  | 5,16  | 5,56   | 5,27   | 5,03   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

**MBT**

| Size                            |    | 09    | 10    | 11    | 12    | 13     | 14     | 15     | 16     |
|---------------------------------|----|-------|-------|-------|-------|--------|--------|--------|--------|
| <b>Configuration: MBT</b>       |    |       |       |       |       |        |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |        |        |        |        |
| Cooling capacity                | kW | 57,10 | 67,80 | 78,00 | 90,50 | 103,70 | 116,90 | 128,80 | 140,60 |
| Sensible cooling capacity       | kW | 46,60 | 53,00 | 61,20 | 71,90 | 79,70  | 94,00  | 102,60 | 110,60 |
| Compressors absorbed power      | kW | 11,80 | 14,20 | 18,50 | 17,70 | 22,80  | 25,10  | 30,10  | 34,80  |
| EER compressors                 |    | 4,84  | 4,77  | 4,22  | 5,11  | 4,55   | 4,66   | 4,28   | 4,04   |
| <b>Heating performances (2)</b> |    |       |       |       |       |        |        |        |        |
| Heating capacity                | kW | 55,40 | 68,00 | 78,30 | 90,10 | 103,60 | 114,40 | 127,50 | 141,40 |
| Compressors absorbed power      | kW | 9,20  | 11,40 | 14,40 | 14,60 | 19,10  | 19,40  | 22,90  | 26,70  |
| Compressor COP                  |    | 6,02  | 5,96  | 5,44  | 6,17  | 5,42   | 5,90   | 5,57   | 5,30   |
| Recovery efficiency             | %  | 84%   | 92%   | 87%   | 90%   | 85%    | 85%    | 82%    | 78%    |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

**ENERGY INDEX**

| Size         |   |     | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|--------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| Energy index |   |     |        |        |        |        |        |        |        |        |
| SEER         | H | W/W | 4,24   | 3,94   | 3,76   | 3,92   | 3,89   | 4,22   | 4,10   | 4,05   |
| $\eta_{sc}$  | H | %   | 166.6% | 154.5% | 147.2% | 153.9% | 152.7% | 165.7% | 161.1% | 159.1% |
| Pdesignh     | H | kW  | 29     | 34     | 38     | 46     | 52     | 57     | 62     | 71     |
| SCOP         | H | W/W | 3,59   | 3,50   | 3,30   | 3,27   | 3,22   | 3,47   | 3,41   | 3,38   |
| $\eta_{sh}$  | H | %   | 140.5% | 137.0% | 128.8% | 127.7% | 126.0% | 135.9% | 133.5% | 132.3% |

**GENERAL TECHNICAL DATA**

| Size                |   |      | 09          | 10          | 11          | 12          | 13          | 14          | 15          | 16          |
|---------------------|---|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Power supply        |   |      |             |             |             |             |             |             |             |             |
| Power supply        | H |      | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz |
| Compressor          |   |      |             |             |             |             |             |             |             |             |
| Type                | H | type | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      |
| Number              | H | no.  | 2           | 2           | 2           | 2           | 2           | 2           | 2           | 2           |
| Circuits            | H | no.  | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Refrigerant         | H | type | R410A       | R410A       | R410A       | R410A       | R410A       | R410A       | R410A       | R410A       |
| Partialisation step | H | no.  | 2           | 2           | 3           | 3           | 3           | 2           | 3           | 3           |

**FANS****External fans**

| Size                                   |   |      | 09         | 10         | 11         | 12         | 13         | 14         | 15         | 16         |
|--|---|------|------------|------------|------------|------------|------------|------------|------------|------------|
| Configuration: MB1, MB2, MB3, MB4, MBT |   |      |            |            |            |            |            |            |            |            |
| External fans                          |   |      |            |            |            |            |            |            |            |            |
| Type                                   | H | type | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC |
| Number                                 | H | no.  | 2          | 2          | 2          | 2          | 2          | 2          | 2          | 2          |

**Internal fans MB1-MB2-MB3-MB4-MBT**

| Internal fans MB1 MB2 MB3 MB4 MBT      |   |      | 09   | 10    | 11    | 12    | 13    | 14    | 15    | 16    |
|--|---|------|------|-------|-------|-------|-------|-------|-------|-------|
| Configuration: MB1, MB2, MB3, MB4, MBT |   |      |      |       |       |       |       |       |       |       |
| Internal fans                          |   |      |      |       |       |       |       |       |       |       |
| Nominal air flow rate                  | H | m³/h | 9500 | 11000 | 13000 | 15000 | 17000 | 20000 | 22000 | 24000 |
| Minimum air flow rate                  | H | m³/h | 6650 | 7700  | 9100  | 10850 | 12600 | 14000 | 15400 | 16800 |
| Maximum air flow rate                  | H | m³/h | 9500 | 11000 | 13000 | 15500 | 18000 | 20000 | 22000 | 24000 |

**Internal recovery fans**

| Size                      |   |      | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|---------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB3</b> |   |      |        |        |        |        |        |        |        |        |
| <b>Recovery</b>           |   |      |        |        |        |        |        |        |        |        |
| Type                      | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                    | H | no.  | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      |

**Expulsion fan MB4-MBT**

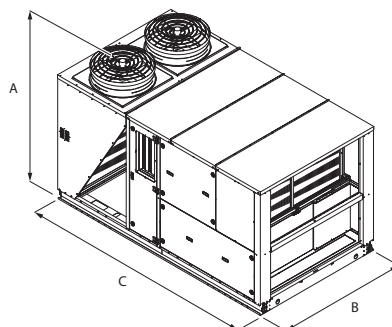
| Size                      |   |      | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|---------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MBT</b> |   |      |        |        |        |        |        |        |        |        |
| <b>Exhaust</b>            |   |      |        |        |        |        |        |        |        |        |
| Type                      | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                    | H | no.  | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      |

## Internal flow fans

| Size  |   |      | 09     | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB1, MB2, MB3, MB4, MBT</b> |   |      |        |        |        |        |        |        |        |        |
| <b>Delivery</b>                               |   |      |        |        |        |        |        |        |        |        |
| Type  | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number  | H | no.  | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      |
| Maximum useful head (1)                       | H | Pa   | 770    | 510    | 445    | 555    | 740    | 640    | 525    | 675    |
| High static pressure (EN14511) (1)            | H | Pa   | 200    | 200    | 200    | 200    | 250    | 250    | 250    | 300    |

(1) At the nominal/maximum flow rate with a new, clean air filter.

## DIMENSIONS



| Size                   |   |    | 09   | 10   | 11   | 12   | 13   | 14   | 15   | 16   |
|------------------------|---|----|------|------|------|------|------|------|------|------|
| Dimensions and weights |   |    |      |      |      |      |      |      |      |      |
| A                      | H | mm | 2061 | 2061 | 2061 | 2373 | 2373 | 2440 | 2440 | 2440 |
| B                      | H | mm | 1900 | 1900 | 1900 | 2100 | 2100 | 2200 | 2200 | 2200 |
| C                      | H | mm | 3400 | 3400 | 3400 | 3400 | 3400 | 4000 | 4000 | 4000 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# RTX-17-23

## Roof-Top for applications in medium crowded

Cooling capacity 151 ÷ 307 kW  
Heating capacity 152 ÷ 310 kW

- For medium crowding applications
- Thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free cooling / Enthalpy free cooling



### DESCRIPTION

Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration. The RTX 09-16 units are designed for installation in places with an average degree of crowding such as shopping centres, shops, offices and production sites, as operation uses 30% outside expelled air (versions MB3 and MB4). Depending on the version and the accessories chosen, the unit can man-

### CONFIGURATIONS

#### MB1: Single ventilating cross-section for recovery air.

Recovery air only configuration where no fresh air is required. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

#### MB2: Single ventilating cross-section for recovery and external air.

Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section. The presence of the recirculation damper (optional) allows for total free-cooling (100% external air). If there are no extraction systems, the room will be in overpressure.

#### MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure. The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates. Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

#### MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.

age free cooling mode. Versions MB3 and MB4 feature the thermodynamic recovery of the energy contained in the exhaust air, leading to higher performance and efficiency levels.

### VERSIONS

F Cooling only  
H Heat pump.

The double flow and exhaust ventilating cross-section allows for partial free-cooling.

As for the MB3 version, it has the thermodynamic recovery function.

#### Advantages of thermodynamic recovery (MB3 - MB4 version):

- Energy recovery from the exhaust air flow that would otherwise be lost
- No further components are introduced and, therefore, there are no additional pressure drops
- Cooling circuit functioning with heat sources at more advantageous temperatures
- Reduction of defrosting cycles
- Increase in thermal and cooling efficiency
- Efficiency increase (EER/COP)

### FEATURES

- 2 cooling circuits with electronic thermostatic expansion valve;
- Scroll compressors (UNEVEN tandem) with high capacity and low electrical power consumption;
- Finned pack direct expansion internal and external exchangers;
- Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO<sub>2</sub> probe);
- The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003

(self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);

- The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

## CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

## FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

### Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system. State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.

Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

### Maximum seasonal efficiency

To improve the efficiency of the cooling circuit, tandem scroll compressors of different power levels are used (UNEVEN compressors on all sizes). This distinctive trait, combined with the use of next generation fans, means reduced consumption and enhanced adaptability to system requests (particularly in partial load operation), guaranteeing boosted seasonal efficiency levels.

### Room air quality

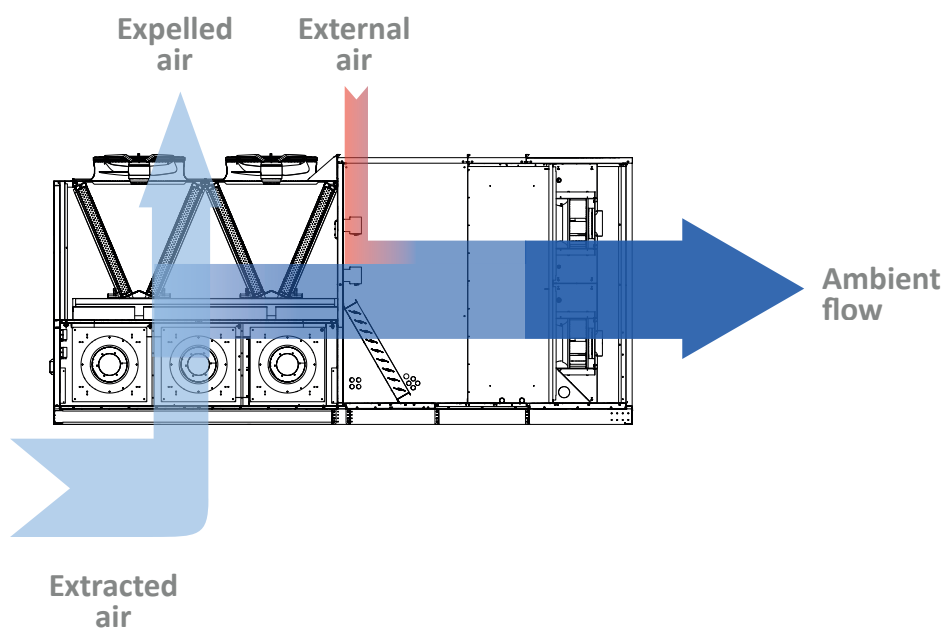
Special attention has been paid to the quality of the air in the room, entrusted to filters that ensure 55% COARSE efficiency as standard. There is also the option of F7, F9 or electronic filters on the fresh air flow.

### Active thermodynamic recovery

In the MB3-MB4 configuration, the unit with thermodynamic recovery function also takes advantage of the energy contained in the exhaust air, which would otherwise be lost; this ensures better performance and efficiency.

All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

## MB3 CONFIGURATION WITH TWIN FAN SECTION FOR RECIRCULATION AIR, OUTSIDE AIR AND EXHAUST AIR. TOTAL FREE COOLING FUNCTION (WITH 100% OUTSIDE AIR) AND THERMODYNAMIC RECOVERY FUNCTION AS STANDARD.



## ACCESSORIES

**AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.

**AXECP:** EC axial fans with available useful static pressure.

**BAC:** Interface card BACnet MS/TP pConet.

**BE:** Electric heating coil 2 stages.

**BEM:** Modulating electric heating coil.

**BIP:** Interface card Ethernet-pCOWeb (BACNET IP)

**BPGC:** After heating coil with hot gas.

**BW:** 2-rows-heating coil with hot water.

**BWV2V:** 2-rows-heating coil with hot water, with 2-way modulating valve.

**BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.

**CA:** Waterproof covers on external air intake.

**CF:** Flue, only on unit with gas burner module.

**CUR:** Humidification control (humidity probe in recovery, limit humidity probe in supply, contact ON/OFF and modulating analog output).

**DCPR:** AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.

**DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present).

**FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions.

**FT7:** F7 efficiency pocket filters positioned on the supply air flow.

**FT9:** Pocket filters F9 efficiency placed on the flow of supply air.

**FTE:** Electronic filters placed on the flow of supply air.

**FTH:** Enthalpy free-cooling.

**GP:** External coil protection grid.

**Gx:** Heating module with gas burner.

**LFX:** Device with photocatalytic effect.

**LW:** Interface card LonWorks.

**MAN:** High and low pressure gauges.

**MSSM:** Flow silencer module, only for rear flow.

**MSSR:** Recovery silencer module, only for rear air recovery.

**PRT1:** Wall/recessed (up to 50 m) remote control panel.

**PRT2:** Wall/recessed (up to 200 m) remote control panel.

**PSFT:** Differential pressure switch signalling dirty filters.

**PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.

**RF:** Smoke detector.

**RFC:** Smoke detector and damper management.

**RS:** Serial card BMS RS485.

**SCM:** Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).

**SCMRM:** Modulating Servo-control with spring return.

**SCO2:** Probe CO<sub>2</sub> (not available on MB1 fittings).

**STA:** Room temperature probe

**SUA:** Room humidity probe.

**SVOC:** Probe VOC (not available on MB1 fittings).

**UP:** Manufacturer of immersed electrodes supplied and steam ramp installed.

**VT:** Antivibration mounts.

## PERFORMANCE SPECIFICATIONS

### MB1

| Size                            |    | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB1</b>       |    |        |        |        |        |        |        |        |
| <b>Cooling performances (1)</b> |    |        |        |        |        |        |        |        |
| Cooling capacity                | kW | 151,90 | 170,10 | 191,70 | 213,30 | 231,70 | 246,10 | 289,10 |
| Sensible cooling capacity       | kW | 114,30 | 125,40 | 136,10 | 151,60 | 164,70 | 178,50 | 202,30 |
| Compressors absorbed power      | kW | 32,70  | 39,20  | 45,30  | 54,00  | 60,70  | 69,00  | 68,90  |
| EER compressors                 |    | 4,65   | 4,34   | 4,23   | 3,95   | 3,82   | 3,57   | 4,20   |
| <b>Heating performances (2)</b> |    |        |        |        |        |        |        |        |
| Heating capacity                | kW | 152,70 | 170,80 | 192,80 | 216,20 | 230,80 | 245,50 | 296,30 |
| Compressors absorbed power      | kW | 28,20  | 33,90  | 39,20  | 43,90  | 46,30  | 51,20  | 58,60  |
| Compressor COP                  |    | 5,41   | 5,04   | 4,92   | 4,92   | 4,98   | 4,79   | 5,06   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB2

| Size                            |    | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB2</b>       |    |        |        |        |        |        |        |        |
| <b>Cooling performances (1)</b> |    |        |        |        |        |        |        |        |
| Cooling capacity                | kW | 160,20 | 179,40 | 201,80 | 224,60 | 243,90 | 258,90 | 304,50 |
| Sensible cooling capacity       | kW | 120,90 | 132,60 | 143,20 | 159,70 | 173,50 | 188,30 | 212,90 |
| Compressors absorbed power      | kW | 33,10  | 39,50  | 45,60  | 54,60  | 61,60  | 69,80  | 69,70  |
| EER compressors                 |    | 4,84   | 4,54   | 4,43   | 4,11   | 3,96   | 3,71   | 4,37   |
| <b>Heating performances (2)</b> |    |        |        |        |        |        |        |        |
| Heating capacity                | kW | 155,10 | 174,20 | 195,50 | 219,50 | 234,00 | 248,60 | 300,70 |
| Compressors absorbed power      | kW | 25,80  | 31,10  | 35,70  | 40,40  | 42,50  | 47,00  | 54,10  |
| Compressor COP                  |    | 6,01   | 5,60   | 5,48   | 5,43   | 5,51   | 5,29   | 5,56   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB3

| Size                            |    | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB3</b>       |    |        |        |        |        |        |        |        |
| <b>Cooling performances (1)</b> |    |        |        |        |        |        |        |        |
| Cooling capacity                | kW | 161,30 | 181,10 | 203,70 | 226,90 | 246,70 | 262,10 | 307,20 |
| Sensible cooling capacity       | kW | 121,30 | 133,30 | 143,80 | 160,50 | 174,50 | 189,20 | 213,90 |
| Compressors absorbed power      | kW | 32,50  | 38,80  | 44,50  | 53,20  | 59,90  | 67,70  | 68,30  |
| EER compressors                 |    | 4,96   | 4,67   | 4,58   | 4,27   | 4,12   | 3,87   | 4,50   |
| <b>Heating performances (2)</b> |    |        |        |        |        |        |        |        |
| Heating capacity                | kW | 159,10 | 179,00 | 202,30 | 227,70 | 243,60 | 259,90 | 310,90 |
| Compressors absorbed power      | kW | 26,20  | 31,40  | 36,30  | 41,00  | 43,30  | 47,90  | 55,00  |
| Compressor COP                  |    | 6,07   | 5,70   | 5,57   | 5,55   | 5,63   | 5,43   | 5,65   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

### MB4

| Size                            |    | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------------|----|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB4</b>       |    |        |        |        |        |        |        |        |
| <b>Cooling performances (1)</b> |    |        |        |        |        |        |        |        |
| Cooling capacity                | kW | 161,30 | 181,10 | 203,70 | 226,90 | 246,70 | 262,10 | 307,20 |
| Sensible cooling capacity       | kW | 121,30 | 133,30 | 143,80 | 160,50 | 174,50 | 189,20 | 213,90 |
| Compressors absorbed power      | kW | 32,50  | 38,80  | 44,50  | 53,20  | 59,90  | 67,70  | 68,30  |
| EER compressors                 |    | 4,96   | 4,67   | 4,58   | 4,27   | 4,12   | 3,87   | 4,50   |
| <b>Heating performances (2)</b> |    |        |        |        |        |        |        |        |
| Heating capacity                | kW | 159,10 | 179,00 | 202,30 | 227,70 | 243,60 | 259,90 | 310,90 |
| Compressors absorbed power      | kW | 26,20  | 31,40  | 36,30  | 41,00  | 43,30  | 47,90  | 55,00  |
| Compressor COP                  |    | 6,07   | 5,70   | 5,57   | 5,55   | 5,63   | 5,43   | 5,65   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

## ENERGY INDEX

| Size                  |   |     | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|-----------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>Energy index</b>   |   |     |        |        |        |        |        |        |        |
| SEER                  | H | W/W | 4,01   | 3,94   | 4,18   | 3,92   | 4,15   | 3,94   | 3,85   |
| η <sub>sc</sub>       | H | %   | 157.6% | 154.6% | 164.3% | 153.8% | 162.9% | 154.5% | 150.9% |
| P <sub>design</sub> h | H | kW  | 89     | 98     | 109    | 123    | 130    | 141    | 168    |
| SCOP                  | H | W/W | 3,47   | 3,31   | 3,45   | 3,36   | 3,49   | 3,43   | 3,26   |
| η <sub>sh</sub>       | H | %   | 135.7% | 129.4% | 134.8% | 131.5% | 136.4% | 134.2% | 127.3% |

## GENERAL TECHNICAL DATA

| Size                |   |      | 17          | 18          | 19          | 20          | 21          | 22          | 23          |
|---------------------|---|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Power supply</b> |   |      |             |             |             |             |             |             |             |
| Power supply        | H |      | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz | 400V~3 50Hz |
| <b>Compressor</b>   |   |      |             |             |             |             |             |             |             |
| Type                | H | type | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      | Scroll      |
| Number              | H | no.  | 4           | 4           | 4           | 4           | 4           | 4           | 4           |
| Circuits            | H | no.  | 2           | 2           | 2           | 2           | 2           | 2           | 2           |
| Refrigerant         | H | type | R410A       | R410A       | R410A       | R410A       | R410A       | R410A       | R410A       |
| Partialisation step | H | no.  | 6           | 6           | 6           | 6           | 6           | 6           | 6           |

## FANS

### External fans

| Size                                     |   |      | 17         | 18         | 19         | 20         | 21         | 22         | 23         |
|--|---|------|------------|------------|------------|------------|------------|------------|------------|
| <b>Configuration: MB1, MB2, MB3, MB4</b> |   |      |            |            |            |            |            |            |            |
| <b>External fans</b>                     |   |      |            |            |            |            |            |            |            |
| Type                                     | H | type | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC | Assiali AC |
| Number                                   | H | no.  | 4          | 4          | 4          | 4          | 4          | 4          | 4          |

### Internal fans

| Size                                     |   |                   | 17    | 18    | 19    | 20    | 21    | 22    | 23    |
|--|---|-------------------|-------|-------|-------|-------|-------|-------|-------|
| <b>Configuration: MB1, MB2, MB3, MB4</b> |   |                   |       |       |       |       |       |       |       |
| <b>Internal fans</b>                     |   |                   |       |       |       |       |       |       |       |
| Nominal air flow rate                    | H | m <sup>3</sup> /h | 26000 | 29000 | 33000 | 37000 | 40000 | 44000 | 48000 |
| Minimum air flow rate                    | H | m <sup>3</sup> /h | 18200 | 20300 | 23100 | 25900 | 28000 | 30800 | 33600 |
| Maximum air flow rate                    | H | m <sup>3</sup> /h | 36000 | 36000 | 44000 | 44000 | 53000 | 53000 | 53000 |

### Internal recovery fans

| Size                      |   |      | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB3</b> |   |      |        |        |        |        |        |        |        |
| <b>Recovery</b>           |   |      |        |        |        |        |        |        |        |
| Type                      | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                    | H | no.  | 3      | 3      | 3      | 3      | 3      | 3      | 3      |

### Expulsion fan

| Size                      |   |      | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|---------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB4</b> |   |      |        |        |        |        |        |        |        |
| <b>Exhaust</b>            |   |      |        |        |        |        |        |        |        |
| Type                      | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                    | H | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2      |

### Internal flow fans

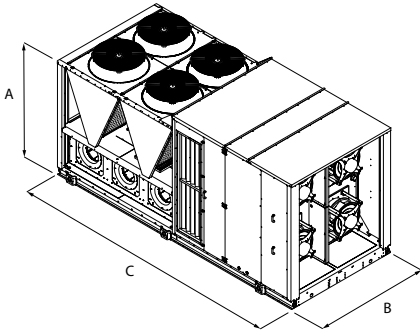
| Size                               |   |      | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|------------------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB1</b>          |   |      |        |        |        |        |        |        |        |
| <b>Delivery</b>                    |   |      |        |        |        |        |        |        |        |
| Type                               | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                             | H | no.  | 2      | 2      | 3      | 3      | 3      | 4      | 4      |
| Maximum useful head (1)            | H | Pa   | 700    | 475    | 520    | 580    | 520    | 690    | 550    |
| High static pressure (EN14511) (1) | H | Pa   | 350    | 350    | 350    | 350    | 350    | 350    | 350    |

(1) At the nominal/maximum flow rate with a new, clean air filter.

| Size                                |   |      | 17     | 18     | 19     | 20     | 21     | 22     | 23     |
|-------------------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB2, MB3, MB4</b> |   |      |        |        |        |        |        |        |        |
| <b>Delivery</b>                     |   |      |        |        |        |        |        |        |        |
| Type                                | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                              | H | no.  | 2      | 2      | 3      | 3      | 3      | 4      | 4      |
| Maximum useful head (1)             | H | Pa   | 519    | 341    | 330    | 470    | 460    | 636    | 467    |
| High static pressure (EN14511) (1)  | H | Pa   | 350    | 350    | 350    | 350    | 350    | 350    | 350    |

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



| Size                   |   |    | 17   | 18   | 19   | 20   | 21   | 22   | 23   |
|------------------------|---|----|------|------|------|------|------|------|------|
| Dimensions and weights |   |    |      |      |      |      |      |      |      |
| A                      | H | mm | 2430 | 2430 | 2430 | 2430 | 2430 | 2430 | 2430 |
| B                      | H | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C                      | H | mm | 5210 | 5210 | 5210 | 5210 | 7750 | 7750 | 7750 |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



## RTY

## Roof-Top for high-crowding applications

Cooling capacity 30.2 ÷ 133.6 kW  
Heating capacity 29.3 ÷ 137.9 kW

- For high-crowding applications
- Thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free cooling option



### DESCRIPTION

Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration.

The RTY 01-10 units are designed for highly crowded contexts such as cinemas, conference halls, restaurants and discos, as they work with 80% outside and exhaust air.

### CONFIGURATIONS

**MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.**

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.

The double flow and recovery ventilating cross-section allows for total free-cooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.

Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

### FEATURES

- 1 refrigerant circuit;
- Scroll compressors (UNEVEN tandem) with high capacity and low electrical power consumption;
- Finned pack direct expansion internal and external exchangers;
- Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO<sub>2 probe</sub>);
- Electronic control of condensation and evaporation as standard, to further extend the operating limits of the unit;

The standard unit permits the use of free cooling mode and the thermodynamic recovery of the energy in the exhaust air, guaranteeing higher output and efficiency levels.

### VERSIONS

**H** Heat pump.

- The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
- The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

### CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

### FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

#### Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system. State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.

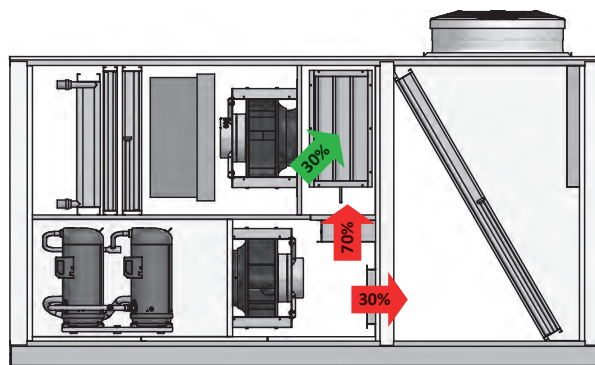
Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

### Maximum seasonal efficiency

To improve the efficiency of the cooling circuit, tandem scroll compressors of different power levels are used (UNEVEN compressors on all size taglie except size 08). This distinctive trait, combined with the use of next generation fans, means reduced consumption and enhanced adaptability to system requests (particularly in partial load operation), guaranteeing boosted seasonal efficiency levels.

## MB3 CONFIGURATION WITH TWIN FAN SECTION FOR RECIRCULATION AIR, OUTSIDE AIR AND EXHAUST AIR. TOTAL FREE COOLING FUNCTION (WITH 100% OUTSIDE AIR) AND THERMODYNAMIC RECOVERY FUNCTION AS STANDARD.



### ACCESSORIES

**AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.

**AXECP:** EC axial fans with available useful static pressure.

**BAC:** Interface card BACnet MS/TP pConet.

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**BIP:** Interface card Ethernet-pCOWeb (BACNET IP)

**BPGC:** After heating coil with hot gas.

**BW:** 2-rows-heating coil with hot water.

**BWV2V:** 2-rows-heating coil with hot water, with 2-way modulating valve.

**BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.

**CA:** Waterproof covers on external air intake.

**CF:** Flue, only on unit with gas burner module.

**DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present).

**FT7:** F7 efficiency pocket filters positioned on the supply air flow.

**FT9:** Pocket filters F9 efficiency placed on the flow of supply air.

**FTH:** Enthalpy free-cooling.

**GP:** External coil protection grid.

**Gx:** Heating module with gas burner.

**LW:** Interface card LonWorks.

### Room air quality

Special attention has been paid to the quality of the air in the room, entrusted to filters that ensure 55% COARSE efficiency as standard. There is also the option of F7, F9 or electronic filters on the fresh air flow.

### Active thermodynamic recovery

In the MB3 configuration, the unit with thermodynamic recovery function also takes advantage of the energy contained in the exhaust air, which would otherwise be lost; this ensures better performance and efficiency.

All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

**MAN:** High and low pressure gauges.

**MSSM:** Flow silencer module, only for rear flow.

**MSSR:** Recovery silencer module, only for rear air recovery.

**PR1:** Remote control panel.

**PSF2:** Differential pressure switch signalling dirty recovery and renewal filters (if any).

**PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.

**RF:** Smoke detector.

**RFC:** Smoke detector and damper management.

**RS:** Serial card BMS RS485.

**SCMRM:** Modulating Servo-control with spring return.

**SCO2:** Probe CO<sub>2</sub> (not available on MB1 fittings).

**SSV:** Supervision systems.

**STA:** Room temperature probe

**SUA:** Room humidity probe.

**SVOC:** Probe VOC (not available on MB1 fittings).

**U:** Steam ramp installed.

**UP:** Manufacturer of immersed electrodes supplied and steam ramp installed.

**VT:** Antivibration mounts.

### PERFORMANCE SPECIFICATIONS

#### MB3

| Size                            |    | 01    | 02    | 03    | 04    | 05    | 06    | 07    | 08     | 09     | 10     |
|---------------------------------|----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Configuration: MB3</b>       |    |       |       |       |       |       |       |       |        |        |        |
| <b>Cooling performances (1)</b> |    |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                | kW | 30,20 | 39,60 | 48,70 | 65,40 | 75,30 | 84,30 | 90,90 | 107,60 | 121,40 | 133,60 |
| Sensible cooling capacity       | kW | 21,20 | 27,10 | 32,60 | 43,10 | 48,90 | 55,20 | 61,10 | 70,50  | 80,60  | 87,40  |
| Compressors absorbed power      | kW | 5,30  | 8,40  | 9,70  | 13,10 | 15,20 | 17,50 | 18,50 | 23,30  | 27,60  | 32,60  |
| EER compressors                 |    | 5,70  | 4,71  | 5,00  | 5,00  | 4,96  | 4,82  | 4,92  | 4,61   | 4,39   | 4,09   |
| <b>Heating performances (2)</b> |    |       |       |       |       |       |       |       |        |        |        |
| Heating capacity                | kW | 29,30 | 39,70 | 48,50 | 66,50 | 76,60 | 85,80 | 91,40 | 110,40 | 123,40 | 137,90 |
| Compressors absorbed power      | kW | 4,40  | 7,00  | 8,40  | 12,40 | 14,20 | 15,70 | 15,50 | 19,20  | 21,80  | 25,50  |
| Compressor COP                  |    | 6,67  | 5,68  | 5,77  | 5,38  | 5,39  | 5,47  | 5,89  | 5,73   | 5,66   | 5,41   |

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.

(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

## ENERGY INDEX

| Size                 |   |     | 01     | 02     | 03     | 04     | 05     | 06     | 07     | 08     | 09     | 10     |
|----------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Energy index</b>  |   |     |        |        |        |        |        |        |        |        |        |        |
| SEER                 | H | W/W | 4,78   | 4,68   | 4,19   | 3,46   | 3,37   | 3,40   | 3,27   | 3,46   | 3,45   | 3,24   |
| η <sub>sc</sub>      | H | %   | 188,40 | 184,40 | 164,60 | 135,50 | 131,80 | 133,00 | 127,70 | 135,60 | 134,90 | 126,70 |
| P <sub>designh</sub> | H | kW  | 26     | 35     | 44     | 62     | 70     | 78     | 82     | 99     | 110    | 122    |
| SCOP                 | H | W/W | 4,16   | 3,97   | 3,55   | 2,97   | 2,95   | 3,01   | 2,99   | 3,15   | 3,10   | 2,99   |
| η <sub>sh</sub>      | H | %   | 163,60 | 155,70 | 139,00 | 115,70 | 115,10 | 117,40 | 116,40 | 122,90 | 121,20 | 116,60 |

## GENERAL TECHNICAL DATA

| Size                      |   |      | 01 | 02 | 03 | 04 | 05 | 06            | 07 | 08 | 09 | 10 |
|---------------------------|---|------|----|----|----|----|----|---------------|----|----|----|----|
| <b>Configuration: MB3</b> |   |      |    |    |    |    |    |               |    |    |    |    |
| <b>Power supply</b>       |   |      |    |    |    |    |    |               |    |    |    |    |
| Power supply              | H |      |    |    |    |    |    | 400V 3 ~ 50Hz |    |    |    |    |
| <b>Compressor</b>         |   |      |    |    |    |    |    |               |    |    |    |    |
| Type                      | H | type |    |    |    |    |    | Scroll        |    |    |    |    |
| Number                    | H | no.  | 2  | 2  | 2  | 2  | 2  | 2             | 2  | 2  | 2  | 2  |
| Circuits                  | H | no.  | 1  | 1  | 1  | 1  | 1  | 1             | 1  | 1  | 1  | 1  |
| Refrigerant               | H | type |    |    |    |    |    | R410A         |    |    |    |    |
| Partialisation step       | H | no.  | 3  | 3  | 3  | 3  | 3  | 3             | 3  | 3  | 3  | 3  |

## FANS

### External fans

| Size                      |  |      | 01    | 02    | 03    | 04    | 05    | 06    | 07    | 08    | 09    | 10    |
|---------------------------|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Configuration: MB3</b> |  |      |       |       |       |       |       |       |       |       |       |       |
| <b>External fans</b>      |  |      |       |       |       |       |       |       |       |       |       |       |
| Type                      |  | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number                    |  | no.  | 1     | 1     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |

### Internal fans

| Size                      |  |                   | 01   | 02   | 03   | 04   | 05   | 06   | 07    | 08    | 09    | 10    |
|---------------------------|--|-------------------|------|------|------|------|------|------|-------|-------|-------|-------|
| <b>Configuration: MB3</b> |  |                   |      |      |      |      |      |      |       |       |       |       |
| <b>Internal fans</b>      |  |                   |      |      |      |      |      |      |       |       |       |       |
| Nominal air flow rate     |  | m <sup>3</sup> /h | 3500 | 4500 | 5500 | 7000 | 8000 | 9500 | 11500 | 14000 | 15000 | 16500 |
| Minimum air flow rate     |  | m <sup>3</sup> /h | 2450 | 3150 | 3850 | 4900 | 5600 | 6650 | 8050  | 9800  | 10500 | 11550 |
| Maximum air flow rate     |  | m <sup>3</sup> /h | 3500 | 4500 | 5500 | 7000 | 8000 | 9500 | 11500 | 14000 | 15000 | 16500 |

### Internal recovery fans

| Size                      |   |      | 01     | 02     | 03     | 04     | 05     | 06     | 07     | 08     | 09     | 10     |
|---------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB3</b> |   |      |        |        |        |        |        |        |        |        |        |        |
| <b>Recovery</b>           |   |      |        |        |        |        |        |        |        |        |        |        |
| Type                      | H | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                    | H | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 2      | 2      | 2      |

### Expulsion fan

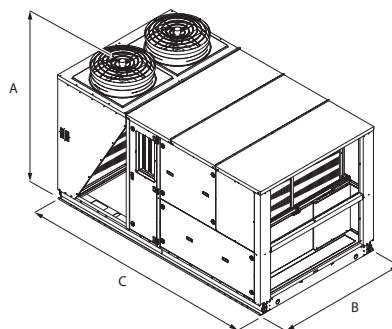
| Size                      |   |      | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
|---------------------------|---|------|----|----|----|----|----|----|----|----|----|----|
| <b>Configuration: MB3</b> |   |      |    |    |    |    |    |    |    |    |    |    |
| <b>Exhaust</b>            |   |      |    |    |    |    |    |    |    |    |    |    |
| Type                      | H | type | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Number                    | H | no.  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |

### Internal flow fans

| Size                               |  |      | 01     | 02     | 03     | 04     | 05     | 06     | 07     | 08     | 09     | 10     |
|------------------------------------|--|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Configuration: MB3</b>          |  |      |        |        |        |        |        |        |        |        |        |        |
| <b>Delivery</b>                    |  |      |        |        |        |        |        |        |        |        |        |        |
| Type                               |  | type | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC | RAD EC |
| Number                             |  | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 2      |
| Maximum useful head (1)            |  | Pa   | 150    | 150    | 200    | 200    | 200    | 250    | 250    | 250    | 300    | 300    |
| High static pressure (EN14511) (1) |  | Pa   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |

(1) At the nominal/maximum flow rate with a new, clean air filter.

## DIMENSIONS



| Size                          |    | 01   | 02   | 03   | 04   | 05   | 06   | 07   | 08   | 09   | 10   |
|-------------------------------|----|------|------|------|------|------|------|------|------|------|------|
| <b>Configuration: MB3</b>     |    |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b> |    |      |      |      |      |      |      |      |      |      |      |
| A                             | mm | 2061 | 2061 | 2061 | 2373 | 2373 | 2373 | 2373 | 2373 | 2373 | 2373 |
| B                             | mm | 1900 | 1900 | 1900 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 | 2100 |
| C                             | mm | 3400 | 3400 | 3400 | 3400 | 3400 | 3400 | 3400 | 3400 | 3400 | 3400 |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# AIR/WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

## AIR / WATER CHILLERS AND HEAT PUMPS

| AIR / WATER CHILLERS AND HEAT PUMPS |                 |  | Air flow rate<br>(m3/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-------------------------------------|-----------------|--|-------------------------|--------------------|--------------------|------|
| Units with scroll compressors       |                 |  |                         |                    |                    |      |
| new                                 | ANKI 020-080    | Reversible heat pumps inverter                                   | -                       | 5,8-24,8           | 6,1-20,8           | 336  |
|                                     | HMI             | Reversible air/water heat pump                                   | -                       | 3,0-14,5           | 4,0-15,5           | 342  |
|                                     | HMI 180T-220T   | Reversible air/water heat pump                                   | -                       | 17,5-21,0          | 18,0-22,0          | 349  |
|                                     | BHP             | Air/Water split type reversible heat pump                        | -                       | 3,2-11,5           | 4,0-16,0           | 354  |
|                                     | HMG<br>HMG_P    | Reversible air/water heat pump                                   | -<br>-                  | 32-60<br>33-60     | 35-65<br>36-65     | 367  |
|                                     | ANLI            | Reversible heat pumps inverter                                   | -                       | 29,0-42,3          | 31,4-33,3          | 375  |
|                                     | ANK 020-150     | Reversible air/water heat pump optimised for use in heating mode | -                       | 6,8-39,8           | 8,0-35,3           | 381  |
| new                                 | SHW             | Heat pump water heater   | -                       | -                  | -                  | 388  |
|                                     | MIC             | Air-water chiller  | -                       | 3                  | -                  | 391  |
|                                     | ANL 021-202     | Air-water chiller  | -                       | 5,7-43,3           | -                  | 396  |
|                                     | ANL 021H-203H   | Reversible air/water heat pump                                   | -                       | 5,7-49,1           | 6,2-43,3           | 402  |
|                                     | NRK 0090-0150   | Reversible air/water heat pump optimised for use in heating mode | -                       | 18,4-31,0          | 20,8-34,4          | 410  |
|                                     | NRK 0200-0700   | Reversible air/water heat pump optimised for use in heating mode | -                       | 35,5-148,0         | 42,3-175,0         | 414  |
|                                     | NRV 0550        | Air-water chiller  | -                       | 108,3              | -                  | 420  |
| new                                 | PRM 0504        | Air-cooled reversible modular heat pump                          | -                       | 95,6               | 101,7              | 425  |
| new                                 | PRG-0282H-0654H | Reversible air/water heat pump                                   | -                       | 49-143             | 51-143             | 432  |
|                                     | NRB 0282-0754   | Air-water chiller  | -                       | 56-202             | -                  | 441  |
|                                     | NRB 0282H-0754H | Reversible air/water heat pump                                   | -                       | 52-261             | 57-193             | 451  |
|                                     | NRG 0282-0804   | Air-water chiller  | -                       | 55,8-224,6         | -                  | 459  |
|                                     | NRG 0282H-0804H | Reversible air/water heat pump                                   | -                       | 52,5-212,0         | 56,6-214,4         | 468  |
|                                     | NRGI 151-602    | Air-water chiller  | -                       | 31,0-132,2         | -                  | 476  |
|                                     | NRGI 151H-602H  | Reversible air/water heat pump                                   | -                       | 28,9-123,7         | 31,6-133,9         | 481  |
|                                     | NRL 0280-0350   | Air-water chiller  | -                       | 56,0-82,0          | -                  | 487  |
|                                     | NRL 0280H-0350H | Reversible air/water heat pump                                   | -                       | 51,0-76,0          | 58,0-86,0          | 492  |
|                                     | NRG 0800-3600   | Air-water chiller  | -                       | 225,7-725,0        | -                  | 497  |
|                                     | NRG 0800H-3600H | Reversible air/water heat pump                                   | -                       | 194,9-962,3        | 209,6-991,9        | 506  |
|                                     | NRB 0800-2406   | Air-water chiller (plate heat exchanger)                         | -                       | 216,9-716,9        | -                  | 515  |
|                                     | NRB 0800-2406 Q | Air-water chiller (shell and tube heat exchanger)                | -                       | 216,9-716,9        | -                  | 524  |
|                                     | NRB 0800H-2406H | Reversible air/water heat pump (plate heat exchanger)            | -                       | 196,4-647,7        | 209,8-683,9        | 533  |
|                                     | NRB 0800W-2406W | Reversible air/water heat pump (shell and tube heat exchanger)   | -                       | 196,4-647,7        | 209,8-683,9        | 542  |
|                                     | CL 025-200      | Air-water chiller with Plug Fan                                  | -                       | 5,8-41,0           | -                  | 550  |
|                                     | CL 025H-200H    | Reversible air/water heat pump with Plug Fan                     | -                       | 6,5-50,9           | 7,7-44,8           | 555  |
|                                     | NLC 0280-1250   | Air-water chiller with Plug Fan                                  | -                       | 53-322             | -                  | 561  |
|                                     | NLC 0280H-1250H | Reversible air/water heat pump with Plug Fan                     | -                       | 53-322             | 55-342             | 568  |
| Units with screw compressors        |                 |  |                         |                    |                    |      |
|                                     | NSM 1402-9603   | Air-water chiller  | -                       | 302-2100           | -                  | 573  |
|                                     | NSMI 1251-6102  | Chiller with Inverter screw compressors                          | -                       | 285,6-1342,6       | -                  | 587  |
|                                     | NSH             | Reversible air/water heat pump                                   | -                       | 251-731            | 281-786            | 591  |
|                                     | NSG             | Air-water chiller (with R1234ze)                                 | -                       | 228-1580           | -                  | 597  |
| Units with centrifugal compressors  |                 |  |                         |                    |                    |      |
|                                     | TBA 1300-4325   | Air-water chiller  | -                       | 328-1404           | -                  | 609  |
|                                     | TBG 1230-4310   | Air-water chiller  | -                       | 200-1165           | -                  | 614  |

# ANKI 020-080

## Reversible air/water heat pump

Cooling capacity 5,8 ÷ 24,8 kW – Heating capacity 6,1 ÷ 20,8 kW



- Production of hot water up to 60 °C
- Production of hot domestic water with outside temperatures from –20 °C up to 42 °C
- Quick & easy installation



### DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users. It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

All the units are equipped with inverter scroll compressors, axial fans, external coils with aluminium louvers, a plate heat exchanger on the side. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

X With inverter pump

### FEATURES

#### Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

#### Version with Integrated hydronic kit

If a plug&play solution is required, there's also a version with an integrated hydronic unit containing the main hydraulic components including the water filter (supplied).

■ *The water filter must be installed to validate the warranty.*

### CONTROL PCO

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

### ACCESSORIES

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi net-

work. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**MOD485K:** RS-485 simplified interface for supervision systems with MOD-BUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PGD1:** Allows you to control the unit at a distance.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SAF:** Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *For the installation of the PR4 remote panel, the MOD485K communication interface is indispensable.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**VT:** Anti-vibration supports.

**BDX:** Condensate drip.

**BSKW:** Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

### FACTORY FITTED ACCESSORIES

**KR:** Anti-freeze electric heater for the plate heat exchanger.

**KRB:** Electric anti-freeze resistance kit for base.

### ACCESSORIES COMPATIBILITY

| Model        | Ver | 020 | 025 | 040 | 045 | 070 | 075 | 080 |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERLINK      | °X  | *   | *   | *   | *   | *   | *   | *   |
| MOD485K      | °X  | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | °X  | *   | *   | *   | *   | *   | *   | *   |
| PGD1         | °X  | *   | *   | *   | *   | *   | *   | *   |
| PR3          | °X  | *   | *   | *   | *   | *   | *   | *   |
| SAF (1)      | °X  | *   | *   | *   | *   | *   | *   | *   |
| SDHW (2)     | °X  | *   | *   | *   | *   | *   | *   | *   |
| SGD          | °X  | *   | *   | *   | *   | *   | *   | *   |
| SPLW (3)     | °X  | *   | *   | *   | *   | *   | *   | *   |

(1) For more information about SAF refer to the dedicated documentation.

(2) Probe required for MULTICONTROL for managing the domestic hot water system.

(3) Probe required for MULTICONTROL to manage the secondary circuit system.

#### Remote panel

| Model | Ver | 020 | 025 | 040 | 045 | 070 | 075 | 080 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °X  | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MOD485K communication interface is indispensable.

#### Condensation control temperature

| Ver | 020    | 025    | 040    | 045    | 070    | 075    | 080    |
|-----|--------|--------|--------|--------|--------|--------|--------|
| °X  | DCPX71 | DCPX71 | DCPX71 | DCPX71 | DCPX71 | DCPX71 | DCPX71 |

#### Antivibration

| Ver | 020 | 025 | 040 | 045 | 070 | 075 | 080 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| °X  | VT9 | VT9 | VT9 | VT9 | VT9 | VT9 | VT9 |

#### Condensate drip

| Ver | 020   | 025   | 040   | 045   | 070   | 075   | 080   |
|-----|-------|-------|-------|-------|-------|-------|-------|
| °X  | BDX30 | BDX30 | BDX30 | BDX30 | BDX50 | BDX50 | BDX50 |

#### Heater exchanger

| Ver | 020 | 025 | 040 | 045 | 070 | 075 | 080 |
|-----|-----|-----|-----|-----|-----|-----|-----|
| °X  | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 |

A grey background indicates the accessory must be assembled in the factory

#### Electric heater kit for the base

| Ver | 020  | 025  | 040  | 045  | 070  | 075  | 080  |
|-----|------|------|------|------|------|------|------|
| °X  | KRB1 | KRB1 | KRB1 | KRB1 | KRB2 | KRB2 | KRB2 |



## CONFIGURATOR

| Field   | Description                               |
|---------|---|
| 1,2,3,4 | ANKI                                      |
| 5,6,7   | Size<br>020, 025, 040, 045, 070, 075, 080 |
| 8       | Model                                     |
| H       | Heat pump                                 |
| 9       | Version                                   |
| °       | Standard                                  |
| X       | With inverter pump                        |
| 10      | Heat recovery                             |
| °       | Without heat recovery                     |
| 11      | Coils                                     |
| V       | Copper pieps-Coated aluminium fins        |
| °       | Copper-aluminium                          |
| 12      | Fans                                      |
| F       | Phase cut                                 |
| J       | Inverter                                  |
| °       | Standard                                  |
| 13      | Operating field                           |
| °       | Electronic thermostatic expansion valve   |
| 14      | Evaporator                                |
| °       | Standard - PED                            |
| 15      | Power supply                              |
| M       | 230V ~ 50Hz (1)                           |
| T       | 400V ~ 3N 50Hz (2)                        |
| 16      | Field for future development              |
| °       | Future developments                       |

(1) For sizes from 020 ÷ 045

(2) For sizes from 070 ÷ 080

## PERFORMANCE SPECIFICATIONS

### Version without pump

#### ANKI - 230V-1-50Hz

| Size   |     | 020      | 025      | 040      | 045      |
|--|-----|----------|----------|----------|----------|
| <b>Power supply: M</b>                       |     |          |          |          |          |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |          |          |          |          |
| Cooling capacity                             | kW  | 5,8      | 7,3      | 9,4      | 11,8     |
| Input power                                  | kW  | 2,0      | 2,6      | 3,2      | 4,2      |
| Cooling total input current                  | A   | 8,3      | 11,0     | 14,0     | 18,0     |
| EER  | W/W | 2,98     | 2,80     | 2,98     | 2,79     |
| Water flow rate system side                  | l/h | 1005     | 1256     | 1613     | 2024     |
| Pressure drop system side                    | kPa | 16       | 22       | 13       | 19       |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |          |          |          |          |
| Heating capacity                             | kW  | 6,2      | 7,7      | 9,3      | 12,3     |
| Input power                                  | kW  | 1,9      | 2,4      | 3,0      | 4,0      |
| Heating total input current                  | A   | 8,2      | 10,0     | 13,0     | 18,0     |
| COP  | W/W | 3,26     | 3,22     | 3,08     | 3,03     |
| Water flow rate system side                  | l/h | 1077     | 1345     | 1619     | 2131     |
| Pressure drop system side                    | kPa | 14       | 21       | 10       | 17       |
| <b>Power supply</b>                          |     |          |          |          |          |
| Power supply                                 |     | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**ANKI - 400V-3N-50Hz**

| Size   |     | 070       | 075       | 080       |
|--|-----|-----------|-----------|-----------|
| <b>Power supply: T</b>                       |     |           |           |           |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |           |           |           |
| Cooling capacity                             | kW  | 13,7      | 16,4      | 18,6      |
| Input power                                  | kW  | 4,8       | 6,2       | 7,6       |
| Cooling total input current                  | A   | 7,3       | 9,4       | 11,0      |
| EER  | W/W | 2,85      | 2,67      | 2,44      |
| Water flow rate system side                  | l/h | 2354      | 2818      | 3196      |
| Pressure drop system side                    | kPa | 17        | 25        | 31        |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |           |           |           |
| Heating capacity                             | kW  | 15,3      | 17,7      | 20,2      |
| Input power                                  | kW  | 4,8       | 6,0       | 7,1       |
| Heating total input current                  | A   | 7,3       | 9,1       | 11,0      |
| COP  | W/W | 3,21      | 2,97      | 2,83      |
| Water flow rate system side                  | l/h | 2660      | 3072      | 3507      |
| Pressure drop system side                    | kPa | 17        | 23        | 30        |
| <b>Power supply</b>                          |     |           |           |           |
| Power supply                                 |     | 400-3N-50 | 400-3N-50 | 400-3N-50 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**Version with pump****ANKI - 230V-1-50Hz**

| Size   |     | 020      | 025      | 040      | 045      |
|--|-----|----------|----------|----------|----------|
| <b>Power supply: M</b>                       |     |          |          |          |          |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |          |          |          |          |
| Cooling capacity                             | kW  | 5,8      | 7,3      | 9,4      | 11,8     |
| Input power                                  | kW  | 2,0      | 2,7      | 3,2      | 4,3      |
| Cooling total input current                  | A   | 8,9      | 12,0     | 14,0     | 19,0     |
| EER  | W/W | 2,88     | 2,72     | 2,90     | 2,73     |
| Water flow rate system side                  | l/h | 1005     | 1256     | 1613     | 2024     |
| Useful head system side                      | kPa | 75       | 68       | 73       | 60       |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |          |          |          |          |
| Heating capacity                             | kW  | 6,2      | 7,7      | 9,3      | 12,3     |
| Input power                                  | kW  | 2,0      | 2,5      | 3,1      | 4,1      |
| Heating total input current                  | A   | 8,7      | 11,0     | 14,0     | 18,0     |
| COP  | W/W | 3,14     | 3,11     | 3,00     | 2,96     |
| Water flow rate system side                  | l/h | 1077     | 1345     | 1619     | 2131     |
| Useful head system side                      | kPa | 76       | 67       | 74       | 59       |
| <b>Power supply</b>                          |     |          |          |          |          |
| Power supply                                 |     | 230-1-50 | 230-1-50 | 230-1-50 | 230-1-50 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**ANKI - 400V-3N-50Hz**

| Size   |     | 070       | 075       | 080       |
|--|-----|-----------|-----------|-----------|
| <b>Power supply: T</b>                       |     |           |           |           |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |           |           |           |
| Cooling capacity                             | kW  | 13,8      | 16,5      | 18,7      |
| Input power                                  | kW  | 4,8       | 6,2       | 7,7       |
| Cooling total input current                  | A   | 8,3       | 10,0      | 12,0      |
| EER  | W/W | 2,88      | 2,68      | 2,44      |
| Water flow rate system side                  | l/h | 2354      | 2818      | 3196      |
| Useful head system side                      | kPa | 82        | 62        | 43        |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |           |           |           |
| Heating capacity                             | kW  | 15,2      | 17,6      | 20,1      |
| Input power                                  | kW  | 4,8       | 6,0       | 7,2       |
| Heating total input current                  | A   | 8,3       | 10,0      | 12,0      |
| COP  | W/W | 3,19      | 2,95      | 2,80      |
| Water flow rate system side                  | l/h | 2660      | 3072      | 3507      |
| Useful head system side                      | kPa | 73        | 55        | 33        |
| <b>Power supply</b>                          |     |           |           |           |
| Power supply                                 |     | 400-3N-50 | 400-3N-50 | 400-3N-50 |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size  |   |     | 020    | 025    | 040    | 045    |
|---|---|-----|--------|--------|--------|--------|
| <b>Power supply: M</b>  |   |     |        |        |        |        |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |   |     |        |        |        |        |
| Efficiency energy class   | ° |     | A+     | A+     | A+     | A+     |
|   | X |     | A++    | A++    | A+     | A+     |
| Pdesignh  | ° | kW  | 6,00   | 7,00   | 9,00   | 12,00  |
|   | X |     |        |        |        |        |
| ηsh   | ° | %   | 140,00 | 139,00 | 133,00 | 125,00 |
|   | X |     | 150,00 | 150,00 | 141,00 | 131,00 |
| SCOP  | ° | W/W | 3,58   | 3,55   | 3,40   | 3,20   |
|   | X |     | 3,83   | 3,83   | 3,60   | 3,35   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |   |     |        |        |        |        |
| Efficiency energy class   | ° |     | A+     | A+     | -      | -      |
|   | X |     |        |        | -      | -      |
| Pdesignh  | ° | kW  | 6,00   | 7,00   | -      | -      |
|   | X |     | 5,00   | 7,00   | -      | -      |
| ηsh   | ° | %   | 112,00 | 113,00 | -      | -      |
|   | X |     | 113,00 | 115,00 | -      | -      |
| SCOP  | ° | W/W | 2,88   | 2,90   | -      | -      |
|   | X |     | 2,90   | 2,95   | -      | -      |
| <b>SEER - 12/7 (EN14825: 2018) (3)</b>  |   |     |        |        |        |        |
| SEER  | ° | W/W | 3,50   | 3,54   | 3,76   | 3,77   |
|   | X |     | 4,12   | 4,25   | 4,38   | 4,37   |
| Seasonal efficiency   | ° | %   | 137,10 | 138,40 | 147,30 | 147,70 |
|   | X |     | 161,70 | 167,00 | 172,30 | 171,90 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

(3) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

| Size  |   |     | 070    | 075    | 080    |
|---|---|-----|--------|--------|--------|
| <b>Power supply: T</b>  |   |     |        |        |        |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |   |     |        |        |        |
| Efficiency energy class   | ° |     | A+     | A+     | A+     |
|   | X |     |        |        |        |
| Pdesignh  | ° | kW  | 14,00  | 17,00  | 19,00  |
|   | X |     | 14,00  | 16,00  | 19,00  |
| ηsh   | ° | %   | 137,00 | 130,00 | 129,00 |
|   | X |     | 141,00 | 134,00 | 133,00 |
| SCOP  | ° | W/W | 3,50   | 3,33   | 3,30   |
|   | X |     | 3,50   | 3,43   | 3,40   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |   |     |        |        |        |
| Efficiency energy class   | ° |     | A+     | A+     | A+     |
|   | X |     |        |        |        |
| Pdesignh  | ° | kW  | 14,00  | 16,00  | 19,00  |
|   | X |     | 13,00  | 16,00  | 18,00  |
| ηsh   | ° | %   | 113,00 | 112,00 | 110,00 |
|   | X |     | 112,00 | 112,00 | 110,00 |
| SCOP  | ° | W/W | 2,90   | 2,88   | 2,83   |
|   | X |     | 2,88   | 2,88   | 2,83   |
| <b>SEER - 12/7 (EN14825: 2018) (3)</b>  |   |     |        |        |        |
| SEER  | ° | W/W | 3,49   | 3,47   | 3,44   |
|   | X |     | 3,78   | 3,81   | 3,77   |
| Seasonal efficiency   | ° | %   | 136,70 | 135,60 | 134,40 |
|   | X |     | 148,00 | 149,40 | 147,80 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

(3) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

## ELECTRIC DATA

| Size                  |   |   | 020         | 025         | 040         | 045         | 070            | 075            | 080            |
|-----------------------|---|---|-------------|-------------|-------------|-------------|----------------|----------------|----------------|
| <b>Electric data</b>  |   |   |             |             |             |             |                |                |                |
| Maximum current (FLA) | ° | A | 12,1        | 14,1        | 20,0        | 23,6        | 12,5           | 13,5           | 15,0           |
|                       | X |   | 12,9        | 14,9        | 20,8        | 24,4        | 13,6           | 14,6           | 16,1           |
| Peak current (LRA)    | ° | A | 8,0         | 8,0         | 10,0        | 10,0        | 15,0           | 15,0           | 15,0           |
|                       | X |   | 8,8         | 8,8         | 10,8        | 10,8        | 16,1           | 16,1           | 16,1           |
| <b>Power supply</b>   |   |   |             |             |             |             |                |                |                |
| Power supply          | ° |   | 230V ~ 50Hz | 230V ~ 50Hz | 230V ~ 50Hz | 230V ~ 50Hz | 400V ~ 3N 50Hz | 400V ~ 3N 50Hz | 400V ~ 3N 50Hz |

## GENERAL TECHNICAL DATA

| Size                  |   |      | 020    | 025    | 040    | 045      | 070    | 075    | 080    |
|-----------------------|---|------|--------|--------|--------|----------|--------|--------|--------|
| <b>Compressor</b>     |   |      |        |        |        |          |        |        |        |
| Type                  | ° | type | Rotary | Rotary | Rotary | Rotary   | Scroll | Scroll | Scroll |
| Compressor regulation | ° | type |        |        |        | Inverter |        |        |        |
| Number                | ° | no.  | 1      | 1      | 1      | 1        | 1      | 1      | 1      |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

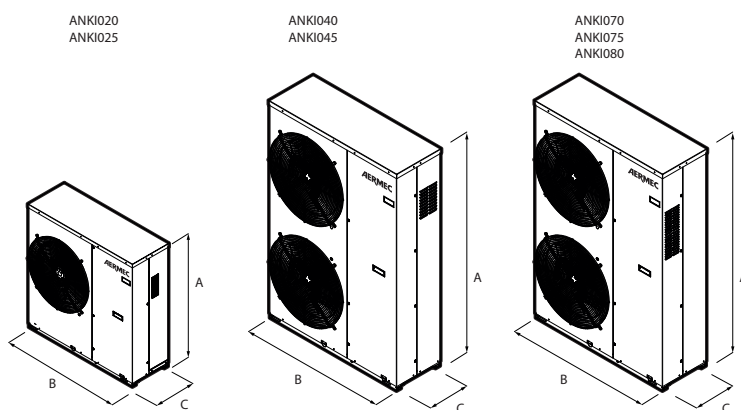
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |    |       | 020  | 025  | 040  | 045          | 070  | 075  | 080  |
|--|----|-------|------|------|------|--------------|------|------|------|
| Circuits   | °X | no.   | 1    | 1    | 1    | 1            | 1    | 1    | 1    |
| Refrigerant                                      | °X | type  |      |      |      | R410A        |      |      |      |
| Refrigerant charge (1)                           | °X | kg    | 1,4  | 1,4  | 2,3  | 2,3          | 3,5  | 3,5  | 3,5  |
| <b>System side heat exchanger</b>                |    |       |      |      |      |              |      |      |      |
| Type   | °X | type  |      |      |      | Brazed plate |      |      |      |
| Number   | °X | no.   | 1    | 1    | 1    | 1            | 1    | 1    | 1    |
| <b>Hydraulic connections</b>                     |    |       |      |      |      |              |      |      |      |
| Connections (in/out)                             | °X | Type  |      |      |      | Gas-M        |      |      |      |
| Size (in)  | °X | Ø     |      |      |      | 1"           |      |      |      |
| Size (out)                                       | °X | Ø     |      |      |      | 1"           |      |      |      |
| <b>Fan</b>                                       |    |       |      |      |      |              |      |      |      |
| Type   | °X | type  |      |      |      | Axial        |      |      |      |
| Fan motor  | °X | type  |      |      |      | Asynchronous |      |      |      |
| Number   | °X | no.   | 1    | 1    | 2    | 2            | 2    | 2    | 2    |
| Air flow rate                                    | °X | m³/h  | 3590 | 3590 | 7480 | 7480         | 7400 | 7400 | 7400 |
| <b>Sound data calculated in cooling mode (2)</b> |    |       |      |      |      |              |      |      |      |
| Sound power level                                | °X | dB(A) | 64,0 | 65,4 | 66,7 | 67,7         | 67,7 | 69,0 | 69,0 |
| Sound pressure level (10 m)                      | °X | dB(A) | 32,7 | 34,1 | 35,4 | 36,3         | 36,3 | 37,6 | 37,6 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |    |    | 020  | 025  | 040  | 045  | 070  | 075  | 080  |
|-------------------------------|----|----|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |    |      |      |      |      |      |      |      |
| A                             | °X | mm | 1028 | 1028 | 1481 | 1481 | 1481 | 1481 | 1481 |
| B                             | °X | mm | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| C                             | °X | mm | 346  | 346  | 346  | 346  | 450  | 450  | 450  |
| Empty weight                  | °  | kg | 80   | 80   | 113  | 113  | 174  | 174  | 174  |
|                               | X  | kg | 82   | 82   | 115  | 115  | 178  | 178  | 178  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# HMI

## Reversible air/water heat pump

Cooling capacity 3,0 ÷ 14,5 kW – Heating capacity 4,0 ÷ 15,5 kW

- New R32 ecological refrigerant gas
- Production of hot water up to 60 °C
- Production of hot domestic water with external temperatures from -25 °C to 45 °C
- Quick & easy installation



EUROVENT LCP

### DESCRIPTION

Reversible outdoor heat pump for air-conditioning systems where, in addition to cooling rooms, high-temperature hot water is required for heating or for the production of domestic hot water. **For the production of DHW it is mandatory to combine it with the Aermec compatible domestic hot water storage tank.**

HMI is designed to meet the needs of both the new constructions market and the renovation market, **replacing or working alongside conventional boilers.**

It can be combined with low-temperature emission systems such as floor heating or fan coils, and also with more traditional radiators, **and comes supplied with the main hydraulic components needed, thereby facilitating the final installation.**

### FEATURES

#### Operating limits

Working at full load up to -25 °C outside air temperature in winter, and up to 48 °C in summer. Maximum temperature of water produced in heating mode 60 °C.

- Refrigerant circuit with economizer.
- Inverter rotary compressor.
- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Electronic expansion valve.

#### Main hydraulic components

- Inverter pump.
- Plate heat exchanger.
- Expansion tank
- Safety valve.
- Flow switch.
- Water filter supplied (**mandatory installation**).

#### Regulation

Adjustment via a **multi-language touch-screen control panel**:

- Management of a 3 way diverting valve (not supplied) for the production of domestic hot water.
- Management of a 2 way valve (not supplied) for shutting off part of the system.
- Weekly programming in time periods.
- **Auto-restart** function.
- Emergency operation (a supplementary heat source may be activated).
- **Quick hot water** function, for quickly heating domestic hot water.
- **Weather dependent mode** function for climate control.
- **Quiet** function for reduced noise operation (programmable with a timer).
- Condensation check
- When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.

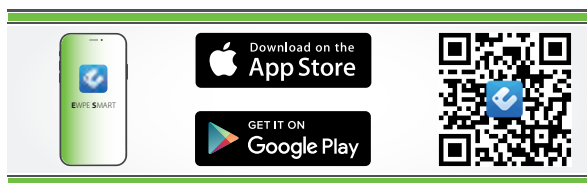
#### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



## ACCESSORIES

**HMICB15:** Connection cable for the control panel. Cable length 15m.

**IC-2P:** Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

**VMF-E5:** Black recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on time periods and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverter valve/pump, integrated heating element, storage tank temperature sensor, anti-legionella circuit system. The panel is available in both white (VMF-E5B) and black (VMF-E5N).

**VMF-E6:** White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aerualic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).

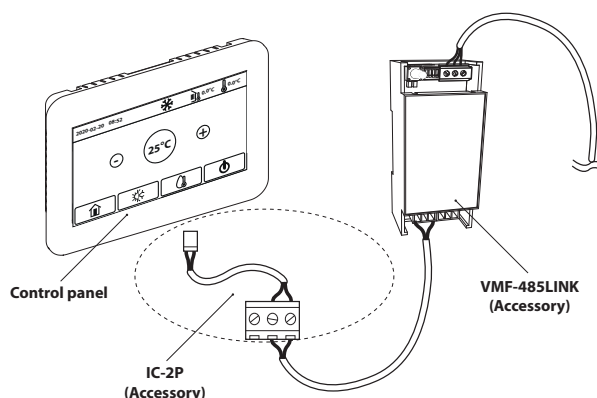
**LOGATW:** Diagnostic tool for air-water heat pumps.

**DHWT300S:** (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation.

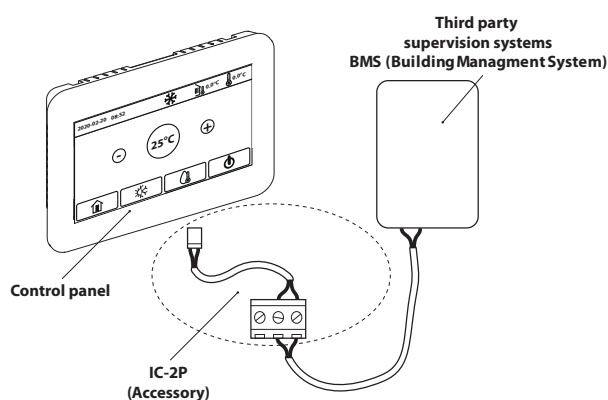
**For more information about VMF system, refer to the dedicated documentation.**

|             |             |        |        |         |         |         |         |         |         |         |         |
|-------------|-------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Accessories | Accessories |        |        |         |         |         |         |         |         |         |         |
| Accessories | HMI060      | HMI080 | HMI100 | HMI100T | HMI120  | HMI120T | HMI140  | HMI140T | HMI160  | HMI160T |         |
| LOGATW      | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |
| Accessories | Accessories |        |        |         |         |         |         |         |         |         |         |
| Accessories | HMI040      | HMI060 | HMI080 | HMI100  | HMI100T | HMI120  | HMI120T | HMI140  | HMI140T | HMI160  | HMI160T |
| HMICB15     | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |
| Accessories | Accessories |        |        |         |         |         |         |         |         |         |         |
| Accessories | HMI040      | HMI060 | HMI080 | HMI100  | HMI100T | HMI120  | HMI120T | HMI140  | HMI140T | HMI160  | HMI160T |
| IC-2P       | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-485LINK | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E5      | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |
| VMF-E6      | *           | *      | *      | *       | *       | *       | *       | *       | *       | *       | *       |

## Connection with VMF-485LINK

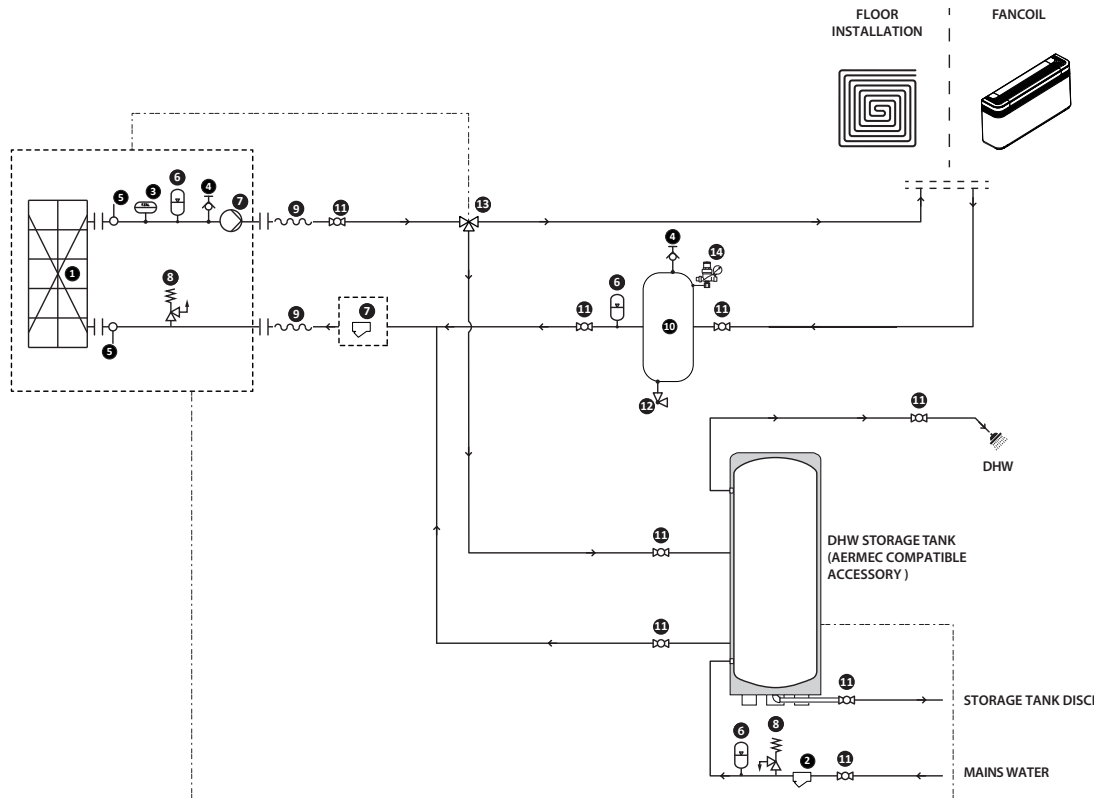


## Connection with third party supervision systems



## Accessories compatibility

## FLOOR SYSTEM + DHW



### COMPONENTS AS STANDARD

- 1 Plate heat exchanger
- 2 Water filter (as standard)
- 3 Flow switch
- 4 Air drain valve
- 5 Water temperature sensor (IN/OUT)
- 6 Expansion vessel
- 7 Pump
- 8 Pressure relief valve

### HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

- 4 Air drain valve
- 9 Anti-vibration joints
- 10 System storage tank (recommended installation if the system water content is lower than that indicated in the technical manual).
- 11 Flow shut-off valves
- 6 Expansion vessel
- 12 Drain valve
- 13 3 way valve
- 14 Loading unit



**In case of a free-standing system, the bypass valve must be installed to ensure the circulation of a minimum amount of water to the system.**

## PERFORMANCE SPECIFICATIONS

## EUROVENT TECHNICAL DATA EN 14511:2022

|   |     | HMI040 | HMI060 | HMI080 | HMI100 | HMI100T | HMI120 |
|---|-----|--------|--------|--------|--------|---------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |         |        |
| Cooling capacity                            | kW  | 2,98   | 3,97   | 4,96   | 7,75   | 7,75    | 9,45   |
| Input power                                 | kW  | 0,94   | 1,29   | 1,61   | 2,48   | 2,64    | 3,20   |
| Input current                               | A   | 4,7    | 6,4    | 7,9    | 12,0   | 4,6     | 15,0   |
| EER   | W/W | 3,17   | 3,08   | 3,08   | 3,12   | 2,94    | 2,95   |
| Water flow rate                             | l/h | 504    | 673    | 842    | 1318   | 1318    | 1609   |
| Useful head                                 | kPa | 74,0   | 74,0   | 74,0   | 69,0   | 69,0    | 64,0   |

|  |     |      |      |      |       |       |       |
|--|-----|------|------|------|-------|-------|-------|
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |       |       |       |
| Heating capacity                             | kW  | 4,03 | 6,04 | 7,55 | 10,06 | 10,06 | 12,06 |
| Input power                                  | kW  | 1,00 | 1,58 | 2,00 | 2,70  | 2,70  | 3,48  |
| Input current                                | A   | 5,1  | 7,8  | 9,7  | 13,0  | 4,7   | 17,0  |
| COP  | W/W | 4,03 | 3,83 | 3,78 | 3,72  | 3,72  | 3,46  |
| Water flow rate                              | l/h | 710  | 1062 | 1326 | 1762  | 1762  | 2110  |
| Useful head                                  | kPa | 74,0 | 73,0 | 71,0 | 60,0  | 60,0  | 50,0  |

|   |     | HMI120T | HMI140 | HMI140T | HMI160 | HMI160T |
|---|-----|---------|--------|---------|--------|---------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |         |        |         |        |         |
| Cooling capacity                            | kW  | 9,45    | 11,94  | 11,94   | 12,95  | 12,95   |
| Input power                                 | kW  | 3,11    | 4,14   | 4,38    | 4,96   | 4,91    |
| Input current                               | A   | 5,3     | 20,0   | 7,3     | 23,0   | 8,1     |
| EER   | W/W | 3,04    | 2,88   | 2,73    | 2,61   | 2,64    |
| Water flow rate                             | l/h | 1609    | 2038   | 2038    | 2210   | 2210    |
| Useful head                                 | kPa | 64,0    | 52,0   | 52,0    | 47,0   | 47,0    |

|  |     |       |       |       |       |       |
|--|-----|-------|-------|-------|-------|-------|
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |
| Heating capacity                             | kW  | 12,06 | 14,05 | 14,05 | 15,54 | 15,54 |
| Input power                                  | kW  | 3,48  | 4,18  | 4,18  | 4,70  | 4,70  |
| Input current                                | A   | 5,9   | 20,0  | 6,9   | 22,0  | 7,7   |
| COP  | W/W | 3,46  | 3,36  | 3,36  | 3,31  | 3,31  |
| Water flow rate                              | l/h | 2110  | 2456  | 2456  | 2714  | 2714  |
| Useful head                                  | kPa | 50,0  | 39,0  | 39,0  | 29,0  | 29,0  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

|  |     | HMI040 | HMI060 | HMI080 | HMI100 | HMI100T | HMI120 |
|--|-----|--------|--------|--------|--------|---------|--------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |        |        |        |        |         |        |
| Cooling capacity                             | kW  | 3,77   | 5,76   | 6,75   | 8,75   | 8,75    | 10,94  |
| Input power                                  | kW  | 0,82   | 1,32   | 1,55   | 1,96   | 1,96    | 2,56   |
| Input current                                | A   | 4,2    | 6,6    | 7,6    | 9,5    | 3,6     | 12,0   |
| EER  | W/W | 4,60   | 4,36   | 4,36   | 4,46   | 4,46    | 4,27   |
| Water flow rate                              | l/h | 641    | 982    | 1152   | 1495   | 1495    | 1873   |
| Useful head                                  | kPa | 74,0   | 74,0   | 73,0   | 66,0   | 66,0    | 57,0   |

|  |     |      |      |      |       |       |       |
|--|-----|------|------|------|-------|-------|-------|
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |       |       |       |
| Heating capacity                             | kW  | 4,03 | 6,04 | 7,55 | 10,06 | 10,06 | 12,06 |
| Input power                                  | kW  | 0,79 | 1,20 | 1,63 | 2,17  | 2,17  | 2,64  |
| Input current                                | A   | 4,1  | 6,0  | 8,0  | 11,0  | 3,9   | 13,0  |
| COP  | W/W | 5,10 | 5,04 | 4,63 | 4,63  | 4,63  | 4,57  |
| Water flow rate                              | l/h | 708  | 1058 | 1321 | 1756  | 1756  | 2102  |
| Useful head                                  | kPa | 74,0 | 73,0 | 71,0 | 60,0  | 60,0  | 50,0  |

|  |     | HMI120T | HMI140 | HMI140T | HMI160 | HMI160T |
|--|-----|---------|--------|---------|--------|---------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |         |        |         |        |         |
| Cooling capacity                             | kW  | 10,94   | 12,44  | 12,44   | 14,45  | 14,45   |
| Input power                                  | kW  | 2,56    | 3,05   | 3,05    | 3,82   | 3,82    |
| Input current                                | A   | 4,5     | 15,0   | 5,2     | 18,0   | 6,4     |
| EER  | W/W | 4,27    | 4,08   | 4,08    | 3,78   | 3,78    |
| Water flow rate                              | l/h | 1873    | 2132   | 2132    | 2478   | 2478    |
| Useful head                                  | kPa | 57,0    | 50,0   | 50,0    | 38,0   | 38,0    |

|  |     |       |       |       |       |       |
|--|-----|-------|-------|-------|-------|-------|
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |       |       |       |       |       |
| Heating capacity                             | kW  | 12,06 | 14,05 | 14,05 | 15,54 | 15,54 |
| Input power                                  | kW  | 2,64  | 3,22  | 3,22  | 3,60  | 3,60  |
| Input current                                | A   | 4,6   | 15,0  | 5,5   | 17,0  | 6,1   |
| COP  | W/W | 4,57  | 4,36  | 4,36  | 4,32  | 4,32  |
| Water flow rate                              | l/h | 2102  | 2447  | 2447  | 2704  | 2704  |
| Useful head                                  | kPa | 50,0  | 39,0  | 39,0  | 30,0  | 30,0  |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.



## GENERAL TECHNICAL DATA

|  |                   | HMI040             | HMI060          | HMI080             | HMI100                   | HMI100T            | HMI120          |
|--|-------------------|--------------------|-----------------|--------------------|--------------------------|--------------------|-----------------|
| <b>Electric data</b>                             |                   |                    |                 |                    |                          |                    |                 |
| Rated current input (1)                          | A                 | 10,4               | 10,4            | 10,4               | 23,0                     | 12,0               | 25,0            |
| <b>Compressor</b>                                |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Rotary DC Inverter       |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  | 1               |
| Circuits   | no.               | 1                  | 1               | 1                  | 1                        | 1                  | 1               |
| Refrigerant                                      | type              |                    |                 |                    | R32                      |                    |                 |
| Potential global heating                         | GWP               |                    |                 |                    | 675 kgCO <sub>2</sub> eq |                    |                 |
| Refrigerant charge (2)                           | kg                | 0,9                | 0,9             | 0,9                | 2,2                      | 2,2                | 2,2             |
| Oil  | Type              |                    |                 |                    | FW68DA                   |                    |                 |
| Total oil charge                                 | kg                | 0,5                | 0,5             | 0,5                | 1,1                      | 1,1                | 1,1             |
| <b>System side heat exchanger</b>                |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Brazed plate             |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  | 1               |
| Connections (in/out)                             | Type              |                    |                 |                    | Gas Maschio              |                    |                 |
| Size (in)  | Ø                 |                    |                 |                    | 1"                       |                    |                 |
| Size (out)                                       | Ø                 |                    |                 |                    | 1"                       |                    |                 |
| <b>Fan</b>                                       |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Axial                    |                    |                 |
| Fan motor  | type              |                    |                 |                    | Inverter                 |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  | 1               |
| Air flow rate                                    | m <sup>3</sup> /h | 2600               | 2600            | 2600               | 4500                     | 4500               | 4500            |
| <b>Sound data calculated in cooling mode (3)</b> |                   |                    |                 |                    |                          |                    |                 |
| Sound pressure level (1 m)                       | dB(A)             | 51,0               | 52,0            | 53,0               | 56,0                     | 56,0               | 56,0            |
| <b>Sound data calculated in heating mode (3)</b> |                   |                    |                 |                    |                          |                    |                 |
| Sound power level                                | dB(A)             | 64,0               | 64,0            | 65,0               | 69,0                     | 69,0               | 69,0            |
| Sound pressure level (1 m)                       | dB(A)             | 50,0               | 50,0            | 51,0               | 54,0                     | 54,0               | 54,0            |
| <b>Power supply</b>                              |                   |                    |                 |                    |                          |                    |                 |
| Power supply                                     |                   |                    | 220-240V ~ 50Hz |                    |                          | 380-415V 3N ~ 50Hz | 220-240V ~ 50Hz |
|  |                   | HMI120T            | HMI140          | HMI140T            | HMI160                   | HMI160T            |                 |
| <b>Electric data</b>                             |                   |                    |                 |                    |                          |                    |                 |
| Rated current input (1)                          | A                 | 12,0               | 29,0            | 12,0               | 29,0                     | 12,0               |                 |
| <b>Compressor</b>                                |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Rotary DC Inverter       |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  |                 |
| Circuits   | no.               | 1                  | 1               | 1                  | 1                        | 1                  |                 |
| Refrigerant                                      | type              |                    |                 |                    | R32                      |                    |                 |
| Potential global heating                         | GWP               |                    |                 |                    | 675 kgCO <sub>2</sub> eq |                    |                 |
| Refrigerant charge (2)                           | kg                | 2,2                | 2,2             | 2,2                | 2,2                      | 2,2                |                 |
| Oil  | Type              |                    |                 |                    | FW68DA                   |                    |                 |
| Total oil charge                                 | kg                | 1,1                | 1,1             | 1,1                | 1,1                      | 1,1                |                 |
| <b>System side heat exchanger</b>                |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Brazed plate             |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  |                 |
| Connections (in/out)                             | Type              |                    |                 |                    | Gas Maschio              |                    |                 |
| Size (in)  | Ø                 |                    |                 |                    | 1"                       |                    |                 |
| Size (out)                                       | Ø                 |                    |                 |                    | 1"                       |                    |                 |
| <b>Fan</b>                                       |                   |                    |                 |                    |                          |                    |                 |
| Type   | type              |                    |                 |                    | Axial                    |                    |                 |
| Fan motor  | type              |                    |                 |                    | Inverter                 |                    |                 |
| Number   | no.               | 1                  | 1               | 1                  | 1                        | 1                  |                 |
| Air flow rate                                    | m <sup>3</sup> /h | 4500               | 4500            | 4500               | 4500                     | 4500               |                 |
| <b>Sound data calculated in cooling mode (3)</b> |                   |                    |                 |                    |                          |                    |                 |
| Sound pressure level (1 m)                       | dB(A)             | 56,0               | 57,0            | 57,0               | 59,0                     | 59,0               |                 |
| <b>Sound data calculated in heating mode (3)</b> |                   |                    |                 |                    |                          |                    |                 |
| Sound power level                                | dB(A)             | 69,0               | 70,0            | 70,0               | 72,0                     | 72,0               |                 |
| Sound pressure level (1 m)                       | dB(A)             | 54,0               | 55,0            | 55,0               | 57,0                     | 57,0               |                 |
| <b>Power supply</b>                              |                   |                    |                 |                    |                          |                    |                 |
| Power supply                                     |                   | 380-415V 3N ~ 50Hz | 220-240V ~ 50Hz | 380-415V 3N ~ 50Hz | 220-240V ~ 50Hz          | 380-415V 3N ~ 50Hz |                 |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(2) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(3) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

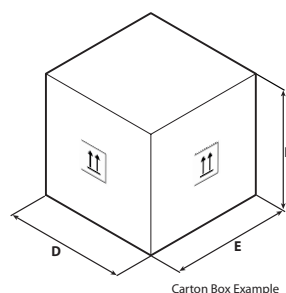
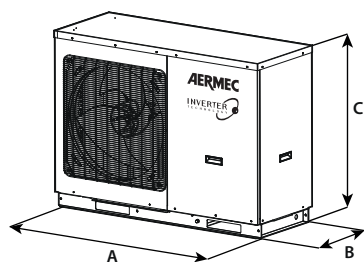
## ENERGY DATA

|   |    | HMI040  | HMI060 | HMI080  | HMI100 | HMI100T | HMI120 |
|---|----|---------|--------|---------|--------|---------|--------|
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |    |         |        |         |        |         |        |
| Pdesignh  | kW | 5       | 5      | 6       | 9      | 9       | 11     |
| ηsh   | %  | 185,00  | 185,00 | 183,00  | 176,00 | 176,00  | 175,00 |
| Efficiency energy class   |    | A+++    | A+++   | A+++    | A+++   | A+++    | A+++   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |    |         |        |         |        |         |        |
| Pdesignh  | kW | 6       | 6      | 7       | 8      | 8       | 10     |
| ηsh   | %  | 126,00  | 126,00 | 127,00  | 128,00 | 128,00  | 126,00 |
| Efficiency energy class   |    | A++     | A++    | A++     | A++    | A++     | A++    |
|   |    | HMI120T | HMI140 | HMI140T | HMI160 | HMI160T |        |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |    |         |        |         |        |         |        |
| Pdesignh  | kW | 11      | 11     | 11      | 13     | 13      |        |
| ηsh   | %  | 175,00  | 168,00 | 168,00  | 164,00 | 164,00  |        |
| Efficiency energy class   |    | A+++    | A++    | A++     | A++    | A++     |        |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |    |         |        |         |        |         |        |
| Pdesignh  | kW | 10      | 11     | 11      | 13     | 13      |        |
| ηsh   | %  | 126,00  | 125,00 | 125,00  | 125,00 | 125,00  |        |
| Efficiency energy class   |    | A++     | A++    | A++     | A++    | A++     |        |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

## DIMENSIONS



|                               |    | HMI040 | HMI060 | HMI080 | HMI100 | HMI100T | HMI120 |
|-------------------------------|----|--------|--------|--------|--------|---------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |         |        |
| A                             | mm | 1150   | 1150   | 1150   | 1200   | 1200    | 1200   |
| B                             | mm | 345    | 345    | 345    | 460    | 460     | 460    |
| C                             | mm | 758    | 758    | 758    | 878    | 878     | 878    |
| D                             | mm | 1260   | 1260   | 1260   | 1295   | 1295    | 1295   |
| E                             | mm | 490    | 490    | 490    | 595    | 595     | 595    |
| F                             | mm | 900    | 900    | 900    | 1020   | 1020    | 1020   |
| Net weight                    | kg | 96,0   | 96,0   | 96,0   | 151,0  | 151,0   | 151,0  |
| Weight for transport          | kg | 109,0  | 109,0  | 109,0  | 166,0  | 166,0   | 166,0  |

|                               |    | HMI120T | HMI140 | HMI140T | HMI160 | HMI160T |
|-------------------------------|----|---------|--------|---------|--------|---------|
| <b>Dimensions and weights</b> |    |         |        |         |        |         |
| A                             | mm | 1200    | 1200   | 1200    | 1200   | 1200    |
| B                             | mm | 460     | 460    | 460     | 460    | 460     |
| C                             | mm | 878     | 878    | 878     | 878    | 878     |
| D                             | mm | 1295    | 1295   | 1295    | 1295   | 1295    |
| E                             | mm | 595     | 595    | 595     | 595    | 595     |
| F                             | mm | 1020    | 1020   | 1020    | 1020   | 1020    |
| Net weight                    | kg | 151,0   | 151,0  | 151,0   | 151,0  | 151,0   |
| Weight for transport          | kg | 166,0   | 166,0  | 166,0   | 166,0  | 166,0   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# HMI 180T - 220T

## Reversible air/water heat pump

Cooling capacity 17,5 ÷ 21,0 kW  
Heating capacity 18,0 ÷ 22,0 kW

- R32 ecological refrigerant gas.
- Quick & easy installation
- Production of hot domestic water with external temperatures from -25 °C to 45 °C
- Hermetically sealed equipment



### DESCRIPTION

HMI is a reversible outdoor heat pump for air-conditioning systems where, in addition to cooling rooms, high-temperature hot water is required for heating or for the production of domestic hot water.

**For the production of DHW it is mandatory to combine it with a domestic hot water storage tank Aermec compatible.**

HMI is designed to meet the needs of both the new constructions market and the renovation market, **replacing or working alongside conventional boilers.**

It can be combined with low-temperature emission systems such as floor heating or fan coils, and also with more traditional radiators, **and comes supplied with the main hydraulic components needed, thereby facilitating the final installation.**

### FEATURES

#### Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

Maximum processed water temperature in heating mode 65°C.

Production of domestic hot water up to 80°C with electric heater.

- Refrigerant circuit with economizer.
- Inverter rotary compressor.
- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Electronic expansion valve.

#### Main hydraulic components

- Inverter pump.
- Plate heat exchanger.
- Expansion tank
- Safety valve.
- Flow switch.
- Water filter supplied (**mandatory installation**).

### Regulation

Adjustment via a **multi-language touch-screen control panel:**

- Management of a 3 way diverting valve (not supplied) for the production of domestic hot water.
- Management of a 2 way valve (not supplied) for shutting off part of the system.
- Weekly programming in time periods.
- **Auto-restart** function.
- Emergency operation (a supplementary heat source may be activated).
- **Quick hot water** function, for quickly heating domestic hot water.
- **Weather dependent mode** function for climate control.
- **Quiet** function for reduced noise operation (programmable with a timer).
- Condensation check
- When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.

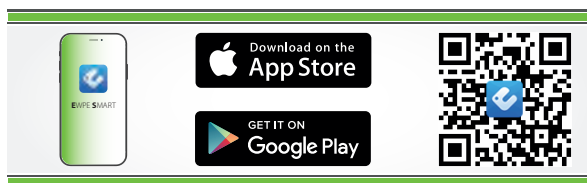
### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



## ACCESSORIES

**HMICB15:** Connection cable for the control panel. Cable length 15m.

**IC-2P:** Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

**VMF-E5:** Black recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on time periods and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverter valve/pump, integrated heating element, storage tank temperature sensor, anti-legionella circuit system. The panel is available in both white (VMF-E5B) and black (VMF-E5N).

**VMF-E6:** White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aerualic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).

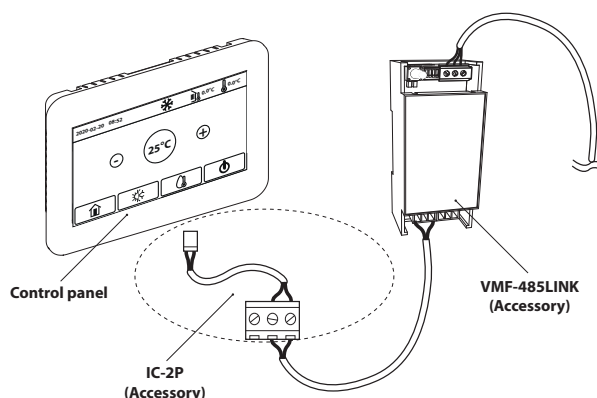
**LOGATW:** Diagnostic tool for air-water heat pumps.

**DHWT300S:** (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation.

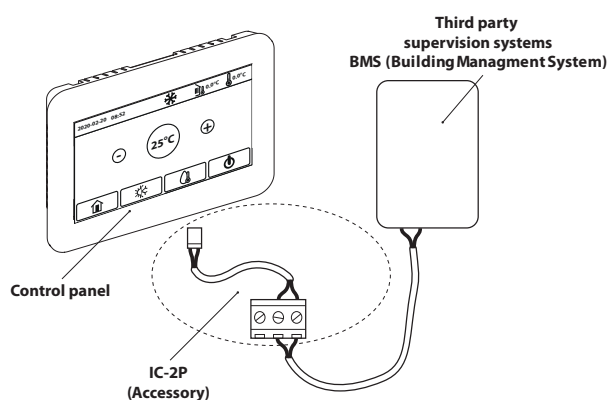
**For more information about VMF system, refer to the dedicated documentation.**

|             |         |         |
|-------------|---------|---------|
| Accessory   | HMI180T | HMI220T |
| LOGATW      | •       | •       |
| Accessory   | HMI180T | HMI220T |
| HMICB15     | •       | •       |
| Accessory   | HMI180T | HMI220T |
| IC-2P       | •       | •       |
| VMF-485LINK | •       | •       |
| VMF-E5      | •       | •       |
| VMF-E6      | •       | •       |

## Connection with VMF-485LINK

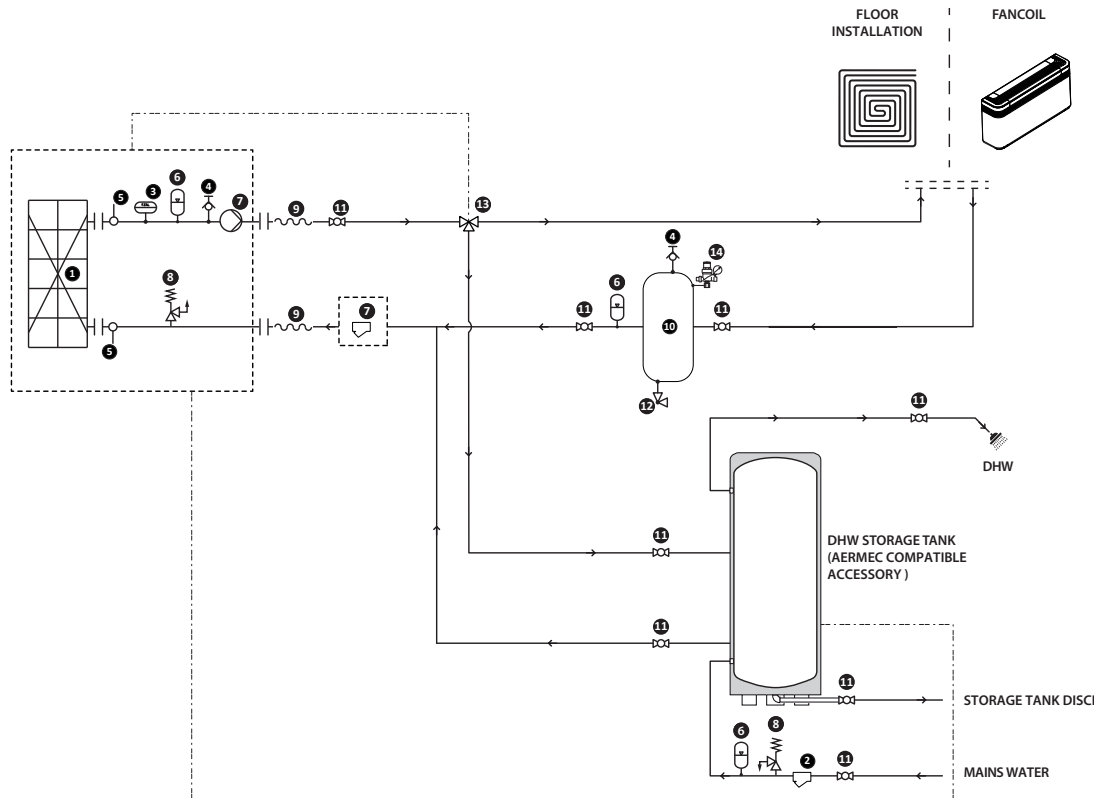


## Connection with third party supervision systems



## Accessories compatibility

## FLOOR SYSTEM + DHW



### COMPONENTS AS STANDARD

- 1 Plate heat exchanger
- 2 Water filter (as standard)
- 3 Flow switch
- 4 Air drain valve
- 5 Water temperature sensor (IN/OUT)
- 6 Expansion vessel
- 7 Pump
- 8 Pressure relief valve

### HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

- 4 Air drain valve
- 9 Anti-vibration joints
- 10 System storage tank (recommended installation if the system water content is lower than that indicated in the technical manual).
- 11 Flow shut-off valves
- 6 Expansion vessel
- 12 Drain valve
- 13 3 way valve
- 14 Loading unit



**In case of a free-standing system, the bypass valve must be installed to ensure the circulation of a minimum amount of water to the system.**

## PERFORMANCE SPECIFICATIONS

|  |     | HMI180T | HMI220T |
|--|-----|---------|---------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |         |         |
| Cooling capacity                             | kW  | 17,50   | 21,00   |
| Input power                                  | kW  | 5,65    | 7,00    |
| EER  | W/W | 3,10    | 3,00    |
| Water flow rate                              | l/h | 3010    | 3612    |
| Useful head                                  | kPa | 59,1    | 55,2    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |         |         |
| Heating capacity                             | kW  | 18,00   | 22,00   |
| Input power                                  | kW  | 5,00    | 6,29    |
| COP  | W/W | 3,60    | 3,50    |
| Water flow rate                              | l/h | 3096    | 3784    |
| Useful head                                  | kPa | 62,4    | 57,9    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

|  |     | HMI180T | HMI220T |
|--|-----|---------|---------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |         |         |
| Cooling capacity                             | kW  | 18,50   | 23,00   |
| Input power                                  | kW  | 3,85    | 4,89    |
| EER  | W/W | 4,80    | 4,70    |
| Water flow rate                              | l/h | 3182    | 3956    |
| Useful head                                  | kPa | 56,1    | 53,5    |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |         |         |
| Heating capacity                             | kW  | 18,00   | 22,00   |
| Input power                                  | kW  | 3,75    | 4,89    |
| COP  | W/W | 4,80    | 4,50    |
| Water flow rate                              | l/h | 3096    | 3784    |
| Useful head                                  | kPa | 62,2    | 58,0    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## GENERAL TECHNICAL DATA

|  |                   | HMI180T                  | HMI220T                  |
|--|-------------------|--------------------------|--------------------------|
| <b>Electric data</b>                           |                   |                          |                          |
| Rated power input                              | W                 | 10000                    | 10800                    |
| <b>Compressor</b>                              |                   |                          |                          |
| Type   | type              | Rotativo Inverter        | Rotativo Inverter        |
| Number   | no.               | 1                        | 1                        |
| Circuits                                       | no.               | 1                        | 1                        |
| Refrigerant                                    | type              | R32                      | R32                      |
| Potential global heating                       | GWP               | 675 kgCO <sub>2</sub> eq | 675 kgCO <sub>2</sub> eq |
| Refrigerant charge                             | kg                | 4,0                      | 4,0                      |
| Oil  | Type              | FW68S                    | FW68S                    |
| Total oil charge                               | l                 | 1,9                      | 1,9                      |
| <b>System side heat exchanger</b>              |                   |                          |                          |
| Type   | type              | Brazed plate             | Brazed plate             |
| Number   | no.               | 1                        | 1                        |
| Connections (in/out)                           | Type              | Gas Maschio              | Gas Maschio              |
| Size (in)                                      | Ø                 | 1"1/4                    | 1"1/4                    |
| Size (out)                                     | Ø                 | 1"1/4                    | 1"1/4                    |
| <b>Fan</b>                                     |                   |                          |                          |
| Type   | type              | Axial                    | Axial                    |
| Fan motor                                      | type              | Inverter                 | Inverter                 |
| Number   | no.               | 2                        | 2                        |
| Air flow rate                                  | m <sup>3</sup> /h | 9700                     | 9700                     |
| <b>Sound data calculated in cooling mode</b>   |                   |                          |                          |
| Sound pressure level (1 m)                     | dB(A)             | 57,0                     | 58,0                     |
| <b>Sound data calculated in heating mode</b>   |                   |                          |                          |
| Sound power level                              | dB(A)             | 65,0                     | 65,0                     |
| Sound pressure level (1 m)                     | dB(A)             | 56,0                     | 57,0                     |
| <b>Sound power by centre octave band dB(A)</b> |                   |                          |                          |
| 63 Hz  | dB(A)             | 42,1                     | 42,6                     |
| 125 Hz   | dB(A)             | 52,8                     | 54,9                     |
| 250 Hz   | dB(A)             | 59,2                     | 54,1                     |
| 500 Hz   | dB(A)             | 60,4                     | 56,6                     |
| 1000 Hz  | dB(A)             | 58,0                     | 55,8                     |
| 4000 Hz  | dB(A)             | 48,6                     | 50,2                     |
| 8000 Hz  | dB(A)             | 42,7                     | 45,2                     |
| <b>Power supply</b>                            |                   |                          |                          |
| Power supply                                   |                   | 380-415V 3N ~ 50Hz       | 380-415V 3N ~ 50Hz       |

- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
- The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

- Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.
- Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

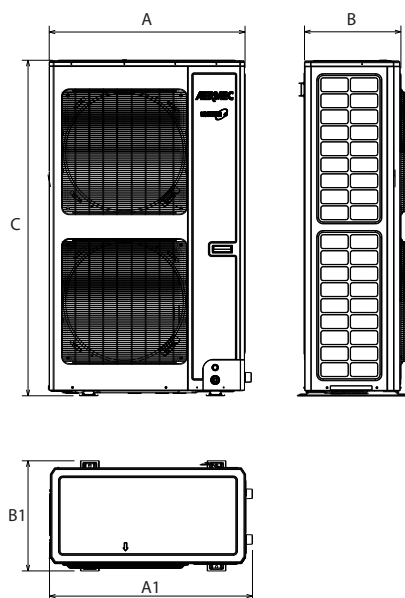
## ENERGY DATA

|  |    | HMI180T | HMI220T |
|--|----|---------|---------|
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - P<sub>designh</sub> ≤ 70 kW (1)</b> |    |         |         |
| P <sub>designh</sub>   | kW | 19      | 22      |
| η <sub>sh</sub>  | %  | 181,00  | 180,00  |
| Efficiency energy class  |    | A+++    | A+++    |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - P<sub>designh</sub> ≤ 70 kW (2)</b> |    |         |         |
| P <sub>designh</sub>   | kW | 18      | 20      |
| η <sub>sh</sub>  | %  | 127,00  | 127,00  |
| Efficiency energy class  |    | A++     | A++     |

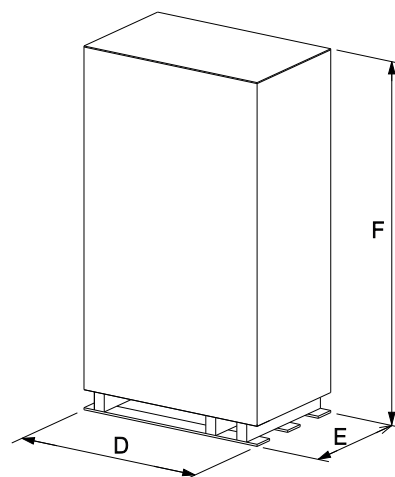
(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

## DIMENSIONS



HMI180T-HMI220T



Example of packaging

|                               |    | HMI180T | HMI220T |
|-------------------------------|----|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |
| A                             | mm | 943     | 943     |
| A1                            | mm | 977     | 977     |
| B                             | mm | 464     | 464     |
| B1                            | mm | 530     | 530     |
| C                             | mm | 1615    | 1615    |
| D                             | mm | 1073    | 1073    |
| E                             | mm | 593     | 593     |
| F                             | mm | 1760    | 1760    |
| Net weight                    | kg | 205,0   | 205,0   |
| Weight for transport          | kg | 221,0   | 221,0   |

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## BHP

## Reversible air/water split heat pump

Cooling capacity 3,2 ÷ 11,5 kW – Heating capacity 4,0 ÷ 16,0 kW

- Indoor unit available in two versions, with and without DHW
- New R32 ecological refrigerant gas
- Production of hot water up to 60 °C
- Anti-legionella function
- Multi-language touch-screen control panel



### DESCRIPTION

BHP It's the new "split" type inverter heat pump system, more efficient than standard boiler systems as it guarantees sustainable, efficient heating, cooling and domestic hot water supply in every season.

BHP is designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.

The system can be installed in systems with any hydronic terminal, and is already supplied with the main hydraulic components, thus facilitating final installation.

The indoor unit comes in two versions:

- **BHP\_W wall-mounting**, without DHW storage tank but complete with a 3-way DHW-system diverting valve. **For the production of DHW it is mandatory to combine it with a domestic hot water storage tank Aermec compatible.**
- **BHP\_F with base**, complete with DHW storage tank.

### FEATURES

#### Main hydraulic components

##### BHP outdoor unit

- inverter compressor,
- finned pack heat exchanger with copper pipes and aluminium louvers, with protective golden fin treatment,
- economizer,
- electronic valve,
- DC axial brushless fan,
- electric heater for the base.

##### BHP\_W wall indoor unit

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- Electric resistance system side,
- 3 way valve,
- DHW-system connections,
- water filter supplied (**mandatory installation**).

##### BHP\_F indoor base unit

- plate heat exchanger,
- flow switch,
- inverter pump,
- expansion tank,
- drain valve,
- safety valve,
- Electric resistance system side,
- 3 way valve,
- DHW-system connections,
- water filter supplied (**mandatory installation**),
- DHW storage tank of 185 litres with coil and supplementary electric heater, and anti-legionella function,
- **tank with Titanium electronic sacrificial anode.**

The indoor and outdoor units are connected by means of suitably sized cooling lines (supplied by the installer).

Cooling circuit use R32 (A2L) refrigerant with low GWP.

#### Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

#### Regulations

Adjustment via **multi-language touch-screen control panel**:

- management of a 3-way diverting valve for the production of domestic hot water,
- management of a 2 way valve (not supplied) for shutting off part of the system,
- weekly programming in time periods,
- **auto-restart** function,
- emergency operation,
- function **quick water heating** for a quick heating of domestic hot water
- forced operating **mode**,
- intelligent operation **based on weather conditions** for climate adjustment,
- **quiet** function for reduced noise operation (programmable with a timer),
- **Anti-freeze** function,
- condensation check,

- when the **anti-legionella cycle** is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection,
- pre heating **function of the floor** to pre-heat the floor system before unit commissioning.



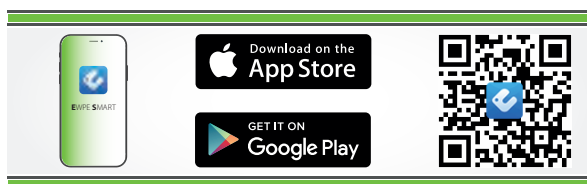
### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



## ACCESSORIES

**IC-2P:** Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

**VMF-485LINK:** Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

**LOGATW:** Diagnostic tool for air-water heat pumps.

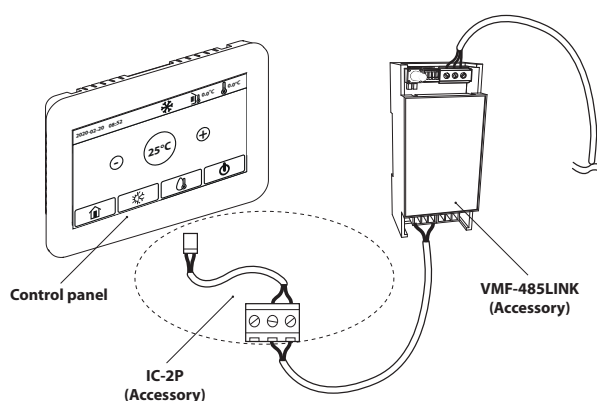
**DHWT300S:** (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation.

For the production of DHW it is mandatory to combine it with BHP\_W.

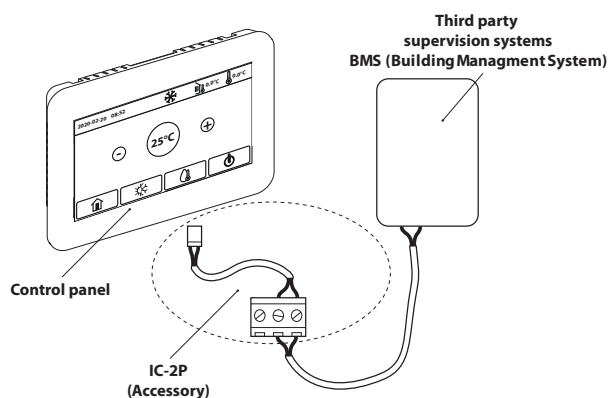
### Compatibility with VMF system

For more information about VMF system, refer to the dedicated documentation.

### Connection with VMF-485LINK



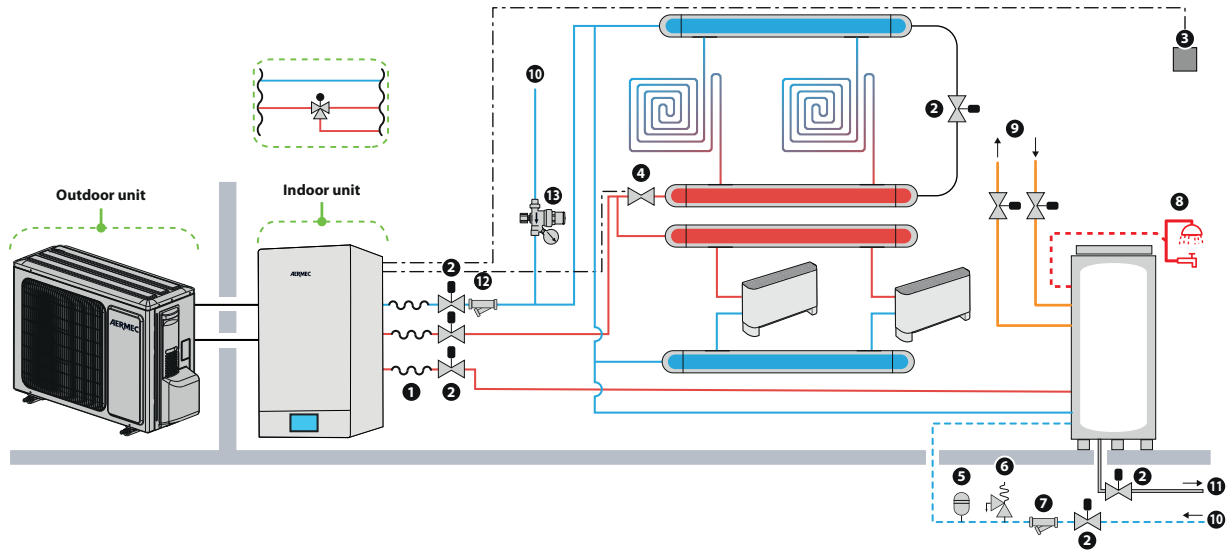
### Connection with third party supervision systems



### Compatibility with DHW storage tank

|          | BHP060W | BHP100W | BHP100WT | BHP160W | BHP160WT |
|----------|---------|---------|----------|---------|----------|
| DHWT300S | *       | *       | *        | *       | *        |

## BHP\_W: DOMESTIC HOT WATER STORAGE TANK CONNECTION AND CONNECTION TO THE FLOOR SYSTEM AND FCU



### HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

- Plate heat exchanger
- Flow switch
- Inverter circulator
- Expansion vessel
- Drain valve
- Pressure relief valve
- Electric resistance system side
- 3 way valve
- DHW-system connections

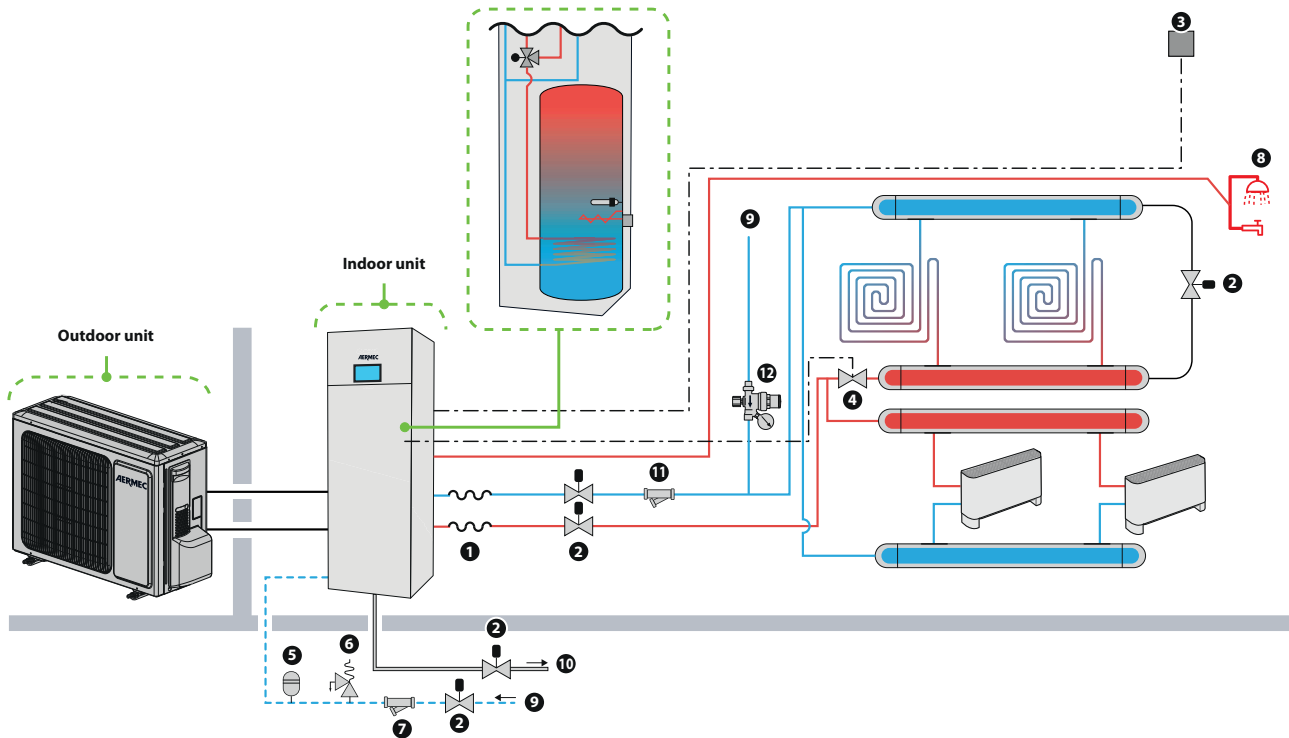
### SUPPLIED HYDRAULIC COMPONENTS

12. Water filter supplied (**mandatory installation**)

### HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **supplied with Aermec ACS storage system compatible (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Auxiliary heat sources
10. Aqueduct
11. Storage discharge
13. Loading unit

## BHP\_F: CONNECTION TO THE FLOOR SYSTEM AND FCU



### HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

- Plate heat exchanger
- Flow switch
- Inverter pump
- Expansion vessel
- Drain valve
- Pressure relief valve
- Electric resistance system side
- 3 way valve
- DHW-system connections

### SUPPLIED HYDRAULIC COMPONENTS

11. Water filter supplied (**mandatory installation**)

### HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **NOT supplied (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Aqueduct
10. Storage discharge
12. Loading unit

## PERFORMANCE SPECIFICATIONS

### Technical data Wall unit

| Indoor unit                                  |     | BHP060W | BHP060W | BHP100W | BHP100W | BHP160W | BHP160W | BHP160W |
|--|-----|---------|---------|---------|---------|---------|---------|---------|
| Outdoor unit                                 |     | BHP040  | BHP060  | BHP080  | BHP100  | BHP120  | BHP140  | BHP160  |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |         |         |         |         |         |         |         |
| Cooling capacity                             | kW  | 3,20    | 4,09    | 5,30    | 6,50    | 10,07   | 11,30   | 11,60   |
| Input power                                  | kW  | 0,94    | 1,28    | 1,73    | 2,27    | 3,65    | 4,04    | 4,38    |
| EER  | W/W | 3,42    | 3,20    | 3,06    | 2,86    | 2,93    | 2,80    | 2,65    |
| Water flow rate system side                  | l/h | 550     | 703     | 912     | 1118    | 1840    | 1944    | 1995    |
| Useful head system side                      | kPa | 76      | 74      | 70      | 63      | 56      | 54      | 48      |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |         |         |         |         |         |         |         |
| Heating capacity                             | kW  | 4,00    | 5,90    | 8,00    | 9,50    | 12,40   | 14,50   | 16,10   |
| Input power                                  | kW  | 1,02    | 1,51    | 2,14    | 2,64    | 3,22    | 3,87    | 4,41    |
| COP  | W/W | 3,92    | 3,91    | 3,74    | 3,60    | 3,85    | 3,75    | 3,65    |
| Water flow rate system side                  | l/h | 688     | 1015    | 1376    | 1634    | 2133    | 2494    | 2769    |
| Useful head system side                      | kPa | 74      | 67      | 51      | 36      | 45      | 26      | 11      |
| <b>Cooling performance 23 °C / 18 °C (3)</b> |     |         |         |         |         |         |         |         |
| Cooling capacity                             | kW  | 3,80    | 5,80    | 7,00    | 8,52    | 11,00   | 12,60   | 13,00   |
| Input power                                  | kW  | 0,82    | 1,32    | 1,75    | 2,25    | 2,50    | 3,41    | 3,60    |
| EER  | W/W | 4,63    | 4,40    | 4,00    | 3,79    | 4,40    | 3,70    | 3,61    |
| Water flow rate system side                  | l/h | 655     | 992     | 1204    | 1465    | 1892    | 2167    | 2236    |
| Useful head system side                      | kPa | 74      | 67      | 60      | 46      | 54      | 40      | 34      |
| <b>Heating performance 30 °C / 35 °C (4)</b> |     |         |         |         |         |         |         |         |
| Heating capacity                             | kW  | 4,00    | 6,00    | 8,00    | 9,50    | 12,00   | 14,00   | 15,50   |
| Input power                                  | kW  | 0,78    | 1,20    | 1,70    | 2,07    | 2,40    | 2,98    | 3,44    |
| COP  | W/W | 5,13    | 5,00    | 4,71    | 4,59    | 5,00    | 4,70    | 4,50    |
| Water flow rate system side                  | l/h | 688     | 1032    | 1376    | 1634    | 2064    | 2408    | 2666    |
| Useful head system side                      | kPa | 74      | 66      | 51      | 36      | 45      | 26      | 15      |
| <b>Heating performance 47 °C / 55 °C (5)</b> |     |         |         |         |         |         |         |         |
| Heating capacity                             | kW  | 3,60    | 5,40    | 7,20    | 8,55    | 12,00   | 14,00   | 16,00   |
| Input power                                  | kW  | 1,40    | 2,16    | 3,05    | 3,72    | 3,81    | 4,52    | 5,42    |
| COP  | W/W | 2,57    | 2,50    | 2,36    | 2,30    | 3,15    | 3,10    | 2,95    |
| Useful head system side                      | kPa | 27      | 19      | 19      | 12      | 65      | 60      | 53      |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

(5) Data EN 14511:2022; System side water heat exchanger 47 °C / 55 °C; External air 7 °C d.b. / 6 °C w.b.

### Three-phase Wall unit technical data

| Indoor unit                                  |     | BHP100WT | BHP100WT | BHP160WT | BHP160WT | BHP160WT |
|--|-----|----------|----------|----------|----------|----------|
| Outdoor unit                                 |     | BHP080T  | BHP100T  | BHP120T  | BHP140T  | BHP160T  |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |          |          |          |          |          |
| Cooling capacity                             | kW  | 7,60     | 8,20     | 10,07    | 11,30    | 11,60    |
| Input power                                  | kW  | 2,35     | 2,73     | 3,65     | 4,04     | 4,38     |
| EER  | W/W | 3,23     | 3,00     | 2,93     | 2,80     | 2,65     |
| Water flow rate system side                  | l/h | 1307     | 1410     | 1840     | 1944     | 1995     |
| Useful head system side                      | kPa | 66       | 58       | 56       | 54       | 48       |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |          |          |          |          |          |
| Heating capacity                             | kW  | 8,00     | 10,20    | 12,40    | 14,50    | 16,13    |
| Input power                                  | kW  | 1,93     | 2,55     | 3,22     | 3,87     | 4,42     |
| COP  | W/W | 4,15     | 4,00     | 3,85     | 3,75     | 3,65     |
| Water flow rate system side                  | l/h | 1376     | 1720     | 2133     | 2494     | 2774     |
| Useful head system side                      | kPa | 60       | 45       | 45       | 26       | 11       |
| <b>Cooling performance 23 °C / 18 °C (3)</b> |     |          |          |          |          |          |
| Cooling capacity                             | kW  | 8,50     | 10,00    | 11,00    | 12,60    | 13,00    |
| Input power                                  | kW  | 1,74     | 2,33     | 2,50     | 3,41     | 3,60     |
| EER  | W/W | 4,89     | 4,29     | 4,40     | 3,70     | 3,61     |
| Water flow rate system side                  | l/h | 1462     | 1720     | 1892     | 2167     | 2236     |
| Useful head system side                      | kPa | 54       | 41       | 54       | 40       | 34       |
| <b>Heating performance 30 °C / 35 °C (4)</b> |     |          |          |          |          |          |
| Heating capacity                             | kW  | 8,00     | 10,00    | 12,00    | 14,00    | 15,54    |
| Input power                                  | kW  | 1,63     | 2,15     | 2,40     | 2,98     | 3,45     |
| COP  | W/W | 4,91     | 4,65     | 5,00     | 4,70     | 4,50     |
| Water flow rate system side                  | l/h | 1376     | 1754     | 2064     | 2408     | 2673     |
| Useful head system side                      | kPa | 60       | 46       | 46       | 26       | 14       |
| <b>Heating performance 47 °C / 55 °C (5)</b> |     |          |          |          |          |          |
| Heating capacity                             | kW  | 8,00     | 10,00    | 12,00    | 14,00    | 16,00    |
| Input power                                  | kW  | 2,78     | 3,80     | 3,81     | 4,52     | 5,42     |
| COP  | W/W | 2,88     | 2,63     | 3,15     | 3,10     | 2,95     |
| Useful head system side                      | kPa | 74       | 70       | 65       | 60       | 53       |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

(5) Data EN 14511:2022; System side water heat exchanger 47 °C / 55 °C; External air 7 °C d.b. / 6 °C w.b.

## Technical data base unit

| Indoor unit                                  |     | BHP060F | BHP060F | BHP100F | BHP100F |
|--|-----|---------|---------|---------|---------|
| Outdoor unit                                 |     | BHP040  | BHP060  | BHP080  | BHP100  |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |         |         |         |         |
| Cooling capacity                             | kW  | 3,20    | 4,09    | 5,30    | 6,50    |
| Input power                                  | kW  | 0,94    | 1,28    | 1,73    | 2,27    |
| EER  | W/W | 3,42    | 3,20    | 3,06    | 2,86    |
| Water flow rate system side                  | l/h | 550     | 703     | 912     | 1118    |
| Useful head system side                      | kPa | 76      | 74      | 70      | 63      |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |         |         |         |         |
| Heating capacity                             | kW  | 4,00    | 5,90    | 8,00    | 9,50    |
| Input power                                  | kW  | 1,02    | 1,51    | 2,14    | 2,64    |
| COP  | W/W | 3,92    | 3,91    | 3,74    | 3,60    |
| Water flow rate system side                  | l/h | 688     | 1015    | 1376    | 1634    |
| Useful head system side                      | kPa | 74      | 67      | 51      | 36      |
| <b>Cooling performance 23 °C / 18 °C (3)</b> |     |         |         |         |         |
| Cooling capacity                             | kW  | 3,80    | 5,80    | 7,00    | 8,52    |
| Input power                                  | kW  | 0,82    | 1,32    | 1,75    | 2,25    |
| EER  | W/W | 4,63    | 4,40    | 4,00    | 3,79    |
| Water flow rate system side                  | l/h | 655     | 992     | 1204    | 1465    |
| Useful head system side                      | kPa | 74      | 69      | 60      | 46      |
| <b>Heating performance 30 °C / 35 °C (4)</b> |     |         |         |         |         |
| Heating capacity                             | kW  | 4,00    | 6,00    | 8,00    | 9,50    |
| Input power                                  | kW  | 0,78    | 1,20    | 1,70    | 2,07    |
| COP  | W/W | 5,13    | 5,00    | 4,71    | 4,59    |
| Water flow rate system side                  | l/h | 688     | 1032    | 1376    | 1634    |
| Useful head system side                      | kPa | 74      | 66      | 51      | 36      |
| <b>Heating performance 47 °C / 55 °C (5)</b> |     |         |         |         |         |
| Heating capacity                             | kW  | 3,60    | 5,40    | 7,20    | 8,55    |
| Input power                                  | kW  | 1,40    | 2,16    | 3,05    | 3,72    |
| COP  | W/W | 2,57    | 2,50    | 2,36    | 2,30    |
| Useful head system side                      | kPa | 27      | 19      | 19      | 12      |

- (1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C  
(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.  
(3) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C  
(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.  
(5) Data EN 14511:2022; System side water heat exchanger 47 °C / 55 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

### Energy data Wall unit

| Indoor unit   |     | BHP060W | BHP060W | BHP100W | BHP100W | BHP160W | BHP160W | BHP160W |
|---|-----|---------|---------|---------|---------|---------|---------|---------|
| Outdoor unit  |     | BHP040  | BHP060  | BHP080  | BHP100  | BHP120  | BHP140  | BHP160  |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |         |         |         |         |         |         |         |
| Pdesignh  | kW  | 5       | 6       | 7       | 9       | 11      | 12      | 13      |
| SCOP  | W/W | 4,66    | 4,54    | 4,60    | 4,60    | 4,63    | 4,65    | 4,61    |
| ηsh   | %   | 183,50  | 178,70  | 181,00  | 181,00  | 182,00  | 183,00  | 181,20  |
| Efficiency energy class   |     | A+++    | A+++    | A+++    | A+++    | A+++    | A+++    | A+++    |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |         |         |         |         |         |         |         |
| Pdesignh  | kW  | 5       | 5       | 7       | 8       | 11      | 13      | 13      |
| SCOP  | W/W | 3,27    | 3,25    | 3,30    | 3,25    | 3,24    | 3,50    | 3,50    |
| ηsh   | %   | 128,10  | 127,40  | 129,00  | 127,00  | 126,40  | 137,00  | 137,00  |
| Efficiency energy class   |     | A++     | A++     | A++     | A++     | A++     | A++     | A++     |
| <b>Performance as combined heat generator</b>   |     |         |         |         |         |         |         |         |
| Bleeding profile  |     | XL      | XL      | XL      | XL      | XL      | XL      | XL      |
| Efficiency energy class   |     | A       | A       | A       | A       | A       | A       | A       |

- (1) Efficiencies for low temperature applications (35 °C)  
(2) Efficiencies for average temperature applications (55 °C)

| Indoor unit   |     | BHP060W | BHP060W | BHP100W | BHP100W | BHP160W | BHP160W | BHP160W |
|---|-----|---------|---------|---------|---------|---------|---------|---------|
| Outdoor unit  |     | BHP040  | BHP060  | BHP080  | BHP100  | BHP120  | BHP140  | BHP160  |
| Indoor unit quantity  |     | 1       | 1       | 1       | 1       | 1       | 1       | 1       |
| Outdoor unit quantity   |     | 1       | 1       | 1       | 1       | 1       | 1       | 1       |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |     |         |         |         |         |         |         |         |
| SEER  | W/W | 4,21    | 4,12    | 4,11    | 4,12    | 4,90    | 4,91    | 4,78    |
| ηsc   | %   | 165,00  | 162,00  | 161,00  | 162,00  | 193,00  | 193,00  | 188,00  |

### Three-phase Wall unit energy data

| Indoor unit   |     | BHP100WT | BHP100WT | BHP160WT | BHP160WT | BHP160WT |
|---|-----|----------|----------|----------|----------|----------|
| Outdoor unit  |     | BHP080T  | BHP100T  | BHP120T  | BHP140T  | BHP160T  |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |          |          |          |          |          |
| Pdesignh  | kW  | 8        | 9        | 11       | 12       | 13       |
| SCOP  | W/W | 4,53     | 4,70     | 4,48     | 4,48     | 4,45     |
| ηsh   | %   | 178,10   | 185,20   | 176,00   | 176,00   | 175,00   |
| Efficiency energy class   |     | A+++     | A+++     | A+++     | A+++     | A+++     |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |          |          |          |          |          |
| Pdesignh  | kW  | 9        | 10       | 11       | 13       | 13       |
| SCOP  | W/W | 3,48     | 3,49     | 3,23     | 3,38     | 3,38     |
| ηsh   | %   | 136,10   | 136,70   | 126,00   | 132,00   | 132,00   |
| Efficiency energy class   |     | A++      | A++      | A++      | A++      | A++      |
| <b>Performance as combined heat generator</b>   |     |          |          |          |          |          |
| Bleeding profile  |     | XL       | XL       | XL       | XL       | XL       |
| Efficiency energy class   |     | A        | A        | A        | A        | A        |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Indoor unit   |     | BHP100WT | BHP100WT | BHP160WT | BHP160WT | BHP160WT |
|---|-----|----------|----------|----------|----------|----------|
| Outdoor unit  |     | BHP080T  | BHP100T  | BHP120T  | BHP140T  | BHP160T  |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |     |          |          |          |          |          |
| SEER  | W/W | 4,11     | 4,12     | 4,74     | 4,76     | 4,64     |
| ηsc   | %   | 161,00   | 162,00   | 187,00   | 187,00   | 183,00   |

### Energy data base unit

| Indoor unit   |     | BHP060F | BHP060F | BHP100F | BHP100F |
|---|-----|---------|---------|---------|---------|
| Outdoor unit  |     | BHP040  | BHP060  | BHP080  | BHP100  |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |         |         |         |         |
| Pdesignh  | kW  | 5       | 6       | 7       | 9       |
| SCOP  | W/W | 4,66    | 4,54    | 4,60    | 4,60    |
| ηsh   | %   | 183,50  | 178,70  | 181,00  | 181,00  |
| Efficiency energy class   |     | A+++    | A+++    | A+++    | A+++    |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |         |         |         |         |
| Pdesignh  | kW  | 5       | 5       | 7       | 8       |
| SCOP  | W/W | 3,28    | 3,26    | 3,30    | 3,25    |
| ηsh   | %   | 128,10  | 127,40  | 129,00  | 127,00  |
| Efficiency energy class   |     | A++     | A++     | A++     | A++     |
| <b>Performance as combined heat generator</b>   |     |         |         |         |         |
| Bleeding profile  |     | L       | L       | L       | L       |
| Efficiency energy class   |     | A       | A       | A       | A       |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Indoor unit   |     | BHP060F | BHP060F | BHP100F | BHP100F |
|---|-----|---------|---------|---------|---------|
| Outdoor unit  |     | BHP040  | BHP060  | BHP080  | BHP100  |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |     |         |         |         |         |
| SEER  | W/W | 4,21    | 4,12    | 4,11    | 4,12    |
| ηsc   | %   | 165,00  | 162,00  | 161,00  | 162,00  |



## INDOOR UNIT

### BHP\_W indoor wall unit

|  |       | BHP060W | BHP100W      | BHP160W |
|--|-------|---------|--------------|---------|
| <b>Electric data</b>                             |       |         |              |         |
| Rated power input (1)                            | kW    | 3,10    | 6,10         | 6,10    |
| <b>Electric heater</b>                           |       |         |              |         |
| Number   | no.   | 2       | 2            | 2       |
| Power of the single heater                       | kW    | 1,50    | 3,00         | 3,00    |
| <b>System side heat exchanger</b>                |       |         |              |         |
| Type   | type  |         | Brazed plate |         |
| Number   | no.   | 1       | 1            | 1       |
| Unit / system input                              | type  |         | G1 male      |         |
| Unit / system output                             | type  |         | G1 male      |         |
| DHW output                                       | type  |         | G1 male      |         |
| <b>Circulator</b>                                |       |         |              |         |
| Quantity   | no.   | 1       | 1            | 1       |
| Motor  | type  |         | DC brushless |         |
| <b>Expansion vessel</b>                          |       |         |              |         |
| Number   | no.   | 1       | 1            | 1       |
| Volume   | l     | 10,0    | 10,0         | 10,0    |
| Maximum pressure                                 | bar   | 2,5     | 2,5          | 2,5     |
| <b>Sound data calculated in cooling mode (2)</b> |       |         |              |         |
| Sound power level                                | dB(A) | 42,0    | 42,0         | 42,0    |
| Sound pressure level                             | dB(A) | 14,0    | 14,0         | 14,0    |
| <b>Power supply</b>                              |       |         |              |         |
| Power supply                                     |       |         | 230V ~ 50Hz  |         |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

### Three-phase wall unit BHP\_WT

|  |       | BHP100WT | BHP160WT       |
|--|-------|----------|----------------|
| <b>Electric data</b>                             |       |          |                |
| Rated power input (1)                            | kW    | 6,10     | 6,10           |
| <b>Electric heater</b>                           |       |          |                |
| Number   | no.   | 2        | 2              |
| Power of the single heater                       | kW    | 3,00     | 3,00           |
| <b>System side heat exchanger</b>                |       |          |                |
| Type   | type  |          | Brazed plate   |
| Number   | no.   | 1        | 1              |
| Unit / system input                              | type  |          | G1 male        |
| Unit / system output                             | type  |          | G1 male        |
| DHW output                                       | type  |          | G1 male        |
| <b>Circulator</b>                                |       |          |                |
| Quantity   | no.   | 1        | 1              |
| Motor  | type  |          | DC brushless   |
| <b>Expansion vessel</b>                          |       |          |                |
| Number   | no.   | 1        | 1              |
| Volume   | l     | 10,0     | 10,0           |
| Maximum pressure                                 | bar   | 2,5      | 2,5            |
| <b>Sound data calculated in cooling mode (2)</b> |       |          |                |
| Sound power level                                | dB(A) | 42,0     | 42,0           |
| Sound pressure level                             | dB(A) | 14,0     | 14,0           |
| <b>Power supply</b>                              |       |          |                |
| Power supply                                     |       |          | 400V ~ 3N 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

**BHP\_F indoor base unit**

|  |       | BHP060F      | BHP100F |
|--|-------|--------------|---------|
| <b>Electric data</b>                             |       |              |         |
| Rated power input (1)                            | kW    | 3,10         | 6,10    |
| <b>Electric heater</b>                           |       |              |         |
| Number   | no.   | 2            | 2       |
| Power of the single heater                       | kW    | 1,50         | 3,00    |
| <b>System side heat exchanger</b>                |       |              |         |
| Type   | type  | Brazed plate |         |
| Number   | no.   | 1            | 1       |
| Unit / system input                              | type  | G1 male      |         |
| Mains water input                                | type  | G1 male      |         |
| Unit / system output                             | type  | G1 male      |         |
| DHW output                                       | type  | G1 male      |         |
| <b>Circulator</b>                                |       |              |         |
| Quantity   | no.   | 1            | 1       |
| Motor  | type  | DC brushless |         |
| <b>Expansion vessel</b>                          |       |              |         |
| Number   | no.   | 1            | 1       |
| Volume   | l     | 10,0         | 10,0    |
| Maximum pressure                                 | bar   | 2,5          | 2,5     |
| <b>Storage tank (DHW)</b>                        |       |              |         |
| Volume   | l     | 185          | 185     |
| <b>Sound data calculated in cooling mode (2)</b> |       |              |         |
| Sound power level                                | dB(A) | 42,0         | 42,0    |
| Sound pressure level                             | dB(A) | 14,0         | 14,0    |
| <b>Power supply</b>                              |       |              |         |
| Power supply                                     |       | 230V ~ 50Hz  |         |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## OUTDOOR UNIT

|  |           | BHP040                          | BHP060 | BHP080         | BHP080T | BHP100      | BHP100T        |
|--|-----------|---------------------------------|--------|----------------|---------|-------------|----------------|
| <b>Electric data</b>                             |           |                                 |        |                |         |             |                |
| Rated current input (1)                          | A         | 10,0                            | 10,0   | 19,0           | 7,5     | 22,0        | 7,5            |
| <b>Compressor</b>                                |           |                                 |        |                |         |             |                |
| Type   | type      | Rotativo doppio stadio inverter |        |                |         |             |                |
| Number   | no.       | 1                               | 1      | 1              | 1       | 1           | 1              |
| Circuits   | no.       | 1                               | 1      | 1              | 1       | 1           | 1              |
| Refrigerant                                      | type      | R32                             |        |                |         |             |                |
| Refrigerant charge                               | kg        | 1,00                            | 1,00   | 1,60           | 1,84    | 1,60        | 1,84           |
| Potential global heating                         | GWP       | 675kgCO <sub>2</sub> eq         |        |                |         |             |                |
| <b>Oil</b>                                       |           |                                 |        |                |         |             |                |
| Type   | type      | FW68DA                          |        |                |         |             |                |
| Quantity   | l         | 0,47                            | 0,47   | 0,84           | 0,84    | 0,84        | 0,84           |
| <b>Refrigeration pipework</b>                    |           |                                 |        |                |         |             |                |
| Diameter of liquid refrigerant connections       | mm (inch) | 6,35 (1/4")                     |        |                |         |             |                |
| Diameter of refrigerant gas connections          | mm (inch) | 12,7 (1/2")                     |        |                |         |             |                |
| <b>Exchanger</b>                                 |           |                                 |        |                |         |             |                |
| Type   | type      | Finned coil                     |        |                |         |             |                |
| Louvers type                                     | type      | Golden fin                      |        |                |         |             |                |
| Number   | no.       | 1                               | 1      | 1              | 1       | 1           | 1              |
| <b>Expansion vessel</b>                          |           |                                 |        |                |         |             |                |
| Type   | type      | Electronic expansion valve      |        |                |         |             |                |
| Number   | no.       | 1                               | 1      | 1              | 1       | 1           | 1              |
| <b>Fan</b>                                       |           |                                 |        |                |         |             |                |
| Type   | type      | Inverter axial                  |        |                |         |             |                |
| Fan motor  | type      | DC brushless                    |        |                |         |             |                |
| Number   | no.       | 1                               | 1      | 1              | 1       | 1           | 1              |
| Air flow rate                                    | m³/h      | 3200                            | 3200   | 3300           | 3300    | 3300        | 3300           |
| <b>Sound data calculated in cooling mode (2)</b> |           |                                 |        |                |         |             |                |
| Sound power level                                | dB(A)     | 62,0                            | 62,0   | 67,0           | 68,0    | 68,0        | 68,0           |
| Sound pressure level (1 m)                       | dB(A)     | 52,0                            | 52,0   | 55,0           | 55,0    | 55,0        | 55,0           |
| Sound pressure level (10 m)                      | dB(A)     | 34,0                            | 34,0   | 39,0           | 40,0    | 40,0        | 40,0           |
| <b>Power supply</b>                              |           |                                 |        |                |         |             |                |
| Power supply                                     |           | 230V ~ 50Hz                     |        | 400V 3N ~ 50Hz |         | 230V ~ 50Hz | 400V 3N ~ 50Hz |

|  |           | BHP120                          | BHP120T        | BHP140       | BHP140T        | BHP160      | BHP160T        |
|--|-----------|---------------------------------|----------------|--------------|----------------|-------------|----------------|
| <b>Electric data</b>                             |           |                                 |                |              |                |             |                |
| Rated current input (1)                          | A         | 25,6                            | 9,2            | 28,7         | 11,5           | 30,3        | 11,5           |
| <b>Compressor</b>                                |           |                                 |                |              |                |             |                |
| Type   | type      | Rotativo doppio stadio inverter |                |              |                |             |                |
| Number   | no.       | 1                               | 1              | 1            | 1              | 1           | 1              |
| Circuits   | no.       | 1                               | 1              | 1            | 1              | 1           | 1              |
| Refrigerant                                      | type      | R32                             |                |              |                |             |                |
| Refrigerant charge                               | kg        | 1,84                            | 1,84           | 1,84         | 1,84           | 1,84        | 1,84           |
| Potential global heating                         | GWP       | 675kgCO <sub>2</sub> eq         |                |              |                |             |                |
| <b>Oil</b>                                       |           |                                 |                |              |                |             |                |
| Type   | type      | FW68DA                          |                |              |                |             |                |
| Quantity   | l         | 1,05                            | 1,05           | 1,05         | 1,05           | 1,05        | 1,05           |
| <b>Refrigeration pipework</b>                    |           |                                 |                |              |                |             |                |
| Diameter of liquid refrigerant connections       | mm (inch) | 6,35 (1/4")                     |                |              |                |             |                |
| Diameter of refrigerant gas connections          | mm (inch) | 12,7 (1/2")                     |                | 15,87 (5/8") |                |             |                |
| <b>Exchanger</b>                                 |           |                                 |                |              |                |             |                |
| Type   | type      | Finned coil                     |                |              |                |             |                |
| Louvers type                                     | type      | Golden fin                      |                |              |                |             |                |
| Number   | no.       | 1                               | 1              | 1            | 1              | 1           | 1              |
| <b>Expansion vessel</b>                          |           |                                 |                |              |                |             |                |
| Type   | type      | Electronic expansion valve      |                |              |                |             |                |
| Number   | no.       | 1                               | 1              | 1            | 1              | 1           | 1              |
| <b>Fan</b>                                       |           |                                 |                |              |                |             |                |
| Type   | type      | Inverter axial                  |                |              |                |             |                |
| Fan motor  | type      | DC brushless                    |                |              |                |             |                |
| Number   | no.       | 1                               | 1              | 1            | 1              | 1           | 1              |
| Air flow rate                                    | m³/h      | 5044                            | 5044           | 5044         | 5044           | 5044        | 5044           |
| <b>Sound data calculated in cooling mode (2)</b> |           |                                 |                |              |                |             |                |
| Sound power level                                | dB(A)     | 68,0                            | 68,0           | 68,0         | 68,0           | 68,0        | 68,0           |
| Sound pressure level (1 m)                       | dB(A)     | 60,0                            | 60,0           | 61,0         | 61,0           | 61,0        | 61,0           |
| Sound pressure level (10 m)                      | dB(A)     | 40,0                            | 40,0           | 40,0         | 40,0           | 40,0        | 40,0           |
| <b>Power supply</b>                              |           |                                 |                |              |                |             |                |
| Power supply                                     |           | 230V ~ 50Hz                     | 400V 3N ~ 50Hz | 230V ~ 50Hz  | 400V 3N ~ 50Hz | 230V ~ 50Hz | 400V 3N ~ 50Hz |

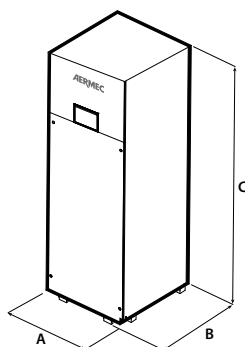
(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

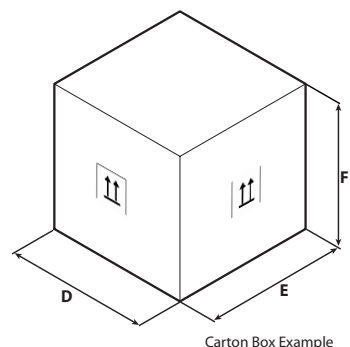
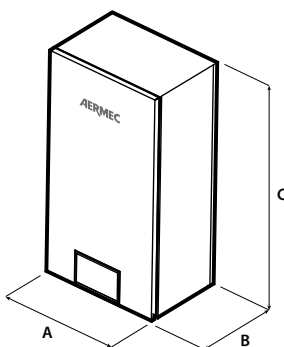
## DIMENSIONS AND WEIGHTS

### Indoor units

#### BHP\_F



#### BHP\_W



Carton Box Example

#### BHP\_W

|                      |    | BHP060W | BHP100W | BHP160W |
|----------------------|----|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |
| A                    | mm | 460     | 460     | 460     |
| B                    | mm | 318     | 318     | 318     |
| C                    | mm | 860     | 860     | 860     |
| D                    | mm | 568     | 568     | 568     |
| E                    | mm | 390     | 390     | 390     |
| F                    | mm | 1133    | 1133    | 1133    |
| Net weight           | kg | 62,0    | 62,0    | 58,0    |
| Weight for transport | kg | 71,0    | 71,0    | 71,0    |

#### BHP\_WT

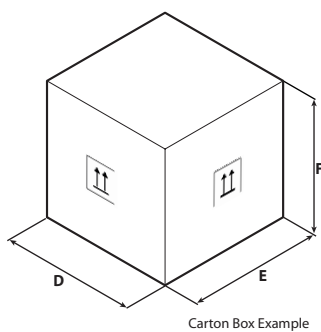
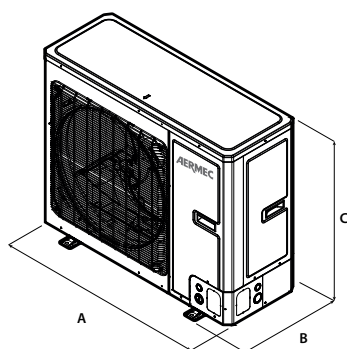
|                      |    | BHP100WT | BHP160WT |
|----------------------|----|----------|----------|
| <b>Indoor unit</b>   |    |          |          |
| A                    | mm | 460      | 460      |
| B                    | mm | 318      | 318      |
| C                    | mm | 860      | 860      |
| D                    | mm | 568      | 568      |
| E                    | mm | 390      | 390      |
| F                    | mm | 1133     | 1133     |
| Net weight           | kg | 60,0     | 60,0     |
| Weight for transport | kg | 71,0     | 71,0     |

#### BHP\_F

|                      |    | BHP060F | BHP100F |
|----------------------|----|---------|---------|
| <b>Indoor unit</b>   |    |         |         |
| A                    | mm | 600     | 600     |
| B                    | mm | 600     | 600     |
| C                    | mm | 1756    | 1756    |
| D                    | mm | 803     | 803     |
| E                    | mm | 683     | 683     |
| F                    | mm | 2000    | 2000    |
| Net weight           | kg | 210,0   | 210,0   |
| Weight for transport | kg | 233,0   | 233,0   |

## Outdoor units

### BHP



### BHP

|                      |    | BHP040 | BHP060 | BHP080 | BHP080T | BHP100 | BHP100T |
|----------------------|----|--------|--------|--------|---------|--------|---------|
| <b>Outdoor unit</b>  |    |        |        |        |         |        |         |
| A                    | mm | 975    | 975    | 982    | 982     | 982    | 982     |
| B                    | mm | 396    | 396    | 427    | 360     | 427    | 360     |
| C                    | mm | 702    | 702    | 787    | 787     | 787    | 787     |
| D                    | mm | 1028   | 1028   | 1097   | 1097    | 1097   | 1097    |
| E                    | mm | 458    | 458    | 478    | 478     | 478    | 478     |
| F                    | mm | 830    | 830    | 937    | 937     | 937    | 937     |
| Net weight           | kg | 55,0   | 55,0   | 82,0   | 88,0    | 82,0   | 88,0    |
| Weight for transport | kg | 65,0   | 65,0   | 92,0   | 98,0    | 92,0   | 98,0    |

|                      |    | BHP120 | BHP120T | BHP140 | BHP140T | BHP160 | BHP160T |
|----------------------|----|--------|---------|--------|---------|--------|---------|
| <b>Outdoor unit</b>  |    |        |         |        |         |        |         |
| A                    | mm | 940    | 940     | 940    | 940     | 940    | 940     |
| B                    | mm | 460    | 460     | 460    | 460     | 460    | 460     |
| C                    | mm | 820    | 820     | 820    | 820     | 820    | 820     |
| D                    | mm | 1103   | 1103    | 1103   | 1103    | 1103   | 1103    |
| E                    | mm | 573    | 573     | 573    | 573     | 573    | 573     |
| F                    | mm | 973    | 973     | 973    | 973     | 973    | 973     |
| Net weight           | kg | 104,0  | 110,0   | 104,0  | 110,0   | 104,0  | 110,0   |
| Weight for transport | kg | 114,0  | 121,0   | 114,0  | 121,0   | 114,0  | 121,0   |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# HMG – HMG\_P

## Reversible air/water heat pump

HMG: Cooling capacity 32 ÷ 60 kW – Heating capacity 35 ÷ 65 kW  
HMG\_P: Cooling capacity 33 ÷ 60 kW – Heating capacity 36 ÷ 65 kW

- R32 ecological refrigerant gas.
- Touch-screen control panel
- Easy and quick to install
- Reliability and compactness
- Hermetically sealed equipment
- Modularity



### DESCRIPTION

HMG and HMG\_P are the new outdoor reversible inverter heat pump system for producing chilled and heated water.

These units are designed to meet the plant engineering needs of residential or commercial contexts, or industrial applications.

HMG and HMG\_P are designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.

They can be combined with low-temperature emission systems such as floor heating or fan coils.

They are formed of fully independent modules that can be linked together to create a modular system.

The base, the structure and the panels are made of galvanized steel treated with polyester paint.

HMG\_P comes supplied with the main hydraulic components needed, thereby facilitating the final installation and is supplied with Integrated hydronic kit

### FEATURES

#### Operating limits

Operation from -20°C outside air temperature (winter) to 52°C (summer).

Production of hot water up to 50 °C.

**For more information about the operating limits of these units, refer to the specific paragraph on this product data sheet.**

#### Modularity

HMG and HMG\_P unit can be installed in a modular system of reversible inverter heat pumps for producing hot and chilled water, with connectable base modules purposely designed to minimise the overall dimensions.

**For HMG units it is possible to connect units with different capacity.**

**For HMG\_P units, connection is only possible between units of the same capacity.**

Modularity allows the installation of these units to be adapted to the real system development requirements, so the installed power can be increased over time in a simple and cost effective manner.

On the basis of these requirements, the user can choose either: **homogeneous modularity** or **sequential modularity**.

### Homogeneous modularity

Made possible with the use of a control panel **TCP** (mandatory accessory) to be connected to the master unit of the system.

This type of modularity allows the modules to work with a homogeneous capacity control logic whilst still guaranteeing delay switch-on and switch-off to avoid power consumption peaks and intelligent defrosting (the simultaneous defrosting of up to 1/3 of the modules installed).

Up to 16 modules for HMG also of different capacity, and 3 modules for HMG\_P modules of equal capacity, can be linked together with this operating mode.

#### For HMG

To take full advantage of the characteristics of this working mode, you are advised to use it in systems with a pump (or a group of pumps) that serves all the units. The control logic manages the switch-on and switch-off of the pump(s) on the basis of the operating conditions of the generation system.

### Sequential modularity

Made possible with the use of accessories **TCP** (mandatory accessory), **IC-2P**, **VMF-485LINK** and **VMF-E6**.

This type of modularity allows the HMG and HMG\_P units to be added to the control system of the whole hydraulic/aerualic system, so DHW can also be managed.

Unit switch-on and switch-off is managed in a sequential manner, according to a selected control logic (free regulation, regulation by load or regulation by temperature difference).

For more information about VMF system, refer to the dedicated documentation.

Up to 4 modules for HMG also of different capacity, and 3 modules for HMG\_P modules of equal capacity, can be linked together with this operating mode.

Management is optimised for systems where each unit HMG commands its own pump.

## Main components

### HMG

- Flow switch.
- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Compressor twin rotary inverter.
- Special coil with fin golden coating.
- High-efficiency shell & tube heat exchanger (system side) for excellent reliability and a long lifespan.
- Electronic expansion valve.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

### HMG\_P

- DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
- Compressor twin rotary inverter.
- Special coil with fin golden coating.
- High-efficiency plate heat exchanger (system side) for excellent reliability and a long lifespan.
- Electronic expansion valve.
- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

### Main hydraulic components HMG\_P

- Flow switch.
- Inverter pump.
- Expansion tank.
- Drain valve.
- Safety valve.
- Water filter supplied (mandatory installation).

## Regulation

Adjustment via **touch-screen control panel (TCP accessory compulsory)**:

- **Only for HMG**: management of (up to) two pumps (not supplied) that can work alternately, boosting the reliability of the system,
- management of (up to) two auxiliary electric resistors (not supplied),
- **Quiet** function for reduced noise operation,
- climatic regulation function,
- unit anti-freeze protection at low temperatures,
- weekly programming in time periods,
- high and low pressure protection,
- smart compressor control, extending the lifespan of the unit and enhancing its reliability,
- alarm history.

## Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## ACCESSORIES

**TCP**: Touch-screen control panel. (Accessory compulsory).

**IC-2P**: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.

**VMF-485LINK**: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

**VMF-E6**: White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aerualic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).

**LOGATW**: Diagnostic tool for air-water heat pumps.

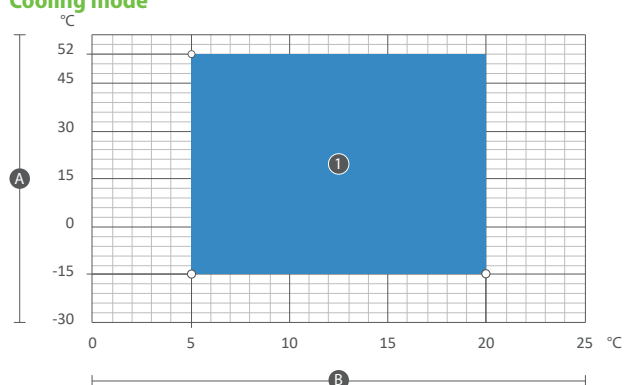
**SGD**: Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

## OPERATING LIMITS

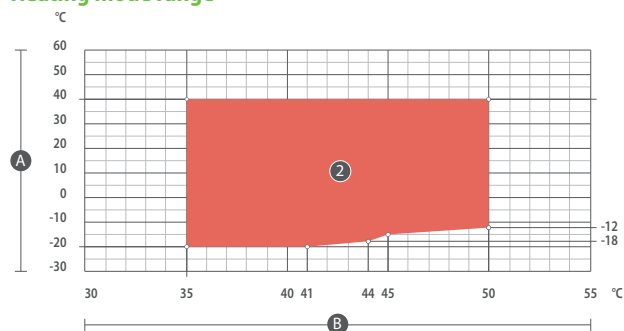
### Cooling mode



#### KEY

- 1 cooling mode
- A outdoor air temperature (°C)
- B water produced temperature (°C)

### Heating mode range



#### KEY

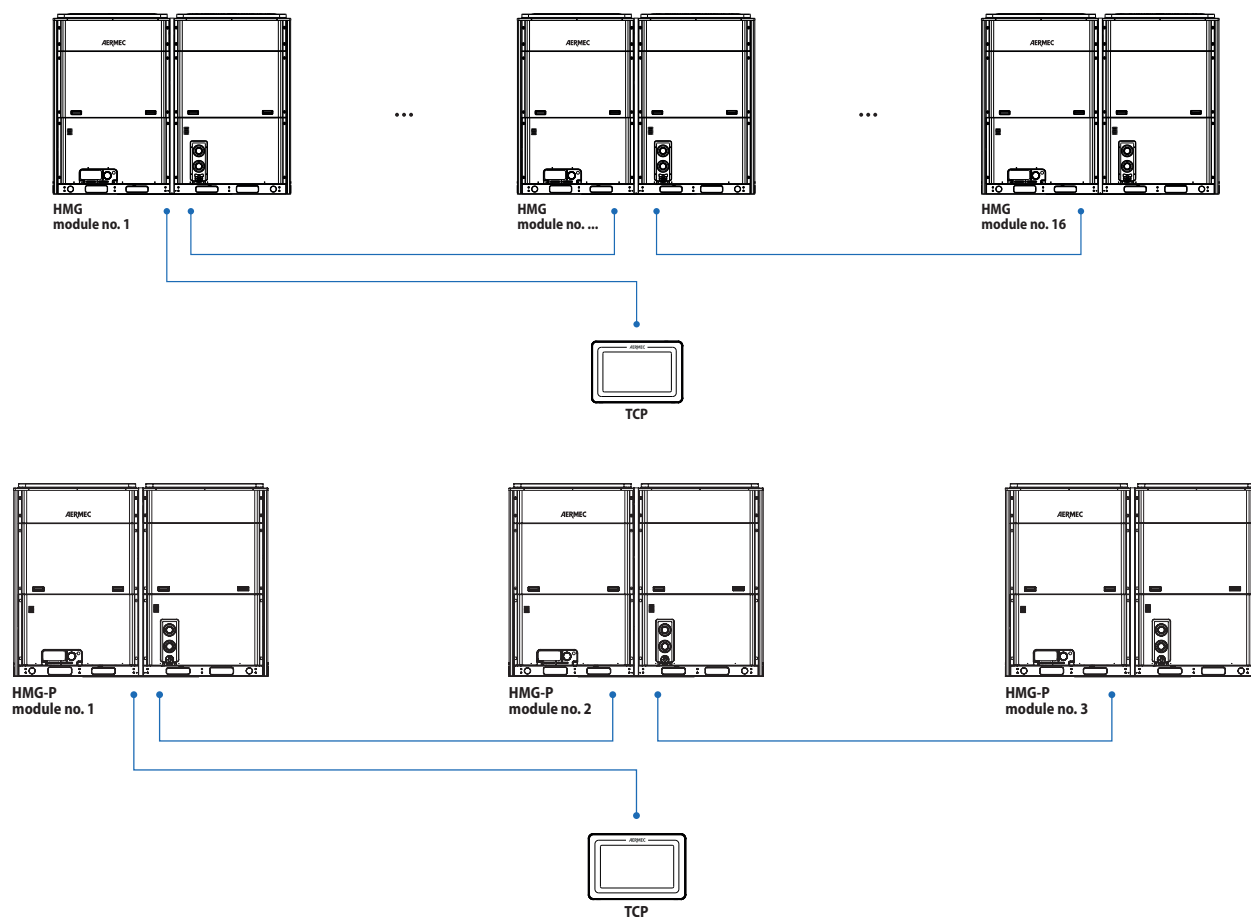
- 2 heating mode
- A outdoor air temperature (°C)
- B water produced temperature (°C)

## MODULARITY

For HMG units it is possible to connect units with different capacity.

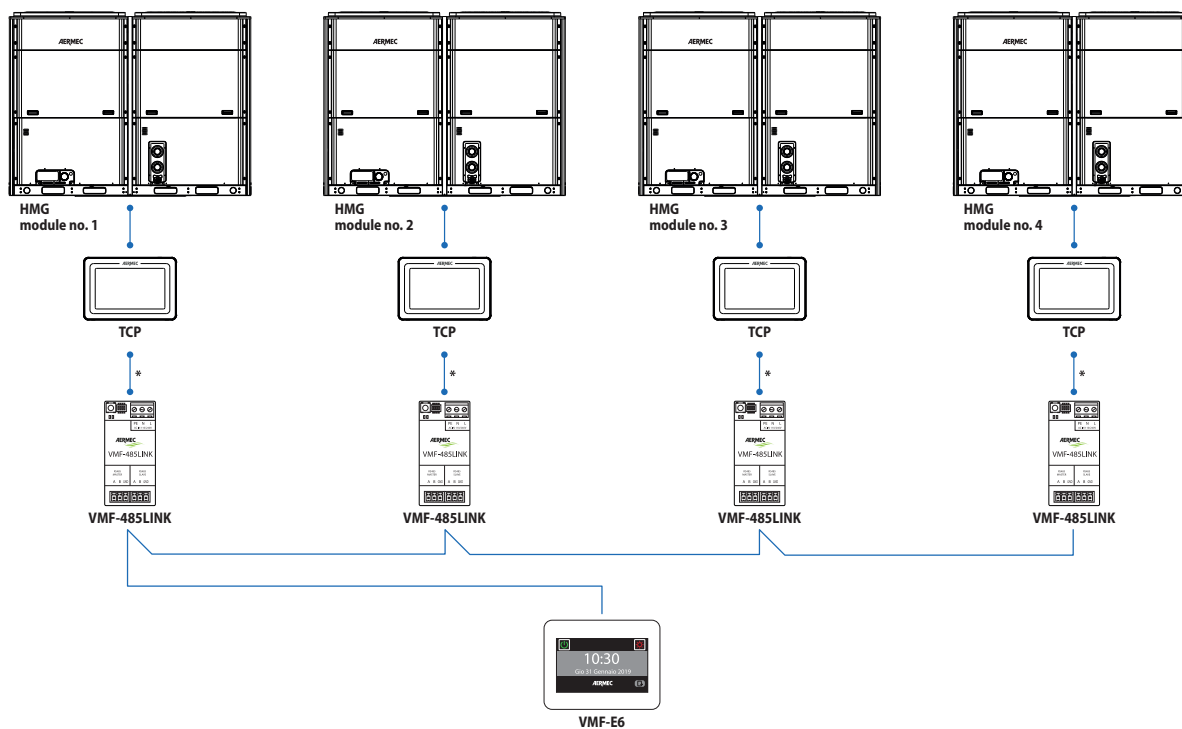
For HMG\_P units, connection is only possible between units of the same capacity.

### Homogeneous modularity - connection diagram

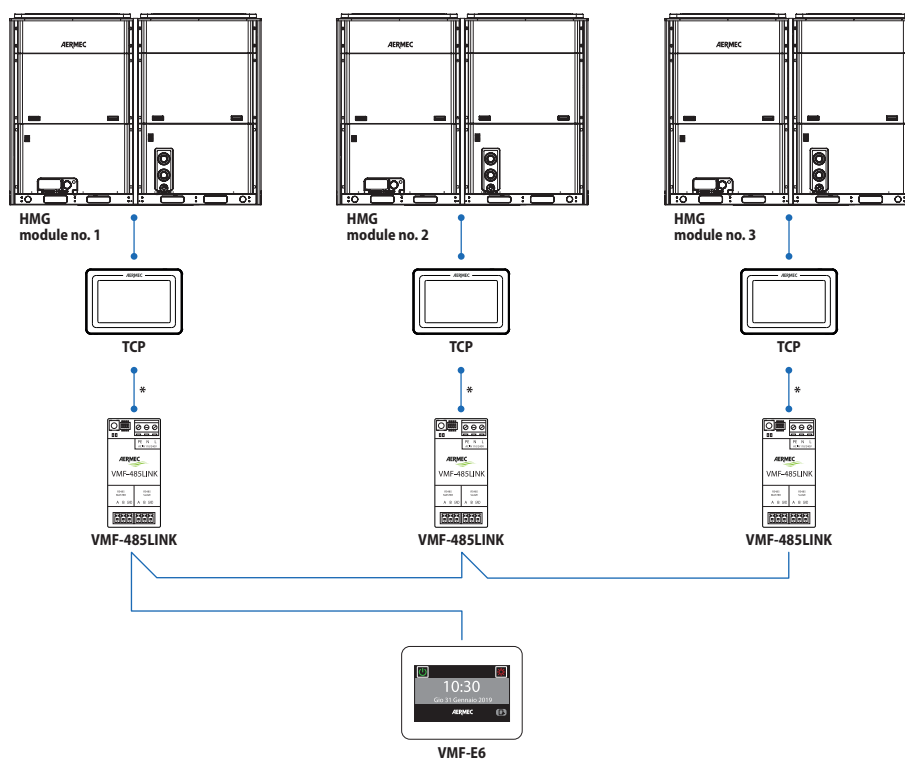




## Sequential modularity - connection diagram



\* Connection to be made with the aid of the accessory IC-2P.



\* Connection to be made with the aid of the accessory IC-2P.

## PERFORMANCE SPECIFICATIONS

|  |     | HMG0350 | HMG0600 |
|--|-----|---------|---------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |         |         |
| Cooling capacity                             | kW  | 32,0    | 60,0    |
| Input power                                  | kW  | 11,7    | 20,8    |
| Water flow rate system side                  | l/h | 5528    | 10346   |
| Pressure drop system side                    | kPa | 80      | 55      |
| Cooling total input current                  | A   | 19,2    | 32,9    |
| EER  | W/W | 2,74    | 2,88    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |         |         |
| Heating capacity                             | kW  | 35,0    | 65,0    |
| Input power                                  | kW  | 10,6    | 19,9    |
| Water flow rate system side                  | l/h | 6039    | 11249   |
| Heating total input current                  | A   | 17,5    | 30,7    |
| COP  | W/W | 3,30    | 3,27    |
| <b>Cooling performance 23 °C / 18 °C (3)</b> |     |         |         |
| Cooling capacity                             | kW  | 41,4    | 72,5    |
| Input power                                  | kW  | 10,5    | 19,1    |
| Water flow rate system side                  | l/h | 7198    | 12574   |
| Cooling total input current                  | A   | 16,2    | 31,0    |
| EER  | W/W | 3,94    | 3,80    |
| <b>Heating performance 30 °C / 35 °C (4)</b> |     |         |         |
| Heating capacity                             | kW  | 36,0    | 62,6    |
| Input power                                  | kW  | 8,8     | 15,1    |
| Water flow rate system side                  | l/h | 6191    | 10798   |
| Heating total input current                  | A   | 12,4    | 24,2    |
| COP  | W/W | 4,09    | 4,15    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

|  |     | HMG0350P | HMG0600P |
|--|-----|----------|----------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |          |          |
| Cooling capacity                             | kW  | 33,0     | 60,0     |
| Input power                                  | kW  | 11,4     | 21,1     |
| Water flow rate system side                  | l/h | 5680     | 10320    |
| Useful head                                  | kPa | 203,0    | 210,0    |
| Cooling total input current                  | A   | 18,7     | 33,2     |
| EER  | W/W | 2,89     | 2,84     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |          |          |
| Heating capacity                             | kW  | 36,0     | 65,0     |
| Input power                                  | kW  | 10,9     | 19,7     |
| Water flow rate system side                  | l/h | 6190     | 11180    |
| Useful head                                  | kPa | 180,0    | 200,0    |
| Heating total input current                  | A   | 18,1     | 32,3     |
| COP  | W/W | 3,30     | 3,30     |
| <b>Cooling performance 23 °C / 18 °C (3)</b> |     |          |          |
| Cooling capacity                             | kW  | 32,8     | 64,0     |
| Input power                                  | kW  | 8,0      | 18,0     |
| Water flow rate system side                  | l/h | 5648     | 11015    |
| Cooling total input current                  | A   | 13,3     | 28,4     |
| EER  | W/W | 4,10     | 3,57     |
| <b>Heating performance 30 °C / 35 °C (4)</b> |     |          |          |
| Heating capacity                             | kW  | 33,4     | 61,6     |
| Input power                                  | kW  | 8,4      | 16,0     |
| Water flow rate system side                  | l/h | 5729     | 10650    |
| Heating total input current                  | A   | 13,8     | 25,4     |
| COP  | W/W | 4,00     | 3,86     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(4) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

|   |     | HMG0350 | HMG0600 |
|---|-----|---------|---------|
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |         |         |
| Pdesignh  | kW  | 24      | 51      |
| SCOP  | W/W | 3,90    | 3,90    |
| ηsh   | %   | 153,00  | 153,00  |
| Efficiency energy class   |     | A++     | A++     |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                 |     |         |         |
| ηsc   | %   | 173,00  | 181,00  |
| SEER  | W/W | 4,40    | 4,60    |

(1) Efficiencies for low temperature applications (35 °C)

|   |     | HMG0350P | HMG0600P |
|---|-----|----------|----------|
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |          |          |
| Pdesignh  | kW  | 24       | 52       |
| SCOP  | W/W | 4,00     | 4,01     |
| ηsh   | %   | 157,00   | 157,50   |
| Efficiency energy class   |     | A++      | A++      |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                 |     |          |          |
| ηsc   | %   | 183,00   | 186,60   |
| SEER  | W/W | 4,65     | 4,74     |

(1) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

|                         |   | HMG0350            | HMG0600            |
|-------------------------|---|--------------------|--------------------|
| <b>Electric data</b>    |   |                    |                    |
| Rated current input (1) | A | 22,0               | 52,0               |
| <b>Power supply</b>     |   |                    |                    |
| Power supply            |   | 380-415V 3N ~ 50Hz | 380-415V 3N ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|                       |    | HMG0350P           | HMG0600P           |
|-----------------------|----|--------------------|--------------------|
| <b>Electric data</b>  |    |                    |                    |
| Rated power input (1) | kW | 13,40              | 25,60              |
| <b>Power supply</b>   |    |                    |                    |
| Power supply          |    | 380-415V 3N ~ 50Hz | 380-415V 3N ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## GENERAL TECHNICAL DATA

|  |       | HMG0350         | HMG0600    |
|--|-------|-----------------|------------|
| <b>Compressor</b>                                |       |                 |            |
| Type   | type  | Inverter rotary |            |
| Number   | no.   | 1               | 2          |
| Circuits   | no.   | 1               | 2          |
| Refrigerant                                      | type  | R32             |            |
| Refrigerant load circuit 1 (1)                   | kg    | 5,5             | 5,5        |
| Refrigerant load circuit 2 (1)                   | kg    | -               | 5,5        |
| <b>System side heat exchanger</b>                |       |                 |            |
| Type   | type  | Shell and tube  |            |
| Number   | no.   | 1               | 1          |
| Connections (in/out)                             | Type  | G1" 1/2 (male)  | G2" (male) |
| <b>Fan</b>                                       |       |                 |            |
| Type   | type  | Axial           |            |
| Fan motor  | type  | Inverter        |            |
| Number   | no.   | 2               | 2          |
| Air flow rate                                    | m³/h  | 12600           | 24000      |
| <b>Sound data calculated in cooling mode (2)</b> |       |                 |            |
| Sound power level                                | dB(A) | 81,0            | 86,0       |
| Sound pressure level (10 m)                      | dB(A) | 49,5            | 54,3       |
| Sound pressure level (1 m)                       | dB(A) | 65,0            | 69,0       |

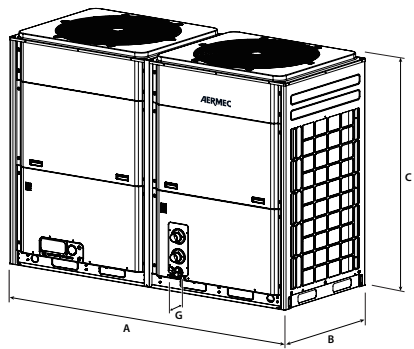
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

|  |       | HMG0350P        | HMG0600P |
|--|-------|-----------------|----------|
| <b>Compressor</b>                                |       |                 |          |
| Type   | type  | Inverter rotary |          |
| Number   | no.   | 1               | 2        |
| Circuits   | no.   | 1               | 2        |
| Refrigerant                                      | type  | R32             |          |
| <b>Compressor</b>                                |       |                 |          |
| Refrigerant load circuit 1                       | kg    | 5,20            | 5,35     |
| Refrigerant load circuit 2                       | kg    | -               | 5,35     |
| <b>System side heat exchanger</b>                |       |                 |          |
| Type   | type  | Braze plate     |          |
| Number   | no.   | 1               | 1        |
| Connections (in/out)                             | Type  | Gas maschio     |          |
| <b>Fan</b>                                       |       |                 |          |
| Type   | type  | Axial           |          |
| Fan motor  | type  | Inverter        |          |
| Number   | no.   | 2               | 2        |
| Air flow rate                                    | m³/h  | 12600           | 24000    |
| <b>Sound data calculated in cooling mode (1)</b> |       |                 |          |
| Sound power level                                | dB(A) | 81,0            | 86,0     |
| Sound pressure level (10 m)                      | dB(A) | -               | -        |
| Sound pressure level (1 m)                       | dB(A) | -               | -        |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

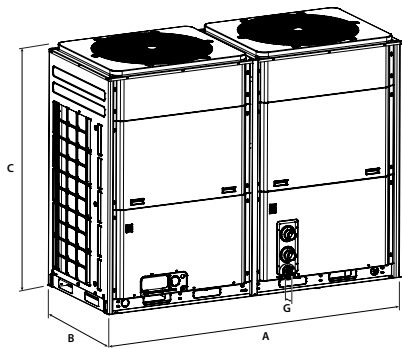
**DIMENSIONS**  
**HMG**



|                               |    | HMG0350 | HMG0600 |
|-------------------------------|----|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |
| A                             | mm | 1340    | 2200    |
| B                             | mm | 765     | 880     |
| C                             | mm | 1605    | 1675    |
| G                             | mm | 80      | 85      |
| D                             | mm | 1420    | 2267    |
| E                             | mm | 920     | 1030    |
| F                             | mm | 1775    | 1867    |
| Net weight                    | kg | 405,0   | 686,0   |
| Weight for transport          | kg | 422,0   | 722,0   |

**G: tap protrusion**

**HMG\_P**



|                               |    | HMG0350P | HMG0600P |
|-------------------------------|----|----------|----------|
| <b>Dimensions and weights</b> |    |          |          |
| A                             | mm | 1340     | 2200     |
| B                             | mm | 765      | 880      |
| C                             | mm | 1605     | 1675     |
| G                             | mm | 37       | 57       |
| D                             | mm | 1775     | 1867     |
| E                             | mm | 1420     | 2267     |
| F                             | mm | 905      | 1030     |
| Net weight                    | kg | 323,0    | 609,0    |
| Weight for transport          | kg | 340,0    | 645,0    |

**G: tap protrusion**

Aermec reserves the right to make any modifications deemed necessary.  
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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## ANLI

## Reversible air/water heat pump

Cooling capacity 29,0 ÷ 42,3 kW – Heating capacity 31,4 ÷ 33,3 kW

- Version with built-in hydronic kit inverter
- High efficiency also at partial loads
- Production of hot domestic water (d.H.W.)



### DESCRIPTION

Reversible inverter heat pump for outdoor use suitable for responding to heating / cooling requests and the production of domestic hot water. Equipped with inverter compressor, axial fans, external copper coils with aluminum fins, plate heat exchanger on the system side.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

It can be combined in systems with hydronic terminals or even with traditional radiators and perfectly meets the needs of the residential market: low noise, easy installation.

### VERSIONS

° Standard

P With on/off pump

X With inverter pump

### FEATURES

#### Operating field

Work at full load up to 42 °C outside air temperature in the summer season with the possibility of producing hot water up to 60 °C (for more details refer to the technical documentation).

#### Components

- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation
- Differential pressure switch / flow switch as standard
- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Fitted with EMC filters

#### Integrated hydronic kit

The built-in hydraulic kit includes:

- Expansion vessel
- Safety valve water side
- Air vent valve

Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:

- ΔP constant: the differential pressure between pump inlet and outlet is kept constant, the number of revolutions is reduced with the progressive closing of the terminals;
- ΔP variable: the differential pressure is reduced as the flow rate decreases, to take into account the lower pressure drops along the supply pipes to the terminals (recommended if the development of these pipes is high).

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

- Capable of variable water flow rates on primary circuit (terminals with 2-way valves);
- Perfect water temperature control even in systems with low water content;
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided).

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SAF:** Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**VT:** Anti-vibration supports.

**BSKW:** Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

■ *NB: if the SAF thermo-accumulator is used, the MOD485-BL accessory is not required.*

## FACTORY FITTED ACCESSORIES

**KR:** Anti-freeze electric heater for the plate heat exchanger.

**KRB:** Electric anti-freeze resistance kit for base.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

| Model        | Ver    | 101 |
|--------------|--------|-----|
| AERBAC-MODU  | ° P, X | •   |
| AERLINK      | ° P, X | •   |
| AERSET       | ° P, X | •   |
| MODU-485BL   | ° P, X | •   |
| MULTICONTROL | ° P, X | •   |
| PR3          | ° P, X | •   |
| SAF (1)      | ° P, X | •   |
| SDHW (2)     | ° P, X | •   |
| SGD          | ° P, X | •   |
| SPLW (3)     | ° P, X | •   |
| VMF-CRP      | ° P, X | •   |

(1) For more information about SAF refer to the dedicated documentation.

(2) Probe required for MULTICONTROL for managing the domestic hot water system.

(3) Probe required for MULTICONTROL to manage the secondary circuit system.

### Remote panel

| Model | Ver    | 101 |
|-------|--------|-----|
| PR4   | ° P, X | •   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### BSKW: Electric heater kit

| Model     | Ver    | 101 |
|-----------|--------|-----|
| BS6KW400T | ° P, X | •   |
| BS9KW400T | ° P, X | •   |

### DCPX: Condensation control temperature

| Ver    | 101    |
|--------|--------|
| ° P, X | DCPX53 |

### VT: Antivibration

| Ver    | 101  |
|--------|------|
| ° P, X | VT15 |

### KR: electric heater for the heat exchanger

| Ver    | 101   |
|--------|-------|
| ° P, X | KR100 |

A grey background indicates the accessory must be assembled in the factory

### KRB: Electric heater for the base

| Ver    | 101      |
|--------|----------|
| ° P, X | KRB3 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                             |
|---------|---|
| 1,2,3,4 | ANLI                                    |
| 5,6,7   | Size<br>101                             |
| 8       | Model                                   |
| H       | Heat pump                               |
| 9       | Version                                 |
| °       | Standard                                |
| P       | With on/off pump                        |
| X       | With inverter pump                      |
| 10      | Heat recovery                           |
| °       | Without heat recovery                   |
| 11      | Coils                                   |
| R       | Copper pipes-copper fins                |
| S       | Tinned copper                           |
| V       | Copper pipes-Coated aluminium fins      |
| °       | Aluminium                               |
| 12      | Operating field (1)                     |
| °       | Electronic thermostatic expansion valve |
| 13      | Evaporator                              |
| °       | Standard                                |
| 14      | Power supply                            |
| T       | 400V 3N ~ 50Hz                          |

(1) Water produced up to +4 °C. For different temperature please contact the factory.

## PERFORMANCE SPECIFICATIONS 12 °C / 7 °C - 40 °C / 45 °C

## ANLI - (H°)

| Size   | 101 |      |
|--|-----|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |
| Cooling capacity                             | kW  | 28,9 |
| Input power                                  | kW  | 11,7 |
| Cooling total input current                  | A   | 16,0 |
| EER  | W/W | 2,48 |
| Water flow rate system side                  | l/h | 4986 |
| Pressure drop system side                    | kPa | 50   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |
| Heating capacity                             | kW  | 31,5 |
| Input power                                  | kW  | 11,3 |
| Heating total input current                  | A   | 16,0 |
| COP  | W/W | 2,78 |
| Water flow rate system side                  | l/h | 5458 |
| Pressure drop system side                    | kPa | 59   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ANLI - (HX)

| Size                                  |     | 101  |
|---------------------------------------|-----|------|
| Cooling performance 12 °C / 7 °C (1)  |     |      |
| Cooling capacity                      | kW  | 29,3 |
| Input power                           | kW  | 11,9 |
| Cooling total input current           | A   | 18,0 |
| EER                                   | W/W | 2,47 |
| Water flow rate system side           | l/h | 4986 |
| Useful head system side               | kPa | 175  |
| Heating performance 40 °C / 45 °C (2) |     |      |
| Heating capacity                      | kW  | 31,2 |
| Input power                           | kW  | 11,5 |
| Heating total input current           | A   | 17,0 |
| COP                                   | W/W | 2,70 |
| Water flow rate system side           | l/h | 5458 |
| Useful head system side               | kPa | 158  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.



**ANLI - (HP)**

| Size   |     | 101  |
|--|-----|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |
| Cooling capacity                             | kW  | 29,2 |
| Input power                                  | kW  | 11,7 |
| Cooling total input current                  | A   | 17,0 |
| EER  | W/W | 2,49 |
| Water flow rate system side                  | l/h | 4986 |
| Useful head system side                      | kPa | 92   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |
| Heating capacity                             | kW  | 31,2 |
| Input power                                  | kW  | 11,4 |
| Heating total input current                  | A   | 17,0 |
| COP  | W/W | 2,74 |
| Water flow rate system side                  | l/h | 5458 |
| Useful head system side                      | kPa | 76   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C****ANLI - (H°)**

| Size   |     | 101  |
|--|-----|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |
| Cooling capacity                             | kW  | 42,3 |
| Input power                                  | kW  | 13,1 |
| Cooling total input current                  | A   | 19,0 |
| EER  | W/W | 3,22 |
| Water flow rate system side                  | l/h | 7301 |
| Pressure drop system side                    | kPa | 107  |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |
| Heating capacity                             | kW  | 33,3 |
| Input power                                  | kW  | 9,5  |
| Heating total input current                  | A   | 13,0 |
| COP  | W/W | 3,51 |
| Water flow rate system side                  | l/h | 5763 |
| Pressure drop system side                    | kPa | 66   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANLI - (HX)**

| Size   |     | 101  |
|--|-----|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |
| Cooling capacity                             | kW  | 42,3 |
| Input power                                  | kW  | 14,3 |
| Cooling total input current                  | A   | 21,0 |
| EER  | W/W | 2,96 |
| Water flow rate system side                  | l/h | 7301 |
| Useful head system side                      | kPa | 81   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |
| Heating capacity                             | kW  | 33,3 |
| Input power                                  | kW  | 10,5 |
| Heating total input current                  | A   | 15,0 |
| COP  | W/W | 3,17 |
| Water flow rate system side                  | l/h | 5763 |
| Useful head system side                      | kPa | 147  |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANLI - (HP)**

| Size   |     | 101  |
|--|-----|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |
| Cooling capacity                             | kW  | 42,3 |
| Input power                                  | kW  | 14,3 |
| Cooling total input current                  | A   | 21,0 |
| EER  | W/W | 2,96 |
| Water flow rate system side                  | l/h | 7301 |
| Useful head system side                      | kPa | 81   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |
| Heating capacity                             | kW  | 33,3 |
| Input power                                  | kW  | 10,5 |
| Heating total input current                  | A   | 15,0 |
| COP  | W/W | 3,17 |
| Water flow rate system side                  | l/h | 5763 |
| Useful head system side                      | kPa | 147  |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ENERGY DATA**

| Size  |           | 101    |
|---|-----------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                 |           |        |
| SEER  | ° P,X W/W | 3,81   |
|   | ° P,X W/W | 3,57   |
| η <sub>sc</sub>   | ° %       | 149,20 |
|   | ° P,X %   | 139,80 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |           |        |
| Pdesignh  | ° P,X kW  | -      |
| SCOP  | ° X W/W   | 3,23   |
|   | P W/W     | 3,25   |
| η <sub>sh</sub>   | ° X %     | 126,00 |
|   | P %       | 127,00 |
| Efficiency energy class   | ° P,X     | A+     |

(1) Efficiencies for low temperature applications (35 °C)

**ELECTRIC DATA**

| Size                  |         | 101  |
|-----------------------|---------|------|
| <b>Electric data</b>  |         |      |
|                       | ° A     | 21,0 |
| Maximum current (FLA) | P A     | 24,4 |
|                       | X A     | 25,5 |
| Peak current (LRA)    | ° P,X A | -    |

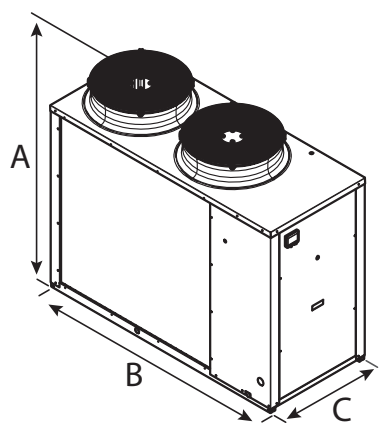
**GENERAL TECHNICAL DATA**

| Size   |             | 101          |
|--|-------------|--------------|
| <b>Compressor</b>                                |             |              |
| Type   | ° P,X type  | Scroll       |
| Number   | ° P,X no.   | 1            |
| Compressor regulation                            | ° P,X Type  | Inverter     |
| Circuits   | ° P,X no.   | 1            |
| Refrigerant                                      | ° P,X type  | R410A        |
| Refrigerant charge (1)                           | ° P,X kg    | 4,5          |
| <b>System side heat exchanger</b>                |             |              |
| Type   | ° P,X type  | Brazed plate |
| Number   | ° P,X no.   | 1            |
| <b>Hydraulic connections</b>                     |             |              |
| Connections (in/out)                             | ° P,X Type  | Gas - F      |
| Sizes (in/out)                                   | ° P,X Ø     | 1"1/4        |
| <b>Fan</b>                                       |             |              |
| Type   | ° P,X type  | Axial        |
| Fan motor  | ° P,X type  | On/Off       |
| Number   | ° P,X no.   | 2            |
| Air flow rate                                    | ° P,X m³/h  | 13200        |
| <b>Sound data calculated in cooling mode (2)</b> |             |              |
| Sound power level                                | ° P,X dB(A) | 76,0         |
| Sound pressure level (10 m)                      | ° P,X dB(A) | 44,5         |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



| Size                   |              |    | 101  |
|------------------------|--------------|----|------|
| Dimensions and weights |              |    |      |
| A                      | ° P,X<br>P,X | mm | 1450 |
| B                      | ° P,X<br>P,X | mm | 1750 |
| C                      | ° P,X<br>P,X | mm | 750  |
| Empty weight           | °            | kg | 293  |
|                        | P,X          | kg | 308  |

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Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Tel. 0442633111 - Telefax 044293577  
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# ANK 020-150

## Reversible air/water heat pump

Cooling capacity 6,8 ÷ 39,8 kW – Heating capacity 8,0 ÷ 35,3 kW

- Production of hot water up to 60 °C
- Production of hot domestic water with external temperatures from -20 °C up to 42 °C
- Compact dimensions
- Quick & easy installation



### DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users. It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** With storage tank and pump

**P** With pump

### FEATURES

#### Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

#### Soft-start

#### Version with Integrated hydronic kit

To have a Plug & Play solution is also available the version with the integrated Hydronic group that contains the main hydraulic components including the water filter.

#### Inverter fan

Inverter fans as standard in size up 020 to 085 in all versions.

■ *The DCPX accessory is not required for these sizes.*

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the

visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the

VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**VT:** Anti-vibration supports.

## ACCESSORIES COMPATIBILITY

| Model        | Ver     | 020 | 030 | 040 | 045 | 050 | 085 | 100 | 150 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU  | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| AERLINK      | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| AERSET       | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL   | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| PR3          | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| SDHW (1)     | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD          | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| SPLW (2)     | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-CRP      | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

### Remote panel

| Model | Ver     | 020 | 030 | 040 | 045 | 050 | 085 | 100 | 150 |
|-------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °, A, P | *   | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### Condensation control temperature

| Ver     | 020 | 030 | 040 | 045 | 050 | 085 | 100    | 150    |
|---------|-----|-----|-----|-----|-----|-----|--------|--------|
| °, A, P | -   | -   | -   | -   | -   | -   | DCPX53 | DCPX53 |

The accessory cannot be fitted on the configurations indicated with -

### Electric heater kit with case IP44

| Ver                    | 020                     | 030                     | 040                     | 045                     | 050                     | 085                     | 100                     | 150                     |
|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Power supply: M</b> |                         |                         |                         |                         |                         |                         |                         |                         |
| °, A, P                | BS4KW230M,<br>BS6KW230M | BS4KW230M,<br>BS6KW230M | BS4KW230M,<br>BS6KW230M | -                       | -                       | -                       | -                       | -                       |
| <b>Power supply: °</b> |                         |                         |                         |                         |                         |                         |                         |                         |
| °, A, P                | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T | BS6KW400T,<br>BS9KW400T |

### Antivibration

| Ver  | 020   | 030   | 040   | 045   | 050   | 085   | 100  | 150  |
|------|-------|-------|-------|-------|-------|-------|------|------|
| °, P | VT9   | VT9   | VT9   | VT9   | VT9   | VT9   | VT15 | VT15 |
| A    | VT15A | VT15A | VT15A | VT15A | VT15A | VT15A | VT15 | VT15 |

### Device for peak current reduction.

| Ver     | 020      | 030      | 040      | 045      | 050      | 085      | 100          | 150          |
|---------|----------|----------|----------|----------|----------|----------|--------------|--------------|
| °, A, P | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES x 2 (1) | DRES x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Electric heater for the base.

| Ver     | 020      | 030      | 040      | 045      | 050      | 085      | 100      | 150      |
|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| °, A, P | KRB1 (1) | KRB2 (1) | KRB2 (1) | KRB2 (1) | KRB2 (1) | KRB2 (1) | KRB3 (1) | KRB3 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

### Condensate drip

| Ver     | 020  | 030  | 040  | 045  | 050  | 085  | 100 | 150 |
|---------|------|------|------|------|------|------|-----|-----|
| °, A, P | BDX8 | BDX9 | BDX9 | BDX9 | BDX9 | BDX9 | -   | -   |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

**BSKW:** Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**KRB:** Electric anti-freeze resistance kit for base.

**BDX:** Condensate drip with resistance

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

## CONFIGURATOR

| Field | Description                                       |
|-------|---|
| 1,2,3 | ANK   |
| 4,5,6 | Size<br>020, 030, 040, 045, 050, 085, 100, 150    |
| 7     | Model   |
| H     | Heat pump   |
| 8     | Version   |
| °     | Standard  |
| A     | With storage tank and pump                        |
| P     | With pump   |
| 9     | Execution   |
| °     | Standard  |
| 10    | Coils   |
| R     | Copper pipes-copper fins                          |
| S     | Copper pipes-Tinned copper fins                   |
| V     | Copper pipes-Coated aluminium fins                |
| °     | Copper-aluminium                                  |
| 11    | Operating field                                   |
| Y     | Low temperature mechanic thermostatic valve (1)   |
| Z     | Low temperature electronic thermostatic valve (2) |
| °     | Standard mechanic thermostatic valve (3)          |
| 12    | Evaporator  |
| °     | Standard  |
| 13    | Power supply                                      |
| M     | 230V ~ 50Hz (4)                                   |
| °     | 400V 3N ~ 50Hz (5)                                |

(1) Water produced from 0 °C ÷ -8 °C

(2) Water produced from +4 °C up to +0 °C

(3) Water produced up to +4 °C

(4) Only for ANK 020 ÷ 045 sizes

(5) For ANK 020 ÷ 045 sizes

## PERFORMANCE SPECIFICATIONS 12 °C / 7 °C - 40 °C / 45 °C

## ANK - (°) / 12/7 °C - 40/45 °C

| Size   |     | 020  | 030  | 040  | 045  | 050 | 085 | 100 | 150 |
|--|-----|------|------|------|------|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |      |     |     |     |     |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |     |     |     |     |
| Cooling capacity                             | kW  | 6,8  | 8,2  | 9,6  | 11,7 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,3  | 2,8  | 3,2  | 3,7  | -   | -   | -   | -   |
| Cooling total input current                  | A   | 11,0 | 13,0 | 16,0 | 19,0 | -   | -   | -   | -   |
| EER  | W/W | 2,92 | 2,91 | 2,97 | 3,16 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1179 | 1406 | 1649 | 2018 | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 16   | 9    | 14   | 14   | -   | -   | -   | -   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |     |     |     |     |
| Heating capacity                             | kW  | 8,0  | 10,0 | 10,9 | 13,5 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,5  | 3,1  | 3,4  | 3,8  | -   | -   | -   | -   |
| Heating total input current                  | A   | 12,0 | 15,0 | 17,0 | 19,0 | -   | -   | -   | -   |
| COP  | W/W | 3,16 | 3,24 | 3,15 | 3,50 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1376 | 1738 | 1881 | 2332 | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 22   | 14   | 18   | 19   | -   | -   | -   | -   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

| Size   |     | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150  |
|--|-----|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,8  | 8,2  | 10,5 | 11,6 | 13,1 | 15,5 | 25,3 | 29,3 |
| Input power                                  | kW  | 2,3  | 2,8  | 3,5  | 4,0  | 4,3  | 5,2  | 8,1  | 10,0 |
| Cooling total input current                  | A   | 4,3  | 5,6  | 7,1  | 7,7  | 8,7  | 11,0 | 17,0 | 20,0 |
| EER  | W/W | 2,93 | 2,91 | 2,98 | 2,93 | 3,03 | 3,00 | 3,12 | 2,92 |
| Water flow rate system side                  | l/h | 1169 | 1406 | 1811 | 1997 | 2253 | 2677 | 4362 | 5056 |
| Pressure drop system side                    | kPa | 16   | 9    | 16   | 14   | 18   | 24   | 32   | 36   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 8,0  | 10,0 | 12,2 | 14,0 | 15,3 | 17,4 | 27,1 | 33,3 |
| Input power                                  | kW  | 2,5  | 3,1  | 3,8  | 4,2  | 4,4  | 5,0  | 8,3  | 10,5 |
| Heating total input current                  | A   | 4,7  | 6,2  | 7,6  | 8,0  | 9,0  | 10,0 | 18,0 | 21,0 |
| COP  | W/W | 3,21 | 3,24 | 3,25 | 3,38 | 3,48 | 3,46 | 3,24 | 3,19 |
| Water flow rate system side                  | l/h | 1376 | 1738 | 2117 | 2430 | 2656 | 3021 | 4689 | 5774 |
| Pressure drop system side                    | kPa | 22   | 14   | 22   | 21   | 25   | 31   | 37   | 47   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**ANK - (A/P) / 12/7 °C - 40/45 °C**

| Size   |     | 020  | 030  | 040  | 045  | 050 | 085 | 100 | 150 |
|--|-----|------|------|------|------|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |      |     |     |     |     |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |     |     |     |     |
| Cooling capacity                             | kW  | 6,9  | 8,2  | 9,7  | 11,8 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,3  | 2,8  | 3,2  | 3,7  | -   | -   | -   | -   |
| Cooling total input current                  | A   | 12,0 | 14,0 | 16,0 | 20,0 | -   | -   | -   | -   |
| EER  | W/W | 2,99 | 2,96 | 3,02 | 3,17 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1179 | 1406 | 1649 | 2018 | -   | -   | -   | -   |
| Useful head system side                      | kPa | 78   | 71   | 62   | 70   | -   | -   | -   | -   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |     |     |     |     |
| Heating capacity                             | kW  | 7,9  | 9,9  | 10,8 | 13,4 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,5  | 3,1  | 3,4  | 3,9  | -   | -   | -   | -   |
| Heating total input current                  | A   | 13,0 | 15,0 | 18,0 | 20,0 | -   | -   | -   | -   |
| COP  | W/W | 3,17 | 3,25 | 3,16 | 3,45 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1376 | 1738 | 1881 | 2332 | -   | -   | -   | -   |
| Useful head system side                      | kPa | 72   | 58   | 52   | 57   | -   | -   | -   | -   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

| Size   |     | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150  |
|--|-----|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,9  | 8,2  | 10,6 | 11,7 | 13,2 | 15,7 | 25,6 | 29,7 |
| Input power                                  | kW  | 2,3  | 2,8  | 3,5  | 4,0  | 4,3  | 5,2  | 8,2  | 10,4 |
| Cooling total input current                  | A   | 4,6  | 6,0  | 7,5  | 8,3  | 9,3  | 11,0 | 18,0 | 22,0 |
| EER  | W/W | 3,00 | 2,97 | 3,05 | 2,95 | 3,06 | 3,03 | 3,12 | 2,87 |
| Water flow rate system side                  | l/h | 1169 | 1406 | 1811 | 1997 | 2253 | 2677 | 4362 | 5056 |
| Useful head system side                      | kPa | 78   | 82   | 70   | 81   | 74   | 63   | 115  | 144  |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 7,9  | 9,9  | 12,1 | 13,9 | 15,2 | 17,3 | 26,8 | 33,0 |
| Input power                                  | kW  | 2,4  | 3,0  | 3,7  | 4,2  | 4,4  | 5,0  | 8,4  | 10,8 |
| Heating total input current                  | A   | 5,0  | 6,6  | 8,0  | 8,6  | 9,6  | 11,0 | 19,0 | 23,0 |
| COP  | W/W | 3,22 | 3,26 | 3,27 | 3,35 | 3,46 | 3,44 | 3,18 | 3,05 |
| Water flow rate system side                  | l/h | 1376 | 1738 | 2117 | 2430 | 2656 | 3021 | 4689 | 5774 |
| Useful head system side                      | kPa | 72   | 76   | 61   | 68   | 59   | 50   | 105  | 109  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C**
**ANK - (°) / 23/18 °C - 30/35 °C**

| Size   |     | 020  | 030  | 040  | 045  | 050 | 085 | 100 | 150 |
|--|-----|------|------|------|------|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |      |     |     |     |     |
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |     |     |     |     |
| Cooling capacity                             | kW  | 9,5  | 11,4 | 13,3 | 16,3 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,5  | 2,9  | 3,4  | 3,9  | -   | -   | -   | -   |
| Cooling total input current                  | A   | 12,0 | 14,0 | 17,0 | 19,0 | -   | -   | -   | -   |
| EER  | W/W | 3,86 | 3,86 | 3,94 | 4,19 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1652 | 1969 | 2310 | 2826 | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 31   | 18   | 27   | 27   | -   | -   | -   | -   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |     |     |     |     |
| Heating capacity                             | kW  | 8,5  | 10,6 | 11,6 | 14,0 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,2  | 2,6  | 2,8  | 3,3  | -   | -   | -   | -   |
| Heating total input current                  | A   | 10,0 | 12,0 | 14,0 | 16,0 | -   | -   | -   | -   |
| COP  | W/W | 3,96 | 4,04 | 4,08 | 4,30 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1473 | 1830 | 2001 | 2424 | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 25   | 15   | 21   | 20   | -   | -   | -   | -   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

| Size   |     | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150  |
|--|-----|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 9,5  | 11,4 | 14,7 | 16,2 | 18,2 | 21,7 | 34,0 | 39,4 |
| Input power                                  | kW  | 2,4  | 2,9  | 3,7  | 4,2  | 4,5  | 5,5  | 8,8  | 10,9 |
| Cooling total input current                  | A   | 4,5  | 5,8  | 7,4  | 8,0  | 9,1  | 11,0 | 18,0 | 22,0 |
| EER  | W/W | 3,88 | 3,86 | 3,95 | 3,89 | 4,02 | 3,96 | 3,86 | 3,61 |
| Water flow rate system side                  | l/h | 1637 | 1969 | 2536 | 2797 | 3155 | 3749 | 5889 | 6826 |
| Pressure drop system side                    | kPa | 31   | 18   | 31   | 27   | 35   | 47   | 58   | 66   |

**Heating performance 30 °C / 35 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 8,5  | 10,6 | 13,0 | 14,6 | 16,2 | 18,2 | 29,2 | 35,6 |
| Input power                 | kW  | 2,1  | 2,6  | 3,1  | 3,5  | 3,8  | 4,3  | 6,9  | 8,8  |
| Heating total input current | A   | 4,0  | 5,2  | 6,2  | 6,8  | 7,7  | 8,9  | 15,0 | 18,0 |
| COP                         | W/W | 4,03 | 4,04 | 4,20 | 4,15 | 4,31 | 4,18 | 4,21 | 4,07 |
| Water flow rate system side | l/h | 1473 | 1830 | 2253 | 2525 | 2799 | 3137 | 5041 | 6147 |
| Pressure drop system side   | kPa | 25   | 15   | 25   | 22   | 28   | 33   | 43   | 53   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANK - (A/P) / 23/18 °C - 30/35 °C**

| Size   |     | 020  | 030  | 040  | 045  | 050 | 085 | 100 | 150 |
|--|-----|------|------|------|------|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |      |     |     |     |     |
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |     |     |     |     |
| Cooling capacity                             | kW  | 9,6  | 11,5 | 13,4 | 16,4 | -   | -   | -   | -   |
| Input power                                  | kW  | 2,4  | 2,9  | 3,4  | 3,9  | -   | -   | -   | -   |
| Cooling total input current                  | A   | 12,0 | 14,0 | 17,0 | 20,0 | -   | -   | -   | -   |
| EER  | W/W | 3,99 | 3,93 | 4,00 | 4,18 | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1652 | 1969 | 2310 | 2826 | -   | -   | -   | -   |
| Useful head system side                      | kPa | 62   | 47   | 29   | 32   | -   | -   | -   | -   |

**Heating performance 30 °C / 35 °C (2)**

|                             |     |      |      |      |      |   |   |   |   |
|-----------------------------|-----|------|------|------|------|---|---|---|---|
| Heating capacity            | kW  | 8,6  | 10,8 | 11,9 | 13,8 | - | - | - | - |
| Input power                 | kW  | 2,2  | 2,6  | 2,9  | 3,4  | - | - | - | - |
| Heating total input current | A   | 11,0 | 13,0 | 15,0 | 17,0 | - | - | - | - |
| COP                         | W/W | 3,88 | 4,11 | 4,10 | 4,11 | - | - | - | - |
| Water flow rate system side | l/h | 1486 | 1877 | 2061 | 2397 | - | - | - | - |
| Useful head system side     | kPa | 58   | 65   | 58   | 79   | - | - | - | - |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

| Size   |     | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150  |
|--|-----|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 9,5  | 11,5 | 14,8 | 16,3 | 18,4 | 21,8 | 34,3 | 39,8 |
| Input power                                  | kW  | 2,4  | 2,9  | 3,6  | 4,2  | 4,5  | 5,5  | 8,9  | 11,4 |
| Cooling total input current                  | A   | 5,1  | 6,5  | 8,1  | 9,2  | 10,0 | 12,0 | 19,0 | 24,0 |
| EER  | W/W | 4,00 | 3,98 | 4,06 | 3,92 | 4,05 | 3,99 | 3,85 | 3,48 |
| Water flow rate system side                  | l/h | 1637 | 1969 | 2536 | 2797 | 3155 | 3749 | 5889 | 6826 |
| Useful head system side                      | kPa | 62   | 70   | 45   | 55   | 38   | 16   | 66   | 51   |

**Heating performance 30 °C / 35 °C (2)**

|                             |     |      |      |      |      |      |      |      |      |
|-----------------------------|-----|------|------|------|------|------|------|------|------|
| Heating capacity            | kW  | 8,4  | 10,5 | 12,9 | 14,5 | 16,1 | 18,0 | 28,9 | 35,3 |
| Input power                 | kW  | 2,1  | 2,6  | 3,0  | 3,5  | 3,8  | 4,3  | 7,0  | 9,2  |
| Heating total input current | A   | 4,6  | 5,9  | 6,9  | 7,9  | 8,8  | 10,0 | 16,0 | 20,0 |
| COP                         | W/W | 4,07 | 4,08 | 4,26 | 4,12 | 4,28 | 4,16 | 4,11 | 3,85 |
| Water flow rate system side | l/h | 1473 | 1830 | 2253 | 2525 | 2799 | 3137 | 5041 | 6147 |
| Useful head system side     | kPa | 69   | 73   | 56   | 65   | 54   | 45   | 95   | 90   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.



## ENERGY DATA

### Energy index ANK - 400V

| Size  |     |     | 020    | 030    | 040    | 045    | 050    | 085    | 100    | 150    |
|---|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Power supply: °</b>  |     |     |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |     |        |        |        |        |        |        |        |        |
| Seasonal efficiency   | °   | %   | 119,80 | 124,10 | 129,80 | 129,80 | 135,00 | 135,00 | 149,40 | 142,30 |
|   | A,P | %   | 120,70 | 125,00 | 132,50 | 130,10 | 135,40 | 137,10 | 146,60 | 137,00 |
| SEER  | °   | W/W | 3,07   | 3,18   | 3,32   | 3,32   | 3,45   | 3,45   | 3,81   | 3,63   |
|   | A,P | W/W | 3,09   | 3,20   | 3,59   | 3,33   | 3,46   | 3,50   | 3,74   | 3,50   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |     |     |        |        |        |        |        |        |        |        |
| Efficiency energy class   | °   |     | A+     | A+     | A+     | A+     | A+     | A+     | A++    | A++    |
|   | A,P |     | A+     | A+     | A+     | A+     | A+     | A+     | A++    | A+     |
| ηsh   | °   | %   | 132,00 | 133,00 | 137,00 | 136,00 | 141,00 | 133,00 | 153,00 | 153,00 |
|   | A,P | %   | 135,00 | 137,00 | 140,00 | 138,00 | 143,00 | 135,00 | 150,00 | 145,00 |
| SCOP  | °   | W/W | 3,38   | 3,40   | 3,50   | 3,48   | 3,60   | 3,40   | 3,90   | 3,90   |
|   | A,P | W/W | 3,45   | 3,50   | 3,58   | 3,53   | 3,65   | 3,45   | 3,83   | 3,70   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

### Energy index ANK - 230V

| Size  |       |     | 020    | 030    | 040    | 045    |
|---|-------|-----|--------|--------|--------|--------|
| <b>Power supply: M</b>  |       |     |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |       |     |        |        |        |        |
| Seasonal efficiency   | °     | %   | 119,60 | 124,10 | 127,80 | 139,00 |
|   | A,P   | %   | 121,10 | 125,00 | 130,70 | 138,40 |
| SEER  | °     | W/W | 3,07   | 3,18   | 3,27   | 3,55   |
|   | A,P   | W/W | 3,10   | 3,20   | 3,34   | 3,54   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |       |     |        |        |        |        |
| Efficiency energy class   | °,A,P |     | A+     | A+     | A+     | A+     |
| Pdesignh  | °,A,P | kW  | 7      | 9      | 10     | 12     |
| ηsh   | °     | %   | 130,00 | 133,00 | 134,00 | 139,00 |
|   | A,P   | %   | 133,00 | 137,00 | 137,00 | 141,00 |
| SCOP  | °     | W/W | 3,33   | 3,40   | 3,43   | 3,55   |
|   | A,P   | W/W | 3,40   | 3,50   | 3,50   | 3,60   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                         |       |   | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150   |
|------------------------------|-------|---|------|------|------|------|------|------|------|-------|
| <b>Power supply: M</b>       |       |   |      |      |      |      |      |      |      |       |
| <b>Electric data</b>         |       |   |      |      |      |      |      |      |      |       |
| Maximum current (FLA)        | °     | A | 14,0 | 19,0 | 22,0 | 25,0 | -    | -    | -    | -     |
|                              | A     | A | 14,6 | 20,1 | 22,9 | 26,3 | -    | -    | -    | -     |
|                              | P     | A | 14,6 | 20,1 | 22,9 | 26,3 | -    | -    | -    | -     |
| Peak current (LRA)           | °,P   | A | -    | -    | -    | -    | -    | -    | -    | -     |
|                              | A     | A | -    | -    | -    | -    | -    | -    | -    | -     |
| Peak current with Soft-start | °     | A | 45,0 | 45,0 | 45,0 | 45,0 | -    | -    | -    | -     |
|                              | A     | A | 45,7 | 45,7 | 45,7 | 46,3 | -    | -    | -    | -     |
|                              | P     | A | 45,7 | 45,7 | 45,7 | 46,3 | -    | -    | -    | -     |
| Size                         |       |   | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150   |
| <b>Power supply: °</b>       |       |   |      |      |      |      |      |      |      |       |
| <b>Electric data</b>         |       |   |      |      |      |      |      |      |      |       |
| Maximum current (FLA)        | °     | A | 6,0  | 8,0  | 9,0  | 11,0 | 12,0 | 12,0 | 22,0 | 26,0  |
|                              | A,P   | A | 6,8  | 8,4  | 9,8  | 11,9 | 13,1 | 13,6 | 23,6 | 28,9  |
| Peak current (LRA)           | °     | A | 40,0 | 40,0 | 54,0 | 61,0 | 71,0 | 91,0 | 73,0 | 105,0 |
|                              | A,P   | A | 40,4 | 41,0 | 55,0 | 62,6 | 72,6 | 92,6 | 74,6 | 107,8 |
| Peak current with Soft-start | °,A,P | A | -    | -    | -    | -    | -    | -    | -    | -     |

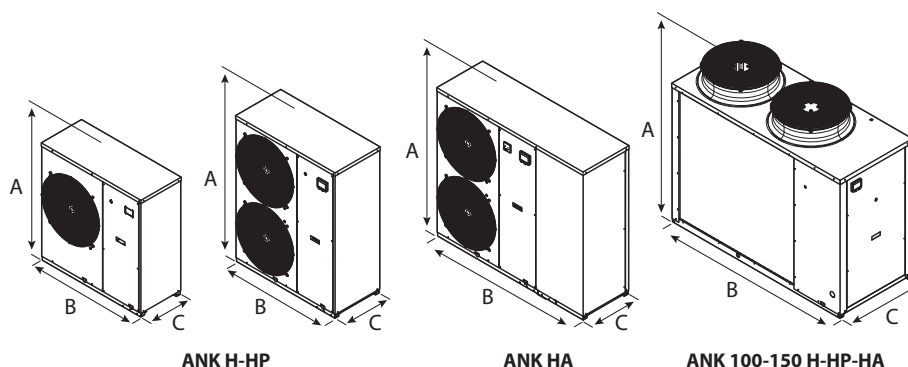
## GENERAL TECHNICAL DATA

| Size                                      |      |       | 020          | 030      | 040      | 045      | 050      | 085      | 100          | 150          |
|---|------|-------|--------------|----------|----------|----------|----------|----------|--------------|--------------|
| Compressor                                |      |       |              |          |          |          |          |          |              |              |
| Type                                      | °A,P | type  | Scroll       |          |          |          |          |          |              |              |
| Compressor regulation                     | °A,P | Type  | On-off       |          |          |          |          |          |              |              |
| Number                                    | °A,P | no.   | 1            | 1        | 1        | 1        | 1        | 1        | 2            | 2            |
| Circuits                                  | °A,P | no.   | 1            | 1        | 1        | 1        | 1        | 1        | 1            | 1            |
| Refrigerant                               | °A,P | type  | R410A        |          |          |          |          |          |              |              |
| Refrigerant charge (1)                    | °A,P | kg    | 2,9          | 4,3      | 4,3      | 5,5      | 6,0      | 6,0      | 12,0         | 12,6         |
| System side heat exchanger                |      |       |              |          |          |          |          |          |              |              |
| Type                                      | °A,P | type  | Brazed plate |          |          |          |          |          |              |              |
| Number                                    | °A,P | no.   | 1            | 1        | 1        | 1        | 1        | 1        | 1            | 1            |
| Hydraulic connections                     |      |       |              |          |          |          |          |          |              |              |
| Connections (in/out)                      | °A,P | Type  | Gas - F      |          |          |          |          |          |              |              |
| Size (in)                                 | °A,P | Ø     | 1"¼          |          |          |          |          |          |              |              |
| Size (out)                                | °A,P | Ø     | 1"¼          |          |          |          |          |          |              |              |
| Fan                                       |      |       |              |          |          |          |          |          |              |              |
| Type                                      | °A,P | type  | Axial        |          |          |          |          |          |              |              |
| Fan motor                                 | °A,P | type  | Inverter     | Inverter | Inverter | Inverter | Inverter | Inverter | Asynchronous | Asynchronous |
| Number                                    | °A,P | no.   | 1            | 1        | 2        | 2        | 2        | 2        | 2            | 2            |
| Air flow rate                             | °A,P | m³/h  | 3500         | 8000     | 8000     | 7500     | 7500     | 7500     | 14500        | 14500        |
| Sound data calculated in cooling mode (2) |      |       |              |          |          |          |          |          |              |              |
| Sound power level                         | °A,P | dB(A) | 68,0         | 70,5     | 70,5     | 70,5     | 70,5     | 70,5     | 77,0         | 78,0         |
| Sound pressure level (10 m)               | °A,P | dB(A) | 36,7         | 39,2     | 39,1     | 39,1     | 39,1     | 39,1     | 72,6         | 73,6         |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                   |      |    | 020  | 030  | 040  | 045  | 050  | 085  | 100  | 150  |
|------------------------|------|----|------|------|------|------|------|------|------|------|
| Dimensions and weights |      |    |      |      |      |      |      |      |      |      |
| A                      | °A,P | mm | 1028 | 1281 | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 |
| B                      | °P   | mm | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1750 | 1750 |
|                        | A    | mm | 1358 | 1450 | 1450 | 1450 | 1450 | 1450 | 1750 | 1750 |
| C                      | °A,P | mm | 400  | 400  | 450  | 450  | 450  | 450  | 750  | 750  |
| Empty weight           | °    | kg | 118  | 149  | 152  | 165  | 172  | 174  | 296  | 341  |
|                        | A    | kg | 160  | 211  | 214  | 232  | 238  | 241  | 364  | 412  |
|                        | P    | kg | 123  | 154  | 157  | 175  | 182  | 184  | 314  | 362  |

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# SHW

## Heat pump water heater



- **New R290 ecological refrigerant gas.**
- **Production of hot water up to 65°C (75°C with the electric heater)**
- **Full inverter system**
- **Enamelled tank**
- **Electronic anode**
- **Micro-channel exchanger**



### DESCRIPTION

The heat pump water heater line Aermec represents a sustainable solution for domestic hot water production, ensuring high energy savings due to their high efficiency.

Unlike conventional water heaters, heat pump water heaters generate hot water by utilising heat in the air, thus reducing electricity costs.

The new air to water heat pump water heaters SHW feature a new natural refrigerant R290, a cutting-edge choice in domestic solutions, to provide hot water in a sustainable, environmentally friendly and comfortable manner. R290 is a natural refrigerant with a global warming potential (GWP) of 3.

The series SHW is an innovation that perfectly combines silent operation and compact design with unrivalled efficiency. Its space-saving design lends itself to any home environment, while its advanced heat pump technology optimises energy saving, ensuring high energy performance.

The units SHW200S and SHW250S are also equipped with an additional coil that enables integration of an auxiliary heat source.

### FEATURES

The heat pump water heater SHW is designed to provide the best possible experience and maximum savings by means of:

- **optimised to reduce noise and energy consumption**
- **coil for integral sources:** (only for models SHW200S and SHW250S)
- **automatic anti-legionella cycle:** to eliminate and prevent potential legionella formation
- **ductable up to 40m:** for models with wall installation and up to 11m for models with floor installation
- **standard electric heater**
- **The units SHW080 - SHW110 - SHW150 are equipped with an electric power supply cable with Schuko plug**

All units in the series SHW are equipped with a micro-channel heat exchanger. This fully covers the tank, significantly increasing the exchange surface area with respect to a classic tank with an internal coil. Furthermore, the heat exchanger is made up of high-quality materials that increase its resistance to high temperatures and corrosion.

### VERSIONS

**Wall-mount installation/ductable unit.**

SHW080 - SHW110 - SHW150

**Floor installation/ductable unit.**

SHW150 - SHW200 - SHW250

**Floor installation/ductable unit with solar coil.**

SHW200S - SHW250S

### special functions

**Eco:** allows the user to set time periods during which priority for DHW production is assigned to the heat pump.

**Boost:** this function enables to heat water faster by using both the heat pump and the electric heater simultaneously.

**Holiday Mode:** this function ensures hot water is available when returning home after a holiday period, preventing the tank from remaining operational during the absence period. Furthermore, the unit activates the anti-legionella cycle to obtain hot, bacteria-free water.

**Quantity display:** the dedicated icon on the display enables to immediately check the amount of water available in the tank

**Photovoltaic Contact:** when this contact is enabled, the unit's set point is increased, enabling electrical heater and compressor simultaneous operation.

**External Contact:** When this contact is enabled, the unit can start according to the set point.

## TECHNICAL DATA

|   |                   | SHW080           | SHW110           | SHW150           | SHW200            | SHW200S           | SHW250            | SHW250S           |
|---|-------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Storage tank (DHW)</b>   |                   |                  |                  |                  |                   |                   |                   |                   |
| Nominal volume of the tank  | L                 | 82               | 102              | 149              | 192               | 185               | 246               | 240               |
| Operating range   | °C                | -7 ~ 45          | -7 ~ 45          | -7 ~ 45          | -7 ~ 45           | -7 ~ 45           | -7 ~ 45           | -7 ~ 45           |
| Power supply  |                   | 220-240V~50Hz    | 220-240V~50Hz    | 220-240V~50Hz    | 220-240V~50Hz     | 220-240V~50Hz     | 220-240V~50Hz     | 220-240V~50Hz     |
| Maximum operating pressure  | Mpa               | 0,8              | 0,8              | 0,8              | 0,7               | 0,7               | 0,7               | 0,7               |
| Solar heat exchanger  |                   | no               | no               | no               | no                | si                | no                | si                |
| Anode type  |                   | Electronic anode | Electronic anode | Electronic anode | Electronic anode  | Electronic anode  | Electronic anode  | Electronic anode  |
| Protection rating   |                   | IPX4             | IPX4             | IPX4             | IPX4              | IPX4              | IPX4              | IPX4              |
| Insulation thickness  | mm                | 40               | 40               | 40               | 50                | 50                | 50                | 50                |
| Set temperature   | °C                | 56               | 56               | 56               | 56                | 56                | 56                | 56                |
| Rated power input (PdC)   | W                 | 370              | 370              | 370              | 535               | 535               | 535               | 535               |
| Rated power input (electrical heater)                               | W                 | 1200             | 1200             | 1200             | 1500              | 1500              | 1500              | 1500              |
| Rated total power input   | W                 | 1570             | 1570             | 1570             | 2035              | 2035              | 2035              | 2035              |
| DHW temperature produced (heat pump only)                           | °C                | 35 ~ 65          | 35 ~ 65          | 35 ~ 65          | 35 ~ 65           | 35 ~ 65           | 35 ~ 65           | 35 ~ 65           |
| DHW temperature produced (heat pump only + electrical heater)       | °C                | 35 ~ 75          | 35 ~ 75          | 35 ~ 75          | 35 ~ 75           | 35 ~ 75           | 35 ~ 75           | 35 ~ 75           |
| <b>Refrigerant gas</b>  |                   |                  |                  |                  |                   |                   |                   |                   |
| Type  | type              | R290             | R290             | R290             | R290              | R290              | R290              | R290              |
| Refrigerant charge  | kg                | 0,12             | 0,12             | 0,12             | 0,15              | 0,15              | 0,15              | 0,15              |
| GWP   |                   | 3,0              | 3,0              | 3,0              | 3,0               | 3,0               | 3,0               | 3,0               |
| <b>Sound data</b>   |                   |                  |                  |                  |                   |                   |                   |                   |
| Sound power level   | dB(A)             | 50,0             | 50,0             | 50,0             | 50,0              | 50,0              | 50,0              | 50,0              |
| Sound pressure level (1 m)  | dB(A)             | 37,7             | 37,7             | 37,7             | 36,0              | 36,0              | 36,0              | 36,0              |
| <b>Electric data</b>  |                   |                  |                  |                  |                   |                   |                   |                   |
| Type of electrical connection                                       | type              | Schuko           | Schuko           | Schuko           | Al magnetotermico | Al magnetotermico | Al magnetotermico | Al magnetotermico |
| Magnet circuit breaker  | A                 | 16               | 16               | 16               | 16                | 16                | 16                | 16                |
| Section of the power cable  | mm <sup>2</sup>   | 3*1.5            | 3*1.5            | 3*1.5            | 3*1.5             | 3*1.5             | 3*1.5             | 3*1.5             |
| <b>Performance specifications</b>                                   |                   |                  |                  |                  |                   |                   |                   |                   |
| COP (external air 2°C)  | W/W               | 2,38             | 2,55             | 2,65             | 2,80              | 2,43              | 2,67              | 2,81              |
| COP (external air 7°C)  | W/W               | 2,91             | 2,79             | 3,03             | 3,27              | 3,27              | 3,20              | 3,29              |
| COP (external air 14°C)   | W/W               | 3,07             | 3,32             | 3,39             | 3,52              | 3,55              | 3,45              | 3,46              |
| Heating time (external air 7°C)                                     | h                 | 4h26             | 5h38             | 8h37             | 8h20              | 6h43              | 10h31             | 10h5              |
| Heating time (external air 14°C)                                    | h                 | 3h48             | 4h47             | 7h11             | 6h55              | 6h07              | 9h02              | 8h42              |
| Air flow rate   | m <sup>3</sup> /h | 180              | 180              | 180              | 300               | 300               | 300               | 300               |
| Load Profile of Water Heaters, type                                 | M                 | M                | M                | L                | L                 | L                 | XL                | L                 |
| Input power in standby (Pes)  | W                 | 15,3             | 19,3             | 22,5             | 22,0              | 35,0              | 43,0              | 35,0              |
| Maximum volume of usable hot water at 40°C / V40                    | l                 | 103,8            | 133,0            | 190,0            | 221,0             | 229,0             | 314,0             | 313,0             |
| Efficiency energy class   |                   | A+               | A+               | A+               | A+                | A+                | A+                | A+                |
| Reference temperature of hot water (θ'WH)                           | °C                | 53,75            | 53,88            | 52,98            | 54,11             | 53,11             | 54,05             | 53,70             |
| <b>Connections</b>  |                   |                  |                  |                  |                   |                   |                   |                   |
| Water outlet  | inch              | R 1/2" M         | R 1/2" M         | R 1/2" M         | Rp 3/4            | Rp 3/4            | Rp 3/4            | Rp 3/4            |
| Inlet water / Condensate drainage                                   | inch              | R 1/2" M         | R 1/2" M         | R 1/2" M         | Rp 3/4            | Rp 3/4            | Rp 3/4            | Rp 3/4            |
| Safety valve  | inch              | R 1/2" M         | R 1/2" M         | R 1/2" M         | Rp 3/4            | Rp 3/4            | Rp 3/4            | Rp 3/4            |
| Maximum length of ducts (supply + exhaust) (Ø160 - PVC pipe)        | m                 | 40               | 40               | 40               | 11                | 11                | 11                | 11                |
| Maximum length of ducts (supply + exhaust) (Ø160 - corrugated pipe) | m                 | 22               | 22               | 22               | 6                 | 6                 | 6                 | 6                 |
| Maximum length of ducts (supply + exhaust) (Ø180 - PVC pipe)        | m                 | -                | -                | -                | 22                | 22                | 22                | 22                |
| Maximum length of ducts (supply + exhaust) (Ø180 - corrugated pipe) | m                 | -                | -                | -                | 13                | 13                | 13                | 13                |
| Maximum working pressure of auxiliary coil                          | MPa               | -                | -                | -                | -                 | 2,0               | -                 | 2,0               |
| Auxiliary serpentine surface  | m <sup>2</sup>    | -                | -                | -                | -                 | 0,585             | -                 | 0,585             |
| <b>Dimensions and weights</b>                                       |                   |                  |                  |                  |                   |                   |                   |                   |
| Empty weight  | kg                | 51               | 54               | 64               | 87                | 97                | 99                | 108               |
| Weight for transport  | kg                | 58,0             | 62,0             | 83,0             | 110,0             | 120,0             | 122,0             | 132,0             |

**Performance specifications:** in accordance EN 16147;

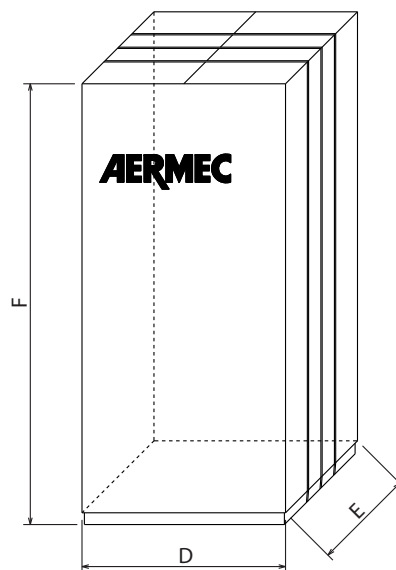
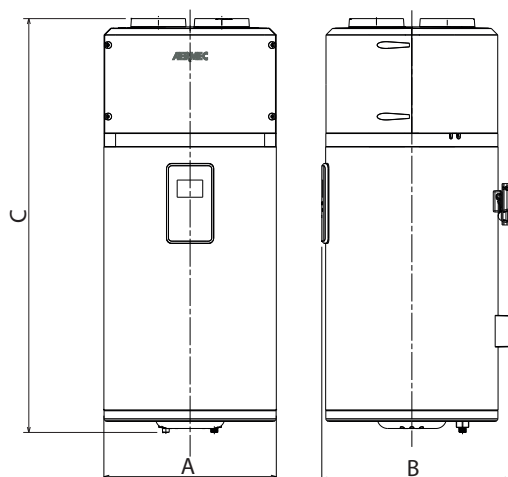
**COP and noise data are calculated in the laboratory:** The COP value is obtained with an outside air temperature of 2°C - 7°C - 14°C, inlet water temperature 10°C and the produced water set of 55°C for the (units SHW080-SHW110 according to EN 16147), inlet water temperature of 10°C and produced water set of 54°C for the (units SHW150-SHW200-SHW200S-SHW250-SHW250S).

**Sound power level:** measured with an outdoor air temperature of 7°C, an inlet water temperature of 10°C, and a supply water temperature setpoint of 55°C in accordance with EN12102.

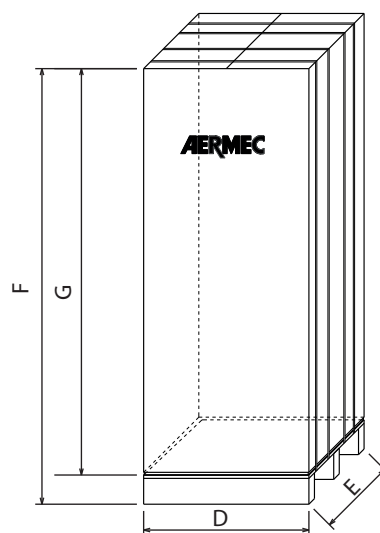
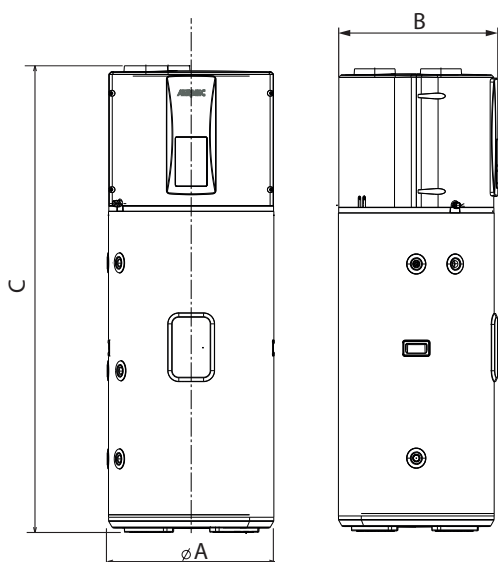
**In addition to the electronic anode, the unit is also equipped with a magnesium rod to protect the unit in the event of a power outage.**

## DIMENSIONS

### SHW080 - SHW110 - SHW150



### SHW200 - SHW200S - SHW250 - SHW250S



|   |    | SHW080 | SHW110 | SHW150 | SHW200 | SHW200S | SHW250 | SHW250S |
|---|----|--------|--------|--------|--------|---------|--------|---------|
| <b>Dimensions and weights</b>               |    |        |        |        |        |         |        |         |
| A   | mm | 492    | 492    | 492    | 600    | 600     | 600    | 600     |
| B   | mm | 538    | 538    | 538    | 615    | 615     | 615    | 615     |
| C   | mm | 1184   | 1334   | 1694   | 1697   | 1697    | 1985   | 1985    |
| Net weight                                  | kg | 51,0   | 54,0   | 64,0   | 87,0   | 97,0    | 99,0   | 108,0   |
| <b>Dimensions and weights for transport</b> |    |        |        |        |        |         |        |         |
| D   | mm | 587    | 587    | 587    | 736    | 736     | 736    | 736     |
| E   | mm | 587    | 587    | 587    | 695    | 695     | 695    | 695     |
| F   | mm | 1247   | 1397   | 1894   | 1940   | 1940    | 2250   | 2250    |
| G   | mm | -      | -      | -      | 1810   | 1810    | 2120   | 2120    |
| Weight for transport                        | kg | 58,0   | 62,0   | 83,0   | 110,0  | 120,0   | 122,0  | 132,0   |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# MIC

## Air-water chiller

Cooling capacity 3 kW



- Easy and quick to install compact
- Separable hydraulic circuit and refrigerant
- AISI304 stainless steel tank and pump impeller
- R513A refrigerant gas in A1 class with low GWP



### DESCRIPTION

Air-cooled modular refrigerant to produce chilled water, designed and created to satisfy the cooling needs of industrial buildings. Unit with alternative hermetic compressor and coaxial heat exchanger positioned in a 20-litre AISI304 stainless steel tank. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### FEATURES

#### Operating field

Operation at full load up to 45 °C external air temperature. Unit can produce chilled water 20 °C up to -10 °C.

#### Refrigerant circuit

The refrigerant circuit is in the upper part of the machine and can be lifted up to be cleaned, or completely removed if a broken module needs to be replaced, leaving the hydronic part in place to ensure the system works properly.

#### Hydraulic components

**Standard configuration:** is fitted as standard

- One differential pressure switch
- An interception tap on the heat exchanger, used to remove the upper part of the machine or to balance the load.
- An AISI304 STAINLESS steel tank
- Connection pipes made of copper
- Brass valves
- 4 STAINLESS steel grooved joints and 2 caps. The water input and output can only be defined in a unit without pumps by the client at the installation stage.

**In the configuration with pumps, as well as the components supplied as standard, there is a choice between two pumps with different head.**

#### Modularity

Thanks to its modular construction, the installation can be adapted to suit specific system development needs whilst guaranteeing improved safety and reliability.

As a result, the cooling capacity can be easily increased over time, at a limited cost.

The modules are easy to install and link together from the hydronic point of view, thanks to the connections with grooved joints.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

### Modularity

There are 3 solutions for dealing with several modules:

#### Solution 1: no interconnection between modules

Each module works independently on its own set point. If it is necessary to switch all the machines on or off, each module must be operated.

#### Solution 2: through remote ON-OFF contact (Master/Slave)

With this solution, several modules can be connected in parallel and, where necessary, the start-up and switch-off of all modules can be coordinated with a single command.

The electrical panel has a contact for remote ON/OFF, which can be used to connect several modules in parallel, so that the start-up of the first unit (Master) results in the cascade start-up of all subsequent connected units (Slaves).

Each module works independently on its own set point.

#### Solution 3: via an external supervisor (BMS)

The modules can be controlled with an external supervisor with this solution using a ModBus (accessory) communication module.

### ACCESSORIES

**ETHERNET-RS485:** Gateway to change a Modbus RS485 serial into a TCP-IP serial.

**FB\_MIC:** Air filter to protect the coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**MIC\_RUE:** Swivel wheels with locking system

**MODBUSMICS:** This accessory allows you to manage up to multiple units, making available a serial in ModBus RTU protocol on RS485, for supervision with an external BMS.

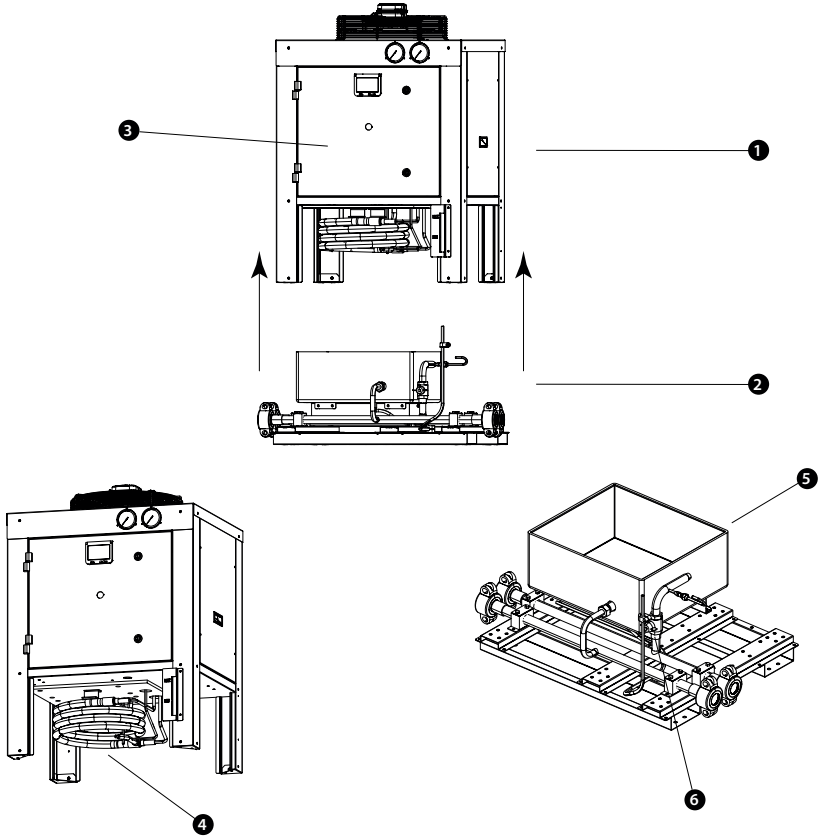
**DCPXMICS:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**ACCESSORIES COMPATIBILITY**

| Accessory      | MIC01° | MIC01P1 | MIC01P2 |
|----------------|--------|---------|---------|
| ETHERNET-RS485 | •      | •       | •       |
| FB_MIC         | •      | •       | •       |
| MODBUSMICS     | •      | •       | •       |

| Accessory | MIC01° | MIC01P1 | MIC01P2 |
|-----------|--------|---------|---------|
| DCPXMICS  | •      | •       | •       |

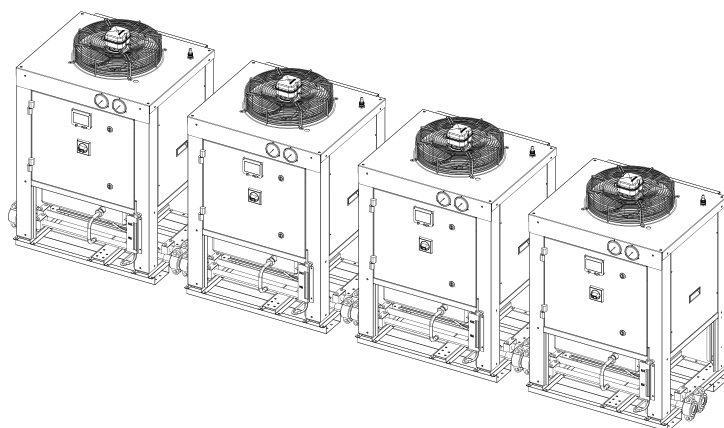
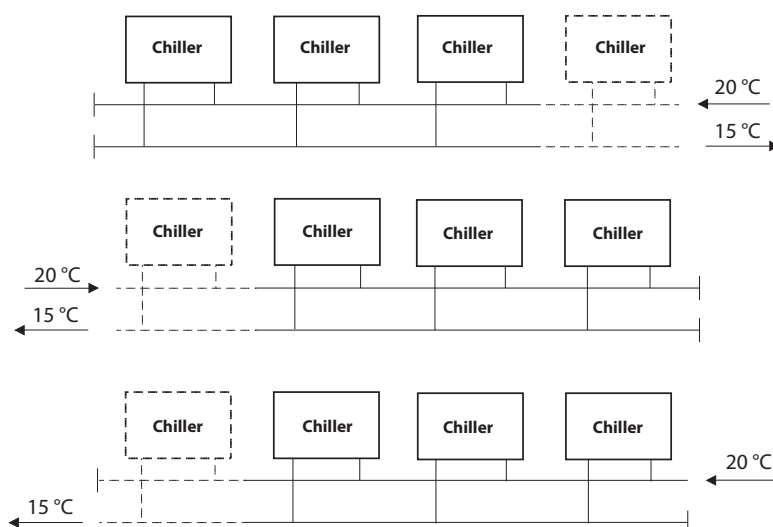
**SEPARABLE HYDRAULIC CIRCUIT AND REFRIGERANT**



- Key:
- 1 Refrigerant circuit
  - 2 Hydraulic circuit
  - 3 Electric power board
  - 4 Conduit pipe evaporator
  - 5 AISI304 stainless steel tank
  - 6 Shut-off tap

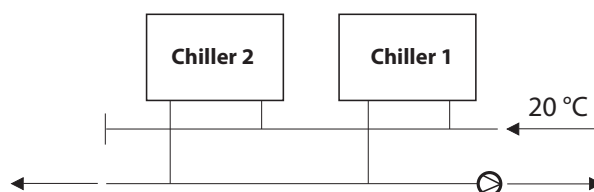
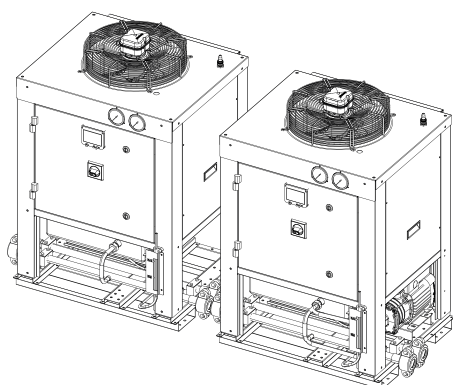
## MODULARITY OPTIONS

### Units without pumps



- Each machine is supplied with 4 grooved joints and two caps (machine input and output defined by the user depending on where the caps are positioned).

### Several units and only one with a pump



- The chiller with pump needs to be the first in the «chain» and the water entry position is secured.



## CONFIGURATOR

| Field | Description                          |
|-------|--------------------------------------|
| 1,2,3 | MIC                                  |
| 4,5   | Size<br>01                           |
| 6     | Version                              |
| °     | Cooling only                         |
| 7     | Coils                                |
| V     | Copper pieps-Coated aluminium fins   |
| °     | Copper-aluminium                     |
| 8     | Fans                                 |
| F     | Phase cut                            |
| °     | Standard                             |
| 9,10  | Integrated hydronic kit              |
| 00    | With storage tank without pumps      |
| P1    | With storage tank and low head pump  |
| P2    | With storage tank and high head pump |
| 11    | Power supply                         |
| M     | 230V ~ 50Hz (without Schuko plug)    |
| N     | 230V ~ 50Hz (with Schuko plug)       |

## PERFORMANCE SPECIFICATIONS

|   |     | MIC01° | MIC01P1 | MIC01P2 |
|---|-----|--------|---------|---------|
| Cooling performances 20 °C / 15 °C - (14511:2022) (1) |     |        |         |         |
| Cooling capacity                                      | kW  | 3,0    | 2,9     | 2,9     |
| Input power   | kW  | 1,3    | 1,5     | 1,6     |
| Input current   | A   | 5,8    | 7,7     | 8,7     |
| EER   | W/W | 2,31   | 2,01    | 1,83    |
| Water flow rate system side                           | l/h | 516    | 483     | 469     |
| Pressure drop system side                             | kPa | 10     | -       | -       |
| Useful head system side                               | kPa | -      | 328     | 529     |

(1) Data EN 14511:2022; System side water heat exchanger 20 °C / 15 °C;; External air 32 °C

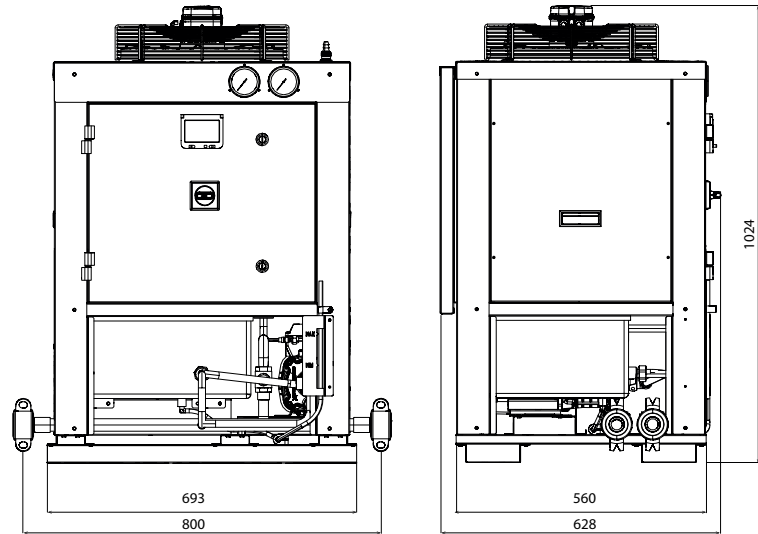
## ELECTRIC DATA

|                       |   | MIC01° | MIC01P1 | MIC01P2 |
|-----------------------|---|--------|---------|---------|
| Cooling only mode     |   |        |         |         |
| Maximum current (FLA) | A | 9,0    | 12,1    | 13,4    |
| Peak current (LRA)    | A | 30,0   | 33,0    | 34,3    |

## GENERAL TECHNICAL DATA

|                                   |      | MIC01° | MIC01P1      | MIC01P2 |
|-----------------------------------|------|--------|--------------|---------|
| System side hydraulic connections |      |        |              |         |
| Sizes (in/out)                    | Ø    |        | 1"           |         |
| System side heat exchanger        |      |        |              |         |
| Type                              | type |        | Coassiale    |         |
| Number                            | no.  | 1      | 1            | 1       |
| Water content                     | l    | 0,8    | 0,8          | 0,8     |
| Minimum water flow rate           | l/h  | 100    | 100          | 100     |
| Maximum water flow rate           | l/h  | 1200   | 1200         | 1200    |
| Hydronic kit                      |      |        |              |         |
| Storage tank capacity             | l    | 20     | 20           | 20      |
| Fan                               |      |        |              |         |
| Type                              | type |        | Axial        |         |
| Fan motor                         | type |        | Asynchronous |         |
| Number                            | no.  | 1      | 1            | 1       |
| Air flow rate                     | m³/h | 1500   | 1500         | 1500    |
| Total fan input power             | W    | 120    | 120          | 120     |
| Total fan input current           | A    | 0,4    | 0,4          | 0,4     |

# DIMENSIONS



|                        |    | MIC01° | MIC01P1 | MIC01P2 |
|------------------------|----|--------|---------|---------|
| Dimensions and weights |    |        |         |         |
| A                      | mm | 1024   | 1024    | 1024    |
| B                      | mm | 628    | 628     | 628     |
| C                      | mm | 800    | 800     | 800     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# ANL 021-202

## Air-water chiller

Cooling capacity 5,7 ÷ 43,3 kW

- **Standard version**
- **Version with Integrated hydronic kit system side**



### DESCRIPTION

Chillers for external installation for chilled water production with scroll compressors, axial fans, external copper coils with aluminum louvers from size 020 to 090, microchannel from size 102 to 202. The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** With storage tank and pump

**N** With increased pump

**P** With pump

**Q** With storage tank and increased pump

### FEATURES

#### Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

#### Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

#### Double mechanical thermostat

On the configurator it is also possible to select the option "W" double mechanical thermostatic valve for low temperatures.

**Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.**

■ *The option is only available for sizes from 050 to 090 in the °A-Q versions and from size 102 to 202 in all versions.*

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**VT:** Anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RA:** Anti-freeze electric heater for the buffer tank.

**KR:** Anti-freeze electric heater for the plate heat exchanger.

### COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model        | Ver  | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102 | 152 | 202 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU  | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| AERLINK      | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL   | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| PR3          | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| SGD          | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| SPLW (1)     | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| VMF-CRP      | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

### Remote panel

| Model | Ver  | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102 | 152 | 202 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|       | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|       | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### DCPX: Condensation control temperature

| Ver   | 021    | 026    | 031    | 041    | 050    | 070    | 080    | 090    | 102    | 152    | 202    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| °A, P | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX52 | DCPX52 | DCPX52 |
| N     | -      | -      | -      | -      | -      | -      | -      | -      | DCPX52 | DCPX52 | DCPX52 |
| Q     | -      | -      | -      | -      | DCPX50 | DCPX50 | DCPX50 | DCPX50 | DCPX52 | DCPX52 | DCPX52 |

### VT: Antivibration

| Ver  | 021 | 026 | 031 | 041 | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|------|-----|-----|-----|-----|------|------|------|------|------|------|------|
| °, P | VT9 | VT9 | VT9 | VT9 | VT9  | VT9  | VT9  | VT9  | VT15 | VT15 | VT15 |
| A    | VT9 | VT9 | VT9 | VT9 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 |
| N    | -   | -   | -   | -   | -    | -    | -    | -    | VT15 | VT15 | VT15 |
| Q    | -   | -   | -   | -   | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 |

### DRE: Device for peak current reduction

| Ver        | 021 | 026 | 031 | 041 | 050      | 070      | 080      | 090      | 102          | 152          | 202          |
|------------|-----|-----|-----|-----|----------|----------|----------|----------|--------------|--------------|--------------|
| °, A, P, Q | -   | -   | -   | -   | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |
| N          | -   | -   | -   | -   | -        | -        | -        | -        | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

**KR: electric heater for the plate heat exchanger**

| Ver  | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102   | 152   | 202   |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| °, P | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |
| A, Q | -   | -   | -   | -   | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |
| N    | -   | -   | -   | -   | -   | -   | -   | -   | KR100 | KR100 | KR100 |

A grey background indicates the accessory must be assembled in the factory

**RA: electric heater for the buffer tank**

| Ver | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102   | 152   | 202   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| A   | RA  | RA  | RA  | RA  | RA  | RA  | RA  | RA  | RA100 | RA100 | RA100 |
| Q   | -   | -   | -   | -   | RA  | RA  | RA  | RA  | RA100 | RA100 | RA100 |

A grey background indicates the accessory must be assembled in the factory

**CONFIGURATOR**

| Field        | Description  |
|--------------|--|
| <b>1,2,3</b> | <b>ANL</b>   |
| <b>4,5,6</b> | <b>Size</b><br>021, 026, 031, 041, 050, 070, 080, 090, 102, 152, 202 |
| <b>7</b>     | <b>Model</b>   |
| °            | Cooling only   |
| <b>8</b>     | <b>Version</b>   |
| °            | Standard   |
| A            | With storage tank and pump   |
| N            | With increased pump (1)  |
| P            | With pump  |
| Q            | With storage tank and increased pump (2)                             |
| <b>9</b>     | <b>Heat recovery</b>   |
| D            | With desuperheater (3)   |
| °            | Without heat recovery  |
| <b>10</b>    | <b>Coils</b>   |
| R            | Copper pipes-copper fins   |
| S            | Copper pipes-Tinned copper fins                                      |
| V            | Copper pipes-Coated aluminium fins                                   |
| °            | Copper-aluminium (4)   |
| <b>11</b>    | <b>Operating field</b>   |
| W            | Double mechanical thermostat for low temperature (5)                 |
| Y            | Low temperature mechanic thermostatic valve (6)                      |
| Z            | Low temperatures mechanic thermostatic valve (7)                     |
| °            | Standard mechanic thermostatic valve (8)                             |
| <b>12</b>    | <b>Evaporator</b>  |
| °            | Standard   |
| <b>13</b>    | <b>Power supply</b>  |
| M            | 230V ~ 50Hz (9)  |
| °            | 400V 3N ~ 50Hz (10)  |

(1) Only for ANL 102 ÷ 202 sizes

(2) Only for ANL 050 ÷ 202 sizes

(3) If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. The desuperheater is only available in sizes from 050 to 090 in the version with storage tank "A", and from size 102 to 202 in all versions.

(4) Sizes from 102 to 202 have a micro-channel coil

(5) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 050 to 090 in the °-A-Q versions and from 102 to 202 in all versions

(6) Water produced from 0 °C up to -10 °C

(7) Water produced from +4 °C up to +0 °C

(8) Water produced up to +4 °C

(9) Only for ANL 021 ÷ 041 sizes

(10) For all sizes

**PERFORMANCE SPECIFICATIONS****ANL - ° (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size  |     | 021  | 026  | 031  | 041  | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,5  | 9,6  | 13,4 | 16,4 | 20,4 | 22,2 | 26,5 | 32,9 | 42,8 |
| Input power                                 | kW  | 1,9  | 2,0  | 2,5  | 3,3  | 4,1  | 4,9  | 6,4  | 6,8  | 8,0  | 10,2 | 13,5 |
| Cooling total input current                 | A   | 4,0  | 4,0  | 5,0  | 6,0  | 9,0  | 10,0 | 12,0 | 13,0 | 16,0 | 19,0 | 25,0 |
| EER   | W/W | 3,03 | 3,04 | 2,99 | 2,90 | 3,26 | 3,33 | 3,18 | 3,28 | 3,32 | 3,21 | 3,18 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1288 | 1649 | 2302 | 2834 | 3522 | 3831 | 4570 | 5669 | 7387 |
| Pressure drop system side                   | kPa | 21   | 21   | 22   | 24   | 30   | 30   | 36   | 50   | 58   | 61   | 68   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ANL - P (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size  |     | 021  | 026  | 031  | 041  | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,6  | 9,7  | 13,5 | 16,6 | 20,6 | 22,4 | 26,8 | 33,2 | 43,2 |
| Input power                                 | kW  | 1,8  | 2,0  | 2,5  | 3,2  | 4,1  | 4,9  | 6,4  | 6,7  | 8,1  | 10,5 | 13,8 |
| Cooling total input current                 | A   | 4,0  | 5,0  | 5,0  | 7,0  | 10,0 | 11,0 | 13,0 | 14,0 | 17,0 | 21,0 | 27,0 |
| EER   | W/W | 3,11 | 3,12 | 3,07 | 2,97 | 3,31 | 3,38 | 3,23 | 3,35 | 3,32 | 3,15 | 3,13 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1288 | 1649 | 2302 | 2834 | 3522 | 3831 | 4570 | 5669 | 7387 |
| Useful head system side                     | kPa | 73   | 73   | 71   | 65   | 76   | 72   | 57   | 52   | 84   | 115  | 91   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ANL - N (400V 3N ~ 50Hz)**

| Size  |     | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102  | 152  | 202  |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |     |     |     |     |     |     |     |     |      |      |      |
| Cooling capacity                            | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 26,8 | 33,3 | 43,3 |
| Input power                                 | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 8,5  | 10,6 | 13,8 |
| Cooling total input current                 | A   | -   | -   | -   | -   | -   | -   | -   | -   | 18,0 | 21,0 | 27,0 |
| EER   | W/W | -   | -   | -   | -   | -   | -   | -   | -   | 3,17 | 3,15 | 3,13 |
| Water flow rate system side                 | l/h | -   | -   | -   | -   | -   | -   | -   | -   | 4570 | 5669 | 7387 |
| Useful head system side                     | kPa | -   | -   | -   | -   | -   | -   | -   | -   | 140  | 185  | 159  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ANL - A (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size  |     | 021  | 026  | 031  | 041  | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,6  | 9,7  | 13,5 | 16,6 | 20,6 | 22,4 | 26,8 | 33,2 | 43,2 |
| Input power                                 | kW  | 1,8  | 2,0  | 2,5  | 3,2  | 4,1  | 4,9  | 6,4  | 6,7  | 8,1  | 10,5 | 13,8 |
| Cooling total input current                 | A   | 4,0  | 5,0  | 5,0  | 7,0  | 10,0 | 11,0 | 13,0 | 14,0 | 17,0 | 21,0 | 27,0 |
| EER   | W/W | 3,11 | 3,12 | 3,07 | 2,97 | 3,31 | 3,38 | 3,23 | 3,35 | 3,32 | 3,15 | 3,13 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1288 | 1649 | 2302 | 2834 | 3522 | 3831 | 4570 | 5669 | 7387 |
| Useful head system side                     | kPa | 73   | 73   | 71   | 65   | 76   | 72   | 57   | 52   | 84   | 115  | 91   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ANL - Q (400V 3N ~ 50Hz)**

| Size  |     | 021 | 026 | 031 | 041 | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|---|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |     |     |     |     |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | -   | -   | -   | -   | 13,6 | 16,7 | 20,7 | 22,5 | 26,8 | 33,3 | 43,3 |
| Input power                                 | kW  | -   | -   | -   | -   | 4,2  | 5,0  | 6,5  | 6,8  | 8,5  | 10,6 | 13,8 |
| Cooling total input current                 | A   | -   | -   | -   | -   | 10,0 | 11,0 | 13,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| EER   | W/W | -   | -   | -   | -   | 3,24 | 3,33 | 3,19 | 3,31 | 3,17 | 3,15 | 3,13 |
| Water flow rate system side                 | l/h | -   | -   | -   | -   | 2302 | 2834 | 3522 | 3831 | 4570 | 5669 | 7387 |
| Useful head system side                     | kPa | -   | -   | -   | -   | 160  | 159  | 144  | 140  | 140  | 185  | 159  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size  |     | 021 | 026    | 031    | 041    | 050    | 070    | 080    | 090    | 102    | 152    | 202    |
|---|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) with standard fans (1)</b>              |     |     |        |        |        |        |        |        |        |        |        |        |
| SEER  | °   | W/W | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A,P | W/W | 4,18   | 4,20   | 4,17   | 4,10   | 4,16   | 4,34   | 4,19   | 4,31   | 4,11   | 4,10   |
|   | N   | W/W | -      | -      | -      | -      | -      | -      | -      | - (2)  | - (2)  | - (2)  |
|   | Q   | W/W | -      | -      | -      | -      | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
| Seasonal efficiency   | °   | %   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A,P | %   | 164,00 | 164,80 | 163,60 | 161,00 | 163,40 | 170,70 | 164,60 | 169,40 | 161,30 | 161,10 |
|   | N   | %   | -      | -      | -      | -      | -      | -      | -      | - (2)  | - (2)  | - (2)  |
|   | Q   | %   | -      | -      | -      | -      | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (3)</b>            |     |     |        |        |        |        |        |        |        |        |        |        |
| SEER  | °   | W/W | 4,34   | 4,35   | 4,31   | 4,21   | 4,55   | 4,68   | 4,49   | 4,61   | 4,83   | 4,73   |
|   | A,P | W/W | 4,49   | 4,51   | 4,48   | 4,47   | 4,55   | 4,64   | 4,57   | 4,66   | 4,49   | 4,25   |
|   | N   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | 4,15   | 4,18   |
|   | Q   | W/W | -      | -      | -      | -      | 4,18   | 4,44   | 4,35   | 4,49   | 4,15   | 4,18   |
| Seasonal efficiency   | °   | %   | 170,40 | 170,90 | 169,20 | 165,20 | 179,10 | 184,30 | 176,60 | 181,50 | 190,30 | 186,00 |
|   | A,P | %   | 176,70 | 177,50 | 176,00 | 175,60 | 179,00 | 182,40 | 179,80 | 183,50 | 176,60 | 167,00 |
|   | N   | %   | -      | -      | -      | -      | -      | -      | -      | -      | 163,10 | 164,20 |
|   | Q   | %   | -      | -      | -      | -      | 164,30 | 174,50 | 171,10 | 176,70 | 163,10 | 164,20 |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (3)</b> |     |     |        |        |        |        |        |        |        |        |        |        |
| SEPR  | °   | W/W | 5,92   | 5,92   | 5,85   | 5,69   | 6,36   | 6,50   | 6,21   | 6,43   | 6,79   | 6,58   |
|   | A,P | W/W | 6,56   | 6,57   | 6,45   | 6,21   | 6,74   | 6,90   | 6,55   | 6,78   | 6,68   | 6,18   |
|   | N   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | 5,91   | 6,09   |
|   | Q   | W/W | -      | -      | -      | -      | 6,03   | 6,28   | 6,08   | 6,30   | 5,91   | 6,09   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |          | 021 | 026 | 031 | 041 | 050 | 070 | 080 | 090 | 102 | 152 | 202 |
|-----------------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Electric data</b>  |          |     |     |     |     |     |     |     |     |     |     |     |
| Maximum current (FLA) | °A,N,P,Q | A   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |
| Peak current (LRA)    | °A,N,P,Q | A   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   |

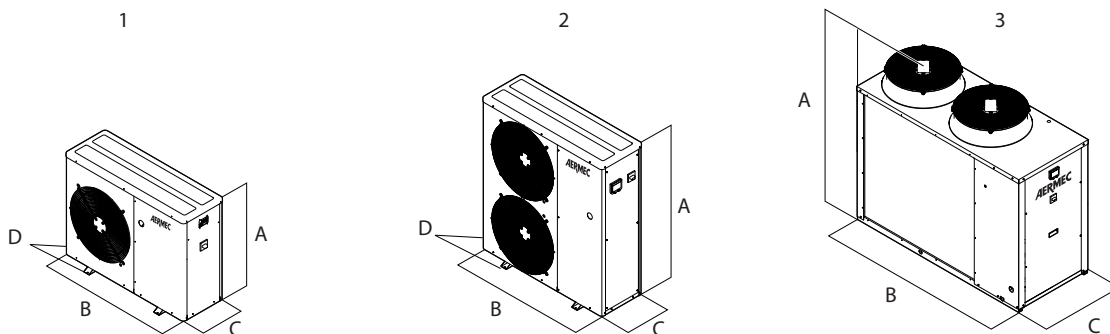
## GENERAL TECHNICAL DATA

|   |       | ANL021 | ANL026 | ANL031 | ANL041 | ANL050 | ANL070 | ANL080                      | ANL090 | ANL102 | ANL152 | ANL202 |  |
|---|-------|--------|--------|--------|--------|--------|--------|-----------------------------|--------|--------|--------|--------|--|
| Compressor                                |       |        |        |        |        |        |        |                             |        |        |        |        |  |
| Type                                      | type  |        |        |        |        |        |        | Scroll                      |        |        |        |        |  |
| Compressor regulation                     | Type  |        |        |        |        |        |        | On-Off                      |        |        |        |        |  |
| Number                                    | no.   | 1      | 1      | 1      | 1      | 1      | 1      | 1                           | 1      | 2      | 2      | 2      |  |
| Circuits                                  | no.   | 1      | 1      | 1      | 1      | 1      | 1      | 1                           | 1      | 1      | 1      | 1      |  |
| Refrigerant                               | type  |        |        |        |        |        |        | R410A                       |        |        |        |        |  |
| Refrigerant charge (1)                    | kg    | 1,2    | 1,2    | 1,2    | 1,3    | 2,8    | 2,8    | 3,0                         | 3,9    | 5,9    | 5,9    | 5,9    |  |
| System side heat exchanger                |       |        |        |        |        |        |        |                             |        |        |        |        |  |
| Type                                      | type  |        |        |        |        |        |        | Braze plate                 |        |        |        |        |  |
| Number                                    | no.   | 1      | 1      | 1      | 1      | 1      | 1      | 1                           | 1      | 1      | 1      | 1      |  |
| System side hydraulic connections         |       |        |        |        |        |        |        |                             |        |        |        |        |  |
| Sizes (in/out)                            | Ø     |        |        |        |        |        |        | 1"1/4                       |        |        |        |        |  |
| Fan                                       |       |        |        |        |        |        |        |                             |        |        |        |        |  |
| Type                                      | type  |        |        |        |        |        |        | Axial                       |        |        |        |        |  |
| Fan motor                                 | type  |        |        |        |        |        |        | Asynchronous with phase cut |        |        |        |        |  |
| Number                                    | no.   | 1      | 1      | 1      | 1      | 2      | 2      | 2                           | 2      | 2      | 2      | 2      |  |
| Air flow rate                             | m³/h  | 2500   | 2500   | 3500   | 3500   | 7200   | 7200   | 7300                        | 7200   | 14000  | 13500  | 13500  |  |
| Sound data calculated in cooling mode (2) |       |        |        |        |        |        |        |                             |        |        |        |        |  |
| Sound power level                         | dB(A) | 61,0   | 61,0   | 68,0   | 68,0   | 69,0   | 69,0   | 69,0                        | 68,0   | 76,0   | 77,0   | 78,0   |  |
| Sound pressure level (1 m)                | dB(A) | 29,8   | 29,8   | 36,8   | 36,8   | 37,6   | 37,6   | 37,6                        | 36,6   | 44,5   | 45,5   | 46,5   |  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



- 1 ANL 021-041
- 2 ANL 050-070
- 3 ANL 102-202

| Size                   |    |    | 021  | 026  | 031  | 041  | 050  | 070  | 080  | 090  | 102  | 152  | 202  |
|------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights |    |    |      |      |      |      |      |      |      |      |      |      |      |
| A                      | °P | mm | 1000 | 1000 | 1000 | 1000 | 1252 | 1252 | 1252 | 1252 | 1450 | 1450 | 1450 |
|                        | A  | mm | 1015 | 1015 | 1015 | 1015 | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
|                        | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 1450 | 1450 | 1450 |
|                        | Q  | mm | -    | -    | -    | -    | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
| B                      | °P | mm | 900  | 900  | 900  | 900  | 1124 | 1124 | 1124 | 1124 | 1750 | 1750 | 1750 |
|                        | A  | mm | 1124 | 1124 | 1124 | 1124 | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
|                        | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 1750 | 1750 | 1750 |
|                        | Q  | mm | -    | -    | -    | -    | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
| C                      | °P | mm | 310  | 310  | 310  | 310  | 384  | 384  | 384  | 384  | 750  | 750  | 750  |
|                        | A  | mm | 384  | 384  | 384  | 384  | 550  | 550  | 550  | 550  | 750  | 750  | 750  |
|                        | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 750  | 750  | 750  |
|                        | Q  | mm | -    | -    | -    | -    | 550  | 550  | 550  | 550  | 750  | 750  | 750  |
| D                      | °P | mm | 354  | 354  | 354  | 354  | 428  | 428  | 428  | 428  | -    | -    | -    |
|                        | A  | mm | 428  | 428  | 428  | 428  | -    | -    | -    | -    | -    | -    | -    |
|                        | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                        | Q  | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Empty weight           | °  | kg | 86   | 86   | 86   | 86   | 120  | 120  | 120  | 156  | 270  | 293  | 329  |
|                        | A  | kg | 103  | 103  | 103  | 103  | 147  | 147  | 147  | 183  | 338  | 364  | 400  |
|                        | N  | kg | -    | -    | -    | -    | -    | -    | -    | -    | 338  | 364  | 400  |
|                        | P  | kg | 91   | 91   | 91   | 91   | 127  | 127  | 163  | 163  | 288  | 314  | 350  |
|                        | Q  | kg | -    | -    | -    | -    | 151  | 151  | 151  | 187  | 338  | 364  | 400  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# ANL 021H -203H

## Reversible air/water heat pump

Cooling capacity 5,7 ÷ 49,1 kW – Heating capacity 6,2 ÷ 43,3 kW



- It is possible to produce hot domestic water
- Compact dimensions
- Quick & easy installation



### DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users. Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A With storage tank and pump
- N With increased pump
- P With pump
- Q With storage tank and increased pump

### FEATURES

#### Operating field

Full load up to 46 °C ambient air temperature with the possibility to produce chilled water down to -10° C in cooling mode (for more details refer to the technical documentation).

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

#### Inverter fans

Inverter fans from size 031 to 091 for all sizes.

- The DCPX accessory is not required for these sizes.

#### Double mechanical thermostat

On the configurator it is also possible to select the option "W" double mechanical thermostatic valve for low temperatures.

Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

- The option is available only for sizes starting from 051 to 091 in the °A-Q versions and from size 103 to 203 in all versions.

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply

water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**VT:** Anti-vibration supports.

**BDX:** Condensate drip.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RA:** Anti-freeze electric heater for the buffer tank.

**KR:** Anti-freeze electric heater for the plate heat exchanger.

**KRB:** Electric anti-freeze resistance kit for base.

### COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

### ACCESSORIES COMPATIBILITY

| Model        | Ver  | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU  | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| AERLINK      | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL   | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| PR3          | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| SDHW (1)     | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| SGD          | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| SPLW (2)     | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |
| VMF-CRP      | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|              | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|              | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

#### Remote panel

| Model | Ver  | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °A,P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
|       | N    |     |     |     |     |     |     |     |     | *   | *   | *   |
|       | Q    |     |     |     |     | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

#### DCPX: Condensation control temperature

| Ver   | 021    | 026    | 031 | 041 | 051 | 071 | 081 | 091 | 103    | 153    | 203    |
|-------|--------|--------|-----|-----|-----|-----|-----|-----|--------|--------|--------|
| °A, P | DCPX51 | DCPX51 | -   | -   | -   | -   | -   | -   | DCPX53 | DCPX53 | DCPX53 |
| Q     | -      | -      | -   | -   | -   | -   | -   | -   | DCPX53 | DCPX53 | DCPX53 |

The accessory cannot be fitted on the configurations indicated with -

#### Antivibration

| Ver | 021 | 026 | 031 | 041 | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| °P  | VT9 | VT9 | VT9 | VT9 | VT9  | VT9  | VT9  | VT9  | VT15 | VT15 | VT15 |
| A   | VT9 | VT9 | VT9 | VT9 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 |
| N   | -   | -   | -   | -   | -    | -    | -    | -    | VT15 | VT15 | VT15 |
| Q   | -   | -   | -   | -   | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 | VT15 |

#### Condensate drip

| Ver | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103 | 153 | 203 |
|-----|------|------|------|------|------|------|------|------|-----|-----|-----|
| °P  | BDX5 | BDX5 | BDX5 | BDX5 | BDX5 | BDX5 | BDX5 | BDX5 | -   | -   | -   |
| A   | BDX5 | BDX5 | BDX5 | BDX5 | BDX6 | BDX6 | BDX6 | BDX6 | -   | -   | -   |
| Q   | -    | -    | -    | -    | BDX6 | BDX6 | BDX6 | BDX6 | -   | -   | -   |

The accessory cannot be fitted on the configurations indicated with -

**DRE: Device for peak current reduction**

| Ver        | 021 | 026 | 031 | 041 | 051      | 071      | 081      | 091      | 103          | 153          | 203          |
|------------|-----|-----|-----|-----|----------|----------|----------|----------|--------------|--------------|--------------|
| °, A, P, Q | -   | -   | -   | -   | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |
| N          | -   | -   | -   | -   | -        | -        | -        | -        | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

**KR: electric heater for the heat exchanger**

| Ver  | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103   | 153   | 203   |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| °, P | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |
| A    | -   | -   | -   | -   | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |
| N, Q | -   | -   | -   | -   | -   | -   | -   | -   | KR100 | KR100 | KR100 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

**RA: Anti-freeze electric heater for the buffer tank**

| Ver | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103   | 153   | 203   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| A   | RA  | RA  | RA  | RA  | RA  | RA  | RA  | RA  | RA100 | RA100 | RA100 |
| Q   | -   | -   | -   | -   | RA  | RA  | RA  | RA  | RA100 | RA100 | RA100 |

A grey background indicates the accessory must be assembled in the factory

**KRB: Electric heater for the base**

| Ver           | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103      | 153      | 203      |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|----------|----------|----------|
| °, A, N, P, Q | -   | -   | -   | -   | -   | -   | -   | -   | KRB3 (1) | KRB3 (1) | KRB3 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

**CONFIGURATOR**

| Field        | Description  |
|--------------|--|
| <b>1,2,3</b> | <b>ANL</b>   |
| <b>4,5,6</b> | <b>Size</b><br>021, 026, 031, 041, 051, 071, 081, 091, 103, 153, 203 |
| <b>7</b>     | <b>Model</b>   |
| H            | Heat pump  |
| <b>8</b>     | <b>Version</b>   |
| °            | Standard   |
| A            | With storage tank and pump   |
| N            | With increased pump (1)  |
| P            | With pump  |
| Q            | With storage tank and increased pump (2)                             |
| <b>9</b>     | <b>Heat recovery</b>   |
| D            | With desuperheater (3)   |
| °            | Without heat recovery  |
| <b>10</b>    | <b>Coils</b>   |
| R            | Copper pipes-copper fins   |
| S            | Copper pipes-Tinned copper fins                                      |
| V            | Copper pipes-Coated aluminium fins                                   |
| °            | Copper-aluminium   |
| <b>11</b>    | <b>Operating field</b>   |
| W            | Double mechanical thermostat for low temperature (4)                 |
| °            | Standard mechanic thermostatic valve                                 |
| <b>12</b>    | <b>Evaporator</b>  |
| °            | Standard   |
| <b>13</b>    | <b>Power supply</b>  |
| M            | 230V ~ 50Hz (5)  |
| °            | 400V 3N ~ 50Hz (6)   |

(1) Only for ANL 103 ÷ 203 sizes

(2) Only for ANL 051 ÷ 203 sizes

(3) The desuperheater must be intercepted during heating mode. If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, during cold operation, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. It is only available in sizes from 051 to 091 in the version with storage tank "A", and from size 103 to 203 in all versions.

(4) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 051 to 091 in the °-A-Q versions and from 103 to 203 in all versions

(5) Only for ANL 021 ÷ 041 sizes

(6) Only for ANL 021 ÷ 203 sizes

## PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

### ANL - (°) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,5  | 9,6  | 13,4 | 16,3 | 20,1 | 21,6 | 25,6 | 31,8 | 40,3 |
| Input power                                 | kW  | 1,8  | 2,0  | 2,5  | 3,2  | 4,3  | 5,8  | 6,5  | 6,6  | 9,0  | 10,8 | 13,8 |
| Cooling total input current                 | A   | 3,7  | 4,2  | 4,7  | 6,2  | 8,7  | 9,7  | 12,0 | 13,0 | 16,0 | 19,0 | 25,0 |
| EER   | W/W | 3,10 | 3,10 | 3,05 | 2,95 | 3,12 | 2,82 | 3,07 | 3,30 | 2,85 | 2,94 | 2,92 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1289 | 1649 | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Pressure drop system side                   | kPa | 30   | 31   | 32   | 30   | 34   | 35   | 44   | 60   | 55   | 57   | 62   |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                            | kW  | 6,2  | 7,0  | 8,4  | 9,8  | 13,2 | 17,3 | 20,9 | 22,0 | 26,1 | 35,3 | 41,8 |
| Input power                                 | kW  | 1,9  | 2,1  | 2,6  | 3,0  | 4,0  | 5,1  | 5,9  | 6,2  | 8,6  | 10,8 | 12,3 |
| Heating total input current                 | A   | 3,8  | 4,4  | 5,4  | 6,8  | 9,5  | 10,0 | 13,0 | 14,0 | 17,0 | 19,0 | 25,0 |
| COP   | W/W | 3,26 | 3,33 | 3,23 | 3,27 | 3,26 | 3,37 | 3,56 | 3,56 | 3,05 | 3,28 | 3,40 |
| Water flow rate system side                 | l/h | 1078 | 1217 | 1460 | 1700 | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Pressure drop system side                   | kPa | 36   | 40   | 41   | 37   | 38   | 39   | 53   | 72   | 70   | 70   | 78   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### ANL - (A) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,5  | 9,6  | 13,4 | 16,3 | 20,1 | 21,6 | 25,6 | 31,8 | 40,3 |
| Input power                                 | kW  | 1,9  | 2,1  | 2,5  | 3,3  | 4,5  | 6,0  | 6,7  | 6,7  | 9,6  | 11,8 | 14,9 |
| Cooling total input current                 | A   | 4,0  | 4,5  | 5,0  | 6,6  | 9,3  | 10,0 | 13,0 | 13,0 | 17,0 | 21,0 | 27,0 |
| EER   | W/W | 2,98 | 2,99 | 2,95 | 2,88 | 3,00 | 2,74 | 2,99 | 3,21 | 2,67 | 2,69 | 2,70 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1289 | 1649 | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Useful head system side                     | kPa | 73   | 73   | 71   | 65   | 76   | 72   | 57   | 52   | 88   | 125  | 111  |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                            | kW  | 6,2  | 7,0  | 8,4  | 9,8  | 13,2 | 17,3 | 20,9 | 22,0 | 26,1 | 35,3 | 41,8 |
| Input power                                 | kW  | 2,0  | 2,2  | 2,7  | 3,1  | 4,2  | 5,3  | 6,1  | 6,4  | 9,2  | 11,8 | 13,4 |
| Heating total input current                 | A   | 4,1  | 4,7  | 5,8  | 7,2  | 10,0 | 11,0 | 14,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| COP   | W/W | 3,14 | 3,21 | 3,13 | 3,18 | 3,13 | 3,26 | 3,45 | 3,45 | 2,85 | 2,98 | 3,11 |
| Water flow rate system side                 | l/h | 1078 | 1217 | 1460 | 1700 | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Useful head system side                     | kPa | 68   | 67   | 65   | 58   | 72   | 65   | 46   | 40   | 64   | 94   | 68   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### ANL - (P) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,7  | 6,2  | 7,5  | 9,6  | 13,4 | 16,3 | 20,1 | 21,6 | 25,6 | 31,8 | 40,3 |
| Input power                                 | kW  | 1,9  | 2,1  | 2,5  | 3,3  | 4,5  | 6,0  | 6,7  | 6,7  | 9,6  | 11,8 | 14,9 |
| Cooling total input current                 | A   | 4,0  | 4,5  | 5,0  | 6,6  | 9,3  | 10,0 | 13,0 | 13,0 | 17,0 | 21,0 | 27,0 |
| EER   | W/W | 2,98 | 2,99 | 2,95 | 2,88 | 3,00 | 2,74 | 2,99 | 3,21 | 2,67 | 2,69 | 2,70 |
| Water flow rate system side                 | l/h | 979  | 1065 | 1289 | 1649 | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Useful head system side                     | kPa | 73   | 73   | 71   | 65   | 76   | 72   | 57   | 52   | 88   | 125  | 111  |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                            | kW  | 6,2  | 7,0  | 8,4  | 9,8  | 13,2 | 17,3 | 20,9 | 22,0 | 26,1 | 35,3 | 41,8 |
| Input power                                 | kW  | 2,0  | 2,2  | 2,7  | 3,1  | 4,2  | 5,3  | 6,1  | 6,4  | 9,2  | 11,8 | 13,4 |
| Heating total input current                 | A   | 4,1  | 4,7  | 5,8  | 7,2  | 10,0 | 11,0 | 14,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| COP   | W/W | 3,14 | 3,21 | 3,13 | 3,18 | 3,13 | 3,26 | 3,45 | 3,45 | 2,85 | 2,98 | 3,11 |
| Water flow rate system side                 | l/h | 1078 | 1217 | 1460 | 1700 | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Useful head system side                     | kPa | 68   | 67   | 65   | 58   | 72   | 65   | 46   | 40   | 64   | 94   | 68   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**ANL - (Q) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz)**

| Size   |     | 021 | 026 | 031 | 041 | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|--|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |     |     |     |     |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | -   | -   | -   | -   | 13,4 | 16,3 | 20,1 | 21,6 | 25,6 | 31,8 | 40,3 |
| Input power                                  | kW  | -   | -   | -   | -   | 4,8  | 6,3  | 7,1  | 7,1  | 10,1 | 12,0 | 15,2 |
| Cooling total input current                  | A   | -   | -   | -   | -   | 9,7  | 11,0 | 13,0 | 14,0 | 18,0 | 21,0 | 27,0 |
| EER  | W/W | -   | -   | -   | -   | 2,81 | 2,59 | 2,83 | 3,04 | 2,54 | 2,64 | 2,66 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | 2294 | 2807 | 3452 | 3713 | 4398 | 5467 | 6929 |
| Useful head system side                      | kPa | -   | -   | -   | -   | 160  | 159  | 144  | 140  | 147  | 192  | 170  |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |     |     |     |     |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | -   | -   | -   | -   | 13,2 | 17,3 | 20,9 | 22,0 | 26,1 | 35,3 | 41,8 |
| Input power                                  | kW  | -   | -   | -   | -   | 4,5  | 5,7  | 6,4  | 6,8  | 9,7  | 12,1 | 13,7 |
| Heating total input current                  | A   | -   | -   | -   | -   | 10,0 | 11,0 | 14,0 | 15,0 | 19,0 | 21,0 | 28,0 |
| COP  | W/W | -   | -   | -   | -   | 2,92 | 3,06 | 3,24 | 3,26 | 2,69 | 2,92 | 3,06 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | 2294 | 3007 | 3638 | 3827 | 4529 | 6137 | 7265 |
| Useful head system side                      | kPa | -   | -   | -   | -   | 154  | 151  | 131  | 126  | 107  | 169  | 141  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**ANL - (N) / 12/7 °C - 40/45 °C (400V 3N ~ 50Hz)**

| Size   |     | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103  | 153  | 203  |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |     |     |     |     |     |     |     |     |      |      |      |
| Cooling capacity                             | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 25,8 | 32,1 | 40,6 |
| Input power                                  | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 9,6  | 11,4 | 14,5 |
| Cooling total input current                  | A   | -   | -   | -   | -   | -   | -   | -   | -   | 18,0 | 21,0 | 27,0 |
| EER  | W/W | -   | -   | -   | -   | -   | -   | -   | -   | 2,68 | 2,82 | 2,81 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | -   | -   | -   | -   | 4398 | 5467 | 6929 |
| Useful head system side                      | kPa | -   | -   | -   | -   | -   | -   | -   | -   | 147  | 192  | 170  |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |     |     |     |     |     |     |     |     |      |      |      |
| Heating capacity                             | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 26,1 | 35,3 | 41,8 |
| Input power                                  | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 9,7  | 12,1 | 13,7 |
| Heating total input current                  | A   | -   | -   | -   | -   | -   | -   | -   | -   | 19,0 | 21,0 | 28,0 |
| COP  | W/W | -   | -   | -   | -   | -   | -   | -   | -   | 2,69 | 2,92 | 3,06 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | -   | -   | -   | -   | 4529 | 6137 | 7265 |
| Useful head system side                      | kPa | -   | -   | -   | -   | -   | -   | -   | -   | 107  | 169  | 141  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C****ANL - (°) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|--|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,9  | 7,5  | 9,1  | 11,6 | 16,1 | 19,8 | 24,3 | 26,1 | 31,0 | 38,5 | 48,8 |
| Input power                                  | kW  | 1,9  | 2,1  | 2,5  | 3,4  | 4,4  | 6,0  | 6,8  | 6,8  | 9,3  | 11,2 | 14,3 |
| Cooling total input current                  | A   | 3,8  | 4,3  | 4,9  | 6,4  | 9,0  | 10,0 | 13,0 | 13,0 | 16,0 | 19,0 | 26,0 |
| EER  | W/W | 3,62 | 3,62 | 3,56 | 3,45 | 3,64 | 3,30 | 3,59 | 3,85 | 3,33 | 3,44 | 3,41 |
| Water flow rate system side                  | l/h | 1189 | 1293 | 1564 | 2002 | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Pressure drop system side                    | kPa | 44   | 46   | 47   | 44   | 50   | 52   | 65   | 88   | 81   | 84   | 92   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 6,5  | 7,3  | 8,8  | 10,2 | 13,8 | 18,1 | 21,8 | 23,0 | 27,2 | 36,8 | 43,6 |
| Input power                                  | kW  | 1,6  | 1,8  | 2,2  | 2,7  | 3,5  | 4,6  | 5,2  | 5,5  | 7,6  | 9,6  | 10,9 |
| Heating total input current                  | A   | 3,3  | 3,8  | 4,6  | 6,0  | 8,1  | 9,1  | 11,0 | 12,0 | 15,0 | 17,0 | 22,0 |
| COP  | W/W | 3,98 | 4,06 | 3,94 | 3,84 | 3,97 | 3,96 | 4,18 | 4,18 | 3,58 | 3,85 | 4,00 |
| Water flow rate system side                  | l/h | 1120 | 1265 | 1518 | 1767 | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Pressure drop system side                    | kPa | 39   | 43   | 44   | 40   | 41   | 42   | 57   | 78   | 76   | 76   | 84   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANL - (A) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|--|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,9  | 7,5  | 9,1  | 11,6 | 16,1 | 19,8 | 24,3 | 26,1 | 31,0 | 38,5 | 48,8 |
| Input power                                  | kW  | 2,0  | 2,2  | 2,6  | 3,5  | 4,6  | 6,2  | 7,0  | 7,0  | 9,9  | 12,3 | 15,5 |
| Cooling total input current                  | A   | 4,2  | 4,7  | 5,2  | 6,8  | 9,7  | 11,0 | 13,0 | 14,0 | 17,0 | 21,0 | 28,0 |
| EER  | W/W | 3,48 | 3,49 | 3,45 | 3,36 | 3,50 | 3,20 | 3,49 | 3,75 | 3,11 | 3,13 | 3,14 |
| Water flow rate system side                  | l/h | 1189 | 1293 | 1564 | 2002 | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Useful head system side                      | kPa | 63   | 63   | 60   | 51   | 60   | 53   | 31   | 24   | 47   | 63   | 41   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 6,5  | 7,3  | 8,8  | 10,2 | 13,8 | 18,1 | 21,8 | 23,0 | 27,2 | 36,8 | 43,6 |
| Input power                                  | kW  | 1,7  | 1,9  | 2,3  | 2,7  | 3,6  | 4,7  | 5,4  | 5,7  | 8,2  | 10,6 | 12,1 |
| Heating total input current                  | A   | 3,6  | 4,1  | 5,0  | 6,4  | 8,8  | 9,8  | 12,0 | 13,0 | 16,0 | 19,0 | 24,0 |
| COP  | W/W | 3,80 | 3,89 | 3,79 | 3,72 | 3,78 | 3,81 | 4,03 | 4,04 | 3,31 | 3,46 | 3,61 |
| Water flow rate system side                  | l/h | 1120 | 1265 | 1518 | 1767 | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Useful head system side                      | kPa | 67   | 64   | 62   | 55   | 69   | 61   | 41   | 34   | 55   | 81   | 53   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANL - (P) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|--|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,9  | 7,5  | 9,1  | 11,6 | 16,1 | 19,8 | 24,3 | 26,1 | 31,0 | 38,5 | 48,8 |
| Input power                                  | kW  | 2,0  | 2,2  | 2,6  | 3,5  | 4,6  | 6,2  | 7,0  | 7,0  | 9,9  | 12,3 | 15,5 |
| Cooling total input current                  | A   | 4,2  | 4,7  | 5,2  | 6,8  | 9,7  | 11,0 | 13,0 | 14,0 | 17,0 | 21,0 | 28,0 |
| EER  | W/W | 3,48 | 3,49 | 3,45 | 3,36 | 3,50 | 3,20 | 3,49 | 3,75 | 3,11 | 3,13 | 3,14 |
| Water flow rate system side                  | l/h | 1189 | 1293 | 1564 | 2002 | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Useful head system side                      | kPa | 63   | 63   | 60   | 51   | 60   | 53   | 31   | 24   | 47   | 63   | 41   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 6,5  | 7,3  | 8,8  | 10,2 | 13,8 | 18,1 | 21,8 | 23,0 | 27,2 | 36,8 | 43,6 |
| Input power                                  | kW  | 1,7  | 1,9  | 2,3  | 2,7  | 3,6  | 4,7  | 5,4  | 5,7  | 8,2  | 10,6 | 12,1 |
| Heating total input current                  | A   | 3,6  | 4,1  | 5,0  | 6,4  | 8,8  | 9,8  | 12,0 | 13,0 | 16,0 | 19,0 | 24,0 |
| COP  | W/W | 3,80 | 3,89 | 3,79 | 3,72 | 3,78 | 3,81 | 4,03 | 4,04 | 3,31 | 3,46 | 3,61 |
| Water flow rate system side                  | l/h | 1120 | 1265 | 1518 | 1767 | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Useful head system side                      | kPa | 67   | 64   | 62   | 55   | 69   | 61   | 41   | 34   | 55   | 81   | 53   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANL - (Q) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz)**

| Size   |     | 021 | 026 | 031 | 041 | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|--|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |     |     |     |     |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | -   | -   | -   | -   | 16,1 | 19,8 | 24,3 | 26,1 | 31,0 | 38,5 | 48,8 |
| Input power                                  | kW  | -   | -   | -   | -   | 4,9  | 6,5  | 7,4  | 7,4  | 10,5 | 12,5 | 15,8 |
| Cooling total input current                  | A   | -   | -   | -   | -   | 10,0 | 11,0 | 14,0 | 14,0 | 18,0 | 22,0 | 28,0 |
| EER  | W/W | -   | -   | -   | -   | 3,27 | 3,02 | 3,30 | 3,53 | 2,95 | 3,07 | 3,08 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | 2784 | 3407 | 4189 | 4506 | 5338 | 6636 | 8410 |
| Useful head system side                      | kPa | -   | -   | -   | -   | 136  | 135  | 114  | 108  | 79   | 146  | 114  |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |     |     |     |     |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | -   | -   | -   | -   | 13,8 | 18,1 | 21,8 | 23,0 | 27,2 | 36,8 | 43,6 |
| Input power                                  | kW  | -   | -   | -   | -   | 4,0  | 5,1  | 5,8  | 6,1  | 8,7  | 10,9 | 12,3 |
| Heating total input current                  | A   | -   | -   | -   | -   | 9,1  | 10,0 | 13,0 | 13,0 | 17,0 | 19,0 | 25,0 |
| COP  | W/W | -   | -   | -   | -   | 3,49 | 3,55 | 3,77 | 3,78 | 3,11 | 3,38 | 3,54 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | 2385 | 3126 | 3782 | 3979 | 4709 | 6381 | 7553 |
| Useful head system side                      | kPa | -   | -   | -   | -   | 149  | 146  | 125  | 119  | 92   | 159  | 129  |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ANL - (N) / 23/18 °C - 30/35 °C (400V 3N ~ 50Hz)**

| Size   |     | 021 | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103  | 153  | 203  |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |     |     |     |     |     |     |     |     |      |      |      |
| Cooling capacity                             | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 31,1 | 38,7 | 49,0 |
| Input power                                  | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 10,2 | 11,9 | 15,2 |
| Cooling total input current                  | A   | -   | -   | -   | -   | -   | -   | -   | -   | 18,0 | 22,0 | 28,0 |
| EER  | W/W | -   | -   | -   | -   | -   | -   | -   | -   | 3,07 | 3,25 | 3,23 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | -   | -   | -   | -   | 5338 | 6636 | 8410 |
| Useful head system side                      | kPa | -   | -   | -   | -   | -   | -   | -   | -   | 79   | 146  | 114  |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |     |     |     |     |     |     |     |     |      |      |      |
| Heating capacity                             | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 27,0 | 36,6 | 43,4 |
| Input power                                  | kW  | -   | -   | -   | -   | -   | -   | -   | -   | 8,4  | 10,2 | 11,7 |
| Heating total input current                  | A   | -   | -   | -   | -   | -   | -   | -   | -   | 17,0 | 19,0 | 25,0 |
| COP  | W/W | -   | -   | -   | -   | -   | -   | -   | -   | 3,22 | 3,57 | 3,71 |
| Water flow rate system side                  | l/h | -   | -   | -   | -   | -   | -   | -   | -   | 4709 | 6381 | 7553 |
| Useful head system side                      | kPa | -   | -   | -   | -   | -   | -   | -   | -   | 92   | 159  | 129  |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ENERGY DATA**

| Size  |     | 021     | 026    | 031    | 041    | 051    | 071    | 081    | 091    | 103    | 153    | 203    |
|---|-----|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                 |     |         |        |        |        |        |        |        |        |        |        |        |
| SEER  | °   | W/W     | 3,13   | 3,19   | 3,28   | 3,34   | 3,76   | 3,49   | 3,80   | 3,91   | 3,58   | 3,74   |
|   | A,P | W/W     | 3,29   | 3,36   | 3,45   | 3,50   | 3,89   | 3,69   | 3,99   | 4,16   | 3,55   | 3,53   |
|   | N   | W/W     | -      | -      | -      | -      | -      | -      | -      | -      | 3,14   | 3,48   |
|   | Q   | W/W     | -      | -      | -      | -      | 3,30   | 3,24   | 3,53   | 3,75   | 3,14   | 3,48   |
| ηsc   | °   | %       | 122,00 | 125,00 | 128,00 | 131,00 | 147,00 | 137,00 | 149,00 | 153,00 | 140,00 | 146,00 |
|   | A,P | %       | 129,00 | 131,00 | 135,00 | 137,00 | 153,00 | 145,00 | 157,00 | 163,00 | 139,00 | 138,00 |
|   | N   | %       | -      | -      | -      | -      | -      | -      | -      | -      | 123,00 | 136,00 |
|   | Q   | %       | -      | -      | -      | -      | 129,00 | 127,00 | 138,00 | 147,00 | 123,00 | 136,00 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |         |        |        |        |        |        |        |        |        |        |        |
| Pdesignh  | °   | A,N,P,Q | kW     | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| SCOP  | °   | W/W     | 3,31   | 3,39   | 3,33   | 3,26   | 3,44   | 3,43   | 3,56   | 3,50   | 3,53   | 3,57   |
|   | A,P | W/W     | 3,40   | 3,48   | 3,41   | 3,34   | 3,48   | 3,48   | 3,61   | 3,52   | 3,45   | 3,45   |
|   | N   | W/W     | -      | -      | -      | -      | -      | -      | -      | -      | 3,22   | 3,35   |
|   | Q   | W/W     | -      | -      | -      | -      | 3,22   | 3,28   | 3,43   | 3,39   | 3,22   | 3,35   |
| ηsh   | °   | %       | 129,47 | 132,68 | 130,12 | 127,57 | 134,49 | 134,10 | 139,54 | 137,05 | 138,02 | 139,67 |
|   | A,P | %       | 133,00 | 136,00 | 133,00 | 131,00 | 136,00 | 136,00 | 141,00 | 138,00 | 135,00 | 135,00 |
|   | N   | %       | -      | -      | -      | -      | -      | -      | -      | -      | 126,00 | 131,00 |
|   | Q   | %       | -      | -      | -      | -      | 126,00 | 128,00 | 134,00 | 133,00 | 126,00 | 131,00 |
| Efficiency energy class   | °   |         | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A++    |
|   | A,P |         | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     |
|   | N   |         | -      | -      | -      | -      | -      | -      | -      | -      | A+     | A+     |
|   | Q   |         | -      | -      | -      | -      | A+     | A+     | A+     | A+     | A+     | A+     |

(1) Efficiencies for low temperature applications (35 °C)

**ELECTRIC DATA**

| Size                  |     | 021 | 026  | 031  | 041  | 051  | 071  | 081  | 091   | 103  | 153  | 203   |
|-----------------------|-----|-----|------|------|------|------|------|------|-------|------|------|-------|
| <b>Electric data</b>  |     |     |      |      |      |      |      |      |       |      |      |       |
| Maximum current (FLA) | °   | A   | 7,0  | 7,0  | 7,7  | 9,7  | 11,3 | 13,5 | 16,3  | 17,3 | 22,0 | 26,0  |
|                       | A   | A   | 7,7  | 7,7  | 8,4  | 10,4 | 12,6 | 14,8 | 17,6  | 18,6 | 23,9 | 29,1  |
|                       | N   | A   | -    | -    | -    | -    | -    | -    | -     | -    | 26,2 | 30,2  |
|                       | P   | A   | 69,0 | 67,0 | 65,0 | 63,0 | 12,6 | 14,8 | 17,6  | 18,6 | 83,0 | 194,0 |
|                       | Q   | A   | -    | -    | -    | -    | 12,8 | 15,1 | 17,8  | 18,8 | 26,2 | 30,2  |
| Peak current (LRA)    | °   | A   | 27,5 | 33,5 | 36,7 | 49,7 | 65,3 | 75,3 | 102,3 | 96,3 | 76,0 | 87,0  |
|                       | A,P | A   | 28,2 | 34,2 | 37,4 | 50,4 | 66,6 | 76,6 | 103,6 | 97,6 | 77,9 | 90,1  |
|                       | N   | A   | -    | -    | -    | -    | -    | -    | -     | -    | 80,2 | 91,2  |
|                       | Q   | A   | -    | -    | -    | -    | 66,8 | 76,8 | 103,8 | 97,8 | 80,2 | 91,2  |

**GENERAL TECHNICAL DATA**

| Size                   |      | 021    | 026 | 031 | 041 | 051 | 071 | 081 | 091 | 103 | 153 | 203 |
|------------------------|------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Compressor</b>      |      |        |     |     |     |     |     |     |     |     |     |     |
| Type                   | type | Scroll |     |     |     |     |     |     |     |     |     |     |
| Compressor regulation  | type | On-Off |     |     |     |     |     |     |     |     |     |     |
| Number                 | no.  | 1      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 2   | 2   | 2   |
| Circuits               | no.  | 1      | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Refrigerant            | type | R410A  |     |     |     |     |     |     |     |     |     |     |
| Refrigerant charge (1) | kg   | 1,8    | 1,8 | 2,0 | 2,0 | 2,9 | 2,9 | 3,1 | 3,9 | 4,6 | 5,4 | 5,7 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

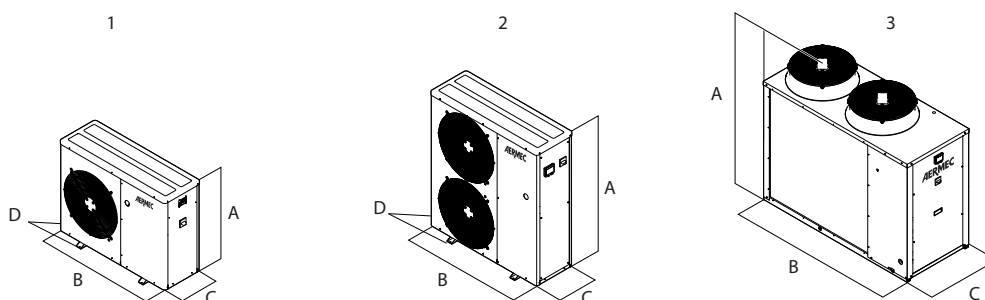
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size                                      |       | 021          | 026          | 031          | 041      | 051      | 071      | 081          | 091      | 103          | 153          | 203          |  |
|---|-------|--------------|--------------|--------------|----------|----------|----------|--------------|----------|--------------|--------------|--------------|--|
| System side heat exchanger                |       |              |              |              |          |          |          |              |          |              |              |              |  |
| Type                                      | type  |              |              |              |          |          |          | Brazed plate |          |              |              |              |  |
| Number                                    | no.   | 1            | 1            | 1            | 1        | 1        | 1        | 1            | 1        | 1            | 1            | 1            |  |
| Hydraulic connections                     |       |              |              |              |          |          |          |              |          |              |              |              |  |
| Connections (in/out)                      | Type  |              |              |              |          |          |          | Gas - F      |          |              |              |              |  |
| Sizes (in/out)                            | Ø     |              |              |              |          |          |          | 1" 1/4       |          |              |              |              |  |
| Fan                                       |       |              |              |              |          |          |          |              |          |              |              |              |  |
| Type                                      | type  |              |              |              |          |          |          | Axial        |          |              |              |              |  |
| Fan motor                                 | type  | Asynchronous | Asynchronous | Asynchronous | Inverter | Inverter | Inverter | Inverter     | Inverter | Asynchronous | Asynchronous | Asynchronous |  |
| Number                                    | no.   | 1            | 1            | 1            | 1        | 1        | 2        | 2            | 2        | 2            | 2            | 2            |  |
| Air flow rate                             | m³/h  | 2500         | 2500         | 3500         | 3500     | 7200     | 7200     | 7300         | 7200     | 14000        | 13500        | 13500        |  |
| Sound data calculated in cooling mode (2) |       |              |              |              |          |          |          |              |          |              |              |              |  |
| Sound power level                         | dB(A) | 61,0         | 61,0         | 68,0         | 68,0     | 69,0     | 69,0     | 69,0         | 68,0     | 76,0         | 77,0         | 78,0         |  |
| Sound pressure level (10 m)               | dB(A) | 29,8         | 29,8         | 36,8         | 36,8     | 37,6     | 37,6     | 37,6         | 36,6     | 44,5         | 45,5         | 46,5         |  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



- 1 ANL 021 - 041
- 2 ANL 051 - 091
- 3 ANL 103 - 203

| Size                          |    |    | 021  | 026  | 031  | 041  | 051  | 071  | 081  | 091  | 103  | 153  | 203  |
|-------------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °P | mm | 1000 | 1000 | 1000 | 1000 | 1252 | 1252 | 1252 | 1252 | 1450 | 1450 | 1450 |
|                               | A  | mm | 1015 | 1015 | 1015 | 1015 | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
|                               | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 1450 | 1450 | 1450 |
|                               | Q  | mm | -    | -    | -    | -    | 1281 | 1281 | 1281 | 1281 | 1450 | 1450 | 1450 |
| B                             | °P | mm | 900  | 900  | 900  | 900  | 1124 | 1124 | 1124 | 1124 | 1750 | 1750 | 1750 |
|                               | A  | mm | 1124 | 1124 | 1124 | 1124 | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
|                               | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 1750 | 1750 | 1750 |
|                               | Q  | mm | -    | -    | -    | -    | 1165 | 1165 | 1165 | 1165 | 1750 | 1750 | 1750 |
| C                             | °P | mm | 310  | 310  | 310  | 310  | 384  | 384  | 384  | 384  | 750  | 750  | 750  |
|                               | A  | mm | 384  | 384  | 384  | 384  | 550  | 550  | 550  | 550  | 750  | 750  | 750  |
|                               | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | 750  | 750  | 750  |
|                               | Q  | mm | -    | -    | -    | -    | 550  | 550  | 550  | 550  | 750  | 750  | 750  |
| D                             | °P | mm | 354  | 354  | 354  | 354  | 428  | 428  | 428  | 428  | -    | -    | -    |
|                               | A  | mm | 428  | 428  | 428  | 428  | -    | -    | -    | -    | -    | -    | -    |
|                               | N  | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                               | Q  | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Empty weight                  | °  | kg | 86   | 86   | 86   | 86   | 120  | 120  | 120  | 156  | 270  | 293  | 329  |
|                               | A  | kg | 103  | 103  | 103  | 103  | 147  | 147  | 183  | 183  | 338  | 364  | 400  |
|                               | N  | kg | -    | -    | -    | -    | -    | -    | -    | -    | 338  | 364  | 400  |
|                               | P  | kg | 91   | 91   | 91   | 91   | 127  | 127  | 163  | 163  | 288  | 314  | 350  |
|                               | Q  | kg | -    | -    | -    | -    | 147  | 147  | 183  | 183  | 338  | 364  | 400  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRK 0090-0150

## Reversible air/water heat pump

Cooling capacity 18,4 ÷ 31,0 kW – Heating capacity 20,8 ÷ 34,4 kW



- **Cooling / heating / high-temperature water production even for DHW production.**
- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimised for heating mode**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential, commercial complexes or industrial applications. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° High efficiency

### FEATURES

#### Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

#### Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

#### Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

#### DCPX as standard

Phase-cut device that regulates the fan speed to ensure optimum unit operation in all conditions.

### CONTROL

MODUCONTROL control type.

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (Wi-Fi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACnet TCP/IP protocol.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SAF:** Thermal buffer tank kit with instantaneous Domestic Hot Water production. For more information about SAF refer to the dedicated documentation.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating

system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

## ACCESSORIES COMPATIBILITY

| Model        | Ver | 0090 | 0100 | 0150 |
|--------------|-----|------|------|------|
| AERBAC-MODU  | °   | •    | •    | •    |
| AERLINK      | °   | •    | •    | •    |
| AERNET       | °   | •    | •    | •    |
| BMConverter  | °   | •    | •    | •    |
| MODU-485BL   | °   | •    | •    | •    |
| MULTICONTROL | °   | •    | •    | •    |
| PR3          | °   | •    | •    | •    |
| SAF (1)      | °   | •    | •    | •    |
| SDHW (2)     | °   | •    | •    | •    |
| SGD          | °   | •    | •    | •    |
| SPLW (3)     | °   | •    | •    | •    |
| VMF-CRP      | °   | •    | •    | •    |

(1) For more information about SAF refer to the dedicated documentation.

(2) Probe required for MULTICONTROL for managing the domestic hot water system.

(3) Probe required for MULTICONTROL to manage the secondary circuit system.

### Remote panel

| Model | Ver | 0090 | 0100 | 0150 |
|-------|-----|------|------|------|
| PR4   | °   | •    | •    | •    |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### BSKW: Electric heater kit

| Model     | Ver | 0090 | 0100 | 0150 |
|-----------|-----|------|------|------|
| BS6KW400T | °   | •    | •    | •    |
| BS9KW400T | °   | •    | •    | •    |

BS6KW400T (6kW, 400V 3); BS9KW400T (9kW, 400V 3)

### VT: Antivibration

| Ver   | 0090 | 0100 | 0150 |
|---|------|------|------|
| Integrated hydronic kit: 00, 01, 03, P1, P3 |      |      |      |
| °   | VT15 | VT15 | VT15 |

### DRE: Device for peak current reduction

| Ver | 0090      | 0100      | 0150      |
|-----|-----------|-----------|-----------|
| °   | DRE10 (1) | DRE10 (1) | DRE15 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x2 or x3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                          |
|---------|--------------------------------------|
| 1,2,3   | NRK                                  |
| 4,5,6,7 | Size<br>0090, 0100, 0150             |
| 8       | Operating field (1)                  |
| °       | Standard mechanic thermostatic valve |
| 9       | Model                                |
| H       | Heat pump                            |
| 10      | Heat recovery                        |
| D       | With desuperheater (2)               |
| °       | Without heat recovery                |
| 11      | Version                              |
| °       | High efficiency                      |
| 12      | Coils                                |
| R       | Copper pipes-copper fins             |

**VT:** Anti-vibration supports.

**BSKW:** Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

■ Refer to the specific "SAF" datasheet for more information about correct system operation, and about the required or recommended accessories. Please consult the VMF system for the production of DHW with a thermal storage tank not supplied by Aermec.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

| Field | Description                        |
|-------|------------------------------------|
| S     | Tinned copper                      |
| V     | Copper pieps-Coated aluminium fins |
| °     | Alluminium                         |
| 13    | Fans                               |
| °     | Standard                           |
| 14    | Power supply                       |
| °     | 400V ~ 3N 50Hz                     |
| 15,16 | Integrated hydronic kit            |
| 00    | Without hydronic kit               |
| 01    | Storage tank with low head pump    |
| 03    | Storage tank with high head pump   |
| P1    | Single pump low head               |
| P3    | Single pump high head              |

(1) Water produced up to +4 °C.

(2) The desuperheater can only be used with cold running.

## PERFORMANCE SPECIFICATIONS

### NRK - (°) / 12/7 °C - 40/45 °C

| Size   |     | 0090 | 0100 | 0150 |
|--|-----|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |
| Cooling capacity                             | kW  | 18,4 | 26,4 | 31,0 |
| Input power                                  | kW  | 5,8  | 8,4  | 9,8  |
| Cooling total input current                  | A   | 13,0 | 18,0 | 20,0 |
| EER  | W/W | 3,19 | 3,15 | 3,15 |
| Water flow rate system side                  | l/h | 3172 | 4546 | 5338 |
| Pressure drop system side                    | kPa | 19   | 39   | 54   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |
| Heating capacity                             | kW  | 20,8 | 28,7 | 34,4 |
| Input power                                  | kW  | 6,1  | 8,3  | 10,3 |
| Heating total input current                  | A   | 14,0 | 17,0 | 21,0 |
| COP  | W/W | 3,40 | 3,45 | 3,34 |
| Water flow rate system side                  | l/h | 3601 | 4965 | 5953 |
| Pressure drop system side                    | kPa | 24   | 45   | 65   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRK - (°) / 23/18 °C - 30/35 °C

| Size   |     | 0090 | 0100 | 0150 |
|--|-----|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |
| Cooling capacity                             | kW  | 24,5 | 34,9 | 40,9 |
| Input power                                  | kW  | 6,1  | 9,0  | 10,6 |
| Cooling total input current                  | A   | 14,0 | 18,0 | 22,0 |
| EER  | W/W | 4,03 | 3,88 | 3,86 |
| Water flow rate system side                  | l/h | 4236 | 6040 | 7093 |
| Pressure drop system side                    | kPa | 34   | 69   | 95   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |
| Heating capacity                             | kW  | 20,4 | 28,2 | 33,8 |
| Input power                                  | kW  | 5,0  | 6,7  | 8,3  |
| Heating total input current                  | A   | 11,0 | 14,0 | 17,0 |
| COP  | W/W | 4,11 | 4,22 | 4,09 |
| Water flow rate system side                  | l/h | 3521 | 4866 | 5833 |
| Pressure drop system side                    | kPa | 23   | 43   | -    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size   |       | 0090   | 0100   | 0150   |
|--|-------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>  |       |        |        |        |
| SEER   | ° W/W | 3,35   | 3,39   | 3,42   |
| η <sub>sc</sub>  | ° %   | 131,10 | 132,60 | 133,80 |
| Size   |       | 0090   | 0100   | 0150   |
| <b>Integrated hydronic kit: 00</b>   |       |        |        |        |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - P<sub>designh</sub> ≤ 70 kW (1)</b> |       |        |        |        |
| Efficiency energy class  | °     | A+     | A+     | A+     |
| P <sub>designh</sub>   | ° kW  | 22,00  | 28,00  | 34,00  |
| SCOP   | ° W/W | 3,03   | 2,98   | 2,90   |
| η <sub>sh</sub>  | ° %   | 118,00 | 116,00 | 113,00 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - P<sub>designh</sub> ≤ 70 kW (2)</b> |       |        |        |        |
| Efficiency energy class  | °     | A+     | A+     | A+     |
| P <sub>designh</sub>   | ° kW  | 21,00  | 27,00  | 32,00  |
| SCOP   | ° W/W | 3,70   | 3,68   | 3,60   |
| η <sub>sh</sub>  | ° %   | 145,00 | 144,00 | 141,00 |

(1) Efficiencies for average temperature applications (55 °C)

(2) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |     | 0090  | 0100  | 0150  |
|-----------------------|-----|-------|-------|-------|
| <b>Electric data</b>  |     |       |       |       |
| Maximum current (FLA) | ° A | 19,1  | 24,6  | 29,5  |
| Peak current (LRA)    | ° A | 104,2 | 121,2 | 143,2 |

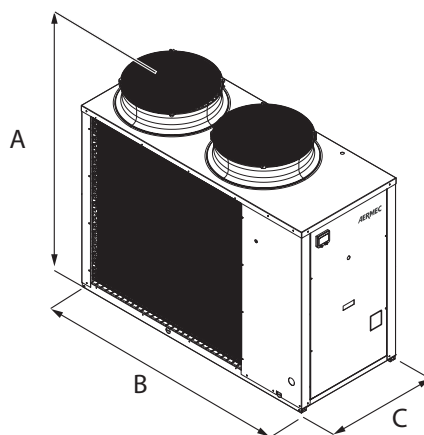
## GENERAL TECHNICAL DATA

| Size   |   |       | 0090  | 0100         | 0150  |
|--|---|-------|-------|--------------|-------|
| <b>Compressor</b>                                |   |       |       |              |       |
| Type   | ° | type  |       | Scroll       |       |
| Compressor regulation                            | ° | Type  |       | On-Off       |       |
| Number   | ° | no.   | 1     | 1            | 1     |
| Circuits   | ° | no.   | 1     | 1            | 1     |
| Refrigerant                                      | ° | type  |       | R410A        |       |
| Refrigerant charge (1)                           | ° | kg    | 13,0  | 14,0         | 16,0  |
| <b>System side heat exchanger</b>                |   |       |       |              |       |
| Type   | ° | type  |       | Brazed plate |       |
| Number   | ° | no.   | 1     | 1            | 1     |
| <b>Hydraulic connections</b>                     |   |       |       |              |       |
| Connections (in/out)                             | ° | Type  |       | Gas-F        |       |
| Size (in)  | ° | Ø     |       | 1½"          |       |
| Size (out)                                       | ° | Ø     |       | 1½"          |       |
| <b>Fan</b>                                       |   |       |       |              |       |
| Type   | ° | type  |       | axials       |       |
| Fan motor  | ° | type  |       | Asynchronous |       |
| Number   | ° | no.   | 2     | 2            | 2     |
| Air flow rate                                    | ° | m³/h  | 14200 | 14200        | 13700 |
| <b>Sound data calculated in cooling mode (2)</b> |   |       |       |              |       |
| Sound power level                                | ° | dB(A) | 78,0  | 78,0         | 78,0  |
| Sound pressure level (10 m)                      | ° | dB(A) | 46,5  | 46,5         | 46,5  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |   |    | 0090 | 0100 | 0150 |
|-------------------------------|---|----|------|------|------|
| <b>Dimensions and weights</b> |   |    |      |      |      |
| A                             | ° | mm | 1450 | 1450 | 1450 |
| B                             | ° | mm | 1750 | 1750 | 1750 |
| C                             | ° | mm | 750  | 750  | 750  |
| Empty weight                  | ° | kg | 289  | 328  | 372  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRK 0200-0700

## Reversible air/water heat pump

Cooling capacity 35,5 ÷ 148 kW  
Heating capacity 42,31 ÷ 175 kW



- Water produced up to +65 °C
- Heating operations with external temperatures down to -20 °C
- Optimized for operation in heating mode



### DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users. It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.

Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

**A** High efficiency

**E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

#### Components

Water filter, flow switch, low and high pressure transducers as standard supply on all units.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Adjustment includes complete management of the alarms and their log.
- Possibility to control two units in a Master-Slave configuration

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACnet TCP/IP protocol.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

**PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

**AERCALM:** The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

### COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

### ACCESSORIES COMPATIBILITY

| Model            | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| BMConverter      | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | A   |      |      |      |      | *    |      |      |      |      |      |
|                  | E   | *    | *    | *    | *    | *    |      |      |      |      |      |

#### Remote panel

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|
| PR4   | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|       | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

#### GP: anti-intrusion grid

| Ver | 0200 | 0280 | 0300 | 0330 | 0350        | 0500        | 0550        | 0600        | 0650        | 0700        |
|-----|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| E   | GP3  | GP3  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

#### VT: Antivibration

| Ver  | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|--|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, P1, P2, P3, P4</b>             |      |      |      |      |      |      |      |      |      |      |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| E  | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |      |      |      |      |      |      |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |
| E  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 |

#### DRE: Device for peak current reduction

| Ver | 0200       | 0280       | 0300       | 0330       | 0350       | 0500       | 0550       | 0600       | 0650       | 0700       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A   | -          | -          | -          | -          | DRE351 (1) | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) |
| E   | DRE201 (1) | DRE281 (1) | DRE301 (1) | DRE331 (1) | DRE351 (1) | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

#### RIF: Power factor correction

| Ver | 0200  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A   | -     | -     | -     | -     | RIF65 | RIF58 | RIF59 | RIF60 | RIF61 | RIF61 |
| E   | RIF55 | RIF56 | RIF54 | RIF57 | RIF65 | RIF58 | RIF59 | RIF60 | RIF61 | RIF61 |

A grey background indicates the accessory must be assembled in the factory

#### Double safety valves

| Ver | 0200   | 0280   | 0300   | 0330   | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A   | -      | -      | -      | -      | T6NRK1 | T6NRK2 | T6NRK3 | T6NRK3 | T6NRK3 | T6NRK3 |
| E   | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK1 | T6NRK2 | T6NRK3 | T6NRK3 | T6NRK3 | T6NRK3 |

A grey background indicates the accessory must be assembled in the factory

**PRM1: Manually reset pressure switch**

| Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|-----|------|------|------|------|------|------|------|------|------|------|
| A   | -    | -    | -    | -    | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 |
| E   | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 | PRM1 |

A grey background indicates the accessory must be assembled in the factory

**7", touch screen keyboard**

| Model   | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---------|-----|------|------|------|------|------|------|------|------|------|------|
| C-TOUCH | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|         | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

**Clean contact for controlling a boiler.**

| Model   | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---------|-----|------|------|------|------|------|------|------|------|------|------|
| AERCALM | A   |      |      |      |      | *    | *    | *    | *    | *    | *    |
|         | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

**CONFIGURATOR**

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRK</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700 |
| <b>8</b>       | <b>Operating field (1)</b>  |
| °              | Standard mechanic thermostatic valve                                      |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (2)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter (3)  |
| M              | Oversized (4)   |
| °              | Standard (5)  |
| <b>14</b>      | <b>Power supply</b>   |

| Field        | Description  |
|--------------|--|
| °            | 400V 3N ~ 50Hz   |
| <b>15,16</b> | <b>Integrated hydronic kit</b>   |
| 00           | Without hydronic kit   |
| 01           | Storage tank with low head pump  |
| 02           | Storage tank with low head pump + stand-by pump                            |
| 03           | Storage tank with high head pump   |
| 04           | Storage tank with high head pump + stand-by pump                           |
| 05           | Storage tank with holes for heaters and single low head pump (6)           |
| 06           | Storage tank with holes for heaters and pump low head + stand-by pump (6)  |
| 07           | Storage tank with holes for heaters and single high head pump (6)          |
| 08           | Storage tank with holes for heaters and pump high head + stand-by pump (6) |
| P1           | Single pump low head   |
| P2           | Pump low head + stand-by pump  |
| P3           | Single pump high head  |
| P4           | Pump high head + stand-by pump   |

(1) Water produced up to +4 °C

(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) Standard for size 0200÷0330, without useful static pressure. Option for size 0350÷0700 with useful static pressure.

(4) Option available only for size 0200÷0330.

(5) As standard in sizes from 0350÷0700.

(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

**PERFORMANCE SPECIFICATIONS 12 °C / 7 °C - 40 °C / 45 °C****NRK - A / 12/7 °C - 40/45 °C**

| Size   |     | 0200 | 0280 | 0300 | 0330 | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 75,4  | 88,8  | 101,6 | 117,4 | 133,4 | 148,1 |
| Input power                                  | kW  | -    | -    | -    | -    | 25,4  | 29,5  | 34,4  | 41,0  | 45,0  | 52,6  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 55,0  | 61,0  | 66,0  | 72,0  | 87,0  | 107,0 |
| EER  | W/W | -    | -    | -    | -    | 2,97  | 3,01  | 2,95  | 2,86  | 2,97  | 2,82  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 12983 | 15278 | 17488 | 20211 | 22975 | 25516 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 23    | 26    | 32    | 28    | 34    | 42    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 87,9  | 103,9 | 118,9 | 136,6 | 155,6 | 174,4 |
| Input power                                  | kW  | -    | -    | -    | -    | 25,5  | 30,2  | 34,7  | 39,9  | 45,6  | 51,7  |
| Heating total input current                  | A   | -    | -    | -    | -    | 54,0  | 59,0  | 64,0  | 70,0  | 85,0  | 106,0 |
| COP  | W/W | -    | -    | -    | -    | 3,45  | 3,44  | 3,42  | 3,42  | 3,41  | 3,37  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 15236 | 18010 | 20602 | 23680 | 26988 | 30254 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 32    | 36    | 44    | 37    | 45    | 57    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.



**NRK - E / 12/7 °C - 40/45 °C**

| Size   |     | 0200 | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|--|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 35,6 | 50,4  | 59,5  | 66,1  | 74,4  | 87,4  | 99,8  | 114,5 | 130,8 | 145,3 |
| Input power                                  | kW  | 11,7 | 17,4  | 19,5  | 22,3  | 27,6  | 32,4  | 38,1  | 45,8  | 49,5  | 58,1  |
| Cooling total input current                  | A   | 28,0 | 38,0  | 42,0  | 49,0  | 60,0  | 67,0  | 73,0  | 72,0  | 95,0  | 119,0 |
| EER  | W/W | 3,05 | 2,90  | 3,05  | 2,96  | 2,69  | 2,70  | 2,62  | 2,50  | 2,64  | 2,50  |
| Water flow rate system side                  | l/h | 6131 | 8670  | 10235 | 11379 | 12801 | 15035 | 17175 | 19713 | 22512 | 25033 |
| Pressure drop system side                    | kPa | 18   | 17    | 23    | 19    | 22    | 25    | 30    | 27    | 32    | 41    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 42,2 | 59,7  | 69,4  | 78,2  | 87,9  | 103,9 | 118,9 | 136,6 | 155,6 | 174,4 |
| Input power                                  | kW  | 12,0 | 17,0  | 19,9  | 22,4  | 25,5  | 30,2  | 34,7  | 39,9  | 45,6  | 51,7  |
| COP  | W/W | 3,50 | 3,50  | 3,49  | 3,49  | 3,45  | 3,44  | 3,42  | 3,42  | 3,41  | 3,37  |
| Heating total input current                  | A   | 24,0 | 34,0  | 38,0  | 44,0  | 54,0  | 59,0  | 64,0  | 70,0  | 85,0  | 106,0 |
| Water flow rate system side                  | l/h | 7318 | 10355 | 12032 | 13569 | 15236 | 18010 | 20602 | 23680 | 26988 | 30254 |
| Pressure drop system side                    | kPa | 24   | 22    | 30    | 25    | 32    | 36    | 44    | 37    | 45    | 57    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C****NRK - A / 23/18 °C - 30/35 °C**

| Size   |     | 0200 | 0280 | 0300 | 0330 | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 93,2  | 108,2 | 122,7 | 143,0 | 165,0 | 181,0 |
| Input power                                  | kW  | -    | -    | -    | -    | 26,4  | 30,7  | 35,9  | 43,3  | 47,0  | 55,1  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 57,0  | 63,0  | 69,0  | 75,0  | 90,0  | 112,0 |
| EER  | W/W | -    | -    | -    | -    | 3,54  | 3,53  | 3,42  | 3,30  | 3,51  | 3,28  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 16111 | 18705 | 21231 | 24719 | 28513 | 31266 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 35    | 39    | 47    | 42    | 52    | 63    |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 86,4  | 101,5 | 114,6 | 132,6 | 150,2 | 170,5 |
| Input power                                  | kW  | -    | -    | -    | -    | 20,6  | 24,5  | 27,8  | 31,7  | 37,0  | 41,9  |
| Heating total input current                  | A   | -    | -    | -    | -    | 44,0  | 48,0  | 51,0  | 55,0  | 68,0  | 85,0  |
| COP  | W/W | -    | -    | -    | -    | 4,19  | 4,15  | 4,13  | 4,19  | 4,06  | 4,06  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 14931 | 17533 | 19787 | 22919 | 25938 | 29467 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 31    | 34    | 41    | 35    | 42    | 54    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**NRK - E / 23/18 °C - 30/35 °C**

| Size   |     | 0200 | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|--|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 44,2 | 61,5  | 72,1  | 80,9  | 91,9  | 106,5 | 120,6 | 139,5 | 161,7 | 177,5 |
| Input power                                  | kW  | 12,2 | 18,2  | 20,4  | 23,5  | 28,7  | 33,6  | 39,7  | 48,3  | 51,7  | 60,8  |
| Cooling total input current                  | A   | 29,0 | 40,0  | 44,0  | 51,0  | 62,0  | 69,0  | 76,0  | 75,0  | 99,0  | 124,0 |
| EER  | W/W | 3,64 | 3,37  | 3,53  | 3,44  | 3,20  | 3,16  | 3,04  | 2,89  | 3,13  | 2,92  |
| Water flow rate system side                  | l/h | 7643 | 10631 | 12470 | 13977 | 15886 | 18408 | 20850 | 24110 | 27939 | 30673 |
| Pressure drop system side                    | kPa | 28   | 26    | 34    | 29    | 34    | 37    | 44    | 40    | 49    | 62    |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 41,4 | 57,2  | 67,2  | 75,7  | 86,4  | 101,5 | 114,6 | 132,6 | 150,2 | 170,5 |
| Input power                                  | kW  | 9,4  | 13,3  | 15,8  | 18,1  | 20,6  | 24,5  | 27,8  | 31,7  | 37,0  | 41,9  |
| Heating total input current                  | A   | 19,0 | 26,0  | 30,0  | 35,0  | 44,0  | 48,0  | 51,0  | 55,0  | 68,0  | 85,0  |
| COP  | W/W | 4,41 | 4,31  | 4,26  | 4,18  | 4,19  | 4,15  | 4,13  | 4,19  | 4,06  | 4,06  |
| Water flow rate system side                  | l/h | 7156 | 9895  | 11628 | 13083 | 14931 | 17533 | 19787 | 22919 | 25938 | 29467 |
| Pressure drop system side                    | kPa | 23   | 20    | 28    | 23    | 31    | 34    | 41    | 35    | 42    | 54    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**ELECTRIC DATA**

| Size                  |   | 0200 | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |      |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A    | -     | -     | -     | 75,0  | 85,0  | 94,0  | 114,0 | 144,0 | 147,0 |
|                       | E | A    | 40,0  | 49,0  | 61,0  | 74,0  | 75,0  | 94,0  | 114,0 | 144,0 | 147,0 |
| Peak current (LRA)    | A | A    | -     | -     | -     | 216,0 | 226,0 | 191,0 | 228,0 | 285,0 | 288,0 |
|                       | E | A    | 124,0 | 146,0 | 175,0 | 215,0 | 216,0 | 226,0 | 191,0 | 228,0 | 288,0 |



## ENERGY DATA

| Size  |   | 0200 | 0280   | 0300   | 0330   | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |   |      |        |        |        |        |        |        |        |        |        |
| SEER  | A | W/W  | -      | -      | -      | 3,45   | 3,52   | 3,46   | 3,42   | 3,44   | 3,33   |
|   | E | W/W  | 3,40   | 3,30   | 3,48   | 3,39   | 3,35   | 3,42   | 3,34   | 3,29   | 3,27   |
| $\eta_{sc}$   | A | %    | -      | -      | -      | 134,80 | 137,60 | 135,20 | 133,70 | 134,60 | 130,00 |
|   | E | %    | 133,00 | 128,80 | 136,10 | 132,50 | 130,90 | 133,70 | 130,60 | 128,70 | 127,90 |

| Size  |   | 0200 | 0280   | 0300   |
|---|---|------|--------|--------|
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |   |      |        |        |
| Efficiency energy class   | A | -    | -      | -      |
|   | E | A++  | A+     | A+     |
| Pdesignh  | A | kW   | -      | -      |
|   | E | kW   | 42,00  | 58,00  |
| SCOP  | A | W/W  | -      | -      |
|   | E | W/W  | 3,88   | 3,75   |
| $\eta_{sh}$   | A | %    | -      | -      |
|   | E | %    | 152,00 | 147,00 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |   |      |        |        |
| Efficiency energy class   | A | -    | -      | -      |
|   | E | A+   | A+     | A+     |
| Pdesignh  | A | kW   | -      | -      |
|   | E | kW   | 44,00  | 62,00  |
| SCOP  | A | W/W  | -      | -      |
|   | E | W/W  | 3,08   | 3,03   |
| $\eta_{sh}$   | A | %    | -      | -      |
|   | E | %    | 120,00 | 118,00 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Size   |   | 0330 | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   |
|--|---|------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |        |        |        |        |
| Pdesignh   | A | kW   | -      | 89,00  | 106,00 | 121,00 | 137,00 | 157,00 |
|  | E | kW   | 80,00  | 89,00  | 106,00 | 121,00 | 137,00 | 157,00 |
| SCOP   | A | W/W  | -      | 2,88   | 2,90   | 3,03   | 3,03   | 2,93   |
|  | E | W/W  | 3,03   | 2,88   | 2,90   | 3,03   | 3,03   | 2,93   |
| $\eta_{sh}$  | A | %    | -      | 112,00 | 113,00 | 118,00 | 118,00 | 114,00 |
|  | E | %    | 118,00 | 112,00 | 113,00 | 118,00 | 118,00 | 114,00 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (2)</b> |   |      |        |        |        |        |        |        |
| Pdesignh   | A | kW   | -      | 84,00  | 99,00  | 113,00 | 131,00 | 149,00 |
|  | E | kW   | 75,00  | 84,00  | 99,00  | 113,00 | 131,00 | 149,00 |
| SCOP   | A | W/W  | -      | 3,43   | 3,40   | 3,70   | 3,70   | 3,38   |
|  | E | W/W  | 3,68   | 3,43   | 3,40   | 3,70   | 3,70   | 3,38   |
| $\eta_{sh}$  | A | %    | -      | 134,00 | 133,00 | 145,00 | 145,00 | 132,00 |
|  | E | %    | 144,00 | 134,00 | 133,00 | 145,00 | 145,00 | 132,00 |

(1) Efficiencies for average temperature applications (55 °C)

(2) Efficiencies for low temperature applications (35 °C)

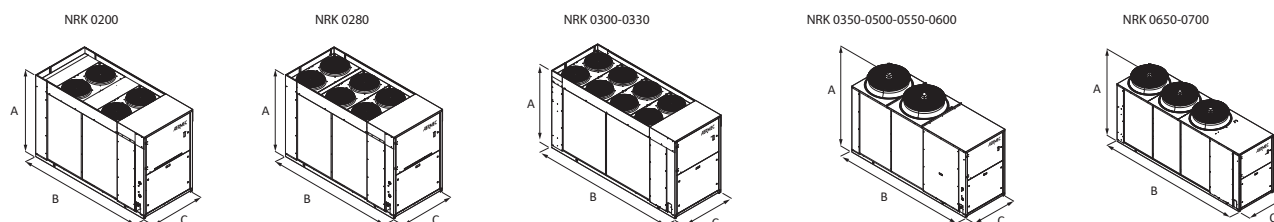
## GENERAL TECHNICAL DATA

| Size                                      |     |       | 0200           | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|---|-----|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                                |     |       |                |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E | type  | Scroll         |       |       |       |       |       |       |       |       |       |
| Compressor regulation                     | A,E | Type  | On-Off         |       |       |       |       |       |       |       |       |       |
| Number                                    | A,E | no.   | 2              | 2     | 2     | 2     | 2     | 3     | 4     | 4     | 4     | 4     |
| Circuits                                  | A,E | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| Refrigerant                               | A,E | type  | R410A          |       |       |       |       |       |       |       |       |       |
| Refrigerant charge (1)                    | A   | kg    | -              | -     | -     | -     | 23,0  | 28,0  | 29,0  | 29,0  | 39,0  | 40,0  |
|   | E   | kg    | 14,0           | 16,0  | 16,0  | 16,0  | 23,0  | 28,0  | 29,0  | 29,0  | 39,0  | 40,0  |
| System side heat exchanger                |     |       |                |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E | type  | Brazed plate   |       |       |       |       |       |       |       |       |       |
| Number                                    | A,E | no.   | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Hydraulic connections                     |     |       |                |       |       |       |       |       |       |       |       |       |
| Connections (in/out)                      | A,E | Type  | Grooved joints |       |       |       |       |       |       |       |       |       |
| Sizes (in/out)                            | A,E | Ø     | 2½"            |       |       |       |       |       |       |       |       |       |
| Fan                                       |     |       |                |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E | type  | axials         |       |       |       |       |       |       |       |       |       |
| Number                                    | A   | no.   | -              | -     | -     | -     | 2     | 2     | 2     | 2     | 3     | 3     |
|   | E   | no.   | 4              | 6     | 8     | 8     | 2     | 2     | 2     | 2     | 3     | 3     |
| Air flow rate                             | A   | m³/h  | -              | -     | -     | -     | 37000 | 36500 | 36500 | 36500 | 58000 | 58000 |
|   | E   | m³/h  | 14000          | 20000 | 26000 | 26000 | 21100 | 21400 | 22400 | 22400 | 31900 | 31900 |
| Sound data calculated in cooling mode (2) |     |       |                |       |       |       |       |       |       |       |       |       |
| Sound power level                         | A   | dB(A) | -              | -     | -     | -     | 82,0  | 82,0  | 82,0  | 83,0  | 85,0  | 85,0  |
|   | E   | dB(A) | 74,0           | 74,0  | 75,0  | 75,0  | 74,0  | 74,0  | 74,0  | 75,0  | 77,0  | 77,0  |
| Sound pressure level (10 m)               | A   | dB(A) | -              | -     | -     | -     | 50,1  | 50,1  | 50,1  | 51,1  | 53,0  | 53,0  |
|   | E   | dB(A) | 42,3           | 42,3  | 43,2  | 43,2  | 42,1  | 42,1  | 42,1  | 43,1  | 45,0  | 45,0  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size  |   |    | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|---|---|----|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>               |   |    |      |      |      |      |      |      |      |      |      |      |
| A   | A | mm | -    | -    | -    | -    | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 |
|   | E | mm | 1606 | 1606 | 1606 | 1606 | 1875 | 1875 | 1875 | 1875 | 1875 | 1875 |
| B   | A | mm | -    | -    | -    | -    | 3330 | 3330 | 3330 | 3330 | 4330 | 4330 |
|   | E | mm | 2700 | 2700 | 3200 | 3200 | 3330 | 3330 | 3330 | 3330 | 4330 | 4330 |
| C   | A | mm | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|   | E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| <b>Dimensions and weights for transport</b> |   |    |      |      |      |      |      |      |      |      |      |      |
| A   | A | mm | -    | -    | -    | -    | 2027 | 2027 | 2027 | 2027 | 2039 | 2039 |
|   | E | mm | 1735 | 1735 | 1758 | 1758 | 2027 | 2027 | 2027 | 2027 | 2039 | 2039 |
| B   | A | mm | -    | -    | -    | -    | 3395 | 3395 | 3395 | 3395 | 4387 | 4387 |
|   | E | mm | 2760 | 2760 | 3260 | 3260 | 3395 | 3395 | 3395 | 3395 | 4387 | 4387 |
| C   | A | mm | -    | -    | -    | -    | 1170 | 1170 | 1170 | 1170 | 1170 | 1170 |
|   | E | mm | 1160 | 1160 | 1160 | 1160 | 1170 | 1170 | 1170 | 1170 | 1170 | 1170 |
| <b>Integrated hydronic kit: 00</b>          |   |    |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                              |   |    |      |      |      |      |      |      |      |      |      |      |
| Empty weight                                | A | kg | -    | -    | -    | -    | 1067 | 1213 | 1274 | 1316 | 1495 | 1530 |
|   | E | kg | 761  | 833  | 913  | 920  | 1067 | 1213 | 1274 | 1316 | 1495 | 1530 |

Aermec reserves the right to make any modifications deemed necessary.  
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## Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**KNYB:** Pair of caps with grooved joints assembled on the unit manifold.

**KREC:** Accessory kit to remote the electric power supply input to the back  
**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

### COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

### ACCESSORIES COMPATIBILITY

| Model            | Ver | 0550 |
|------------------|-----|------|
| AER48SP1         | A,E | *    |
| AERBACP          | A,E | *    |
| AERLINK          | A,E | *    |
| GPNYB_SIDE       | A,E | *    |
| GPNY_BACK        | A,E | *    |
| MULTICHILLER-EVO | A,E | *    |
| PGD1             | A,E | *    |

### Condensation control temperature

| Ver     | 0550        |
|---------|-------------|
| Fans: M |             |
| A       | DCPXNRV0550 |
| E       | As standard |

### DRE: electronic device for peak current reduction

| Ver  | 0550    |
|------|---------|
| A, E | DRE (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

### KNYB: Pair of caps with grooved joints assembled on the unit manifold

| Ver  | 0550 |
|------|------|
| A, E | KNYB |

A grey background indicates the accessory must be assembled in the factory

### KREC: kit to remote the electric power supply input to the back

| Ver  | 0550 |
|------|------|
| A, E | KREC |

A grey background indicates the accessory must be assembled in the factory

### RIF: Power factor correction

| Ver  | 0550    |
|------|---------|
| A, E | RIF (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                              |
|---------|--|
| 1,2,3   | NRV                                      |
| 4,5,6,7 | Size<br>0550                             |
| 8       | <b>Operating field</b>                   |
| X       | Electronic thermostatic expansion valve  |
| °       | Standard mechanic thermostatic valve (1) |
| 9       | <b>Model</b>                             |
| °       | Cooling only                             |
| 10      | <b>Heat recovery</b>                     |
| D       | With desuperheater                       |
| °       | Without heat recovery                    |
| 11      | <b>Version</b>                           |
| A       | High efficiency                          |
| E       | Silenced high efficiency                 |
| 12      | <b>Coils</b>                             |
| I       | Copper-aluminium                         |
| O       | Coated aluminium microchannel            |
| R       | Copper pipes-copper fins                 |
| S       | Copper pipes-Tinned copper fins          |
| V       | Copper pipes-Coated aluminium fins       |
| °       | Aluminium microchannel                   |
| 13      | <b>Fans</b>                              |
| J       | Inverter (2)                             |
| M       | Oversized                                |
| 14      | <b>Power supply (3)</b>                  |
| °       | 400V 3 ~ 50Hz                            |
| 15,16   | <b>Integrated hydronic kit</b>           |
| 00      | Without hydronic kit                     |

(1) Water produced up to +4 °C

(2) With "J" fan is unnecessary DCPX accessory

(3) With magnet circuit breakers

## PERFORMANCE SPECIFICATIONS

| Size                                 |     |     | 0550  |
|--------------------------------------|-----|-----|-------|
| Fans: J, M                           |     |     |       |
| Cooling performance 12 °C / 7 °C (1) |     |     |       |
| Cooling capacity                     | A   | kW  | 108,3 |
|                                      | E   | kW  | 103,8 |
| Input power                          | A   | kW  | 34,8  |
|                                      | E   | kW  | 36,2  |
| Cooling total input current          | A,E | A   | 62,0  |
| EER                                  | A   | W/W | 3,11  |
|                                      | E   | W/W | 2,86  |
| Water flow rate system side          | A   | l/h | 18646 |
|                                      | E   | l/h | 17862 |
| Pressure drop system side            | A   | kPa | 32    |
|                                      | E   | kPa | 30    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

|                                 |      |     |        |
|---------------------------------|------|-----|--------|
| Size                            | 0550 |     |        |
| Fans: J                         |      |     |        |
| SEER - 12/7 (EN14825: 2018) (1) |      |     |        |
| SEER                            | A    | W/W | 4,51   |
|                                 | E    | W/W | 4,45   |
| Seasonal efficiency             | A    | %   | 177,20 |
|                                 | E    | %   | 174,80 |
| SEPR - (EN 14825: 2018) (2)     |      |     |        |
| SEPR                            | A,E  | W/W | 5,60   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

|  |     |     |             |
|--|-----|-----|-------------|
| <b>Size</b>                            |     |     | <b>0550</b> |
| <b>Fans: M</b>                         |     |     |             |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b> |     |     |             |
| SEER                                   | A   | W/W | 4,39        |
|  | E   | W/W | 4,33        |
| Seasonal efficiency                    | A   | %   | 172,60      |
|  | E   | %   | 170,30      |
| <b>SEPR - (EN 14825: 2018) (2)</b>     |     |     |             |
| SEPR                                   | A,E | W/W | 5,62        |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

|                       |     |   |             |
|-----------------------|-----|---|-------------|
| <b>Size</b>           |     |   | <b>0550</b> |
| <b>Electric data</b>  |     |   |             |
| Maximum current (FLA) | A,E | A | 95,6        |
| Peak current (LRA)    | A,E | A | 280,6       |

## GENERAL TECHNICAL DATA

|  |     |      |                |
|--|-----|------|----------------|
| <b>Size</b>                              |     |      | <b>0550</b>    |
| <b>Compressor</b>                        |     |      |                |
| Type                                     | A,E | type | Scroll         |
| Number                                   | A,E | no.  | 2              |
| Circuits                                 | A,E | no.  | 1              |
| Refrigerant                              | A,E | type | R410A          |
| <b>System side heat exchanger</b>        |     |      |                |
| Type                                     | A,E | type | Brazed plate   |
| Number                                   | A,E | no.  | 1              |
| <b>System side hydraulic connections</b> |     |      |                |
| Connections (in/out)                     | A,E | Type | Grooved joints |
| Sizes (in/out)                           | A,E | Ø    | 6"             |

## Fan

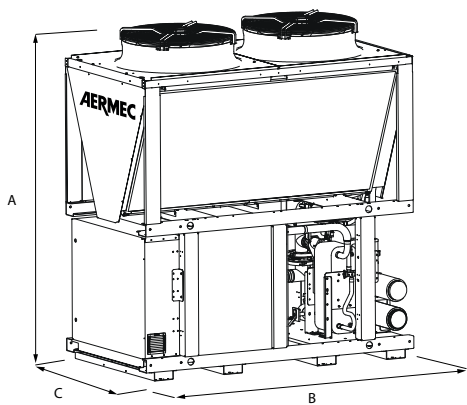
|  |     |                   |             |
|--|-----|-------------------|-------------|
| <b>Size</b>                                      |     |                   | <b>0550</b> |
| <b>Fans: J</b>                                   |     |                   |             |
| <b>Fan</b>                                       |     |                   |             |
| Type   | A,E | type              | axials      |
| Fan motor  | A,E | type              | On-Off      |
| Number   | A,E | no.               | 2           |
| Air flow rate                                    | A   | m <sup>3</sup> /h | 32000       |
|  | E   | m <sup>3</sup> /h | 24000       |
| High static pressure                             | A,E | Pa                | 0           |
| <b>Sound data calculated in cooling mode (1)</b> |     |                   |             |
| Sound power level                                | A   | dB(A)             | 85,0        |
|  | E   | dB(A)             | 81,8        |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

|  |     |                   |              |
|--|-----|-------------------|--------------|
| <b>Size</b>                                      |     |                   | <b>0550</b>  |
| <b>Fans: M</b>                                   |     |                   |              |
| <b>Fan</b>                                       |     |                   |              |
| Type   | A,E | type              | axials       |
| Fan motor  | A,E | type              | Asynchronous |
| Number   | A,E | no.               | 2            |
| Air flow rate                                    | A   | m <sup>3</sup> /h | 36000        |
|  | E   | m <sup>3</sup> /h | 24000        |
| High static pressure                             | A,E | Pa                | 0            |
| <b>Sound data calculated in cooling mode (1)</b> |     |                   |              |
| Sound power level                                | A   | dB(A)             | 86,9         |
|  | E   | dB(A)             | 81,8         |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

DIMENSIONS



| Size                   |     |    | 0550 |
|------------------------|-----|----|------|
| Dimensions and weights |     |    |      |
| A                      | A,E | mm | 2480 |
| B                      | A,E | mm | 2200 |
| C                      | A,E | mm | 1190 |
| Empty weight           | A,E | kg | 1105 |

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Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## PRM

## Air-cooled reversible modular heat pump

Cooling capacity 95,6 kW  
Heating capacity 101,7 kW

- R290 natural refrigerant gas
- Low refrigerant charge
- Production of hot water up to 75 °C
- High efficiency also at partial loads
- Reliable and modular



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A High efficiency
- E Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 75 °C.

#### Modularity

It is possible to couple up to 9 units designed to reduce the overall unit dimensions to a minimum.

Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.

#### Flexibility

Modularity allows you to adapt installation to the actual development needs of the system. This way the capacity can be increased over time simply and affordably.

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

**Two scroll compressors are installed in each circuit in a tandem configuration.**

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

### Refrigerant HC R290

**Using the natural R290 refrigerant, classified A3 to ISO 817 (non-toxic, odourless and flammable refrigerant), the unit's environmental impact drops significantly.**

Combining low refrigerant load (less than 5 kg per circuit) with ultra-low Global Warming Potential (GWP), these units boast practically negligible direct equivalent CO2 emissions.

- The refrigerant gas detector, the double pressure relief valve (with exchange isolation valve) and the battery protection grilles are standard.

### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

The use of the electronic expansion valve offers significant benefits (especially when the unit is working with partial loads), increasing the seasonal energy efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It's available in various configurations, with storage tank or pumps.**

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models with inverter fan or with DCPX. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.



- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

## CONFIGURATOR

| Field   | Description                                       |
|---------|---|
| 1,2,3   | PRM   |
| 4,5,6,7 | Size<br>0504                                      |
| 8       | Operating field                                   |
| X       | Electronic thermostatic expansion valve (1)       |
| Z       | Low temperature electronic thermostatic valve (2) |
| 9       | Model   |
| H       | Heat pump   |
| 10      | Heat recovery                                     |
| D       | With desuperheater (3)                            |
| °       | Without heat recovery                             |
| 11      | Version   |
| A       | High efficiency                                   |
| E       | Silenced high efficiency                          |
| 12      | Coils   |
| R       | Copper pipes-copper fins                          |
| S       | Copper pipes-Tinned copper fins                   |
| V       | Copper pipes-Coated aluminium fins                |
| °       | Copper-aluminium                                  |
| 13      | Fans  |

## ACCESSORIES

■ *The units PRM must be controlled remotely through an appropriate accessory (remote control panel PGD1, AERNET MULTICHILLER-EVO, AERLINK or PR4) to be obligatorily and separately. Only in this way is it possible to modify some basic operating parameters or view the presence of any alarms, which avoids accessing risk and restricted access areas.*

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured

- **"Noise Demand Limit" function:** only in non-quiet versions, this function limits the compressors within a time band to set a quiet operation profile, useful for example at night for greater acoustic comfort.
- Possibility to control two units in Master - Slave parallel mode. In this case, it is possible to use only one accessory PGD1 for both units.

| Field | Description   |
|-------|---|
| J     | Inverter (4)  |
| °     | Standard with DCPX  |
| 14    | System type   |
| N     | Version without modular pipes                                 |
| °     | Modular version   |
| 15,16 | Integrated hydronic kit                                       |
| 00    | Without hydronic kit  |
| 01    | Storage tank with low head pump                               |
| 02    | Storage tank with low head pump + stand-by pump               |
| 03    | Storage tank with high head pump                              |
| 04    | Storage tank with high head pump + stand-by pump              |
| 09    | Storage tank with double loop and intermediate heat exchanger |
| P1    | Single pump low head  |
| P2    | Pump low head + stand-by pump                                 |
| P3    | Single pump high head   |
| P4    | Pump high head + stand-by pump                                |

(1) Water produced up to +4 °C

(2) Processed water temperature -10 °C

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35 °C must always be guaranteed on the heat exchanger inlet.

(4) Standard from the E version.

as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

**VT:** Anti-vibration supports.

**KTUBES:** Pipe kits required to connect more than one unit. Available only for modular units (unit type °).

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**KNYB:** Pair of caps with grooved joints assembled on the unit manifold.

**BRC1R\_PRM:** Condensate drip with resistance

**BRC1\_PRM:** Condensate drip.

## COMPATIBILITY WITH VMF SYSTEM

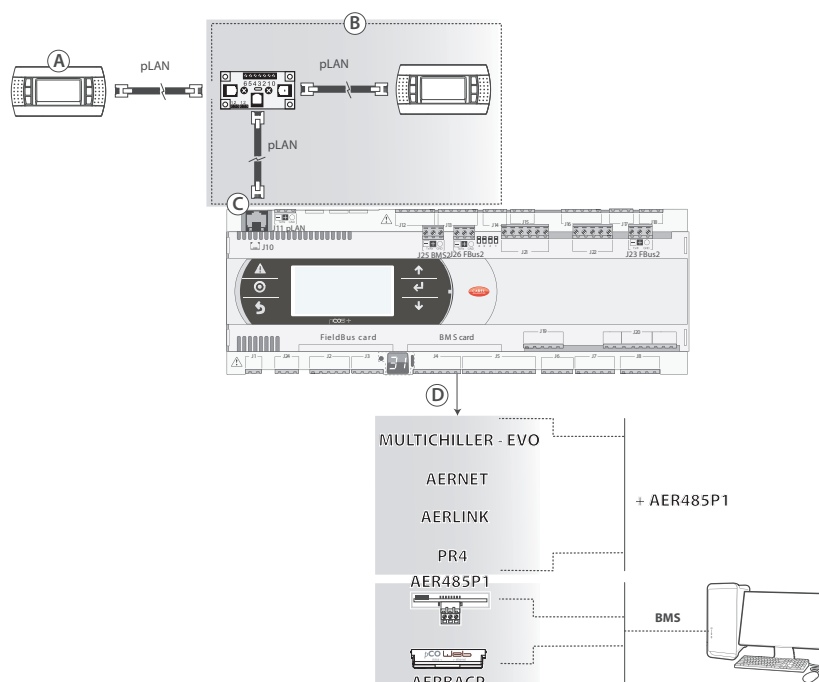
For more information about VMF system, refer to the dedicated documentation.

## COMPATIBILITY BETWEEN CONTROL ACCESSORIES

| Model            | Ver | 0504 |
|------------------|-----|------|
| AER485P1         | A,E | •    |
| AERBACP          | A,E | •    |
| AERLINK          | A,E | •    |
| AERNET           | A,E | •    |
| MULTICHILLER-EVO | A,E | •    |
| PGD1             | A,E | •    |

### Remote panel

| Model | Ver | 0504 |
|-------|-----|------|
| PR4   | A,E | •    |

**Key:**

- A Display on the unit.  
 B Control panel accessory "PGD1".  
 C Control panel connection port "PGD1".  
 D **BMS Card serial port:** where to connect 1 among the accessories "MULTICHILLER-EVO AERNET, AERLINK, PR4 but to be connected also must also have "AER485P1"; in the case of BMS communication with the accessories "AER485P1 or AERBACP" the only mandatory compatible accessory is the control panel "PGD1".

**ACCESSORIES COMPATIBILITY****Antivibration**

|   |      |
|---|------|
| Ver   | 0504 |
| Integrated hydronic kit: 00, 01, 02, 03, 04, 09, P1, P2, P3, P4 |      |
| A, E  | VT11 |

**Pipe kits required to connect more than one unit**

|                |        |
|----------------|--------|
| Ver            | 0504   |
| System type: ° |        |
| A, E           | KTUBES |

**Pair of caps with grooved joints assembled on the unit manifold**

|                |      |
|----------------|------|
| Ver            | 0504 |
| System type: ° |      |
| A, E           | KNYB |

A grey background indicates the accessory must be assembled in the factory

**Condensate drip with resistance**

|      |           |
|------|-----------|
| Ver  | 0504      |
| A, E | BRC1R_PRM |

A grey background indicates the accessory must be assembled in the factory

**Condensate drip**

|      |          |
|------|----------|
| Ver  | 0504     |
| A, E | BRC1_PRM |

A grey background indicates the accessory must be assembled in the factory

**Device for peak current reduction**

|      |           |
|------|-----------|
| Ver  | 0504      |
| A, E | DREPRM504 |

A grey background indicates the accessory must be assembled in the factory

**Power factor correction**

|      |           |
|------|-----------|
| Ver  | 0504      |
| A, E | RIFPRM504 |

A grey background indicates the accessory must be assembled in the factory

## PERFORMANCE SPECIFICATIONS

### PRM - A

|  |     |       |
|--|-----|-------|
| Size   |     | 0504  |
| Fans: °                                      |     |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |
| Cooling capacity                             | kW  | 95,6  |
| Input power                                  | kW  | 35,5  |
| Cooling total input current                  | A   | 69,6  |
| EER  | W/W | 2,69  |
| Water flow rate system side                  | l/h | 16444 |
| Pressure drop system side                    | kPa | 22    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |
| Heating capacity                             | kW  | 101,8 |
| Input power                                  | kW  | 31,9  |
| Heating total input current                  | A   | 65,9  |
| COP  | W/W | 3,19  |
| Water flow rate system side                  | l/h | 17655 |
| Pressure drop system side                    | kPa | 24    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

■ With the J fan option, the data are equivalent

### PRM - E

|  |     |       |
|--|-----|-------|
| Size   |     | 0504  |
| Fans: J                                      |     |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |
| Cooling capacity                             | kW  | 92,8  |
| Input power                                  | kW  | 35,8  |
| Cooling total input current                  | A   | 67,5  |
| EER  | W/W | 2,59  |
| Water flow rate system side                  | l/h | 15965 |
| Pressure drop system side                    | kPa | 21    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |
| Heating capacity                             | kW  | 101,8 |
| Input power                                  | kW  | 31,9  |
| Heating total input current                  | A   | 64,2  |
| COP  | W/W | 3,19  |
| Water flow rate system side                  | l/h | 17655 |
| Pressure drop system side                    | kPa | 24    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA - STANDARD/INVERTER FANS

| Size                              | 0504 |     |        |
|-----------------------------------|------|-----|--------|
| Fans: J                           |      |     |        |
| SEER - 12/7 (EN 14825: 2018) (1)  |      |     |        |
| SEER                              | A    | W/W | 4,08   |
|                                   | E    | W/W | 4,03   |
| Seasonal efficiency               | A    | %   | 160,00 |
|                                   | E    | %   | 158,10 |
| SEER - 23/18 (EN 14825: 2018) (1) |      |     |        |
| SEER                              | A    | W/W | 4,93   |
|                                   | E    | W/W | 4,82   |
| Seasonal efficiency               | A    | %   | 194,26 |
|                                   | E    | %   | 189,80 |

(1) Calculation performed with VARIABLE water flow rate

| Size                              |   |     | 0504   |
|-----------------------------------|---|-----|--------|
| Fans: °                           |   |     |        |
| SEER - 12/7 (EN 14825: 2018) (1)  |   |     |        |
| SEER                              | A | W/W | 3,96   |
|                                   | E | W/W | -      |
| Seasonal efficiency               | A | %   | 155,55 |
|                                   | E | %   | -      |
| SEER - 23/18 (EN 14825: 2018) (1) |   |     |        |
| SEER                              | A | W/W | 4,85   |
|                                   | E | W/W | -      |
| Seasonal efficiency               | A | %   | 190,96 |
|                                   | E | %   | -      |

(1) Calculation performed with VARIABLE water flow rate

## ENERGY DATA - STANDARD/INVERTER FANS (35°C)

|   |      |     |        |
|---|------|-----|--------|
| Size  | 0504 |     |        |
| Fans: J   |      |     |        |
| UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1) |      |     |        |
| SCOP  | A,E  | W/W | 4,10   |
| ηsh   | A,E  | %   | 161,00 |
| Pdesignh  | A,E  | kW  | 82,81  |
| (1) Efficiencies for low temperature applications (35 °C)                                       |      |     |        |

(1) Efficiencies for low temperature applications (35 °C)

| Size  | 0504 |     |        |
|---|------|-----|--------|
| Fans: °   |      |     |        |
| UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1) |      |     |        |
| SCOP  | A    | W/W | 3,86   |
|   | E    | W/W | -      |
| ηsh   | A    | %   | 151,41 |
|   | E    | %   | -      |
| Pdesignh  | A    | kW  | 82,81  |
|   | E    | kW  | -      |

(1) Efficiencies for low temperature applications (35 °C)

## ENERGY DATA - STANDARD/INVERTER FANS (55°C)

|   |     |     |  |      |        |
|---|-----|-----|--|------|--------|
| Size  |     |     |  | 0504 |        |
| Fans: J   |     |     |  |      |        |
| UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1) |     |     |  |      |        |
| SCOP  | A,E | W/W |  |      | 3,30   |
| ηsh   | A,E | %   |  |      | 128,91 |
| Pdesignh  | A,E | kW  |  |      | 80,58  |

(1) Efficiencies for average temperature applications (55 °C)

| Size  |   |     | 0504   |
|---|---|-----|--------|
| Fans: °   |   |     |        |
| UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1) |   |     |        |
| SCOP  | A | W/W | 3,14   |
|   | E | W/W | -      |
| ηsh   | A | %   | 122,74 |
|   | E | %   | -      |
| Pdesignh  | A | kW  | 80,58  |
|   | E | kW  | -      |

(1) Efficiencies for average temperature applications (55 °C)

## GENERAL TECHNICAL DATA

|                                |      |      |                       |
|--------------------------------|------|------|-----------------------|
| Size                           | 0504 |      |                       |
| Fans: °                        |      |      |                       |
| Compressor                     |      |      |                       |
| Type                           | A,E  | type | Scroll                |
| Compressor regulation          | A,E  | Type | On-Off                |
| Number                         | A,E  | no.  | 4                     |
| Circuits                       | A,E  | no.  | 2                     |
| Refrigerant                    | A,E  | type | R290                  |
| Refrigerant load circuit 1 (1) | A,E  | kg   | 3,8                   |
| Refrigerant load circuit 2 (1) | A,E  | kg   | 3,8                   |
| Potential global heating       | A,E  | GWP  | 3kgCO <sub>2</sub> eq |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

■ With the J fan option, the data are equivalent

|                            |     |      |              |
|----------------------------|-----|------|--------------|
| Size                       |     |      | 0504         |
| System side heat exchanger |     |      |              |
| Type                       | A,E | type | Brazed plate |
| Number                     | A,E | no.  | 1            |

|  |      |      |                |
|--|------|------|----------------|
| Size                                       | 0504 |      |                |
| System type: N                             |      |      |                |
| Hydraulic connections without hydronic kit |      |      |                |
| Sizes (in/out)                             | A,E  | Ø    | 2"1/2          |
| Connections (in/out)                       | A,E  | Type | Grooved joints |
| Size                                       | 0504 |      |                |
| System type: °                             |      |      |                |
| Hydraulic connections without hydronic kit |      |      |                |
| Sizes (in/out)                             | A,E  | Ø    | 6"             |
| Connections (in/out)                       | A,E  | Type | Grooved joints |

## SOUND DATA

|   |     |       |      |
|---|-----|-------|------|
| Size                                      |     |       | 0504 |
| Fans: J                                   |     |       |      |
| Sound data calculated in cooling mode (1) |     |       |      |
| Sound power level                         | A   | dB(A) | 87,8 |
|   | E   | dB(A) | 84,8 |
| Sound data calculated in heating mode (1) |     |       |      |
| Sound power level                         | A,E | dB(A) | 87,8 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size                                      | 0504 |       |      |
|---|------|-------|------|
| Fans: °                                   |      |       |      |
| Sound data calculated in cooling mode (1) |      |       |      |
| Sound power level                         | A    | dB(A) | 87,8 |
|   | E    | dB(A) | -    |
| Sound data calculated in heating mode (1) |      |       |      |
| Sound power level                         | A    | dB(A) | 87,8 |
|   | E    | dB(A) | -    |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## ELECTRIC DATA

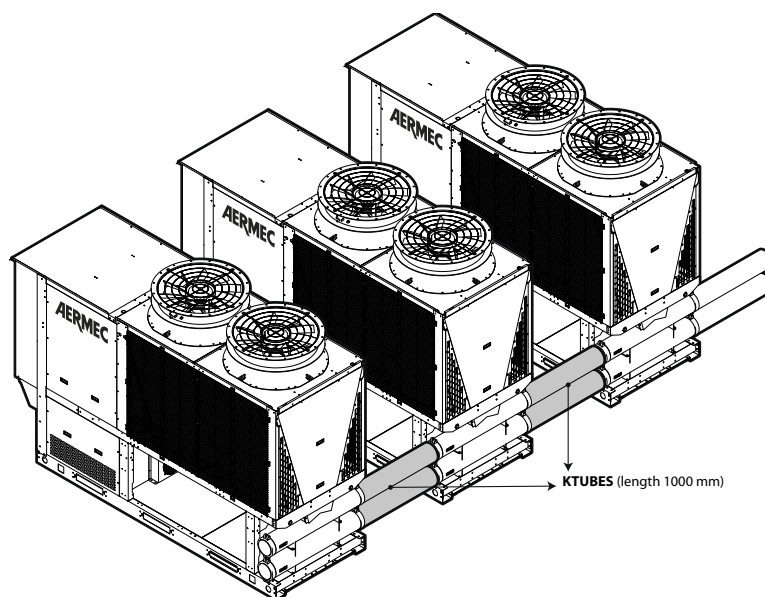
|                       |             |   |       |
|-----------------------|-------------|---|-------|
| <b>Size</b>           | <b>0504</b> |   |       |
| <b>Electric data</b>  |             |   |       |
| Maximum current (FLA) | A,E         | A | 115,2 |
| Peak current (LRA)    | A,E         | A | 235,2 |

Data calculated without hydronic kit and accessories.

## FANS DATA

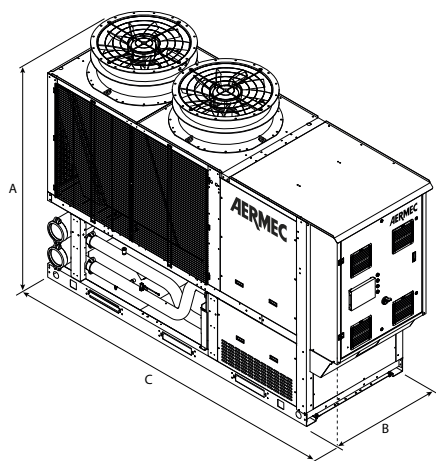
|                |             |                   |                     |
|----------------|-------------|-------------------|---------------------|
| <b>Size</b>    | <b>0504</b> |                   |                     |
| <b>Fans: J</b> |             |                   |                     |
| <b>Fan</b>     |             |                   |                     |
| Type           | A,E         | type              | Axial               |
| Fan motor      | A,E         | type              | Inverter            |
| Number         | A,E         | no.               | 2                   |
| Air flow rate  | A           | m <sup>3</sup> /h | 38500               |
|                | E           | m <sup>3</sup> /h | 27500               |
| <b>Size</b>    | <b>0504</b> |                   |                     |
| <b>Fans: °</b> |             |                   |                     |
| <b>Fan</b>     |             |                   |                     |
| Type           | A           | type              | Axial               |
|                | E           | type              | -                   |
| Fan motor      | A           | type              | Asynchronous + DCPX |
|                | E           | type              | -                   |
| Number         | A           | no.               | 2                   |
|                | E           | no.               | -                   |
| Air flow rate  | A           | m <sup>3</sup> /h | 38500               |
|                | E           | m <sup>3</sup> /h | -                   |

## MODULAR INSTALLATION

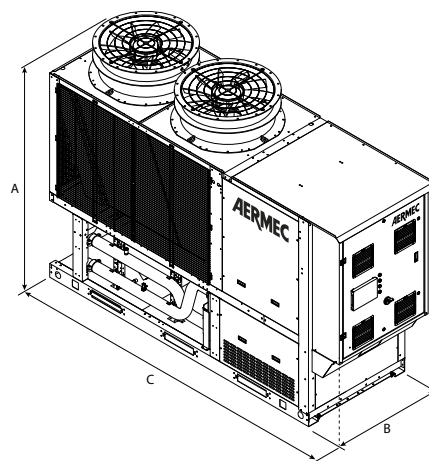


It is possible to couple up to 9 units designed to reduce the overall unit dimensions to a minimum.

## DIMENSIONS



Modular version (°)



Version without modular pipes (N)

|  |     |    |             |
|--|-----|----|-------------|
| <b>Size</b>                              |     |    | <b>0504</b> |
| <b>Integrated hydronic kit: 00</b>       |     |    |             |
| <b>Dimensions and weights</b>            |     |    |             |
| A  | A,E | mm | 2520        |
| B  | A,E | mm | 1198        |
| C  | A,E | mm | 3583        |
| <b>Size</b>                              |     |    | <b>0504</b> |
| <b>Integrated hydronic kit: 00</b>       |     |    |             |
| <b>Modular version (°)</b>               |     |    |             |
| Empty weight                             | A,E | kg | 1502        |
| Weight functioning                       | A,E | kg | 1567        |
| <b>Version without modular pipes (N)</b> |     |    |             |
| Empty weight                             | A,E | kg | 1441        |
| Weight functioning                       | A,E | kg | 1451        |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# PRG-0282H-0654H

## Reversible air/water heat pump

Cooling capacity 49 ÷ 143 kW  
Heating capacity 51 ÷ 143 kW

- R290 natural refrigerant gas
- Low refrigerant charge
- Production of hot water up to 75 °C
- High efficiency also at partial loads
- Compact dimensions



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 75°C.

#### Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

**Two scroll compressors are installed in each circuit in a tandem configuration.**

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Refrigerant HC R290

**Using the natural R290 refrigerant, classified A3 to ISO 817 (non-toxic, odourless and flammable refrigerant), the unit's environmental impact drops significantly.**

Combining low refrigerant load (less than 5 kg per circuit) with ultra-low Global Warming Potential (GWP), these units boast practically negligible direct equivalent CO<sub>2</sub> emissions.

- *The refrigerant gas detector, the double pressure relief valve (with exchange isolation valve) and the battery protection grilles are standard.*

### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

The use of the electronic expansion valve offers significant benefits (especially when the unit is working with partial loads), increasing the seasonal energy efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed or variable pumps also inverter.**

- ***VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models with inverter fan or with DCPX. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.
- **"Noise Demand Limit" function:** only in non-quiet versions, this function limits the compressors within a time band to set a quiet operation profile, useful for example at night for greater acoustic comfort.

- Possibility to control two units in Master - Slave parallel mode. In this case, it is possible to use only one accessory PGD1 for both units.

## ACCESSORIES

■ *The units PRG-0282H-0654H must be controlled remotely through an appropriate accessory (remote control panel PGD1, AERNET MULTICHILLER-EVO, AERLINK or PR4) to be obligatorily and separately. Only in this way is it possible to modify some basic operating parameters or view the presence of any alarms, which avoids accessing risk and restricted access areas.*

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**RXBAS:** Heater for finned coil heat exchanger.

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

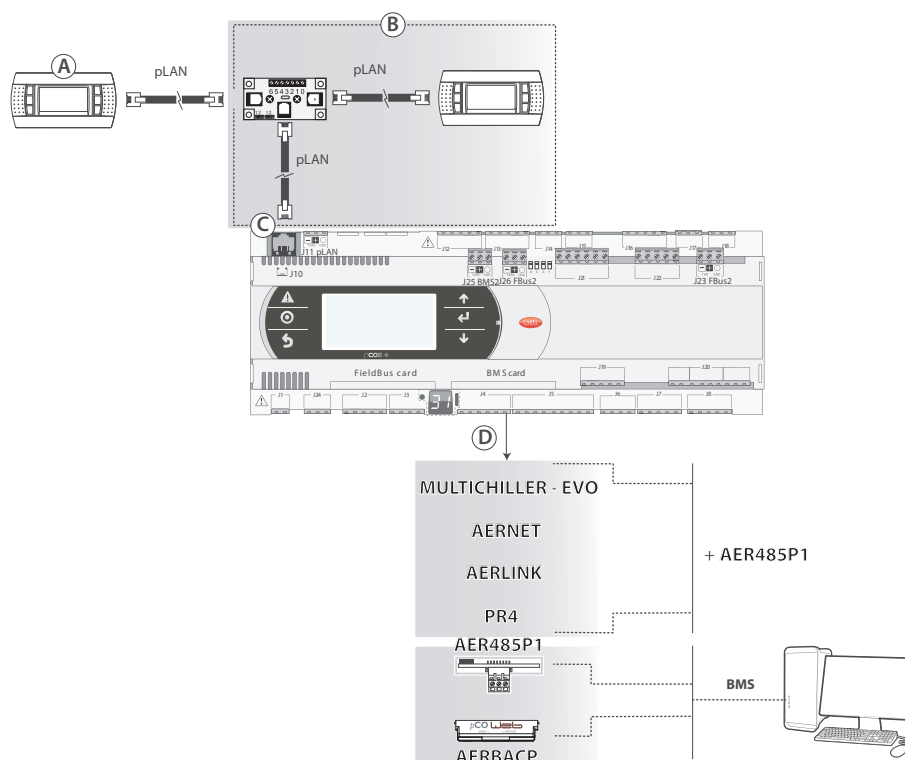
## COMPATIBILITY BETWEEN CONTROL ACCESSORIES

| Model            | Ver | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |





#### Key:

- A Display on the unit.
- B Control panel accessory "PGD1".
- C Control panel connection port "PGD1".
- D **BMS Card serial port:** where to connect 1 among the accessories "MULTICHILLER-EVO AERNET, AERLINK, PR4 but to be connected also must also have "AER485P1"; in the case of BMS communication with the accessories "AER485P1 or AERBACP" the only mandatory compatible accessory is the control panel "PGD1".

## ACCESSORIES COMPATIBILITY

### Antivibration

| Ver  | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|--|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4</b>                 |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT13 | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 09, K1, K2, K3, K4, W1, W2, W3, W4</b> |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT10 | VT10 | VT10 | VT10 | VT10 | VT11 | VT11 | VT11 | VT11 | VT11 |

### Device for peak current reduction

| Ver  | 0282      | 0292      | 0302      | 0322      | 0332      |
|--|-----------|-----------|-----------|-----------|-----------|
| A, E   | DREPRG282 | DREPRG292 | DREPRG302 | DREPRG322 | DREPRG332 |
| A grey background indicates the accessory must be assembled in the factory |           |           |           |           |           |
| Ver  | 0504      | 0554      | 0604      | 0634      | 0654      |
| A, E   | DREPRG504 | DREPRG554 | DREPRG604 | DREPRG634 | DREPRG654 |
| A grey background indicates the accessory must be assembled in the factory |           |           |           |           |           |

### Power factor correction

| Ver  | 0282      | 0292      | 0302      | 0322      | 0332      |
|--|-----------|-----------|-----------|-----------|-----------|
| A, E   | RIFPRG282 | RIFPRG292 | RIFPRG302 | RIFPRG322 | RIFPRG332 |
| A grey background indicates the accessory must be assembled in the factory |           |           |           |           |           |
| Ver  | 0504      | 0554      | 0604      | 0634      | 0654      |
| A, E   | RIFPRG504 | RIFPRG554 | RIFPRG604 | RIFPRG634 | RIFPRG654 |
| A grey background indicates the accessory must be assembled in the factory |           |           |           |           |           |

### Heater for finned coil heat exchanger

| Ver  | 0282    | 0292    | 0302    | 0322    | 0332    |
|--|---------|---------|---------|---------|---------|
| A, E   | RXBAS10 | RXBAS10 | RXBAS10 | RXBAS10 | RXBAS10 |
| A grey background indicates the accessory must be assembled in the factory |         |         |         |         |         |
| Ver  | 0504    | 0554    | 0604    | 0634    | 0654    |
| A, E   | RXBAS11 | RXBAS11 | RXBAS12 | RXBAS12 | RXBAS12 |
| A grey background indicates the accessory must be assembled in the factory |         |         |         |         |         |

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | <b>PRG</b>   |
| 4,5,6,7 | <b>Size</b><br>0282, 0292, 0302, 0322, 0332, 0504, 0554, 0604, 0634, 0654  |
| 8       | <b>Operating field</b>   |
| X       | Electronic thermostatic expansion valve (1)                                |
| Z       | Low temperature electronic thermostatic valve (2)                          |
| 9       | <b>Model</b>   |
| H       | Heat pump  |
| 10      | <b>Heat recovery</b>   |
| D       | With desuperheater (3)   |
| °       | Without heat recovery  |
| 11      | <b>Version</b>   |
| A       | High efficiency  |
| E       | Silenced high efficiency (4)   |
| 12      | <b>Coils</b>   |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins  |
| V       | Copper pipes-Coated aluminium fins   |
| °       | Copper-aluminium   |
| 13      | <b>Fans</b>  |
| J       | Inverter   |
| °       | Standard with DCPX (5)   |
| 14      | <b>Power supply</b>  |
| °       | 400V ~ 3N 50Hz with magnet circuit breakers                                |
| 15,16   | <b>Integrated hydronic kit</b>   |
| 00      | Without hydronic kit   |
|         | <b>Kit with storage tank and pump/s</b>                                    |
| 01      | Storage tank with low head pump  |
| 02      | Storage tank with low head pump + stand-by pump                            |
| 03      | Storage tank with high head pump   |
| 04      | Storage tank with high head pump + stand-by pump                           |
|         | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05      | Storage tank with holes for heaters and single low head pump (6)           |
| 06      | Storage tank with holes for heaters and pump low head + stand-by pump (6)  |
| 07      | Storage tank with holes for heaters and single high head pump (6)          |
| 08      | Storage tank with holes for heaters and pump high head + stand-by pump (6) |
|         | <b>Double loop</b>   |
| 09      | Storage tank with double loop and intermediate heat exchanger              |
|         | <b>Kit with pump/s</b>   |
| P1      | Single pump low head   |
| P2      | Pump low head + stand-by pump  |
| P3      | Single pump high head  |
| P4      | Pump high head + stand-by pump   |
|         | <b>Kit with inverter pump/s to fixed speed</b>                             |
| I1      | Single low head pump + fixed speed inverter                                |
| I2      | Single low head pump with fixed speed inverter + stand-by pump             |
| I3      | Single high head pump + fixed speed inverter                               |
| I4      | Single high head pump with fixed speed inverter + stand-by pump            |
|         | <b>Kit with storage tank and inverter pump/s to fixed speed</b>            |
| K1      | Single low head pump + storage tank + fixed speed inverter                 |
| K2      | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3      | Single high head pump + storage tank + fixed speed inverter                |
| K4      | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|         | <b>Kit with storage tank and variable speed inverter pump/s</b>            |
| W1      | Single low head pump + Storage tank + variable speed inverter (7)          |
| W2      | Double low head pump + Storage tank + variable speed inverter (7)          |
| W3      | Single high head pump + Storage tank + variable speed inverter (7)         |
| W4      | Double high head pump + Storage tank + variable speed inverter (7)         |

(1) Water produced from 4 °C ÷ 20 °C

(2) Processed water temperature 8 °C ÷ -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4. Not compatible with a desuperheater.

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) Sizes 0282-0292-0302-0322-0332 are only available in low noise version (E).

(5) Option not available only for size 0504-0554-0604-0634-0654 version E

(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

(7) Not available with Low temperature electronic thermostatic valve "Z"

## PERFORMANCE SPECIFICATIONS 12 °C / 7 °C - 40 °C / 45 °C

### PRG - A

| Size |  | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|------|--|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|

Fans: J, °

#### Cooling performance 12 °C / 7 °C (1)

|                             |     |   |   |   |   |   |       |       |       |       |       |
|-----------------------------|-----|---|---|---|---|---|-------|-------|-------|-------|-------|
| Cooling capacity            | kW  | - | - | - | - | - | 94,5  | 103,9 | 123,7 | 133,6 | 143,1 |
| Input power                 | kW  | - | - | - | - | - | 35,8  | 40,5  | 40,8  | 45,1  | 49,5  |
| Cooling total input current | A   | - | - | - | - | - | 67,6  | 81,8  | 92,2  | 105,8 | 119,4 |
| EER                         | W/W | - | - | - | - | - | 2,64  | 2,56  | 3,04  | 2,96  | 2,89  |
| Water flow rate system side | l/h | - | - | - | - | - | 16267 | 17888 | 21319 | 23015 | 24641 |
| Pressure drop system side   | kPa | - | - | - | - | - | 30    | 36    | 47    | 54    | 62    |

#### Heating performance 40 °C / 45 °C (2)

|                             |     |   |   |   |   |   |       |       |       |       |       |
|-----------------------------|-----|---|---|---|---|---|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | - | - | - | - | - | 102,3 | 113,2 | 124,7 | 134,1 | 143,1 |
| Input power                 | kW  | - | - | - | - | - | 32,0  | 35,5  | 39,6  | 43,4  | 47,0  |
| Heating total input current | A   | - | - | - | - | - | 63,8  | 77,0  | 91,2  | 104,8 | 117,8 |
| COP                         | W/W | - | - | - | - | - | 3,20  | 3,19  | 3,15  | 3,09  | 3,04  |
| Water flow rate system side | l/h | - | - | - | - | - | 17738 | 19623 | 21615 | 23253 | 24809 |
| Pressure drop system side   | kPa | - | - | - | - | - | 31    | 37    | 48    | 55    | 63    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### PRG - E

| Size |  | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|------|--|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|

Fans: J

#### Cooling performance 12 °C / 7 °C (1)

|                             |     |      |      |       |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity            | kW  | 49,3 | 54,3 | 60,5  | 65,2  | 70,3  | 91,8  | 101,6 | 119,1 | 128,3 | 137,0 |
| Input power                 | kW  | 16,5 | 18,6 | 20,3  | 22,6  | 25,0  | 35,7  | 40,6  | 40,1  | 44,8  | 49,6  |
| Cooling total input current | A   | 35,3 | 42,2 | 50,1  | 56,9  | 63,8  | 67,5  | 82,0  | 91,0  | 104,8 | 118,8 |
| EER                         | W/W | 2,99 | 2,92 | 2,98  | 2,88  | 2,81  | 2,57  | 2,50  | 2,97  | 2,87  | 2,76  |
| Water flow rate system side | l/h | 8486 | 9361 | 10417 | 11227 | 12117 | 15797 | 17489 | 20523 | 22099 | 23601 |
| Pressure drop system side   | kPa | 30   | 37   | 37    | 42    | 49    | 28    | 35    | 43    | 50    | 56    |

#### Heating performance 40 °C / 45 °C (2)

|                             |     |      |      |       |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 51,2 | 55,9 | 61,9  | 66,3  | 70,7  | 102,3 | 113,2 | 124,7 | 134,1 | 143,1 |
| Input power                 | kW  | 15,4 | 17,1 | 18,8  | 20,4  | 22,2  | 32,1  | 35,6  | 39,6  | 43,4  | 47,0  |
| Heating total input current | A   | 34,6 | 41,1 | 49,2  | 55,5  | 62,0  | 64,1  | 77,3  | 91,8  | 105,4 | 118,5 |
| COP                         | W/W | 3,33 | 3,27 | 3,28  | 3,25  | 3,19  | 3,19  | 3,18  | 3,15  | 3,09  | 3,04  |
| Water flow rate system side | l/h | 8872 | 9688 | 10728 | 11490 | 12242 | 17738 | 19623 | 21616 | 23254 | 24810 |
| Pressure drop system side   | kPa | 33   | 39   | 39    | 44    | 50    | 36    | 44    | 48    | 55    | 62    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

| Size |  | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|------|--|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|

Fans: °

#### Cooling performance 12 °C / 7 °C (1)

|                             |     |      |      |       |       |       |   |   |   |   |   |
|-----------------------------|-----|------|------|-------|-------|-------|---|---|---|---|---|
| Cooling capacity            | kW  | 49,3 | 54,3 | 60,5  | 65,2  | 70,3  | - | - | - | - | - |
| Input power                 | kW  | 16,5 | 18,6 | 20,3  | 22,6  | 25,0  | - | - | - | - | - |
| Cooling total input current | A   | 35,3 | 42,2 | 50,1  | 56,9  | 63,8  | - | - | - | - | - |
| EER                         | W/W | 2,99 | 2,92 | 2,98  | 2,88  | 2,81  | - | - | - | - | - |
| Water flow rate system side | l/h | 8486 | 9361 | 10417 | 11227 | 12117 | - | - | - | - | - |
| Pressure drop system side   | kPa | 30   | 37   | 37    | 42    | 49    | - | - | - | - | - |

#### Heating performance 40 °C / 45 °C (2)

|                             |     |      |      |       |       |       |   |   |   |   |   |
|-----------------------------|-----|------|------|-------|-------|-------|---|---|---|---|---|
| Heating capacity            | kW  | 51,2 | 55,9 | 61,9  | 66,3  | 70,7  | - | - | - | - | - |
| Input power                 | kW  | 15,4 | 17,1 | 18,8  | 20,4  | 22,2  | - | - | - | - | - |
| Heating total input current | A   | 34,6 | 41,1 | 49,2  | 55,5  | 62,0  | - | - | - | - | - |
| COP                         | W/W | 3,33 | 3,27 | 3,28  | 3,25  | 3,19  | - | - | - | - | - |
| Water flow rate system side | l/h | 8872 | 9688 | 10728 | 11490 | 12242 | - | - | - | - | - |
| Pressure drop system side   | kPa | 33   | 39   | 39    | 44    | 50    | - | - | - | - | - |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

### PRG - A

| Size  |     | 0282 | 0292 | 0302 | 0322 | 0332 | 0504  | 0554  | 0604  | 0634  | 0654  |
|---|-----|------|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Fans: J, °</b>                           |     |      |      |      |      |      |       |       |       |       |       |
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |      |      |      |      |      |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | -    | 130,8 | 144,0 | 173,7 | 185,8 | 197,2 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 39,8  | 45,0  | 44,4  | 49,4  | 54,5  |
| Cooling total input current                 | A   | -    | -    | -    | -    | -    | 74,4  | 90,0  | 98,9  | 114,0 | 129,2 |
| EER   | W/W | -    | -    | -    | -    | -    | 3,29  | 3,20  | 3,91  | 3,76  | 3,62  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 22619 | 24890 | 30031 | 32116 | 34090 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 58    | 70    | 93    | 105   | 118   |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |      |      |      |      |      |       |       |       |       |       |
| Heating capacity                            | kW  | -    | -    | -    | -    | -    | 104,9 | 115,3 | 127,0 | 135,5 | 144,1 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 27,3  | 30,0  | 33,7  | 37,0  | 40,1  |
| Heating total input current                 | A   | -    | -    | -    | -    | -    | 54,2  | 64,9  | 77,2  | 89,0  | 100,1 |
| COP   | W/W | -    | -    | -    | -    | -    | 3,85  | 3,84  | 3,77  | 3,66  | 3,60  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 18135 | 19911 | 21938 | 23418 | 24903 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 32    | 38    | 49    | 56    | 63    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C/ 35 °C; External air 7 °C d.b. / 6 °C w.b.

### PRG - E

| Size  |     | 0282  | 0292  | 0302  | 0322  | 0332  | 0504  | 0554  | 0604  | 0634  | 0654  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                              |     |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 68,5  | 75,4  | 84,3  | 90,1  | 97,0  | 126,2 | 139,9 | 166,0 | 176,9 | 187,2 |
| Input power                                 | kW  | 18,3  | 20,8  | 22,5  | 25,1  | 27,6  | 40,3  | 45,7  | 44,3  | 49,7  | 55,3  |
| Cooling total input current                 | A   | 38,5  | 46,4  | 54,4  | 62,1  | 69,2  | 75,6  | 91,4  | 99,1  | 114,8 | 130,6 |
| EER   | W/W | 3,75  | 3,62  | 3,75  | 3,59  | 3,51  | 3,13  | 3,06  | 3,75  | 3,56  | 3,38  |
| Water flow rate system side                 | l/h | 11856 | 13054 | 14611 | 15584 | 16779 | 21823 | 24180 | 28702 | 30587 | 32356 |
| Pressure drop system side                   | kPa | 59    | 72    | 72    | 81    | 94    | 54    | 66    | 85    | 95    | 106   |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | 52,5  | 56,8  | 63,0  | 66,9  | 72,0  | 104,8 | 115,1 | 126,9 | 135,5 | 144,0 |
| Input power                                 | kW  | 13,0  | 14,4  | 15,9  | 17,2  | 18,7  | 27,2  | 30,3  | 33,5  | 36,7  | 39,7  |
| Heating total input current                 | A   | 29,1  | 34,5  | 41,3  | 46,6  | 52,1  | 54,2  | 65,5  | 77,2  | 88,7  | 99,8  |
| COP   | W/W | 4,04  | 3,94  | 3,97  | 3,88  | 3,85  | 3,86  | 3,80  | 3,79  | 3,69  | 3,63  |
| Water flow rate system side                 | l/h | 9062  | 9817  | 10889 | 11546 | 12426 | 18110 | 19882 | 21926 | 23404 | 24884 |
| Pressure drop system side                   | kPa | 34    | 40    | 40    | 45    | 52    | 37    | 45    | 50    | 56    | 63    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C/ 35 °C; External air 7 °C d.b. / 6 °C w.b.

| Size  |     | 0282  | 0292  | 0302  | 0322  | 0332  | 0504 | 0554 | 0604 | 0634 | 0654 |
|---|-----|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Fans: °</b>                              |     |       |       |       |       |       |      |      |      |      |      |
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity                            | kW  | 68,5  | 75,4  | 84,3  | 90,1  | 97,0  | -    | -    | -    | -    | -    |
| Input power                                 | kW  | 18,3  | 20,8  | 22,5  | 25,1  | 27,6  | -    | -    | -    | -    | -    |
| Cooling total input current                 | A   | 38,5  | 46,4  | 54,4  | 62,1  | 69,2  | -    | -    | -    | -    | -    |
| EER   | W/W | 3,75  | 3,62  | 3,75  | 3,59  | 3,51  | -    | -    | -    | -    | -    |
| Water flow rate system side                 | l/h | 11856 | 13054 | 14611 | 15584 | 16779 | -    | -    | -    | -    | -    |
| Pressure drop system side                   | kPa | 59    | 72    | 72    | 81    | 94    | -    | -    | -    | -    | -    |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |       |       |       |       |       |      |      |      |      |      |
| Heating capacity                            | kW  | 52,5  | 56,8  | 63,0  | 66,9  | 72,0  | -    | -    | -    | -    | -    |
| Input power                                 | kW  | 13,0  | 14,4  | 15,9  | 17,2  | 18,7  | -    | -    | -    | -    | -    |
| Heating total input current                 | A   | 29,1  | 34,5  | 41,3  | 46,6  | 52,1  | -    | -    | -    | -    | -    |
| COP   | W/W | 4,04  | 3,94  | 3,97  | 3,88  | 3,85  | -    | -    | -    | -    | -    |
| Water flow rate system side                 | l/h | 9062  | 9817  | 10889 | 11546 | 12426 | -    | -    | -    | -    | -    |
| Pressure drop system side                   | kPa | 34    | 40    | 40    | 45    | 52    | -    | -    | -    | -    | -    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C/ 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA - STANDARD/INVERTER FANS

| Size                                    |   | 0282 | 0292   | 0302   | 0322   | 0332   | 0504   | 0554   | 0604   | 0634   | 0654   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                          |   |      |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN 14825:2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |
| SEER                                    | A | W/W  | -      | -      | -      | -      | 4,11   | 4,01   | 4,61   | 4,55   | 4,43   |
|   | E | W/W  | 4,36   | 4,38   | 4,37   | 4,34   | 4,35   | 4,06   | 3,97   | 4,54   | 4,49   |
| Seasonal efficiency                     | A | %    | -      | -      | -      | -      | 161,47 | 157,50 | 181,28 | 179,15 | 174,34 |
|   | E | %    | 171,34 | 172,18 | 171,98 | 170,59 | 171,01 | 159,56 | 155,60 | 178,73 | 176,80 |
| <b>SEER - 23/18 (EN 14825:2018) (1)</b> |   |      |        |        |        |        |        |        |        |        |        |
| SEER                                    | A | W/W  | -      | -      | -      | -      | 5,06   | 4,93   | 5,62   | 5,52   | 5,31   |
|   | E | W/W  | 5,45   | 5,45   | 5,31   | 5,26   | 5,24   | 4,06   | 3,97   | 4,54   | 4,49   |

(1) Calculation performed with VARIABLE water flow rate

| Size                |   |   | 0282   | 0292   | 0302   | 0322   | 0332   | 0504   | 0554   | 0604   | 0634   | 0654   |
|---------------------|---|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seasonal efficiency | A | % | -      | -      | -      | -      | -      | 199,20 | 194,04 | 221,76 | 217,92 | 209,47 |
|                     | E | % | 214,82 | 215,18 | 209,56 | 207,44 | 206,66 | 159,56 | 155,60 | 178,73 | 176,80 | 171,92 |

(1) Calculation performed with VARIABLE water flow rate

| Size                                    |   |     | 0282   | 0292   | 0302   | 0322   | 0332   | 0504   | 0554   | 0604   | 0634   | 0654   |
|---|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: °</b>                          |   |     |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN 14825: 2018) (1)</b> |   |     |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | A | W/W | -      | -      | -      | -      | -      | 3,96   | 3,86   | 4,49   | 4,43   | 4,32   |
|   | E | W/W | 4,29   | 4,31   | 4,31   | 4,27   | 4,28   | -      | -      | -      | -      | -      |
| Seasonal efficiency                     | A | %   | -      | -      | -      | -      | -      | 155,35 | 151,49 | 176,41 | 174,29 | 169,62 |
|   | E | %   | 168,62 | 169,41 | 169,27 | 167,75 | 168,28 | -      | -      | -      | -      | -      |

**SEER - 23/18 (EN 14825: 2018) (1)**

|                     |   |     |        |        |        |        |        |        |        |        |        |        |
|---------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER                | A | W/W | -      | -      | -      | -      | -      | 4,85   | 4,73   | 5,49   | 5,40   | 5,21   |
|                     | E | W/W | 5,38   | 5,39   | 5,26   | 5,20   | 5,17   | -      | -      | -      | -      | -      |
| Seasonal efficiency | A | %   | -      | -      | -      | -      | -      | 191,06 | 186,20 | 216,59 | 212,83 | 205,36 |
|                     | E | %   | 212,20 | 212,61 | 207,30 | 204,96 | 203,76 | -      | -      | -      | -      | -      |

(1) Calculation performed with VARIABLE water flow rate

| Size  |   |     | 0282   | 0292   | 0302   | 0322   | 0332   | 0504 | 0554 | 0604 | 0634 | 0654 |
|---|---|-----|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Fans: J</b>  |   |     |        |        |        |        |        |      |      |      |      |      |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |   |     |        |        |        |        |        |      |      |      |      |      |
| Efficiency energy class   | A |     | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E |     | A++    | A++    | A++    | A++    | A++    | -    | -    | -    | -    | -    |
| ηsh   | A | %   | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | %   | 156,55 | 155,98 | 155,53 | 155,63 | 157,12 | -    | -    | -    | -    | -    |
| SCOP  | A | W/W | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | W/W | 3,99   | 3,97   | 3,96   | 3,97   | 4,00   | -    | -    | -    | -    | -    |
| Pdesignh  | A | kW  | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | kW  | 40,85  | 43,36  | 50,06  | 52,18  | 53,99  | -    | -    | -    | -    | -    |

**UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)**

|                         |   |     |        |        |        |        |        |   |   |   |   |   |
|-------------------------|---|-----|--------|--------|--------|--------|--------|---|---|---|---|---|
| Efficiency energy class | A |     | -      | -      | -      | -      | -      | - | - | - | - | - |
|                         | E |     | A+     | A+     | A+     | A+     | A++    | - | - | - | - | - |
| ηsh                     | A | %   | -      | -      | -      | -      | -      | - | - | - | - | - |
|                         | E | %   | 123,14 | 122,78 | 123,70 | 123,84 | 125,66 | - | - | - | - | - |
| SCOP                    | A | W/W | -      | -      | -      | -      | -      | - | - | - | - | - |
|                         | E | W/W | 3,15   | 3,14   | 3,17   | 3,17   | 3,22   | - | - | - | - | - |
| Pdesignh                | A | kW  | -      | -      | -      | -      | -      | - | - | - | - | - |
|                         | E | kW  | 39,90  | 42,10  | 49,10  | 51,20  | 52,90  | - | - | - | - | - |

**UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)**

|          |     |     |   |   |   |   |   |        |        |        |        |        |
|----------|-----|-----|---|---|---|---|---|--------|--------|--------|--------|--------|
| SCOP     | A,E | W/W | - | - | - | - | - | 4,08   | 3,87   | 4,04   | 3,95   | 4,02   |
| ηsh      | A,E | %   | - | - | - | - | - | 160,04 | 151,64 | 158,46 | 154,90 | 157,62 |
| Pdesignh | A   | kW  | - | - | - | - | - | 81,43  | 87,59  | 97,03  | 103,17 | 111,52 |
|          | E   | kW  | - | - | - | - | - | 81,60  | 87,81  | 97,02  | 103,18 | 111,52 |

**UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)**

|          |     |     |   |   |   |   |   |        |        |        |        |        |
|----------|-----|-----|---|---|---|---|---|--------|--------|--------|--------|--------|
| SCOP     | A,E | W/W | - | - | - | - | - | 3,30   | 3,14   | 3,31   | 3,30   | 3,34   |
| ηsh      | A,E | %   | - | - | - | - | - | 129,04 | 122,74 | 129,26 | 128,91 | 130,63 |
| Pdesignh | A   | kW  | - | - | - | - | - | 79,70  | 85,10  | 94,00  | 102,70 | 111,00 |
|          | E   | kW  | - | - | - | - | - | 80,00  | 85,40  | 94,10  | 102,80 | 111,20 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Size  |   |     | 0282   | 0292   | 0302   | 0322   | 0332   | 0504 | 0554 | 0604 | 0634 | 0654 |
|---|---|-----|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Fans: °</b>  |   |     |        |        |        |        |        |      |      |      |      |      |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |   |     |        |        |        |        |        |      |      |      |      |      |
| Efficiency energy class   | A |     | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E |     | A++    | A++    | A++    | A++    | A++    | -    | -    | -    | -    | -    |
| ηsh   | A | %   | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | %   | 153,35 | 152,80 | 152,36 | 152,45 | 155,47 | -    | -    | -    | -    | -    |
| SCOP  | A | W/W | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | W/W | 3,91   | 3,90   | 3,88   | 3,86   | 3,96   | -    | -    | -    | -    | -    |
| Pdesignh  | A | kW  | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | kW  | 40,84  | 43,36  | 50,06  | 52,18  | 53,99  | -    | -    | -    | -    | -    |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |   |     |        |        |        |        |        |      |      |      |      |      |
| Efficiency energy class   | A |     | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E |     | A+     | A+     | A+     | A+     | A+     | -    | -    | -    | -    | -    |
| ηsh   | A | %   | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | %   | 120,95 | 120,95 | 121,68 | 122,25 | 124,65 | -    | -    | -    | -    | -    |
| SCOP  | A | W/W | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | W/W | 3,10   | 3,09   | 3,12   | 3,13   | 3,19   | -    | -    | -    | -    | -    |
| Pdesignh  | A | kW  | -      | -      | -      | -      | -      | -    | -    | -    | -    | -    |
|   | E | kW  | 39,90  | 42,10  | 49,10  | 51,20  | 52,90  | -    | -    | -    | -    | -    |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Size   |   |     | 0282 | 0292 | 0302 | 0322 | 0332 | 0504   | 0554   | 0604   | 0634   | 0654   |
|--|---|-----|------|------|------|------|------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |   |     |      |      |      |      |      |        |        |        |        |        |
| SCOP   | A | W/W | -    | -    | -    | -    | -    | 3,95   | 3,75   | 3,92   | 3,83   | 3,90   |
|  | E | W/W | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |
| ηsh  | A | %   | -    | -    | -    | -    | -    | 155,15 | 147,00 | 153,61 | 150,17 | 152,80 |
|  | E | %   | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |
| Pdesignh   | A | kW  | -    | -    | -    | -    | -    | 81,43  | 87,59  | 97,03  | 103,17 | 111,52 |
|  | E | kW  | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |   |     |      |      |      |      |      |        |        |        |        |        |
| SCOP   | A | W/W | -    | -    | -    | -    | -    | 3,22   | 3,06   | 3,23   | 3,20   | 3,30   |
|  | E | W/W | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |
| ηsh  | A | %   | -    | -    | -    | -    | -    | 125,67 | 119,30 | 126,09 | 125,15 | 128,88 |
|  | E | %   | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |
| Pdesignh   | A | kW  | -    | -    | -    | -    | -    | 79,70  | 85,10  | 94,00  | 102,70 | 111,00 |
|  | E | kW  | -    | -    | -    | -    | -    | -      | -      | -      | -      | -      |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |   |   | 0282  | 0292  | 0302  | 0322  | 0332  | 0504  | 0554  | 0604  | 0634  | 0654  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A | -     | -     | -     | -     | -     | 115,8 | 123,8 | 135,7 | 147,7 | 159,7 |
|                       | E | A | 57,3  | 61,3  | 66,4  | 72,4  | 78,4  | 115,8 | 123,8 | 135,7 | 147,7 | 159,7 |
| Peak current (LRA)    | A | A | -     | -     | -     | -     | -     | 235,8 | 250,8 | 262,7 | 307,7 | 319,7 |
|                       | E | A | 177,3 | 188,3 | 193,4 | 232,4 | 238,4 | 235,8 | 250,8 | 262,7 | 307,7 | 319,7 |

Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

| Size                           |     |      | 0282                  | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|--------------------------------|-----|------|-----------------------|------|------|------|------|------|------|------|------|------|
| Compressor                     |     |      |                       |      |      |      |      |      |      |      |      |      |
| Type                           | A,E | type | Scroll                |      |      |      |      |      |      |      |      |      |
| Compressor regulation          | A,E | Type | On-Off                |      |      |      |      |      |      |      |      |      |
| Number                         | A   | no.  | -                     | -    | -    | -    | -    | 4    | 4    | 4    | 4    | 4    |
|                                | E   | no.  | 2                     | 2    | 2    | 2    | 2    | 4    | 4    | 4    | 4    | 4    |
| Circuits                       | A   | no.  | -                     | -    | -    | -    | -    | 2    | 2    | 2    | 2    | 2    |
|                                | E   | no.  | 1                     | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                    | A,E | type | R290                  |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1) | A   | kg   | -                     | -    | -    | -    | -    | 4,2  | 4,2  | 4,9  | 4,9  | 4,9  |
|                                | E   | kg   | 4,2                   | 4,2  | 4,9  | 4,9  | 4,9  | 4,2  | 4,2  | 4,9  | 4,9  | 4,9  |
| Refrigerant load circuit 2 (1) | A,E | kg   | -                     | -    | -    | -    | -    | 4,2  | 4,2  | 4,9  | 4,9  | 4,9  |
| Potential global heating       | A,E | GWP  | 3kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |
| System side heat exchanger     |     |      |                       |      |      |      |      |      |      |      |      |      |
| Type                           | A,E | type | Brazed plate          |      |      |      |      |      |      |      |      |      |
| Number                         | A   | no.  | -                     | -    | -    | -    | -    | 1    | 1    | 1    | 1    | 1    |
|                                | E   | no.  | 1                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |     |      | 0282         | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|-----------------------------------|-----|------|--------------|------|------|------|------|------|------|------|------|------|
| <b>System side heat exchanger</b> |     |      |              |      |      |      |      |      |      |      |      |      |
| Type                              | A,E | type | Brazed plate |      |      |      |      |      |      |      |      |      |
| Number                            | A   | no.  | -            | -    | -    | -    | -    | 1    | 1    | 1    | 1    | 1    |
|                                   | E   | no.  | 1            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

| Size                                     |     |      | 0282           | 0292 | 0302 | 0322 | 0332 | 0504   | 0554   | 0604   | 0634   | 0654   |
|--|-----|------|----------------|------|------|------|------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b>       |     |      |                |      |      |      |      |        |        |        |        |        |
| <b>System side hydraulic connections</b> |     |      |                |      |      |      |      |        |        |        |        |        |
| Connections (in/out)                     | A,E | Type | Grooved joints |      |      |      |      |        |        |        |        |        |
| Sizes (in/out)                           | A   | Ø    | -              | -    | -    | -    | -    | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" |
|  | E   | Ø    | 2 1/2"         |      |      |      |      |        |        |        |        |        |

| Size   |   |       | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J</b>                                   |   |       |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | -    | -    | -    | -    | -    | 86,6 | 86,6 | 87,2 | 87,2 | 87,2 |
|  | E | dB(A) | 82,0 | 82,0 | 82,2 | 84,0 | 84,0 | 84,6 | 84,6 | 84,7 | 85,3 | 85,3 |
| <b>Sound data calculated in heating mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | -    | -    | -    | -    | -    | 86,6 | 86,6 | 87,2 | 87,2 | 87,2 |
|  | E | dB(A) | 82,0 | 82,0 | 82,2 | 84,0 | 84,0 | 86,0 | 86,0 | 86,6 | 87,2 | 87,2 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

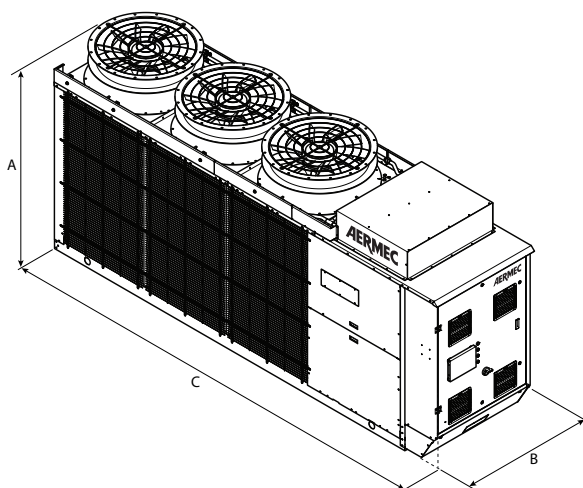
| Size   |   |       | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: °</b>                                   |   |       |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | -    | -    | -    | -    | -    | 86,6 | 86,6 | 87,2 | 87,2 | 87,2 |
|  | E | dB(A) | 82,0 | 82,0 | 82,2 | 84,0 | 84,0 | -    | -    | -    | -    | -    |
| <b>Sound data calculated in heating mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | -    | -    | -    | -    | -    | 86,6 | 86,6 | 87,2 | 87,2 | 87,2 |
|  | E | dB(A) | 82,0 | 82,0 | 82,2 | 84,0 | 84,0 | -    | -    | -    | -    | -    |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size           |   |      | 0282                | 0292                | 0302                | 0322                | 0332                | 0504                | 0554                | 0604                | 0634                | 0654                |
|----------------|---|------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Fans: J</b> |   |      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| <b>Fan</b>     |   |      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Type           | A | type | -                   | -                   | -                   | -                   | -                   | Axial               | Axial               | Axial               | Axial               | Axial               |
|                | E | type | Axial               | Axial               | Axial               | Axial               | Axial               | Axial               | Axial               | Axial               | Axial               | Axial               |
| Fan motor      | A | type | -                   | -                   | -                   | -                   | -                   | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            |
|                | E | type | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            | Inverter            |
| Number         | A | no.  | -                   | -                   | -                   | -                   | -                   | 2                   | 2                   | 3                   | 3                   | 3                   |
|                | E | no.  | 6                   | 6                   | 8                   | 8                   | 8                   | 2                   | 2                   | 3                   | 3                   | 3                   |
| Air flow rate  | A | m³/h | -                   | -                   | -                   | -                   | -                   | 38211               | 38211               | 58970               | 58970               | 58970               |
|                | E | m³/h | 22937               | 22937               | 28830               | 28830               | 28830               | 31935               | 31935               | 42553               | 42553               | 42553               |
| Size           |   |      | 0282                | 0292                | 0302                | 0322                | 0332                | 0504                | 0554                | 0604                | 0634                | 0654                |
| <b>Fans: °</b> |   |      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| <b>Fan</b>     |   |      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Type           | A | type | -                   | -                   | -                   | -                   | -                   | Axial               | Axial               | Axial               | Axial               | Axial               |
|                | E | type | Axial               | Axial               | Axial               | Axial               | Axial               | -                   | -                   | -                   | -                   | -                   |
| Fan motor      | A | type | -                   | -                   | -                   | -                   | -                   | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX |
|                | E | type | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX | Asynchronous + DCPX | -                   | -                   | -                   | -                   | -                   |
| Number         | A | no.  | -                   | -                   | -                   | -                   | -                   | 2                   | 2                   | 3                   | 3                   | 3                   |
|                | E | no.  | 6                   | 6                   | 8                   | 8                   | 8                   | -                   | -                   | -                   | -                   | -                   |
| Air flow rate  | A | m³/h | -                   | -                   | -                   | -                   | -                   | 38211               | 38211               | 58970               | 58970               | 58970               |
|                | E | m³/h | 22937               | 22937               | 28830               | 28830               | 28830               | -                   | -                   | -                   | -                   | -                   |

## DIMENSIONS



| Size                               |   |    | 0282 | 0292 | 0302 | 0322 | 0332 | 0504 | 0554 | 0604 | 0634 | 0654 |
|------------------------------------|---|----|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b> |   |    |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>      |   |    |      |      |      |      |      |      |      |      |      |      |
| A                                  | A | mm | -    | -    | -    | -    | -    | 1980 | 1980 | 1980 | 1980 | 1980 |
|                                    | E | mm | 1920 | 1920 | 1920 | 1920 | 1920 | 1980 | 1980 | 1980 | 1980 | 1980 |
| B                                  | A | mm | -    | -    | -    | -    | -    | 1108 | 1108 | 1108 | 1108 | 1108 |
|                                    | E | mm | 1108 | 1108 | 1108 | 1108 | 1108 | 1108 | 1108 | 1108 | 1108 | 1108 |
| C                                  | A | mm | -    | -    | -    | -    | -    | 3635 | 3635 | 4423 | 4423 | 4423 |
|                                    | E | mm | 3375 | 3375 | 3375 | 3375 | 3375 | 3635 | 3635 | 4423 | 4423 | 4423 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRB 0282-0754

## Air-water chiller

Cooling capacity 56 ÷ 202 kW

- High seasonal efficiency
- Night mode
- Low refrigerant charge
- Compact dimensions



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced
- N Silenced very high efficiency
- U Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 51°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

#### Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.**

#### Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.



**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

### COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

### ACCESSORIES COMPATIBILITY

| Model            | Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | E,L,N | *    | *    | *    | *    |      |      |      |      |      |      |      |      |      |      |      |
|                  | U     |      |      |      | *    |      |      |      |      |      |      |      |      |      |      |      |

#### Remote panel

| Model | Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

#### Condensation control temperature

| Ver     | 0282        | 0302        | 0332        | 0352        | 0502        | 0552        | 0602        | 0604        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: M |             |             |             |             |             |             |             |             |
| °, A    | -           | -           | -           | -           | DCPX142     | DCPX142     | DCPX142     | DCPX142     |
| E, L    | DCPX141     | DCPX141     | DCPX141     | DCPX141     | As standard | As standard | As standard | As standard |
| N       | DCPX141     | DCPX141     | DCPX141     | As standard | As standard | As standard | As standard | As standard |
| U       | -           | -           | -           | DCPX142     | DCPX142     | DCPX142     | DCPX143     | DCPX143     |
| Fans: ° |             |             |             |             |             |             |             |             |
| E, L    | DCPX140     | DCPX140     | DCPX140     | DCPX140     | -           | -           | -           | -           |
| N       | DCPX140     | DCPX140     | DCPX140     | -           | -           | -           | -           | -           |
|         |             |             |             |             |             |             |             |             |
| Ver     | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        |             |
| Fans: M |             |             |             |             |             |             |             |             |
| °       | DCPX142     | DCPX142     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     |             |
| A       | DCPX142     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     |             |
| E, L, N | As standard | As standard | As standard | As standard | As standard | As standard | As standard |             |
| U       | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     |             |

#### Antivibration

| Ver  | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E  | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L  | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| N  | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT23 | VT23 | VT23 | VT23 |

| Ver  | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| U  | -    | -    | -    | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT23 | VT23 | VT23 | VT23 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| N  | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT23 | VT23 | VT23 | VT23 |
| U  | -    | -    | -    | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT23 | VT23 | VT23 | VT23 |

#### Anti-intrusion grid

| Ver | 0282 | 0302 | 0332 | 0352        | 0502        | 0552        | 0602        | 0604        | 0652        | 0654        | 0682        | 0702         | 0704         | 0752         | 0754         |
|-----|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| °   | -    | -    | -    | -           | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  |
| A   | -    | -    | -    | -           | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  |
| E   | GP3  | GP4  | GP4  | GP4         | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  |
| L   | GP3  | GP3  | GP4  | GP4         | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  | GP2 x 3 (1)  |
| N   | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP14 x 4 (1) | GP14 x 4 (1) | GP14 x 4 (1) | GP14 x 4 (1) |
| U   | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP14 x 4 (1) | GP14 x 4 (1) | GP14 x 4 (1) | GP14 x 4 (1) |

(1) x \_ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

#### Power factor correction

| Ver     | 0282    | 0302    | 0332    | 0352    | 0502    | 0552    | 0602    | 0604    |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A    | -       | -       | -       | -       | -       | RIF0502 | RIF0552 | RIF0602 |
| E, L, N | RIF0282 | RIF0302 | RIF0332 | RIF0352 | RIF0502 | RIF0552 | RIF0602 | RIF0604 |
| U       | -       | -       | -       | -       | RIF0352 | RIF0502 | RIF0552 | RIF0602 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver              | 0652    | 0654    | 0682    | 0702    | 0704    | 0752    | 0754    |
|------------------|---------|---------|---------|---------|---------|---------|---------|
| °, A, E, L, N, U | RIF0652 | RIF0654 | RIF0682 | RIF0702 | RIF0704 | RIF0752 | RIF0754 |

A grey background indicates the accessory must be assembled in the factory

#### Device for peak current reduction

| Ver     | 0282          | 0302          | 0332          | 0352          | 0502          | 0552          | 0602          | 0604          |
|---------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| °, A    | -             | -             | -             | -             | DRENRB502 (1) | DRENRB552 (1) | DRENRB602 (1) | DRENRB604 (1) |
| E, L, N | DRENRB282 (1) | DRENRB302 (1) | DRENRB332 (1) | DRENRB352 (1) | DRENRB502 (1) | DRENRB552 (1) | DRENRB602 (1) | DRENRB604 (1) |
| U       | -             | -             | -             | DRENRB352 (1) | DRENRB502 (1) | DRENRB552 (1) | DRENRB602 (1) | DRENRB604 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver              | 0652          | 0654          | 0682          | 0702          | 0704          | 0752          | 0754          |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| °, A, E, L, N, U | DRENRB652 (1) | DRENRB654 (1) | DRENRB682 (1) | DRENRB702 (1) | DRENRB704 (1) | DRENRB752 (1) | DRENRB754 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

#### Double safety valves

| Ver  | 0282   | 0302   | 0332   | 0352   | 0502   | 0552   | 0602   | 0604    | 0652   | 0654    | 0682   | 0702    | 0704    | 0752    | 0754    |
|------|--------|--------|--------|--------|--------|--------|--------|---------|--------|---------|--------|---------|---------|---------|---------|
| °, A | -      | -      | -      | -      | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB11 | T6NRB8 | T6NRB11 | T6NRB9 | T6NRB10 | T6NRB12 | T6NRB10 | T6NRB12 |
| E, L | T6NRB6 | T6NRB6 | T6NRB6 | T6NRB6 | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB11 | T6NRB8 | T6NRB11 | T6NRB9 | T6NRB10 | T6NRB12 | T6NRB10 | T6NRB12 |
| N    | T6NRB6 | T6NRB6 | T6NRB6 | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB11 | T6NRB8 | T6NRB11 | T6NRB9 | T6NRB10 | T6NRB12 | T6NRB10 | T6NRB12 |
| U    | -      | -      | -      | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB8 | T6NRB11 | T6NRB8 | T6NRB11 | T6NRB9 | T6NRB10 | T6NRB12 | T6NRB10 | T6NRB12 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

#### Touch screen keyboard

| Ver              | 0282    | 0302    | 0332    | 0352    | 0502    | 0552    | 0602    | 0604    | 0652    | 0654    | 0682    | 0702    | 0704    | 0752    | 0754    |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A, E, L, N, U | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Y              | Double mechanical thermostat for low temperature (2)  |
| Z              | Low temperature electronic thermostatic valve (3)   |
| °              | Standard mechanic thermostatic valve (1)  |
| <b>9</b>       | <b>Model</b>  |
| C              | Motocondensing unit   |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (4)  |
| T              | With total recovery (4)   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pieps-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized (5)   |
| °              | Standard (6)  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
|                | <b>Without hydronic kit</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with storage tank and pump/s</b>   |
| 01             | Storage tank with low head pump   |

| Field | Description  |
|-------|--|
| 02    | Storage tank with low head pump + stand-by pump                            |
| 03    | Storage tank with high head pump   |
| 04    | Storage tank with high head pump + stand-by pump                           |
|       | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05    | Storage tank with holes for heaters and single low head pump (7)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (7)  |
| 07    | Storage tank with holes for heaters and single high head pump (7)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (7) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |
|       | <b>Kit with inverter pump/s to fixed speed</b>                             |
| I1    | Single low head pump + fixed speed inverter                                |
| I2    | Single low head pump with fixed speed inverter + stand-by pump             |
| I3    | Single high head pump + fixed speed inverter                               |
| I4    | Single high head pump with fixed speed inverter + stand-by pump            |
|       | <b>Kit with storage tank and inverter pump/s to fixed speed</b>            |
| K1    | Single low head pump + storage tank + fixed speed inverter                 |
| K2    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3    | Single high head pump + storage tank + fixed speed inverter                |
| K4    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|       | <b>Kit with storage tank and variable speed inverter pump/s</b>            |
| W1    | Single low head pump + Storage tank + variable speed inverter (8)          |
| W2    | Double low head pump + Storage tank + variable speed inverter (8)          |
| W3    | Single high head pump + Storage tank + variable speed inverter (8)         |
| W4    | Double high head pump + Storage tank + variable speed inverter (8)         |

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from -10 °C ÷ 18 °C

(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions

(4) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(5) As standard in sizes from 0502 to 0754 version ° - A - E - L, in sizes from 0352 to 0754 version N - U

(6) As standard in sizes from 0282 to 0352 versions E - L and in size from 0282 to 0332 version N

(7) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

(8) Options Y and Z are not compatible with W1/W2/W3/W4

## PERFORMANCE SPECIFICATIONS

### Included units with 'IO' fans.

#### NRB - L

| Size  |     | 0282 | 0302  | 0332  | 0352  |
|---|-----|------|-------|-------|-------|
| <b>Fans: °</b>                              |     |      |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |       |       |       |
| Cooling capacity                            | kW  | 56,5 | 64,3  | 73,9  | 85,5  |
| Input power                                 | kW  | 19,8 | 22,2  | 24,8  | 29,6  |
| Cooling total input current                 | A   | 35,0 | 41,0  | 46,0  | 54,0  |
| EER   | W/W | 2,85 | 2,90  | 2,98  | 2,89  |
| Water flow rate system side                 | l/h | 9734 | 11090 | 12722 | 14734 |
| Pressure drop system side                   | kPa | 37   | 48    | 39    | 52    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

#### NRB - E

| Size  |     | 0282  | 0302  | 0332  | 0352  |
|---|-----|-------|-------|-------|-------|
| <b>Fans: °</b>                              |     |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |
| Cooling capacity                            | kW  | 60,6  | 68,4  | 77,0  | 89,2  |
| Input power                                 | kW  | 18,6  | 21,1  | 23,8  | 28,3  |
| Cooling total input current                 | A   | 32,0  | 36,0  | 41,0  | 46,0  |
| EER   | W/W | 3,26  | 3,24  | 3,23  | 3,16  |
| Water flow rate system side                 | l/h | 10429 | 11774 | 13258 | 15372 |
| Pressure drop system side                   | kPa | 26    | 33    | 30    | 40    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

#### NRB - N

| Size  |     | 0282  | 0302  | 0332  |
|---|-----|-------|-------|-------|
| <b>Fans: °</b>                              |     |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |
| Cooling capacity                            | kW  | 60,8  | 69,0  | 76,9  |
| Input power                                 | kW  | 17,8  | 20,5  | 22,9  |
| Cooling total input current                 | A   | 33,0  | 39,0  | 44,0  |
| EER   | W/W | 3,42  | 3,37  | 3,36  |
| Water flow rate system side                 | l/h | 10460 | 11884 | 13249 |
| Pressure drop system side                   | kPa | 27    | 25    | 31    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### Included units with 'M' fans.

#### NRB - °

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                              |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 98,4  | 107,0 | 125,9 | 125,5 | 135,1 | 141,0 | 159,7 | 178,9 | 170,7 | 195,7 | 193,5 |
| Input power                                 | kW  | -    | -    | -    | -    | 33,2  | 37,5  | 41,6  | 45,6  | 47,4  | 52,2  | 54,8  | 60,8  | 58,3  | 71,8  | 67,2  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 59,0  | 65,0  | 71,0  | 80,0  | 81,0  | 92,0  | 93,0  | 102,0 | 104,0 | 117,0 | 117,0 |
| EER   | W/W | -    | -    | -    | -    | 2,96  | 2,85  | 3,03  | 2,75  | 2,85  | 2,70  | 2,92  | 2,95  | 2,93  | 2,73  | 2,88  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 16941 | 18444 | 21694 | 21620 | 23270 | 24282 | 27502 | 30805 | 29385 | 33700 | 33309 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 39    | 46    | 42    | 50    | 49    | 48    | 52    | 66    | 71    | 78    | 65    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

#### NRB - L

| Size  |     | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                              |     |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 96,3  | 104,5 | 122,6 | 121,5 | 131,1 | 134,8 | 156,1 | 174,3 | 166,4 | 189,9 | 187,4 |
| Input power                                 | kW  | 34,0  | 38,6  | 42,9  | 47,6  | 49,2  | 55,0  | 56,0  | 62,5  | 60,0  | 74,7  | 69,5  |
| Cooling total input current                 | A   | 59,0  | 65,0  | 72,0  | 82,0  | 82,0  | 95,0  | 93,0  | 102,0 | 105,0 | 119,0 | 119,0 |
| EER   | W/W | 2,83  | 2,71  | 2,86  | 2,55  | 2,67  | 2,45  | 2,79  | 2,79  | 2,78  | 2,54  | 2,70  |
| Water flow rate system side                 | l/h | 16583 | 18007 | 21114 | 20937 | 22592 | 23230 | 26870 | 30010 | 28645 | 32685 | 32255 |
| Pressure drop system side                   | kPa | 37    | 43    | 40    | 46    | 45    | 44    | 50    | 62    | 66    | 73    | 61    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - A

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                              |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 103,9 | 114,8 | 130,1 | 129,7 | 140,0 | 150,2 | 167,9 | 186,9 | 176,8 | 207,6 | 198,8 |
| Input power                                 | kW  | -    | -    | -    | -    | 31,4  | 35,4  | 40,3  | 43,5  | 45,0  | 47,6  | 51,9  | 59,2  | 56,6  | 69,6  | 63,8  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 55,0  | 59,0  | 68,0  | 73,0  | 74,0  | 77,0  | 86,0  | 94,0  | 98,0  | 103,0 | 107,0 |
| EER   | W/W | -    | -    | -    | -    | 3,31  | 3,24  | 3,23  | 2,98  | 3,11  | 3,16  | 3,24  | 3,16  | 3,12  | 2,98  | 3,11  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 17889 | 19764 | 22404 | 22344 | 24116 | 25867 | 28897 | 32172 | 30430 | 35736 | 34210 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 30    | 36    | 35    | 42    | 40    | 57    | 46    | 56    | 55    | 60    | 58    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - E

| Size  |     | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                              |     |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 100,4 | 110,5 | 123,9 | 122,2 | 132,4 | 144,8 | 161,4 | 178,0 | 168,2 | 195,9 | 187,7 |
| Input power                                 | kW  | 32,5  | 36,9  | 42,7  | 46,6  | 48,2  | 49,4  | 54,0  | 62,6  | 59,7  | 74,7  | 68,0  |
| Cooling total input current                 | A   | 54,0  | 59,0  | 69,0  | 75,0  | 77,0  | 77,0  | 86,0  | 95,0  | 100,0 | 107,0 | 110,0 |
| EER   | W/W | 3,09  | 3,00  | 2,90  | 2,62  | 2,75  | 2,93  | 2,99  | 2,84  | 2,82  | 2,62  | 2,76  |
| Water flow rate system side                 | l/h | 17275 | 19020 | 21329 | 21052 | 22807 | 24939 | 27779 | 30648 | 28950 | 33719 | 32307 |
| Pressure drop system side                   | kPa | 27    | 33    | 32    | 36    | 36    | 52    | 42    | 51    | 49    | 53    | 52    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - U

| Size  |     | 0282 | 0302 | 0332 | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                              |     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | 92,7  | 104,5 | 117,2 | 132,1 | 137,9 | 146,8 | 152,9 | 171,6 | 191,4 | 180,5 | 209,6 | 202,9 |
| Input power                                 | kW  | -    | -    | -    | 27,1  | 30,8  | 34,5  | 38,8  | 41,3  | 44,2  | 45,5  | 50,7  | 59,3  | 56,2  | 67,2  | 63,1  |
| Cooling total input current                 | A   | -    | -    | -    | 51,0  | 56,0  | 61,0  | 68,0  | 76,0  | 76,0  | 86,0  | 88,0  | 101,0 | 104,0 | 116,0 | 115,0 |
| EER   | W/W | -    | -    | -    | 3,42  | 3,39  | 3,40  | 3,40  | 3,34  | 3,32  | 3,36  | 3,39  | 3,23  | 3,21  | 3,12  | 3,21  |
| Water flow rate system side                 | l/h | -    | -    | -    | 15945 | 17984 | 20172 | 22745 | 23741 | 25275 | 26327 | 29532 | 32945 | 31067 | 36076 | 34915 |
| Pressure drop system side                   | kPa | -    | -    | -    | 24    | 30    | 29    | 38    | 34    | 36    | 42    | 41    | 51    | 48    | 61    | 56    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - N

| Size                                 |     | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--------------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fans: M                              |     |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling performance 12 °C / 7 °C (1) |     |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                     | kW  | 89,7  | 100,8 | 112,4 | 128,6 | 133,5 | 142,2 | 147,1 | 164,5 | 185,1 | 174,5 | 201,1 | 195,1 |
| Input power                          | kW  | 27,8  | 31,9  | 36,1  | 39,4  | 42,4  | 45,3  | 47,2  | 52,9  | 60,9  | 57,5  | 70,2  | 65,3  |
| Cooling total input current          | A   | 50,0  | 55,0  | 62,0  | 66,0  | 74,0  | 75,0  | 85,0  | 88,0  | 100,0 | 102,0 | 116,0 | 114,0 |
| EER                                  | W/W | 3,23  | 3,16  | 3,12  | 3,26  | 3,15  | 3,14  | 3,11  | 3,11  | 3,04  | 3,03  | 2,87  | 2,99  |
| Water flow rate system side          | l/h | 15444 | 17352 | 19347 | 22150 | 22978 | 24481 | 25334 | 28325 | 31856 | 30031 | 34611 | 33586 |
| Pressure drop system side            | kPa | 22    | 28    | 27    | 36    | 32    | 34    | 39    | 38    | 48    | 45    | 56    | 52    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                                   |   | 0282 | 0302   | 0332   | 0352   | 0502   | 0552   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                         |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | ° | W/W  | -      | -      | -      | 4,34   | 4,23   | 4,39   | 4,12   | 4,26   | 4,11   | 4,28   | 4,26   | 4,13   | 4,24   | 4,12   |
|  | A | W/W  | -      | -      | -      | 4,48   | 4,48   | 4,59   | 4,20   | 4,48   | 4,13   | 4,49   | 4,40   | 4,34   | 4,44   | 4,16   |
|  | E | W/W  | 4,59   | 4,69   | 4,60   | 4,52   | 4,48   | 4,46   | 4,53   | 4,16   | 4,34   | 4,18   | 4,51   | 4,32   | 4,13   | 4,33   |
|  | L | W/W  | 4,38   | 4,37   | 4,46   | 4,35   | 4,36   | 4,24   | 4,38   | 4,11   | 4,18   | 4,12   | 4,32   | 4,23   | 4,13   | 4,11   |
|  | N | W/W  | 4,79   | 4,84   | 4,73   | 4,81   | 4,68   | 4,76   | 4,84   | 4,53   | 4,72   | 4,39   | 4,77   | 4,60   | 4,35   | 4,56   |
|  | U | W/W  | -      | -      | -      | 4,74   | 4,71   | 4,82   | 4,65   | 4,33   | 4,66   | 4,31   | 4,76   | 4,53   | 4,22   | 4,52   |
| Seasonal efficiency                    | ° | %    | -      | -      | -      | 170,60 | 166,20 | 172,60 | 161,80 | 167,30 | 161,40 | 168,20 | 167,40 | 162,20 | 166,60 | 161,80 |
|  | A | %    | -      | -      | -      | 176,20 | 176,20 | 180,60 | 165,00 | 176,20 | 162,20 | 176,60 | 173,00 | 170,60 | 174,60 | 163,40 |
|  | E | %    | 180,60 | 184,60 | 181,00 | 177,80 | 176,20 | 175,40 | 178,20 | 163,40 | 170,60 | 164,20 | 177,40 | 169,80 | 162,20 | 170,20 |
|  | L | %    | 172,20 | 171,80 | 175,40 | 171,00 | 171,40 | 166,60 | 172,20 | 161,40 | 164,20 | 161,80 | 169,80 | 166,20 | 164,60 | 161,40 |
|  | N | %    | 188,60 | 190,60 | 186,20 | 189,40 | 184,20 | 187,40 | 190,60 | 178,20 | 185,80 | 172,60 | 187,80 | 181,00 | 171,00 | 179,40 |
|  | U | %    | -      | -      | -      | 186,80 | 185,40 | 189,80 | 183,00 | 170,20 | 183,40 | 169,40 | 187,40 | 178,20 | 165,80 | 177,80 |
| <b>SEER - 23/18 (EN14825:2018) (2)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | ° | W/W  | -      | -      | -      | 5,31   | 5,07   | 5,29   | 4,89   | 5,04   | 4,93   | 5,13   | 5,12   | 5,01   | 4,99   | 4,95   |
|  | A | W/W  | -      | -      | -      | 5,55   | 5,42   | 5,54   | 5,06   | 5,36   | 5,11   | 5,43   | 5,23   | 5,30   | 5,24   | 5,03   |
|  | E | W/W  | 5,50   | 5,62   | 5,55   | 5,58   | 5,47   | 5,41   | 5,37   | 4,88   | 5,10   | 5,05   | 5,37   | 5,06   | 4,93   | 5,02   |
|  | L | W/W  | 5,17   | 5,22   | 5,34   | 5,22   | 5,27   | 5,00   | 5,12   | 4,81   | 4,89   | 4,82   | 5,13   | 4,92   | 4,91   | 4,83   |
|  | N | W/W  | 5,75   | 5,82   | 5,73   | 5,91   | 5,72   | 5,68   | 5,88   | 5,49   | 5,67   | 5,29   | 5,71   | 5,46   | 5,27   | 5,38   |
|  | U | W/W  | -      | -      | -      | 5,92   | 5,86   | 5,85   | 5,72   | 5,32   | 5,68   | 5,30   | 5,79   | 5,45   | 5,22   | 5,41   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                              |   | 0282 | 0302   | 0332   | 0352   | 0502   | 0552   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   |
|-----------------------------------|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Seasonal efficiency               | ° | %    | -      | -      | -      | 209,30 | 199,60 | 208,40 | 192,70 | 198,50 | 194,20 | 202,20 | 201,60 | 197,50 | 196,50 | 194,80 |
|                                   | A | %    | -      | -      | -      | 219,00 | 213,90 | 218,60 | 199,50 | 211,30 | 201,30 | 214,10 | 206,30 | 208,80 | 206,60 | 198,20 |
|                                   | E | %    | 216,80 | 221,60 | 218,80 | 220,00 | 215,70 | 213,30 | 211,80 | 192,00 | 200,80 | 199,10 | 211,60 | 199,30 | 194,00 | 197,90 |
|                                   | L | %    | 203,80 | 205,90 | 210,60 | 205,60 | 207,70 | 197,10 | 201,70 | 189,40 | 192,70 | 189,70 | 202,00 | 193,60 | 193,20 | 190,40 |
|                                   | N | %    | 227,00 | 229,80 | 226,30 | 233,30 | 225,80 | 224,10 | 232,30 | 216,40 | 223,70 | 208,50 | 225,30 | 215,30 | 207,60 | 212,10 |
|                                   | U | %    | -      | -      | -      | 233,80 | 231,40 | 231,10 | 225,80 | 209,60 | 224,00 | 209,00 | 228,70 | 214,90 | 205,70 | 213,40 |
| <b>SEPR - (EN 14825:2018) (2)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                              | ° | W/W  | -      | -      | -      | 5,79   | 5,61   | 5,74   | 5,62   | 5,66   | 5,57   | 5,59   | 5,84   | 5,94   | 5,45   | 5,76   |
|                                   | A | W/W  | -      | -      | -      | 6,10   | 5,97   | 6,00   | 5,73   | 5,97   | 5,74   | 5,92   | 5,79   | 5,89   | 5,75   | 5,78   |
|                                   | E | W/W  | 6,46   | 6,42   | 6,13   | 6,36   | 5,98   | 5,95   | 5,79   | 5,41   | 5,72   | 5,68   | 5,83   | 5,67   | 5,69   | 5,51   |
|                                   | L | W/W  | 6,15   | 6,00   | 5,97   | 6,07   | 5,79   | 5,65   | 5,61   | 5,31   | 5,55   | 5,28   | 5,58   | 5,60   | 5,77   | 5,37   |
|                                   | N | W/W  | 6,71   | 6,53   | 6,23   | 6,54   | 6,22   | 6,21   | 6,16   | 6,12   | 6,14   | 5,93   | 6,09   | 5,97   | 6,08   | 5,83   |
|                                   | U | W/W  | -      | -      | -      | 6,43   | 6,30   | 6,31   | 6,01   | 6,15   | 6,09   | 5,88   | 6,19   | 5,88   | 6,05   | 5,85   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                                   |   | 0282 | 0302   | 0332   | 0352   | 0502   | 0552   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: M</b>                         |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | ° | W/W  | -      | -      | -      | 4,23   | 4,13   | 4,29   | - (2)  | 4,16   | - (2)  | 4,18   | 4,16   | - (2)  | 4,14   | - (2)  |
|  | A | W/W  | -      | -      | -      | 4,37   | 4,37   | 4,48   | - (2)  | 4,37   | - (2)  | 4,38   | 4,29   | - (2)  | 4,33   | - (2)  |
|  | E | W/W  | 4,48   | 4,58   | 4,49   | 4,42   | 4,37   | 4,35   | 4,42   | - (2)  | 4,24   | - (2)  | 4,40   | 4,21   | - (2)  | 4,23   |
|  | L | W/W  | 4,28   | 4,27   | 4,35   | 4,27   | 4,25   | 4,14   | 4,27   | - (2)  | 4,11   | - (2)  | 4,22   | 4,13   | - (2)  | 4,11   |
|  | N | W/W  | 4,68   | 4,72   | 4,62   | 4,69   | 4,56   | 4,65   | 4,72   | 4,42   | 4,61   | 4,28   | 4,65   | 4,49   | 4,24   | 4,45   |
|  | U | W/W  | -      | -      | -      | 4,62   | 4,59   | 4,71   | 4,54   | 4,22   | 4,54   | 4,20   | 4,64   | 4,42   | 4,11   | 4,41   |
| Seasonal efficiency                    | ° | %    | -      | -      | -      | 166,20 | 162,20 | 168,40 | - (2)  | 163,40 | - (2)  | 164,10 | 163,40 | - (2)  | 162,50 | - (2)  |
|  | A | %    | -      | -      | -      | 171,90 | 171,60 | 176,10 | - (2)  | 171,70 | - (2)  | 172,20 | 168,70 | - (2)  | 170,20 | - (2)  |
|  | E | %    | 176,20 | 180,20 | 176,40 | 173,60 | 171,70 | 171,00 | 173,80 | - (2)  | 166,50 | - (2)  | 172,80 | 165,50 | - (2)  | 166,00 |
|  | L | %    | 168,10 | 167,80 | 171,10 | 167,00 | 167,00 | 162,50 | 167,80 | - (2)  | 161,20 | - (2)  | 165,70 | 162,10 | - (2)  | 161,30 |
|  | N | %    | 184,00 | 185,70 | 181,70 | 184,70 | 179,50 | 182,90 | 185,90 | 173,70 | 181,20 | 168,20 | 182,90 | 176,40 | 166,70 | 174,90 |
|  | U | %    | -      | -      | -      | 181,70 | 180,60 | 185,20 | 178,50 | 165,60 | 178,70 | 165,10 | 182,50 | 173,80 | 161,40 | 173,30 |
| <b>SEER - 23/18 (EN14825:2018) (3)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | ° | W/W  | -      | -      | -      | 5,17   | 4,95   | 5,16   | 4,77   | 4,95   | 4,80   | 5,01   | 4,99   | 4,86   | 4,82   | 4,90   |
|  | A | W/W  | -      | -      | -      | 5,42   | 5,28   | 5,40   | 4,91   | 5,22   | 4,94   | 5,29   | 5,10   | 4,95   | 5,11   | 4,99   |
|  | E | W/W  | 5,36   | 5,48   | 5,40   | 5,44   | 5,33   | 5,27   | 5,24   | 4,68   | 4,97   | 4,93   | 5,23   | 4,93   | 4,81   | 4,90   |
|  | L | W/W  | 5,05   | 5,10   | 5,21   | 5,09   | 5,13   | 4,88   | 4,99   | 4,65   | 4,77   | 4,52   | 5,00   | 4,79   | 4,78   | 4,67   |
|  | N | W/W  | 5,61   | 5,67   | 5,59   | 5,76   | 5,58   | 5,54   | 5,74   | 5,35   | 5,53   | 5,12   | 5,56   | 5,32   | 5,13   | 5,24   |
|  | U | W/W  | -      | -      | -      | 5,77   | 5,71   | 5,58   | 5,18   | 5,53   | 5,17   | 5,64   | 5,32   | 5,08   | 5,27   | 5,07   |
| Seasonal efficiency                    | ° | %    | -      | -      | -      | 203,90 | 194,80 | 203,30 | 187,70 | 195,10 | 189,00 | 197,30 | 196,70 | 191,50 | 189,90 | 193,00 |
|  | A | %    | -      | -      | -      | 213,60 | 208,30 | 213,10 | 193,50 | 205,80 | 194,60 | 208,70 | 201,10 | 194,90 | 201,30 | 196,70 |
|  | E | %    | 211,40 | 216,30 | 213,10 | 214,70 | 210,20 | 207,90 | 206,50 | 184,00 | 195,90 | 194,00 | 206,10 | 194,20 | 189,20 | 193,00 |
|  | L | %    | 199,00 | 201,10 | 205,30 | 200,70 | 202,30 | 192,30 | 196,60 | 183,10 | 187,90 | 177,60 | 197,10 | 188,70 | 188,10 | 183,80 |
|  | N | %    | 221,40 | 223,80 | 220,60 | 227,50 | 220,00 | 218,70 | 226,60 | 210,90 | 218,20 | 203,00 | 219,50 | 209,70 | 202,20 | 206,70 |
|  | U | %    | -      | -      | -      | 227,60 | 225,50 | 225,40 | 220,30 | 204,00 | 218,30 | 203,60 | 222,70 | 209,60 | 200,00 | 207,90 |
| <b>SEPR - (EN 14825:2018) (3)</b>      |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                                   | ° | W/W  | -      | -      | -      | 5,79   | 5,61   | 5,74   | 5,62   | 5,66   | 5,57   | 5,59   | 5,84   | 5,94   | 5,45   | 5,76   |
|  | A | W/W  | -      | -      | -      | 6,10   | 5,97   | 6,00   | 5,73   | 5,97   | 5,74   | 5,92   | 5,79   | 5,89   | 5,75   | 5,78   |
|  | E | W/W  | 6,46   | 6,42   | 6,13   | 6,36   | 5,98   | 5,95   | 5,79   | 5,41   | 5,72   | 5,68   | 5,83   | 5,67   | 5,69   | 5,51   |
|  | L | W/W  | 6,15   | 6,00   | 5,97   | 6,07   | 5,79   | 5,65   | 5,61   | 5,31   | 5,55   | 5,28   | 5,58   | 5,60   | 5,77   | 5,37   |
|  | N | W/W  | 6,71   | 6,53   | 6,23   | 6,54   | 6,22   | 6,12   | 6,16   | 6,12   | 6,14   | 5,93   | 6,09   | 5,97   | 6,08   | 5,83   |
|  | U | W/W  | -      | -      | -      | 6,43   | 6,30   | 6,31   | 6,01   | 6,15   | 6,09   | 5,88   | 6,19   | 5,88   | 6,05   | 5,85   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

| Size                                   |      | 0282 | 0302   | 0332   | 0352   | 0502   | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|--|------|------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: °</b>                         |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |
| SEER                                   | °A,U | W/W  | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E    | W/W  | 4,48   | 4,58   | 4,49   | 4,42   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | L    | W/W  | 4,28   | 4,27   | 4,35   | 4,25   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | N    | W/W  | 4,68   | 4,72   | 4,62   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Seasonal efficiency                    | °A,U | %    | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E    | %    | 176,20 | 180,20 | 176,40 | 173,60 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | L    | %    | 168,10 | 167,80 | 171,10 | 167,00 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | N    | %    | 184,00 | 185,70 | 181,70 | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>SEER - 23/18 (EN14825:2018) (2)</b> |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |
| SEER                                   | °A,U | W/W  | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E    | W/W  | 5,36   | 5,48   | 5,40   | 5,44   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | L    | W/W  | 5,05   | 5,10   | 5,21   | 5,09   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | N    | W/W  | 5,61   | 5,67   | 5,59   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                               |      |     | 0282   | 0302   | 0332   | 0352   | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|------------------------------------|------|-----|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|
| Seasonal efficiency                | °A,U | %   | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | E    | %   | 211,40 | 216,30 | 213,10 | 214,70 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | L    | %   | 199,00 | 201,10 | 205,30 | 200,70 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | N    | %   | 221,40 | 223,80 | 220,60 | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>SEPR - (EN 14825: 2018) (2)</b> |      |     |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | °A,U | W/W | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | E    | W/W | 6,46   | 6,42   | 6,13   | 6,36   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | L    | W/W | 6,15   | 6,00   | 5,97   | 6,07   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                    | N    | W/W | 6,71   | 6,53   | 6,23   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |   |   | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A | -     | -     | -     | -     | 72,2  | 77,1  | 86,0  | 98,2  | 94,9  | 111,3 | 112,7 | 127,3 | 131,4 | 144,0 | 141,2 |
|                       | A | A | -     | -     | -     | -     | 72,2  | 77,1  | 86,0  | 98,2  | 94,9  | 114,5 | 112,7 | 127,3 | 131,4 | 144,0 | 141,2 |
|                       | E | A | 42,6  | 49,2  | 56,9  | 65,3  | 72,2  | 77,1  | 86,0  | 98,2  | 94,9  | 114,5 | 112,7 | 127,3 | 131,4 | 144,0 | 141,2 |
|                       | L | A | 41,5  | 49,2  | 55,8  | 65,3  | 72,2  | 77,1  | 86,0  | 98,2  | 94,9  | 111,3 | 112,7 | 127,3 | 131,4 | 144,0 | 141,2 |
|                       | N | A | 42,6  | 50,3  | 56,9  | 67,3  | 72,2  | 77,1  | 89,2  | 101,3 | 98,1  | 114,5 | 112,7 | 130,5 | 134,6 | 147,2 | 144,4 |
|                       | U | A | -     | -     | -     | 67,3  | 72,2  | 77,1  | 89,2  | 101,3 | 98,1  | 114,5 | 112,7 | 130,5 | 134,6 | 147,2 | 144,4 |
| Peak current (LRA)    | ° | A | -     | -     | -     | -     | 277,6 | 282,5 | 329,2 | 211,9 | 338,1 | 225,1 | 363,8 | 378,4 | 274,9 | 476,4 | 346,6 |
|                       | A | A | -     | -     | -     | -     | 277,6 | 282,5 | 329,2 | 211,9 | 338,1 | 228,3 | 363,8 | 378,4 | 274,9 | 476,4 | 346,6 |
|                       | E | A | 148,0 | 163,0 | 170,6 | 208,9 | 277,6 | 282,5 | 329,2 | 211,9 | 338,1 | 228,3 | 363,8 | 378,4 | 274,9 | 476,4 | 346,6 |
|                       | L | A | 146,9 | 163,0 | 169,5 | 208,9 | 277,6 | 282,5 | 329,2 | 211,9 | 338,1 | 225,1 | 363,8 | 378,4 | 274,9 | 476,4 | 346,6 |
|                       | N | A | 148,0 | 164,1 | 170,6 | 210,8 | 277,6 | 282,5 | 332,4 | 215,1 | 341,3 | 228,3 | 363,8 | 381,6 | 278,1 | 479,6 | 349,8 |
|                       | U | A | -     | -     | -     | 210,8 | 277,6 | 282,5 | 332,4 | 215,1 | 341,3 | 228,3 | 363,8 | 381,6 | 278,1 | 479,6 | 349,8 |

## GENERAL TECHNICAL DATA

| Size                       |            |      | 0282         | 0302 | 0332 | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|----------------------------|------------|------|--------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                 |            |      |              |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                       | °A,E,L,N,U | type | Scroll       |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                     | °A         | no.  | -            | -    | -    | -     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     |
|                            | E,L,N      | no.  | 2            | 2    | 2    | 2     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     |
|                            | U          | no.  | -            | -    | -    | 2     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     |
| Circuits                   | °A         | no.  | -            | -    | -    | -     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     |
|                            | E,L,N      | no.  | 1            | 1    | 1    | 1     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     |
|                            | U          | no.  | -            | -    | -    | 1     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     |
| Refrigerant                | °A,E,L,N,U | type | R410A        |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| System side heat exchanger |            |      |              |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                       | °A,E,L,N,U | type | Brazed plate |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                     | °A         | no.  | -            | -    | -    | -     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
|                            | E,L,N      | no.  | 1            | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
|                            | U          | no.  | -            | -    | -    | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Hydraulic connections      |            |      |              |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Sizes (in/out)             | °A         | Ø    | -            | -    | -    | -     | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 |
|                            | E,L,N      | Ø    | 2"1/2        |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
|                            | U          | Ø    | -            | -    | -    | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 |

G.s. = Grooved joints

## Fans

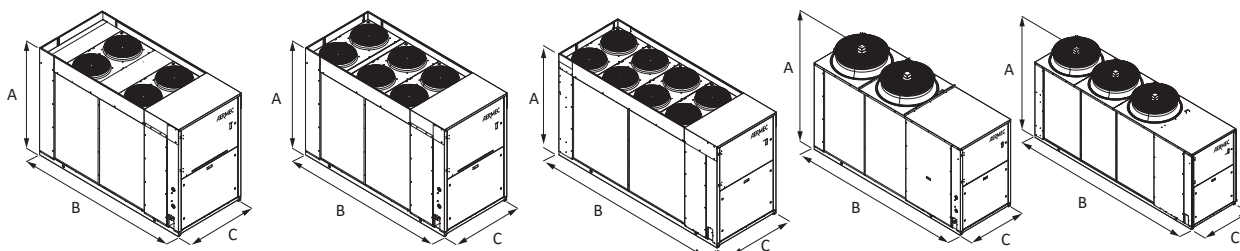
| Size  |            |       | 0282                        | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|------------|-------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fan   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type  | °A,E,L,N,U | type  | Axial                       | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number  | °          | no.   | -                           | -     | -     | -     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 2     | 2     | 3     | 3     |
|   | A          | no.   | -                           | -     | -     | -     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 2     | 3     | 3     | 3     |
|   | E          | no.   | 6                           | 6     | 8     | 8     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 2     | 3     | 3     | 3     |
|   | L          | no.   | 4                           | 6     | 6     | 8     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 2     | 2     | 3     | 3     |
|   | N          | no.   | 6                           | 8     | 8     | 2     | 2     | 2     | 3     | 3     | 3     | 4     | 4     | 3     | 3     | 4     | 4     |
|   | U          | no.   | -                           | -     | -     | 2     | 2     | 2     | 3     | 3     | 3     | 4     | 4     | 3     | 3     | 4     | 4     |
| Size  |            |       | 0282                        | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
| Fans: °   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan motor   | °A,U       | type  | Asynchronous                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|   | E,L,N      | type  | Asynchronous with phase cut |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate   | °A,U       | m³/h  | -                           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | E          | m³/h  | 20700                       | 22200 | 27500 | 24800 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | L          | m³/h  | 15200                       | 20700 | 22200 | 27500 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | N          | m³/h  | 22200                       | 27500 | 24800 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Sound data calculated in cooling mode (1)   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level   | °A,U       | dB(A) | -                           | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | E          | dB(A) | 72,4                        | 72,9  | 73,7  | 73,9  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | L          | dB(A) | 71,8                        | 72,9  | 73,3  | 73,9  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|   | N          | dB(A) | 72,4                        | 73,3  | 73,7  | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| (1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744). |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Size  |            |       | 0282                        | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
| Fans: M   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Increased fan   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan motor   | °A,U       | type  | Asynchronous                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|   | E,L,N      | type  | Asynchronous with phase cut |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| With static pressure  |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate   | °          | m³/h  | -                           | -     | -     | -     | 36600 | 36600 | 35100 | 35100 | 35100 | 33700 | 55200 | 53100 | 53100 | 53100 | 53100 |
|   | A          | m³/h  | -                           | -     | -     | -     | 35100 | 35100 | 33800 | 33800 | 33700 | 53100 | 53100 | 51100 | 51100 | 51100 | 51100 |
|   | E          | m³/h  | 20700                       | 22200 | 27500 | 24800 | 26800 | 26800 | 25600 | 25600 | 25600 | 40500 | 40500 | 38800 | 38800 | 38800 | 38800 |
|   | L          | m³/h  | 15200                       | 20700 | 22200 | 27500 | 30900 | 30900 | 29500 | 29500 | 46500 | 44600 | 44600 | 29500 | 28300 | 44600 | 44600 |
|   | N          | m³/h  | 22200                       | 27500 | 24800 | 26800 | 25600 | 25600 | 40500 | 40500 | 40500 | 38800 | 38800 | 54600 | 54600 | 54600 | 54600 |
|   | U          | m³/h  | -                           | -     | -     | 35100 | 33700 | 33700 | 53100 | 53100 | 53100 | 51100 | 51100 | 71200 | 71200 | 71200 | 71200 |
| High static pressure  | °A,U       | Pa    | -                           | -     | -     | -     | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    |
|   | E,L        | Pa    | 80                          | 80    | 80    | 80    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    |
|   | N          | Pa    | 80                          | 80    | 80    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    | 50    |
| Sound power level   | °          | dB(A) | -                           | -     | -     | -     | 84,5  | 85,0  | 85,3  | 84,2  | 85,5  | 84,3  | 86,9  | 87,0  | 85,9  | 87,7  | 87,5  |
|   | A          | dB(A) | -                           | -     | -     | -     | 84,5  | 85,0  | 85,3  | 84,2  | 85,5  | 85,9  | 86,9  | 87,0  | 85,9  | 87,7  | 87,5  |
|   | E          | dB(A) | 72,4                        | 72,9  | 73,7  | 73,9  | 80,7  | 81,5  | 82,1  | 76,1  | 82,5  | 77,2  | 83,6  | 83,8  | 77,4  | 85,0  | 83,0  |
|   | L          | dB(A) | 71,8                        | 72,9  | 73,3  | 73,9  | 80,7  | 81,5  | 82,1  | 76,1  | 82,5  | 76,5  | 83,6  | 83,8  | 77,4  | 85,0  | 83,5  |
|   | N          | dB(A) | 72,4                        | 73,3  | 73,7  | 79,7  | 80,7  | 81,5  | 83,0  | 76,9  | 83,4  | 77,2  | 83,6  | 84,5  | 77,9  | 85,5  | 83,3  |
|   | U          | dB(A) | -                           | -     | -     | 84,0  | 84,5  | 85,0  | 86,6  | 85,8  | 86,8  | 85,9  | 86,9  | 87,9  | 87,0  | 88,5  | 88,5  |
| Without Static pressure   |            |       |                             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate   | °          | m³/h  | -                           | -     | -     | -     | 42300 | 42300 | 40400 | 40400 | 40400 | 38700 | 63700 | 61000 | 61000 | 61000 | 61000 |
|   | A          | m³/h  | -                           | -     | -     | -     | 40400 | 40400 | 38600 | 38600 | 38600 | 61100 | 61000 | 58500 | 58500 | 58500 | 58500 |
|   | E          | m³/h  | -                           | -     | -     | -     | 26800 | 26800 | 25600 | 25600 | 25600 | 40500 | 40500 | 38800 | 38800 | 38800 | 38800 |
|   | L          | m³/h  | -                           | -     | -     | -     | 30900 | 30900 | 29500 | 29500 | 29500 | 28300 | 46500 | 44600 | 44600 | 44600 | 44600 |
|   | N          | m³/h  | -                           | -     | -     | 26800 | 25600 | 25600 | 40500 | 40500 | 40500 | 38800 | 38800 | 54600 | 54600 | 54600 | 54600 |
|   | U          | m³/h  | -                           | -     | -     | 45700 | 44000 | 44000 | 69000 | 69000 | 69000 | 66500 | 69000 | 66500 | 66500 | 66500 | 66500 |
| High static pressure  | °A,E,L     | Pa    | -                           | -     | -     | -     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
|   | N,U        | Pa    | -                           | -     | -     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Sound power level   | °          | dB(A) | -                           | -     | -     | -     | 86,6  | 86,8  | 87,0  | 86,0  | 87,1  | 86,0  | 88,2  | 88,3  | 87,7  | 88,6  | 88,5  |
|   | A          | dB(A) | -                           | -     | -     | -     | 86,6  | 86,8  | 87,0  | 86,0  | 87,1  | 87,7  | 88,2  | 88,3  | 87,7  | 88,6  | 88,5  |
|   | E          | dB(A) | -                           | -     | -     | -     | 80,7  | 81,5  | 82,1  | 76,1  | 82,5  | 77,2  | 83,6  | 83,8  | 77,4  | 85,0  | 83,0  |
|   | L          | dB(A) | -                           | -     | -     | -     | 80,7  | 81,5  | 82,1  | 76,1  | 82,5  | 76,5  | 83,6  | 83,8  | 77,4  | 85,0  | 83,5  |
|   | N          | dB(A) | -                           | -     | -     | 79,7  | 80,7  | 81,5  | 83,0  | 76,9  | 83,4  | 77,2  | 83,6  | 84,5  | 77,9  | 85,5  | 83,3  |
|   | U          | dB(A) | -                           | -     | -     | 86,4  | 86,6  | 86,8  | 88,5  | 87,7  | 88,6  | 87,7  | 88,2  | 89,3  | 88,9  | 89,6  | 89,9  |



| Size   |            | 0282  | 0302     | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|------------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                                   |            |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Inverter fan</b>                              |            |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan motor  | °A,E,L,N,U | type  | Inverter |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate                                    | °          | m³/h  | -        | -     | -     | -     | 36600 | 36600 | 35100 | 35100 | 35100 | 33700 | 55200 | 53100 | 53100 | 53100 |
|  | A          | m³/h  | -        | -     | -     | -     | 35100 | 35100 | 33800 | 33800 | 33700 | 53100 | 53100 | 51100 | 51100 | 51100 |
|  | E          | m³/h  | 20700    | 22200 | 27500 | 24800 | 26800 | 26800 | 25600 | 25600 | 25600 | 40500 | 40500 | 38800 | 38800 | 38800 |
|  | L          | m³/h  | 15200    | 20700 | 22200 | 27500 | 30900 | 30900 | 29500 | 29500 | 29500 | 28300 | 46500 | 44600 | 44600 | 44600 |
|  | N          | m³/h  | 22200    | 27500 | 24800 | 26800 | 25600 | 25600 | 40500 | 40500 | 40500 | 38800 | 38800 | 54600 | 54600 | 54600 |
|  | U          | m³/h  | -        | -     | -     | 35100 | 33700 | 33700 | 53100 | 53100 | 51100 | 71200 | 71200 | 53100 | 51100 | 71200 |
| High static pressure                             | °A         | Pa    | -        | -     | -     | -     | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   |
|  | E,L        | Pa    | 20       | 20    | 20    | 20    | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   |
|  | N          | Pa    | 20       | 20    | 20    | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   |
|  | U          | Pa    | -        | -     | -     | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   | 120   |
| <b>Sound data calculated in cooling mode (1)</b> |            |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                                | °          | dB(A) | -        | -     | -     | -     | 84,5  | 85,0  | 85,3  | 85,5  | 86,9  | 87,0  | 87,7  | 84,2  | 84,3  | 85,9  |
|  | A          | dB(A) | -        | -     | -     | -     | 84,5  | 85,0  | 85,3  | 85,5  | 86,9  | 87,0  | 87,7  | 84,2  | 85,9  | 87,5  |
|  | E          | dB(A) | 72,4     | 72,9  | 73,7  | 73,9  | 80,7  | 81,5  | 82,1  | 82,5  | 83,6  | 83,8  | 85,0  | 76,1  | 77,2  | 83,0  |
|  | L          | dB(A) | 71,8     | 72,9  | 73,3  | 73,9  | 80,7  | 81,5  | 82,1  | 82,5  | 83,6  | 83,8  | 85,0  | 76,1  | 76,5  | 83,5  |
|  | N          | dB(A) | 72,4     | 73,3  | 73,7  | 79,7  | 80,7  | 81,5  | 83,0  | 83,4  | 83,6  | 84,5  | 85,5  | 76,9  | 77,2  | 83,3  |
|  | U          | dB(A) | -        | -     | -     | 84,0  | 84,5  | 85,0  | 86,6  | 86,8  | 86,9  | 87,9  | 88,5  | 85,8  | 85,9  | 88,5  |
|  |            |       |          |       |       |       |       |       |       |       |       |       |       |       |       |       |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |       | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|-------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °A    | mm   | -    | -    | -    | -    | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
|                               | E,L   | mm   | 1680 | 1680 | 1680 | 1680 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
|                               | N     | mm   | 1680 | 1680 | 1680 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
|                               | U     | mm   | -    | -    | -    | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
| B                             | °     | mm   | -    | -    | -    | -    | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 |
|                               | A     | mm   | -    | -    | -    | -    | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                               | E     | mm   | 2450 | 2950 | 2950 | 2950 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                               | L     | mm   | 2450 | 2450 | 2950 | 2950 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                               | N     | mm   | 2950 | 2950 | 2950 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 5200 | 5200 | 5200 | 5200 |
|                               | U     | mm   | -    | -    | -    | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 5200 | 5200 | 5200 | 5200 |
| C                             | °A    | mm   | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                               | E,L,N | mm   | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                               | U     | mm   | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| <b>Weights</b>                |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Without hydronic kit          | °     | kg   | -    | -    | -    | -    | 993  | 1018 | 1075 | 1160 | 1075 | 1210 | 1267 | 1427 | 1331 | 1440 |
|                               | A     | kg   | -    | -    | -    | -    | 1046 | 1072 | 1116 | 1200 | 1116 | 1325 | 1347 | 1507 | 1410 | 1531 |
|                               | E     | kg   | 828  | 889  | 912  | 962  | 1046 | 1072 | 1116 | 1116 | 1347 | 1507 | 1531 | 1200 | 1325 | 1410 |
|                               | L     | kg   | 810  | 828  | 894  | 907  | 993  | 1018 | 1075 | 1160 | 1075 | 1210 | 1267 | 1427 | 1331 | 1440 |
|                               | N     | kg   | 884  | 907  | 957  | 1020 | 1076 | 1109 | 1232 | 1243 | 1426 | 1647 | 1660 | 1327 | 1415 | 1549 |
|                               | U     | kg   | -    | -    | -    | 1020 | 1076 | 1109 | 1232 | 1243 | 1426 | 1647 | 1660 | 1327 | 1415 | 1549 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRB 0282H-0754H

## Reversible air/water heat pump

Cooling capacity 52 ÷ 261 kW  
Heating capacity 57 ÷ 193 kW



- High efficiency also at partial loads
- Components redundancy for greater safety
- Low refrigerant charge
- Compact dimensions



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

### FEATURES

#### Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

#### Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

#### Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

- **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud con-

nection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

**AERCALM:** The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | E.L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver     | 0282    | 0302    | 0332    | 0352    | 0502        | 0552        | 0602        | 0604        | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        |
|---------|---------|---------|---------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: M |         |         |         |         |             |             |             |             |             |             |             |             |             |             |             |
| E, L    | DCPX141 | DCPX141 | DCPX141 | DCPX141 | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           | -           |
| Fans: ° |         |         |         |         |             |             |             |             |             |             |             |             |             |             |             |
| °       | -       | -       | -       | -       | DCPX142     | DCPX142     | DCPX142     | DCPX142     | DCPX142     | DCPX142     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     |
| A       | -       | -       | -       | -       | DCPX142     | DCPX142     | DCPX142     | DCPX142     | DCPX142     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     | DCPX143     |
| E, L    | DCPX140 | DCPX140 | DCPX140 | DCPX140 | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

### Antivibration

| Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4                             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E   | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L   | VT17 | VT17 | VT17 | VT17 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |
| Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E   | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L   | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 |

### Anti-intrusion grid

| Ver | 0282 | 0302 | 0332 | 0352 | 0502        | 0552        | 0602        | 0604        | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        |
|-----|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °   | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| A   | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| E   | GP3  | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| L   | GP3  | GP3  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

**Device for peak current reduction**

| Ver  | 0282          | 0302          | 0332          | 0352          | 0502          | 0552          | 0602          | 0604          |
|------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| °, A | -             | -             | -             | -             | DRENRB502 (1) | DRENRB552 (1) | DRENRB602 (1) | DRENRB604 (1) |
| E, L | DRENRB282 (1) | DRENRB302 (1) | DRENRB332 (1) | DRENRB352 (1) | DRENRB502 (1) | DRENRB552 (1) | DRENRB602 (1) | DRENRB604 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver        | 0652          | 0654          | 0682          | 0702          | 0704          | 0752          | 0754          |
|------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| °, A, E, L | DRENRB652 (1) | DRENRB654 (1) | DRENRB682 (1) | DRENRB702 (1) | DRENRB704 (1) | DRENRB752 (1) | DRENRB754 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

**Power factor correction**

| Ver  | 0282    | 0302    | 0332    | 0352    | 0502    | 0552    | 0602    | 0604    | 0652    | 0654    | 0682    | 0702    | 0704    | 0752    | 0754    |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A | -       | -       | -       | -       | RIF0502 | RIF0552 | RIF0602 | RIF0604 | RIF0652 | RIF0654 | RIF0682 | RIF0702 | RIF0704 | RIF0752 | RIF0754 |
| E, L | RIF0282 | RIF0302 | RIF0332 | RIF0352 | RIF0502 | RIF0552 | RIF0602 | RIF0604 | RIF0652 | RIF0654 | RIF0682 | RIF0702 | RIF0704 | RIF0752 | RIF0754 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

**Touch screen keyboard**

| Ver        | 0282    | 0302    | 0332    | 0352    | 0502    | 0552    | 0602    | 0604    | 0652    | 0654    | 0682    | 0702    | 0704    | 0752    | 0754    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A, E, L | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH | C-TOUCH |

A grey background indicates the accessory must be assembled in the factory

**Clean contact for controlling a boiler.**

| Model   | Ver        | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|---------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AERCALM | °, A, E, L |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

**CONFIGURATOR**

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Y              | Double mechanical thermostat for low temperature (2)  |
| Z              | Low temperature electronic thermostatic valve (3)   |
| °              | Standard mechanic thermostatic valve (1)  |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (4)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency (5)  |
| L              | Standard silenced (5)   |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized (6)   |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
|                | <b>Without hydronic kit</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with storage tank and pump/s</b>   |
| 01             | Storage tank with low head pump   |
| 02             | Storage tank with low head pump + stand-by pump   |

| Field | Description  |
|-------|--|
| 03    | Storage tank with high head pump   |
| 04    | Storage tank with high head pump + stand-by pump                           |
|       | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05    | Storage tank with holes for heaters and single low head pump (7)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (7)  |
| 07    | Storage tank with holes for heaters and single high head pump (7)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (7) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |
|       | <b>Kit with inverter pump/s to fixed speed</b>                             |
| I1    | Single low head pump + fixed speed inverter                                |
| I2    | Single low head pump with fixed speed inverter + stand-by pump             |
| I3    | Single high head pump + fixed speed inverter                               |
| I4    | Single high head pump with fixed speed inverter + stand-by pump            |
|       | <b>Kit with storage tank and inverter pump/s to fixed speed</b>            |
| K1    | Single low head pump + storage tank + fixed speed inverter                 |
| K2    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3    | Single high head pump + storage tank + fixed speed inverter                |
| K4    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|       | <b>Kit with storage tank and variable speed inverter pump/s</b>            |
| W1    | Single low head pump + Storage tank + variable speed inverter              |
| W2    | Double low head pump + Storage tank + variable speed inverter              |
| W3    | Single high head pump + Storage tank + variable speed inverter             |
| W4    | Double high head pump + Storage tank + variable speed inverter             |

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from -10 °C ÷ 18 °C

(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions

(4) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(5) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"

(6) Only for 0282 ÷ 0352 sizes

(7) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

### NRB H°

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 91,2  | 99,7  | 116,0 | 115,4 | 124,7 | 133,4 | 151,0 | 169,9 | 159,9 | 187,2 | 180,8 |
| Input power                                 | kW  | -    | -    | -    | -    | 33,5  | 37,5  | 42,6  | 46,2  | 47,8  | 51,2  | 51,7  | 60,0  | 58,0  | 69,8  | 65,7  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 61,0  | 67,0  | 74,0  | 83,0  | 83,0  | 92,0  | 90,0  | 102,0 | 105,0 | 116,0 | 116,0 |
| EER   | W/W | -    | -    | -    | -    | 2,72  | 2,66  | 2,72  | 2,50  | 2,61  | 2,60  | 2,92  | 2,83  | 2,76  | 2,68  | 2,75  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 15705 | 17177 | 19972 | 19876 | 21484 | 22988 | 25997 | 29247 | 27534 | 32236 | 31116 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 35    | 42    | 37    | 44    | 43    | 44    | 50    | 61    | 65    | 74    | 59    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | -    | -    | -    | -    | 96,8  | 105,8 | 123,7 | 129,0 | 136,1 | 143,4 | 158,7 | 178,4 | 171,8 | 198,7 | 188,6 |
| Input power                                 | kW  | -    | -    | -    | -    | 31,0  | 33,8  | 38,7  | 42,7  | 43,3  | 47,7  | 51,2  | 58,2  | 57,3  | 66,0  | 61,8  |
| Heating total input current                 | A   | -    | -    | -    | -    | 56,0  | 60,0  | 68,0  | 77,0  | 76,0  | 87,0  | 89,0  | 99,0  | 104,0 | 110,0 | 111,0 |
| COP   | W/W | -    | -    | -    | -    | 3,12  | 3,13  | 3,20  | 3,03  | 3,15  | 3,01  | 3,10  | 3,07  | 3,00  | 3,01  | 3,05  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 16773 | 18334 | 21443 | 22371 | 23594 | 24863 | 27527 | 30948 | 29797 | 34460 | 32710 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 40    | 48    | 43    | 56    | 52    | 52    | 56    | 69    | 76    | 84    | 65    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRB HL

| Size  |     | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 52,1 | 59,2  | 67,3  | 78,1  | 88,5  | 96,5  | 111,5 | 110,4 | 119,3 | 126,4 | 147,0 | 164,5 | 154,9 | 180,5 | 174,0 |
| Input power                                 | kW  | 19,5 | 22,0  | 24,8  | 29,5  | 34,1  | 38,3  | 44,1  | 48,4  | 49,9  | 54,2  | 52,3  | 61,5  | 59,2  | 72,5  | 67,8  |
| Cooling total input current                 | A   | 35,0 | 41,0  | 47,0  | 55,0  | 59,0  | 66,0  | 74,0  | 84,0  | 84,0  | 94,0  | 87,0  | 100,0 | 103,0 | 116,0 | 116,0 |
| EER   | W/W | 2,67 | 2,69  | 2,71  | 2,65  | 2,60  | 2,52  | 2,53  | 2,28  | 2,39  | 2,33  | 2,81  | 2,68  | 2,62  | 2,49  | 2,57  |
| Water flow rate system side                 | l/h | 8974 | 10197 | 11584 | 13455 | 15234 | 16630 | 19200 | 19020 | 20540 | 21776 | 25312 | 28324 | 26677 | 31068 | 29958 |
| Pressure drop system side                   | kPa | 33   | 42    | 33    | 45    | 33    | 39    | 34    | 40    | 39    | 40    | 48    | 58    | 60    | 69    | 55    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | 57,5 | 65,7  | 75,3  | 84,9  | 96,8  | 105,8 | 123,7 | 129,0 | 136,1 | 143,4 | 158,7 | 178,4 | 171,8 | 198,7 | 188,6 |
| Input power                                 | kW  | 17,6 | 20,7  | 23,1  | 26,9  | 31,0  | 33,8  | 38,7  | 42,6  | 43,3  | 47,7  | 51,2  | 58,2  | 57,3  | 66,0  | 61,8  |
| Heating total input current                 | A   | 32,0 | 38,0  | 43,0  | 51,0  | 56,0  | 60,0  | 68,0  | 77,0  | 76,0  | 87,0  | 89,0  | 99,0  | 104,0 | 110,0 | 111,0 |
| COP   | W/W | 3,27 | 3,17  | 3,26  | 3,16  | 3,12  | 3,13  | 3,20  | 3,03  | 3,15  | 3,01  | 3,10  | 3,07  | 3,00  | 3,01  | 3,05  |
| Water flow rate system side                 | l/h | 9973 | 11376 | 13056 | 14711 | 16773 | 18334 | 21443 | 22371 | 23594 | 24863 | 27527 | 30948 | 29797 | 34460 | 32710 |
| Pressure drop system side                   | kPa | 41   | 53    | 42    | 54    | 40    | 47    | 43    | 55    | 52    | 52    | 56    | 69    | 75    | 84    | 65    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRB HA

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 96,9  | 106,5 | 123,6 | 123,1 | 133,6 | 142,1 | 163,9 | 178,5 | 168,0 | 199,9 | 190,0 |
| Input power                                 | kW  | -    | -    | -    | -    | 32,3  | 36,1  | 39,5  | 43,3  | 45,0  | 47,2  | 50,7  | 57,0  | 55,4  | 66,5  | 62,8  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 57,0  | 61,0  | 68,0  | 73,0  | 74,0  | 79,0  | 85,0  | 94,0  | 99,0  | 102,0 | 106,0 |
| EER   | W/W | -    | -    | -    | -    | 3,00  | 2,95  | 3,13  | 2,84  | 2,97  | 3,01  | 3,23  | 3,13  | 3,03  | 3,01  | 3,03  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 16684 | 18331 | 21277 | 21205 | 23007 | 24462 | 28216 | 30726 | 28924 | 34406 | 32698 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 26    | 31    | 32    | 38    | 38    | 50    | 44    | 52    | 50    | 56    | 54    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | -    | -    | -    | -    | 100,3 | 110,9 | 124,3 | 129,7 | 138,2 | 149,4 | 164,1 | 179,7 | 172,3 | 200,6 | 190,0 |
| Input power                                 | kW  | -    | -    | -    | -    | 30,7  | 33,5  | 37,6  | 40,5  | 42,0  | 46,7  | 50,2  | 56,3  | 54,3  | 62,9  | 59,5  |
| Heating total input current                 | A   | -    | -    | -    | -    | 56,0  | 60,0  | 67,0  | 73,0  | 74,0  | 86,0  | 87,0  | 96,0  | 99,0  | 106,0 | 107,0 |
| COP   | W/W | -    | -    | -    | -    | 3,27  | 3,31  | 3,31  | 3,20  | 3,29  | 3,20  | 3,27  | 3,19  | 3,17  | 3,19  | 3,19  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 17406 | 19230 | 21553 | 22489 | 23953 | 25914 | 28469 | 31171 | 29889 | 34800 | 32956 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 28    | 34    | 33    | 42    | 41    | 56    | 45    | 54    | 54    | 57    | 55    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**NRB HE**

| Size   |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 55,4  | 62,1  | 70,0  | 81,2  | 94,0  | 103,0 | 119,1 | 117,6 | 128,0 | 138,3 | 159,4 | 172,5 | 162,3 | 191,7 | 182,6 |
| Input power                                  | kW  | 18,5  | 21,0  | 23,7  | 28,3  | 32,8  | 36,9  | 40,7  | 44,7  | 46,9  | 47,7  | 51,4  | 58,5  | 56,7  | 69,3  | 64,9  |
| Cooling total input current                  | A   | 32,0  | 37,0  | 42,0  | 47,0  | 56,0  | 61,0  | 68,0  | 74,0  | 75,0  | 76,0  | 83,0  | 93,0  | 98,0  | 102,0 | 106,0 |
| EER  | W/W | 3,00  | 2,96  | 2,95  | 2,86  | 2,86  | 2,79  | 2,92  | 2,63  | 2,73  | 2,90  | 3,10  | 2,95  | 2,87  | 2,77  | 2,81  |
| Water flow rate system side                  | l/h | 9530  | 10696 | 12052 | 13983 | 16181 | 17722 | 20498 | 20255 | 22037 | 23819 | 27431 | 29692 | 27947 | 33000 | 31425 |
| Pressure drop system side                    | kPa | 23    | 29    | 26    | 35    | 24    | 29    | 30    | 34    | 34    | 48    | 41    | 49    | 47    | 51    | 50    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 59,0  | 68,2  | 76,6  | 87,1  | 100,3 | 110,9 | 124,3 | 129,7 | 138,2 | 149,4 | 164,1 | 179,7 | 172,3 | 200,6 | 190,0 |
| Input power                                  | kW  | 17,5  | 20,3  | 22,9  | 26,4  | 30,7  | 33,5  | 37,6  | 40,5  | 42,0  | 46,7  | 50,2  | 56,3  | 54,3  | 62,9  | 59,5  |
| Heating total input current                  | A   | 33,0  | 38,0  | 44,0  | 50,0  | 56,0  | 60,0  | 67,0  | 73,0  | 74,0  | 86,0  | 87,0  | 96,0  | 99,0  | 106,0 | 107,0 |
| COP  | W/W | 3,37  | 3,36  | 3,35  | 3,30  | 3,27  | 3,31  | 3,31  | 3,20  | 3,29  | 3,20  | 3,27  | 3,19  | 3,17  | 3,19  | 3,19  |
| Water flow rate system side                  | l/h | 10227 | 11816 | 13289 | 15100 | 17406 | 19230 | 21553 | 22489 | 23953 | 25914 | 28469 | 31171 | 29889 | 34800 | 32956 |
| Pressure drop system side                    | kPa | 26    | 35    | 31    | 41    | 28    | 34    | 33    | 42    | 41    | 56    | 45    | 54    | 54    | 57    | 55    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C****NRB H°**

| Size   |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 122,6 | 133,3 | 155,1 | 154,9 | 165,6 | 183,4 | 203,5 | 227,9 | 218,9 | 248,3 | 247,3 |
| Input power                                  | kW  | -    | -    | -    | -    | 36,3  | 41,0  | 46,5  | 50,2  | 52,2  | 55,9  | 55,8  | 65,6  | 62,6  | 77,0  | 72,2  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 65,0  | 72,0  | 80,0  | 89,0  | 90,0  | 99,0  | 96,0  | 110,0 | 112,0 | 126,0 | 126,0 |
| EER  | W/W | -    | -    | -    | -    | 3,38  | 3,25  | 3,33  | 3,08  | 3,17  | 3,28  | 3,65  | 3,48  | 3,50  | 3,23  | 3,42  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 21190 | 23054 | 26805 | 26775 | 28622 | 31700 | 35175 | 39395 | 37837 | 42931 | 42743 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 63    | 75    | 67    | 81    | 76    | 84    | 92    | 111   | 123   | 131   | 112   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 98,8  | 107,2 | 127,4 | 132,8 | 139,6 | 146,7 | 163,5 | 182,9 | 176,8 | 201,7 | 192,4 |
| Input power                                  | kW  | -    | -    | -    | -    | 25,4  | 27,7  | 31,8  | 34,3  | 35,5  | 38,4  | 42,0  | 47,3  | 46,5  | 53,2  | 50,4  |
| Heating total input current                  | A   | -    | -    | -    | -    | 46,0  | 49,0  | 56,0  | 61,0  | 62,0  | 70,0  | 72,0  | 80,0  | 84,0  | 88,0  | 90,0  |
| COP  | W/W | -    | -    | -    | -    | 3,89  | 3,87  | 4,01  | 3,87  | 3,93  | 3,82  | 3,90  | 3,87  | 3,80  | 3,79  | 3,82  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 17058 | 18508 | 21998 | 22936 | 24118 | 25357 | 28248 | 31616 | 30551 | 34851 | 33261 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 41    | 49    | 45    | 59    | 54    | 54    | 59    | 72    | 80    | 86    | 68    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**NRB HL**

| Size   |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 69,6  | 79,3  | 92,2  | 105,6 | 118,1 | 128,2 | 147,6 | 146,8 | 156,6 | 170,9 | 196,8 | 218,8 | 210,1 | 237,3 | 235,3 |
| Input power                                  | kW  | 21,9  | 24,2  | 27,3  | 32,5  | 37,3  | 42,4  | 48,9  | 53,8  | 55,5  | 60,7  | 57,2  | 68,1  | 64,8  | 81,0  | 75,7  |
| Cooling total input current                  | A   | 39,0  | 44,0  | 51,0  | 60,0  | 64,0  | 72,0  | 81,0  | 92,0  | 93,0  | 104,0 | 94,0  | 110,0 | 111,0 | 128,0 | 128,0 |
| EER  | W/W | 3,18  | 3,27  | 3,37  | 3,25  | 3,17  | 3,02  | 3,02  | 2,73  | 2,82  | 2,82  | 3,44  | 3,22  | 3,24  | 2,93  | 3,11  |
| Water flow rate system side                  | l/h | 12041 | 13740 | 15960 | 18270 | 20427 | 22163 | 25508 | 25376 | 27064 | 29542 | 34006 | 37824 | 36327 | 41017 | 40668 |
| Pressure drop system side                    | kPa | 59    | 77    | 63    | 83    | 59    | 69    | 61    | 70    | 68    | 73    | 86    | 103   | 112   | 120   | 101   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 58,9  | 66,7  | 77,1  | 86,8  | 98,8  | 107,2 | 127,4 | 132,8 | 139,6 | 146,7 | 163,5 | 182,9 | 176,8 | 201,7 | 192,4 |
| Input power                                  | kW  | 13,9  | 16,5  | 18,4  | 21,5  | 25,4  | 27,7  | 31,8  | 34,3  | 35,5  | 38,4  | 42,0  | 47,3  | 46,5  | 53,2  | 50,4  |
| Heating total input current                  | A   | 25,0  | 30,0  | 34,0  | 40,0  | 46,0  | 49,0  | 56,0  | 61,0  | 62,0  | 70,0  | 72,0  | 80,0  | 84,0  | 88,0  | 90,0  |
| COP  | W/W | 4,25  | 4,06  | 4,19  | 4,03  | 3,89  | 3,87  | 4,01  | 3,87  | 3,93  | 3,82  | 3,90  | 3,87  | 3,80  | 3,79  | 3,82  |
| Water flow rate system side                  | l/h | 10168 | 11516 | 13317 | 14972 | 17058 | 18508 | 21998 | 22936 | 24118 | 25357 | 28248 | 31616 | 30551 | 34851 | 33261 |
| Pressure drop system side                    | kPa | 42    | 54    | 44    | 56    | 41    | 48    | 45    | 57    | 54    | 54    | 59    | 72    | 79    | 86    | 68    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## NRB HA

| Size   |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 131,3 | 143,6 | 166,5 | 170,4 | 178,7 | 198,2 | 222,3 | 241,2 | 231,6 | 268,1 | 261,3 |
| Input power                                  | kW  | -    | -    | -    | -    | 34,9  | 39,4  | 42,9  | 47,2  | 49,0  | 50,3  | 54,8  | 62,4  | 59,6  | 73,6  | 68,8  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 61,0  | 66,0  | 74,0  | 79,0  | 80,0  | 82,0  | 91,0  | 101,0 | 105,0 | 112,0 | 115,0 |
| EER  | W/W | -    | -    | -    | -    | 3,77  | 3,65  | 3,88  | 3,61  | 3,65  | 3,94  | 4,06  | 3,86  | 3,88  | 3,65  | 3,80  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 22699 | 24821 | 28771 | 29452 | 30874 | 34255 | 38412 | 41683 | 40019 | 46336 | 45163 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 48    | 57    | 59    | 73    | 68    | 98    | 81    | 97    | 96    | 102   | 103   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 104,2 | 114,6 | 128,1 | 133,6 | 141,8 | 154,4 | 169,0 | 184,0 | 177,3 | 203,5 | 193,6 |
| Input power                                  | kW  | -    | -    | -    | -    | 25,2  | 27,6  | 30,9  | 32,6  | 34,4  | 38,0  | 41,2  | 45,8  | 44,1  | 50,7  | 48,5  |
| Heating total input current                  | A   | -    | -    | -    | -    | 46,0  | 49,0  | 54,0  | 59,0  | 60,0  | 69,0  | 71,0  | 78,0  | 80,0  | 85,0  | 87,0  |
| COP  | W/W | -    | -    | -    | -    | 4,14  | 4,16  | 4,15  | 4,10  | 4,12  | 4,07  | 4,10  | 4,02  | 4,02  | 4,01  | 3,99  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 18004 | 19795 | 22128 | 23077 | 24492 | 26674 | 29206 | 31801 | 30649 | 35173 | 33469 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 30    | 36    | 35    | 45    | 43    | 60    | 47    | 56    | 56    | 58    | 57    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## NRB HE

| Size   |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 76,4  | 85,7  | 96,8  | 111,4 | 126,2 | 137,5 | 158,5 | 160,4 | 168,9 | 191,5 | 214,3 | 230,5 | 221,2 | 253,2 | 247,4 |
| Input power                                  | kW  | 20,4  | 23,1  | 25,7  | 31,2  | 35,9  | 41,0  | 45,2  | 49,8  | 52,2  | 51,4  | 56,4  | 65,1  | 62,1  | 78,2  | 72,6  |
| Cooling total input current                  | A   | 35,0  | 40,0  | 45,0  | 51,0  | 61,0  | 66,0  | 75,0  | 81,0  | 82,0  | 81,0  | 90,0  | 102,0 | 106,0 | 114,0 | 117,0 |
| EER  | W/W | 3,74  | 3,72  | 3,77  | 3,57  | 3,51  | 3,36  | 3,51  | 3,22  | 3,24  | 3,72  | 3,80  | 3,54  | 3,56  | 3,24  | 3,41  |
| Water flow rate system side                  | l/h | 13219 | 14836 | 16740 | 19268 | 21829 | 23767 | 27392 | 27721 | 29185 | 33098 | 37025 | 39827 | 38232 | 43759 | 42750 |
| Pressure drop system side                    | kPa | 43    | 55    | 50    | 66    | 44    | 52    | 53    | 64    | 60    | 92    | 75    | 88    | 88    | 91    | 92    |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 60,5  | 70,2  | 78,9  | 90,4  | 104,2 | 114,6 | 128,1 | 133,6 | 141,8 | 154,4 | 169,0 | 184,0 | 177,3 | 203,5 | 193,6 |
| Input power                                  | kW  | 13,8  | 16,1  | 18,2  | 21,1  | 25,2  | 27,6  | 30,9  | 32,6  | 34,4  | 38,0  | 41,2  | 45,8  | 44,1  | 50,7  | 48,5  |
| Heating total input current                  | A   | 26,0  | 30,0  | 35,0  | 40,0  | 46,0  | 49,0  | 54,0  | 59,0  | 60,0  | 69,0  | 71,0  | 78,0  | 80,0  | 85,0  | 87,0  |
| COP  | W/W | 4,38  | 4,36  | 4,34  | 4,28  | 4,14  | 4,16  | 4,15  | 4,10  | 4,12  | 4,07  | 4,10  | 4,02  | 4,02  | 4,01  | 3,99  |
| Water flow rate system side                  | l/h | 10456 | 12125 | 13636 | 15617 | 18004 | 19795 | 22128 | 23077 | 24492 | 26674 | 29206 | 31801 | 30649 | 35173 | 33469 |
| Pressure drop system side                    | kPa | 27    | 37    | 33    | 43    | 30    | 36    | 35    | 45    | 43    | 60    | 47    | 56    | 56    | 58    | 57    |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size   |   | 0282 | 0302   | 0332   | 0352   | 0502   | 0552   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | -      | -      | -      | -      | 3,92   | 3,83   | 3,99   | 3,70   | 3,91   | 3,67   | 4,14   | 3,97   | 3,73   | 3,88   |
|  | A | W/W  | -      | -      | -      | -      | 4,21   | 4,14   | 4,39   | 3,93   | 4,20   | 3,92   | 4,38   | 4,27   | 3,99   | 4,24   |
|  | E | W/W  | 4,28   | 4,32   | 4,22   | 4,24   | 4,17   | 4,10   | 4,33   | 3,86   | 4,12   | 3,93   | 4,35   | 4,21   | 3,98   | 4,16   |
|  | L | W/W  | 4,10   | 4,11   | 4,11   | 4,00   | 3,88   | 3,83   | 3,93   | 3,68   | 3,89   | 3,64   | 4,08   | 3,89   | 3,70   | 3,81   |
| ηsc  | ° | %    | -      | -      | -      | -      | 154,00 | 150,00 | 157,00 | 145,00 | 153,00 | 144,00 | 163,00 | 156,00 | 146,00 | 152,00 |
|  | A | %    | -      | -      | -      | -      | 165,00 | 163,00 | 173,00 | 154,00 | 165,00 | 154,00 | 172,00 | 168,00 | 157,00 | 167,00 |
|  | E | %    | 168,00 | 170,00 | 166,00 | 167,00 | 164,00 | 161,00 | 170,00 | 151,00 | 162,00 | 154,00 | 171,00 | 165,00 | 156,00 | 163,00 |
|  | L | %    | 161,00 | 161,00 | 161,00 | 157,00 | 152,00 | 150,00 | 154,00 | 144,00 | 153,00 | 143,00 | 160,00 | 153,00 | 145,00 | 149,00 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | ° | kW   | -      | -      | -      | -      | 88,80  | 97,30  | 112,20 | 116,80 | 124,50 | 129,90 | 144,90 | 162,80 | 157,50 | 182,70 |
|  | A | kW   | -      | -      | -      | -      | 90,20  | 99,60  | 112,20 | 116,80 | 125,80 | 135,00 | 149,00 | 164,10 | 157,00 | 183,30 |
|  | E | kW   | 53,46  | 53,46  | 53,46  | 78,80  | 90,20  | 99,60  | 112,20 | 116,80 | 125,80 | 135,00 | 149,00 | 164,10 | 157,00 | 183,30 |
|  | L | kW   | 52,20  | 60,22  | 68,44  | 78,20  | 88,80  | 97,30  | 112,20 | 116,80 | 124,50 | 129,90 | 144,90 | 162,80 | 157,50 | 182,70 |
| ηsh  | ° | %    | -      | -      | -      | -      | 135,90 | 139,50 | 140,40 | 130,40 | 140,30 | 129,50 | 134,00 | 137,30 | 126,30 | 138,40 |
|  | A | %    | -      | -      | -      | -      | 138,00 | 142,80 | 143,20 | 133,00 | 143,10 | 132,10 | 139,80 | 141,30 | 128,00 | 142,00 |
|  | E | %    | 158,26 | 158,26 | 158,26 | 152,70 | 138,50 | 142,80 | 143,20 | 133,00 | 143,10 | 132,10 | 139,80 | 141,30 | 128,40 | 142,00 |
|  | L | %    | 156,16 | 152,79 | 152,22 | 150,00 | 135,90 | 139,50 | 140,40 | 130,50 | 140,30 | 129,50 | 134,00 | 137,30 | 126,30 | 138,40 |
| SCOP   | ° | W/W  | -      | -      | -      | -      | 3,47   | 3,56   | 3,58   | 3,34   | 3,58   | 3,31   | 3,43   | 3,51   | 3,23   | 3,54   |
|  | A | W/W  | -      | -      | -      | -      | 3,53   | 3,65   | 3,66   | 3,40   | 3,65   | 3,38   | 3,57   | 3,61   | 3,29   | 3,63   |
|  | E | W/W  | 4,03   | 4,04   | 4,03   | 3,89   | 3,54   | 3,65   | 3,65   | 3,40   | 3,66   | 3,38   | 3,57   | 3,61   | 3,29   | 3,62   |
|  | L | W/W  | 3,98   | 3,89   | 3,88   | 3,83   | 3,47   | 3,56   | 3,59   | 3,34   | 3,58   | 3,31   | 3,43   | 3,51   | 3,23   | 3,54   |

(1) Efficiencies for low temperature applications (35 °C)



## ELECTRIC DATA

| Size                  |   |   | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electric data         |   |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A | -     | -     | -     | -     | 74,3  | 79,2  | 88,1  | 100,3 | 97,0  | 113,5 | 115,9 | 130,5 | 134,6 | 147,2 | 144,4 |
|                       | A | A | -     | -     | -     | -     | 74,3  | 79,2  | 88,1  | 100,3 | 97,0  | 117,7 | 115,9 | 130,5 | 134,6 | 147,2 | 144,4 |
|                       | E | A | 42,6  | 49,2  | 56,9  | 65,3  | 74,3  | 79,2  | 88,1  | 100,3 | 97,0  | 117,7 | 115,9 | 130,5 | 134,6 | 147,2 | 144,4 |
|                       | L | A | 41,5  | 49,2  | 55,8  | 65,3  | 74,3  | 79,2  | 88,1  | 100,3 | 97,0  | 113,5 | 115,9 | 130,5 | 134,6 | 147,2 | 144,4 |
| Peak current (LRA)    | ° | A | -     | -     | -     | -     | 279,8 | 284,7 | 331,4 | 214,1 | 340,3 | 227,2 | 367,0 | 381,6 | 278,1 | 479,6 | 349,8 |
|                       | A | A | -     | -     | -     | -     | 279,8 | 284,7 | 331,4 | 214,1 | 340,3 | 231,5 | 367,0 | 381,6 | 278,1 | 479,6 | 349,8 |
|                       | E | A | 148,0 | 163,0 | 170,6 | 208,9 | 279,8 | 284,7 | 331,4 | 214,1 | 340,3 | 231,5 | 367,0 | 381,6 | 278,1 | 479,6 | 349,8 |
|                       | L | A | 146,9 | 163,0 | 169,5 | 208,9 | 279,8 | 284,7 | 331,4 | 214,1 | 340,3 | 227,2 | 367,0 | 381,6 | 278,1 | 479,6 | 349,8 |

## GENERAL TECHNICAL DATA

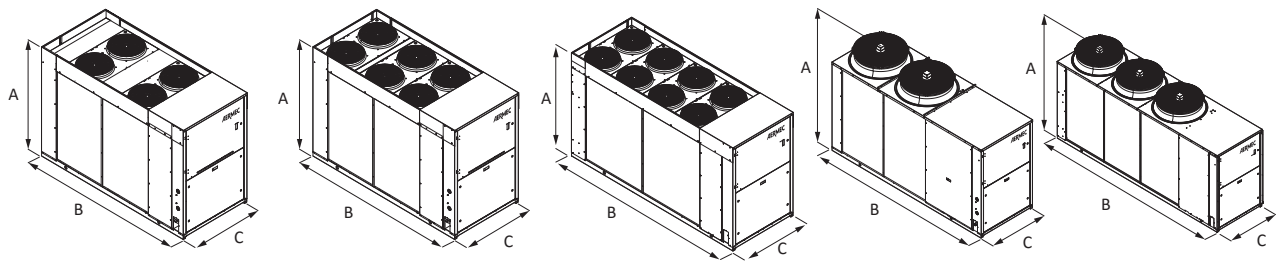
| Size                                      |        |       | 0282           | 0302  | 0332  | 0352  | 0502  | 0552  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |
|---|--------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                                |        |       |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type  | Scroll         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Compressor regulation                     | °A,E,L | Type  | On-Off         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °A     | no.   | -              | -     | -     | -     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     |
|   | E,L    | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     |
| Circuits                                  | °A     | no.   | -              | -     | -     | -     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     |
|   | E,L    | no.   | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     |
| Refrigerant                               | °A,E,L | type  | R410A          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Refrigerant charge (1)                    | °      | kg    | -              | -     | -     | -     | 12,2  | 12,2  | 16,8  | 17,6  | 16,8  | 20,0  | 24,5  | 24,5  | 23,0  | 24,5  | 23,0  |
|   | A      | kg    | -              | -     | -     | -     | 15,9  | 15,8  | 17,8  | 19,8  | 18,4  | 21,6  | 28,6  | 28,6  | 27,0  | 28,6  | 27,0  |
|   | E      | kg    | 9,1            | 10,7  | 11,1  | 12,5  | 15,9  | 15,8  | 17,8  | 19,8  | 18,4  | 21,6  | 28,6  | 28,6  | 27,0  | 28,6  | 27,0  |
|   | L      | kg    | 8,8            | 9,4   | 10,3  | 11,0  | 12,2  | 12,2  | 16,8  | 17,6  | 16,8  | 20,0  | 24,5  | 24,5  | 23,0  | 24,5  | 23,0  |
| System side heat exchanger                |        |       |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type  | Brazed plate   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °A     | no.   | -              | -     | -     | -     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
|   | E,L    | no.   | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Hydraulic connections                     |        |       |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Connections (in/out)                      | °A,E,L | Type  | Grooved joints |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sizes (in/out)                            | °A,E,L | Ø     | 2" 1/2         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan                                       |        |       |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type  | Axial          |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °      | no.   | -              | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     |
|   | A      | no.   | -              | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     |
|   | E      | no.   | 6              | 6     | 8     | 8     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     |
|   | L      | no.   | 4              | 6     | 6     | 8     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     |
| Air flow rate                             | °      | m³/h  | -              | -     | -     | -     | 42785 | 42785 | 41094 | 41065 | 41094 | 39542 | 62015 | 61936 | 61936 | 61936 | 61936 |
|   | A      | m³/h  | -              | -     | -     | -     | 41080 | 41080 | 39461 | 39461 | 39461 | 59684 | 59701 | 59684 | 59684 | 59684 | 59684 |
|   | E      | m³/h  | 21230          | 22746 | 28176 | 25787 | 31149 | 31149 | 29855 | 29855 | 29855 | 47085 | 45202 | 45187 | 45187 | 45187 | 45187 |
|   | L      | m³/h  | 15574          | 21226 | 22732 | 28156 | 32650 | 32650 | 31613 | 31169 | 31161 | 29823 | 47087 | 47125 | 47125 | 47125 | 47125 |
| Sound data calculated in cooling mode (2) |        |       |                |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                         | °      | dB(A) | -              | -     | -     | -     | 86,6  | 86,9  | 87,1  | 86,5  | 87,3  | 86,5  | 88,8  | 88,9  | 88,2  | 89,4  | 89,5  |
|   | A      | dB(A) | -              | -     | -     | -     | 86,6  | 86,9  | 87,1  | 86,5  | 87,3  | 88,2  | 88,8  | 88,9  | 88,2  | 89,4  | 89,5  |
|   | E      | dB(A) | 73,0           | 73,5  | 74,3  | 74,5  | 82,2  | 82,9  | 83,3  | 76,7  | 83,7  | 77,8  | 84,9  | 85,0  | 78,0  | 86,1  | 84,0  |
|   | L      | dB(A) | 72,4           | 73,5  | 73,9  | 74,5  | 82,2  | 82,9  | 83,3  | 76,7  | 83,7  | 77,1  | 84,9  | 85,0  | 78,0  | 86,1  | 84,0  |
| Sound pressure level (10 m)               | °      | dB(A) | -              | -     | -     | -     | 54,8  | 55,0  | 55,2  | 54,6  | 55,4  | 54,6  | 56,8  | 56,9  | 56,2  | 57,4  | 57,5  |
|   | A      | dB(A) | -              | -     | -     | -     | 54,8  | 55,0  | 55,2  | 54,6  | 55,4  | 56,2  | 56,8  | 56,9  | 56,2  | 57,4  | 57,5  |
|   | E      | dB(A) | 41,3           | 41,7  | 42,5  | 42,7  | 50,3  | 51,0  | 51,4  | 44,8  | 51,8  | 45,8  | 52,9  | 53,1  | 46,0  | 54,1  | 52,0  |
|   | L      | dB(A) | 40,7           | 41,7  | 42,1  | 42,7  | 50,3  | 51,0  | 51,4  | 44,8  | 51,8  | 45,3  | 52,9  | 53,1  | 46,0  | 54,1  | 52,0  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).



# DIMENSIONS



| Size                   |     |    | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 |
|------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                      | °A  | mm | -    | -    | -    | -    | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
|                        | E,L | mm | 1680 | 1680 | 1680 | 1680 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 | 1898 |
| B                      | °   | mm | -    | -    | -    | -    | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                        | A   | mm | -    | -    | -    | -    | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                        | E   | mm | 2450 | 2950 | 2950 | 2950 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 | 4010 |
|                        | L   | mm | 2450 | 2450 | 2950 | 2950 | 3200 | 3200 | 3200 | 3200 | 3200 | 3200 | 4010 | 4010 | 4010 | 4010 | 4010 |
| C                      | °A  | mm | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                        | E,L | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRG 0282-0804

## Air-water chiller

Cooling capacity 55,8 ÷ 224,6 kW

- High efficiency also at partial loads
- Low refrigerant charge
- Compact dimensions



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas (A2L).**

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** High efficiency

**E** Silenced high efficiency

**L** Standard silenced

**N** Silenced very high efficiency

**U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

#### Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed or variable pumps also inverter.**

■ *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption and to guarantee operation of the unit even in critical conditions.*

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model            | Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °A    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,N   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | L     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | E,L,N | *    | *    | *    | *    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                  | U     |      |      |      | *    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

### Remote panel

| Model | Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A    |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | E,L,N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | U     |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver            | 0282    | 0302    | 0332    | 0352        | 0502        | 0552        | 0554        | 0602        | 0604        |
|----------------|---------|---------|---------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Fans: M</b> |         |         |         |             |             |             |             |             |             |
| °A             | -       | -       | -       | -           | DCPX146     | DCPX146     | DCPX147     | DCPX146     | DCPX147     |
| E, L           | -       | -       | -       | -           | As standard | As standard | As standard | As standard | As standard |
| N              | -       | -       | -       | As standard | As standard | As standard | As standard | As standard | As standard |
| U              | -       | -       | -       | DCPX146     | DCPX146     | DCPX146     | DCPX147     | DCPX147     | DCPX147     |
| <b>Fans: °</b> |         |         |         |             |             |             |             |             |             |
| E, L           | DCPX145 | DCPX145 | DCPX145 | DCPX145     | -           | -           | -           | -           | -           |
| N              | DCPX145 | DCPX145 | DCPX145 | -           | -           | -           | -           | -           | -           |

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

| Ver            | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        | 0802        | 0804        |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Fans: M</b> |             |             |             |             |             |             |             |             |             |
| °, A           | DCPX146     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     |
| E              | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| L              | As standard | As standard | As standard | As standard | As standard | As standard | As standard | -           | -           |
| N              | As standard | As standard | As standard | -           | -           | -           | -           | -           | -           |
| U              | DCPX147     | DCPX147     | DCPX147     | -           | -           | -           | -           | -           | -           |

**Antivibration**

| Ver  | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4</b>                             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E  | VT17 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L  | VT17 | VT17 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | -    | -    |
| N  | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| U  | -    | -    | -    | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | -    | -    |
| N  | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| U  | -    | -    | -    | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |

**Anti-intrusion grid**

| Ver  | 0282 | 0302 | 0332 | 0352        | 0502        | 0552        | 0554        | 0602        | 0604        |
|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|
| °, A | -    | -    | -    | -           | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |
| E    | GP3  | GP4  | GP4  | GP4         | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |
| L    | GP3  | GP3  | GP4  | GP4         | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |
| N    | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| U    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

| Ver  | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        | 0802        | 0804        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| A, E | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| L    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | -           | -           |
| N, U | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

**Device for peak current reduction**

| Ver     | 0282      | 0302      | 0332       | 0352      | 0502      | 0552      | 0554      | 0602      | 0604      | 0652      |
|---------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A    | -         | -         | DRENRG332N | -         | DRENRG502 | DRENRG552 | DRENRG554 | DRENRG602 | DRENRG604 | DRENRG652 |
| E, L, N | DRENRG282 | DRENRG302 | DRENRG332N | DRENRG352 | DRENRG502 | DRENRG552 | DRENRG554 | DRENRG602 | DRENRG604 | DRENRG652 |
| U       | -         | -         | DRENRG332N | DRENRG352 | DRENRG502 | DRENRG552 | DRENRG554 | DRENRG602 | DRENRG604 | DRENRG652 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver           | 0654       | 0682      | 0702      | 0704      | 0752      | 0754      | 0802      | 0804      |
|---------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A, E, N, U | DRENRG654N | DRENRG682 | DRENRG702 | DRENRG704 | DRENRG752 | DRENRG754 | DRENRG802 | DRENRG804 |
| L             | DRENRG654N | DRENRG682 | DRENRG702 | DRENRG704 | DRENRG752 | DRENRG754 | -         | -         |

A grey background indicates the accessory must be assembled in the factory

**Power factor correction**

| Ver     | 0282      | 0302      | 0332       | 0352      | 0502      | 0552      | 0554      | 0602      | 0604      | 0652      |
|---------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A    | -         | -         | RIFNRG332N | -         | RIFNRG502 | RIFNRG552 | RIFNRG554 | RIFNRG602 | RIFNRG604 | RIFNRG652 |
| E, L, N | RIFNRG282 | RIFNRG302 | RIFNRG332N | RIFNRG352 | RIFNRG502 | RIFNRG552 | RIFNRG554 | RIFNRG602 | RIFNRG604 | RIFNRG652 |
| U       | -         | -         | RIFNRG332N | RIFNRG352 | RIFNRG502 | RIFNRG552 | RIFNRG554 | RIFNRG602 | RIFNRG604 | RIFNRG652 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver           | 0654       | 0682      | 0702      | 0704      | 0752      | 0754      | 0802      | 0804      |
|---------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A, E, N, U | RIFNRG654N | RIFNRG682 | RIFNRG702 | RIFNRG704 | RIFNRG752 | RIFNRG754 | RIFNRG802 | RIFNRG804 |
| L             | RIFNRG654N | RIFNRG682 | RIFNRG702 | RIFNRG704 | RIFNRG752 | RIFNRG754 | -         | -         |

A grey background indicates the accessory must be assembled in the factory

**Double safety valves**

| Ver           | 0282   | 0302   | 0332   | 0352   | 0502   | 0552   | 0554   | 0602   | 0604   | 0652   | 0682   | 0702   | 0704   | 0752   | 0754   | 0802   | 0804   |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| °, A, E, N, U | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 |
| L             | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | -      | -      |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model</b>  |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| T              | With total recovery   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency (4)  |
| L              | Standard silenced (4)   |
| N              | Silenced very high efficiency (4)   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter (5)  |
| M              | Oversized (6)   |
| °              | Standard (7)  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with storage tank and pump/s</b>   |
| 01             | Storage tank with low head pump   |
| 02             | Storage tank with low head pump + stand-by pump   |
| 03             | Storage tank with high head pump  |
| 04             | Storage tank with high head pump + stand-by pump  |
|                | <b>Kit with pump/s and storage tank with holes for heaters</b>  |
| 05             | Storage tank with holes for heaters and single low head pump (8)  |
| 06             | Storage tank with holes for heaters and pump low head + stand-by pump (8)   |
| 07             | Storage tank with holes for heaters and single high head pump (8)   |
| 08             | Storage tank with holes for heaters and pump high head + stand-by pump (8)  |
|                | <b>Double loop</b>  |
| 09             | Double loop   |
|                | <b>Kit with pump/s</b>  |
| P1             | Single pump low head  |
| P2             | Pump low head + stand-by pump   |
| P3             | Single pump high head   |
| P4             | Pump high head + stand-by pump  |
|                | <b>Kit with inverter pump/s to fixed speed</b>  |
| I1             | Single low head pump + fixed speed inverter   |
| I2             | Single low head pump with fixed speed inverter + stand-by pump  |
| I3             | Single high head pump + fixed speed inverter  |
| I4             | Single high head pump with fixed speed inverter + stand-by pump   |
|                | <b>Kit with storage tank and inverter pump/s to fixed speed</b>   |
| K1             | Single low head pump + storage tank + fixed speed inverter  |
| K2             | Storage tank and low head pump with fixed speed inverter + stand-by pump  |
| K3             | Single high head pump + storage tank + fixed speed inverter   |
| K4             | Storage tank and low head pump with fixed speed inverter + stand-by pump  |
|                | <b>Kit with storage tank and variable speed inverter pump/s</b>   |
| W1             | Single low head pump + Storage tank + variable speed inverter   |
| W2             | Double low head pump + Storage tank + variable speed inverter   |
| W3             | Single high head pump + Storage tank + variable speed inverter  |
| W4             | Double high head pump + Storage tank + variable speed inverter  |

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 8 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.

(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(4) The size 0282-0302-0332-0352 only available in low noise versions.

(5) As standard in size 0702-0704-0752-0754-0802-0804 in the version U and N.

(6) As standard in sizes from 0502 to 0804 version ° - L - A - E and in sizes from 0352 to 0682 and in sizes

from 0554 to 0654 version N - U.

(7) As standard in sizes from 0282 to 0352 versions E - L and in size from 0282 to 0332 version N

(8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

### NRG - °

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 100,8 | 110,6 | 117,6 | 127,1 | 130,0 | 138,5 | 143,5 | 161,9 | 182,0 | 171,7 | 203,9 | 194,0 | 222,4 | 212,3 |
| Input power                                 | kW  | -    | -    | -    | -    | 33,4  | 37,8  | 37,8  | 39,7  | 44,2  | 45,1  | 50,7  | 52,5  | 59,4  | 57,4  | 69,6  | 66,5  | 80,4  | 74,8  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 59,0  | 64,0  | 59,0  | 68,0  | 79,0  | 77,0  | 91,0  | 88,0  | 95,0  | 108,0 | 111,0 | 117,0 | 127,0 | 126,0 |
| EER   | W/W | -    | -    | -    | -    | 3,02  | 2,92  | 3,11  | 3,20  | 2,94  | 3,07  | 2,83  | 3,08  | 3,06  | 2,99  | 2,93  | 2,92  | 2,77  | 2,84  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 17363 | 19059 | 20268 | 21893 | 22383 | 23841 | 24712 | 27874 | 31338 | 29554 | 35100 | 33389 | 38287 | 36547 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 40    | 49    | 46    | 44    | 56    | 53    | 50    | 54    | 69    | 71    | 68    | 67    | 81    | 80    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRG - L

| Size  |     | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  |  |  |
|---|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |  |  |
| Cooling capacity                            | kW  | 55,8 | 63,8  | 73,3  | 84,5  | 98,9  | 108,2 | 113,4 | 123,5 | 123,9 | 132,9 | 139,3 | 159,0 | 178,5 | 168,5 | 198,8 | 189,6 |  |  |
| Input power                                 | kW  | 19,7 | 22,1  | 24,4  | 28,6  | 33,9  | 38,6  | 38,5  | 40,9  | 45,2  | 46,7  | 53,6  | 53,5  | 60,3  | 59,0  | 71,8  | 68,2  |  |  |
| Cooling total input current                 | A   | 32,0 | 41,0  | 45,0  | 55,0  | 58,0  | 63,0  | 59,0  | 68,0  | 79,0  | 77,0  | 92,0  | 88,0  | 96,0  | 107,0 | 112,0 | 117,0 |  |  |
| EER   | W/W | 2,83 | 2,88  | 3,01  | 2,95  | 2,92  | 2,80  | 2,95  | 3,02  | 2,74  | 2,85  | 2,60  | 2,97  | 2,96  | 2,85  | 2,77  | 2,78  |  |  |
| Water flow rate system side                 | l/h | 9604 | 10989 | 12618 | 14572 | 17043 | 18647 | 19537 | 21269 | 21332 | 22880 | 23984 | 27367 | 30726 | 29004 | 34224 | 32640 |  |  |
| Pressure drop system side                   | kPa | 35   | 46    | 37    | 50    | 39    | 46    | 45    | 43    | 54    | 50    | 47    | 52    | 66    | 69    | 65    | 64    |  |  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRG - A

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 105,3 | 116,3 | 118,7 | 129,7 | 132,2 | 141,2 | 151,3 | 167,9 | 186,4 | 177,0 | 208,8 | 199,2 | 228,6 | 218,5 |
| Input power                                 | kW  | -    | -    | -    | -    | 31,0  | 34,9  | 37,7  | 40,1  | 43,8  | 45,6  | 47,8  | 51,1  | 57,3  | 56,2  | 67,0  | 64,9  | 77,2  | 73,6  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 56,0  | 60,0  | 60,0  | 69,0  | 80,0  | 78,0  | 88,0  | 85,0  | 93,0  | 106,0 | 108,0 | 115,0 | 124,0 | 123,0 |
| EER   | W/W | -    | -    | -    | -    | 3,39  | 3,33  | 3,14  | 3,23  | 3,02  | 3,09  | 3,16  | 3,29  | 3,25  | 3,15  | 3,12  | 3,07  | 2,96  | 2,97  |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 18133 | 20029 | 20437 | 22332 | 22778 | 24316 | 26053 | 28900 | 32076 | 30475 | 35940 | 34279 | 39342 | 37605 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 30    | 36    | 34    | 34    | 42    | 41    | 56    | 45    | 57    | 56    | 62    | 59    | 74    | 72    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRG - E

| Size  |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 58,7  | 64,8  | 74,8  | 88,1  | 101,0 | 112,1 | 115,3 | 124,8 | 126,8 | 134,9 | 147,6 | 161,6 | 180,1 | 171,4 | 201,8 | 191,5 | 216,6 | 208,9 |
| Input power                                 | kW  | 18,7  | 21,5  | 23,3  | 27,6  | 31,6  | 35,8  | 38,6  | 40,7  | 45,6  | 46,8  | 49,3  | 52,1  | 59,4  | 58,0  | 70,9  | 67,4  | 81,8  | 77,1  |
| Cooling total input current                 | A   | 31,0  | 41,0  | 45,0  | 54,0  | 55,0  | 60,0  | 61,0  | 70,0  | 81,0  | 79,0  | 87,0  | 85,0  | 95,0  | 106,0 | 111,0 | 116,0 | 129,0 | 126,0 |
| EER   | W/W | 3,14  | 3,02  | 3,21  | 3,19  | 3,20  | 3,13  | 2,98  | 3,07  | 2,78  | 2,88  | 2,99  | 3,10  | 3,03  | 2,96  | 2,85  | 2,84  | 2,65  | 2,71  |
| Water flow rate system side                 | l/h | 10097 | 11156 | 12874 | 15166 | 17382 | 19311 | 19858 | 21482 | 21840 | 23238 | 25406 | 27822 | 31004 | 29499 | 34739 | 32965 | 37282 | 35953 |
| Pressure drop system side                   | kPa | 24    | 29    | 28    | 37    | 28    | 34    | 32    | 32    | 38    | 37    | 53    | 43    | 53    | 52    | 57    | 55    | 67    | 65    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRG - U

| Size  |     | 0282 | 0302 | 0332 | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|-----|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | 94,0  | 105,1 | 116,7 | 122,4 | 134,4 | 135,9 | 148,2 | 154,1 | 170,1 | 192,0 | 179,4 | 215,0 | 203,9 | 236,8 | 224,6 |
| Input power                                 | kW  | -    | -    | -    | 26,8  | 30,6  | 34,4  | 36,1  | 38,2  | 41,9  | 42,9  | 46,5  | 49,5  | 57,5  | 56,2  | 66,4  | 63,6  | 75,7  | 72,1  |
| Cooling total input current                 | A   | -    | -    | -    | 53,0  | 57,0  | 61,0  | 58,0  | 68,0  | 78,0  | 76,0  | 87,0  | 83,0  | 92,0  | 106,0 | 106,0 | 114,0 | 120,0 | 121,0 |
| EER   | W/W | -    | -    | -    | 3,51  | 3,43  | 3,39  | 3,39  | 3,52  | 3,24  | 3,45  | 3,32  | 3,44  | 3,34  | 3,19  | 3,24  | 3,20  | 3,13  | 3,11  |
| Water flow rate system side                 | l/h | -    | -    | -    | 16172 | 18095 | 20096 | 21081 | 23146 | 23408 | 25528 | 26524 | 29288 | 33054 | 30884 | 37012 | 35090 | 40762 | 38655 |
| Pressure drop system side                   | kPa | -    | -    | -    | 24    | 30    | 28    | 37    | 38    | 46    | 36    | 43    | 47    | 53    | 58    | 66    | 59    | 80    | 72    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRG - N

| Size  |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 59,7  | 66,0  | 76,0  | 92,0  | 103,0 | 114,9 | 120,1 | 131,5 | 132,9 | 144,6 | 148,5 | 163,6 | 188,0 | 175,9 | 209,5 | 199,0 | 227,4 | 218,5 |
| Input power                                 | kW  | 18,1  | 20,8  | 23,3  | 27,9  | 31,8  | 36,1  | 37,0  | 39,2  | 43,2  | 44,5  | 48,5  | 52,1  | 57,9  | 56,8  | 67,6  | 65,1  | 78,0  | 74,5  |
| Cooling total input current                 | A   | 30,0  | 41,0  | 45,0  | 52,0  | 57,0  | 62,0  | 57,0  | 67,0  | 78,0  | 75,0  | 88,0  | 85,0  | 92,0  | 106,0 | 107,0 | 114,0 | 123,0 | 123,0 |
| EER   | W/W | 3,29  | 3,17  | 3,26  | 3,30  | 3,24  | 3,18  | 3,25  | 3,35  | 3,07  | 3,25  | 3,06  | 3,14  | 3,25  | 3,10  | 3,10  | 3,06  | 2,92  | 2,93  |
| Water flow rate system side                 | l/h | 10270 | 11372 | 13087 | 15837 | 17726 | 19768 | 20680 | 22650 | 22893 | 24895 | 25579 | 28156 | 32351 | 30273 | 36062 | 34256 | 39138 | 37603 |
| Pressure drop system side                   | kPa | 25    | 31    | 29    | 23    | 28    | 26    | 36    | 36    | 44    | 34    | 41    | 44    | 50    | 56    | 63    | 57    | 75    | 68    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                            |   |     | 0282   | 0302   | 0332   | 0352   | 0502   | 0552   | 0554   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   | 0802   | 0804   |
|---------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: J                         |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN14825:2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | -      | -      | -      | -      | 4,30   | 4,30   | 4,36   | 4,44   | 4,33   | 4,32   | 4,31   | 4,37   | 4,38   | 4,28   | 4,32   | 4,29   | 4,23   | 4,26   |
|                                 | A | W/W | -      | -      | -      | -      | 4,50   | 4,55   | 4,43   | 4,61   | 4,38   | 4,55   | 4,35   | 4,60   | 4,56   | 4,42   | 4,53   | 4,37   | 4,34   | 4,27   |
|                                 | E | W/W | 4,56   | 4,40   | 4,56   | 4,48   | 4,54   | 4,46   | 4,44   | 4,53   | 4,40   | 4,33   | 4,37   | 4,55   | 4,38   | 4,40   | 4,37   | 4,39   | 4,25   | 4,27   |
|                                 | L | W/W | 4,29   | 4,21   | 4,43   | 4,32   | 4,32   | 4,24   | 4,35   | 4,30   | 4,33   | 4,23   | 4,31   | 4,28   | 4,24   | 4,30   | 4,23   | 4,30   | -      | -      |
|                                 | N | W/W | 4,74   | 4,66   | 4,70   | 4,78   | 4,71   | 4,59   | 4,54   | 4,77   | 4,46   | 4,69   | 4,49   | 4,75   | 4,63   | 4,48   | 4,59   | 4,48   | 4,37   | 4,33   |
|                                 | U | W/W | -      | -      | -      | 4,77   | 4,73   | 4,77   | 4,51   | 4,68   | 4,44   | 4,72   | 4,51   | 4,82   | 4,66   | 4,44   | 4,64   | 4,42   | 4,50   | 4,30   |
| Seasonal efficiency             | ° | %   | -      | -      | -      | -      | 169,07 | 169,11 | 171,47 | 174,48 | 170,14 | 169,96 | 169,32 | 171,68 | 172,37 | 168,37 | 169,62 | 168,51 | 166,33 | 167,34 |
|                                 | A | %   | -      | -      | -      | -      | 176,81 | 179,08 | 174,25 | 181,27 | 172,29 | 179,03 | 170,93 | 181,13 | 179,44 | 173,98 | 178,17 | 171,94 | 170,64 | 167,83 |
|                                 | E | %   | 179,42 | 172,83 | 179,43 | 176,18 | 178,57 | 175,52 | 174,63 | 178,28 | 173,17 | 170,02 | 171,96 | 179,14 | 172,39 | 172,91 | 171,65 | 172,46 | 166,80 | 167,89 |
|                                 | L | %   | 168,77 | 165,30 | 174,27 | 169,95 | 169,78 | 166,72 | 171,12 | 168,86 | 170,11 | 166,28 | 169,22 | 168,35 | 166,67 | 169,00 | 166,22 | 169,06 | -      | -      |
|                                 | N | %   | 186,54 | 183,37 | 185,00 | 188,02 | 185,24 | 180,46 | 178,48 | 187,81 | 175,31 | 184,43 | 176,70 | 186,89 | 182,33 | 176,32 | 180,67 | 176,26 | 171,95 | 170,07 |
|                                 | U | %   | -      | -      | -      | 187,91 | 186,30 | 188,00 | 177,39 | 184,10 | 174,64 | 185,66 | 177,42 | 189,79 | 183,53 | 174,64 | 182,68 | 173,97 | 177,05 | 169,03 |
| SEER - 23/18 (EN14825:2018) (2) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | -      | -      | -      | -      | 4,99   | 4,86   | 5,09   | 5,02   | 5,00   | 4,85   | 5,02   | 4,90   | 4,97   | 4,91   | 4,88   | 4,88   | 4,78   | 4,71   |
|                                 | A | W/W | -      | -      | -      | -      | 5,27   | 5,18   | 5,28   | 5,27   | 5,23   | 4,92   | 5,10   | 5,22   | 5,20   | 5,15   | 5,12   | 5,02   | 4,90   | 4,74   |
|                                 | E | W/W | 5,34   | 5,10   | 5,33   | 5,19   | 5,20   | 4,92   | 5,24   | 4,99   | 5,22   | 4,69   | 5,10   | 5,07   | 4,82   | 5,09   | 4,61   | 4,99   | 4,74   | 4,68   |
|                                 | L | W/W | 4,90   | 4,77   | 5,09   | 4,99   | 4,85   | 4,59   | 5,09   | 4,73   | 5,03   | 4,56   | 5,05   | 4,81   | 4,61   | 4,89   | 4,58   | 4,86   | -      | -      |
|                                 | N | W/W | 5,56   | 5,41   | 5,49   | 5,52   | 5,40   | 5,07   | 5,34   | 5,39   | 5,23   | 5,26   | 5,29   | 5,28   | 5,23   | 5,17   | 5,10   | 5,11   | 4,84   | 4,94   |
|                                 | U | W/W | -      | -      | -      | 5,64   | 5,56   | 5,44   | 5,39   | 5,33   | 5,29   | 5,12   | 5,37   | 5,47   | 5,35   | 5,16   | 5,24   | 5,08   | 5,07   | 4,80   |
| Seasonal efficiency             | ° | %   | -      | -      | -      | -      | 196,60 | 191,50 | 200,50 | 197,80 | 197,10 | 190,80 | 197,70 | 193,00 | 195,90 | 193,20 | 192,10 | 192,30 | 188,00 | 185,20 |
|                                 | A | %   | -      | -      | -      | -      | 207,80 | 204,10 | 208,30 | 207,60 | 206,20 | 193,90 | 200,90 | 205,60 | 205,00 | 202,90 | 201,80 | 197,80 | 193,10 | 186,50 |
|                                 | E | %   | 210,70 | 200,80 | 210,00 | 204,60 | 204,90 | 193,60 | 206,70 | 196,40 | 205,70 | 184,70 | 201,00 | 199,60 | 189,90 | 200,40 | 181,20 | 196,50 | 186,70 | 184,10 |
|                                 | L | %   | 192,90 | 187,90 | 200,70 | 196,60 | 191,10 | 180,50 | 200,70 | 186,30 | 198,30 | 179,40 | 199,10 | 189,20 | 181,20 | 192,50 | 180,20 | 191,50 | -      | -      |
|                                 | N | %   | 219,30 | 213,20 | 216,50 | 217,80 | 212,90 | 199,70 | 210,60 | 212,40 | 206,20 | 207,30 | 208,70 | 208,10 | 206,00 | 203,70 | 201,10 | 201,30 | 190,40 | 194,50 |
|                                 | U | %   | -      | -      | -      | 222,70 | 219,50 | 214,60 | 212,60 | 210,30 | 208,40 | 201,80 | 211,60 | 215,60 | 210,80 | 203,50 | 206,70 | 200,30 | 199,60 | 189,00 |
| SEPR - (EN 14825: 2018) (2)     |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                            | ° | W/W | -      | -      | -      | -      | 5,78   | 5,60   | 6,35   | 5,79   | 6,38   | 5,73   | 6,34   | 5,66   | 6,07   | 6,34   | 5,81   | 6,03   | 5,78   | 5,94   |
|                                 | A | W/W | -      | -      | -      | -      | 6,23   | 5,98   | 6,61   | 5,93   | 6,60   | 6,14   | 6,51   | 5,98   | 6,27   | 6,54   | 6,05   | 6,08   | 5,90   | 5,90   |
|                                 | E | W/W | 6,66   | 6,39   | 6,59   | 6,52   | 6,30   | 6,03   | 6,47   | 5,93   | 6,55   | 5,79   | 6,41   | 6,01   | 6,13   | 6,44   | 5,85   | 6,06   | 5,21   | 5,87   |
|                                 | L | W/W | 6,34   | 6,26   | 6,43   | 6,30   | 5,86   | 5,68   | 6,35   | 5,73   | 6,47   | 5,69   | 6,47   | 5,64   | 5,95   | 6,28   | 5,72   | 5,92   | -      | -      |
|                                 | N | W/W | 6,87   | 6,70   | 6,81   | 6,88   | 6,47   | 6,14   | 6,58   | 6,20   | 6,54   | 6,21   | 6,57   | 6,17   | 6,54   | 6,56   | 6,25   | 6,19   | 5,93   | 6,35   |
|                                 | U | W/W | -      | -      | -      | 6,73   | 6,43   | 6,14   | 6,73   | 6,18   | 6,68   | 6,51   | 6,73   | 6,26   | 6,34   | 6,68   | 6,18   | 6,30   | 6,10   | 5,99   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                            |   |     | 0282 | 0302 | 0332 | 0352   | 0502   | 0552   | 0554   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   | 0802   | 0804   |
|---------------------------------|---|-----|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                         |   |     |      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN14825:2018) (1)  |   |     |      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | -    | -    | -    | -      | 4,18   | 4,18   | 4,23   | 4,31   | 4,20   | 4,20   | 4,18   | 4,24   | 4,26   | 4,16   | 4,19   | 4,16   | 4,11   | 4,14   |
|                                 | A | W/W | -    | -    | -    | -      | 4,36   | 4,42   | 4,30   | 4,47   | 4,26   | 4,42   | 4,22   | 4,47   | 4,43   | 4,30   | 4,40   | 4,25   | 4,22   | 4,15   |
|                                 | E | W/W | -    | -    | -    | -      | 4,41   | 4,34   | 4,31   | 4,40   | 4,27   | 4,20   | 4,25   | 4,42   | 4,26   | 4,27   | 4,24   | 4,26   | 4,12   | 4,15   |
|                                 | L | W/W | -    | -    | -    | -      | 4,19   | 4,12   | 4,22   | 4,17   | 4,20   | 4,11   | 4,18   | 4,16   | 4,12   | 4,18   | 4,11   | 4,18   | -      | -      |
|                                 | N | W/W | -    | -    | -    | 4,64   | 4,57   | 4,45   | 4,40   | 4,63   | 4,33   | 4,55   | 4,36   | 4,61   | -      | -      | -      | -      | -      | -      |
|                                 | U | W/W | -    | -    | -    | 4,63   | 4,60   | 4,64   | 4,38   | 4,54   | 4,31   | 4,58   | 4,38   | 4,68   | -      | -      | -      | -      | -      | -      |
| Seasonal efficiency             | ° | %   | -    | -    | -    | -      | 164,19 | 164,24 | 166,29 | 169,41 | 164,99 | 165,02 | 164,13 | 166,59 | 167,36 | 163,42 | 164,59 | 163,49 | 161,43 | 162,48 |
|                                 | A | %   | -    | -    | -    | -      | 171,56 | 173,79 | 169,11 | 175,81 | 167,34 | 173,76 | 166,00 | 175,82 | 174,24 | 168,98 | 173,01 | 166,92 | 165,82 | 162,95 |
|                                 | E | %   | -    | -    | -    | -      | 173,34 | 170,47 | 169,31 | 173,05 | 167,98 | 165,00 | 166,82 | 173,83 | 167,44 | 167,75 | 166,62 | 167,42 | 161,90 | 163,00 |
|                                 | L | %   | -    | -    | -    | -      | 164,75 | 161,78 | 165,90 | 163,73 | 165,02 | 161,37 | 164,21 | 163,40 | 161,82 | 164,05 | 161,39 | 164,10 | -      | -      |
|                                 | N | %   | -    | -    | -    | 182,41 | 179,82 | 175,17 | 173,00 | 182,25 | 170,09 | 178,97 | 171,51 | 181,37 | -      | -      | -      | -      | -      | -      |
|                                 | U | %   | -    | -    | -    | 182,34 | 180,84 | 182,53 | 172,00 | 178,62 | 169,50 | 180,31 | 172,13 | 184,18 | -      | -      | -      | -      | -      | -      |
| SEER - 23/18 (EN14825:2018) (2) |   |     |      |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | -    | -    | -    | -      | 4,86   | 4,73   | 4,94   | 4,89   | 4,86   | 4,71   | 4,87   | 4,77   | 4,84   | 4,77   | 4,74   | 4,75   | 4,64   | 4,58   |
|                                 | A | W/W | -    | -    | -    | -      | 5,13   | 5,04   | 5,13   | 5,12   | 5,09   | 4,79   | 4,96   | 5,08   | 5,06   | 5,01   | 4,98   | 4,88   | 4,78   | 4,61   |
|                                 | E | W/W | -    | -    | -    | -      | 5,06   | 4,79   | 5,09   | 4,85   | 5,07   | 4,56   | 4,95   | 4,93   | 4,70   | 4,94   | 4,62   | 4,85   | 4,48   | 4,55   |
|                                 | L | W/W | -    | -    | -    | -      | 4,72   | 4,46   | 4,94   | 4,60   | 4,89   | 4,44   | 4,91   | 4,68   | 4,48   | 4,75   | 4,45   | 4,73   | -      | -      |
|                                 | N | W/W | -    | -    | -    | 5,37   | 5,25   | 4,93   | 5,19   | 5,24   | 5,08   | 5,12   | 5,14   | 5,14   | -      | -      | -      | -      | -      | -      |
|                                 | U | W/W | -    | -    | -    | 5,49   | 5,41   | 5,29   | 5,23   | 5,19   | 5,14   | 4,98   | 5,21   | 5,31   | -      | -      | -      | -      | -      | -      |
| Seasonal efficiency             | ° | %   | -    | -    | -    | -      | 191,30 | 186,20 | 194,50 | 192,40 | 191,20 | 185,50 | 191,70 | 187,60 | 190,40 | 187,70 | 186,60 | 186,80 | 182,70 | 180,00 |
|                                 | A | %   | -    | -    | -    | -      | 202,10 | 198,50 | 202,20 | 201,70 | 200,40 | 188,50 | 195,30 | 200,00 | 199,40 | 197,20 | 196,30 | 192,20 | 188,00 | 181,20 |
|                                 | E | %   | -    | -    | -    | -      | 199,30 | 188,40 | 200,50 | 191,00 | 199,60 | 179,50 | 195,10 | 194,00 | 184,80 | 194,60 | 181,60 | 190,90 | 176,30 | 178,80 |
|                                 | L | %   | -    | -    | -    | -      | 185,80 | 175,40 | 194,70 | 181,00 | 192,50 | 174,40 | 193,30 | 184,00 | 176,20 | 187,00 | 175,10 | 186,10 | -      | -      |
|                                 | N | %   | -    | -    | -    | 211,70 | 207,10 | 194,20 | 204,40 | 206,50 | 200,30 | 201,60 | 202,70 | 202,40 | -      | -      | -      | -      | -      | -      |
|                                 | U | %   | -    | -    | -    | 216,60 | 213,50 | 208,70 | 206,30 | 204,40 | 202,40 | 196,20 | 205,50 | 209,50 | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                       |   |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|----------------------------|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR - (EN 14825:2018) (2) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                       | ° | W/W | -    | -    | -    | -    | 5,78 | 5,60 | 6,35 | 5,79 | 6,38 | 5,73 | 6,34 | 5,66 | 6,07 | 6,34 | 5,81 | 6,03 | 5,78 | 5,94 |
|                            | A | W/W | -    | -    | -    | -    | 6,23 | 5,98 | 6,61 | 5,93 | 6,60 | 6,14 | 6,51 | 5,98 | 6,27 | 6,54 | 6,05 | 6,08 | 5,90 | 5,90 |
|                            | E | W/W | -    | -    | -    | -    | 6,30 | 6,03 | 6,47 | 5,93 | 6,55 | 5,79 | 6,41 | 6,01 | 6,13 | 6,44 | 5,85 | 6,06 | 5,21 | 5,87 |
|                            | L | W/W | -    | -    | -    | -    | 5,86 | 5,68 | 6,35 | 5,73 | 6,47 | 5,69 | 6,47 | 5,64 | 5,95 | 6,28 | 5,72 | 5,92 | -    | -    |
|                            | N | W/W | -    | -    | -    | 6,88 | 6,47 | 6,14 | 6,58 | 6,20 | 6,54 | 6,21 | 6,57 | 6,17 | -    | -    | -    | -    | -    | -    |
|                            | U | W/W | -    | -    | -    | 6,73 | 6,43 | 6,14 | 6,73 | 6,18 | 6,68 | 6,51 | 6,73 | 6,26 | -    | -    | -    | -    | -    | -    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                                    |      | 0282 | 0302   | 0332   | 0352   | 0502   | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|---|------|------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: °</b>                          |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                                    | °A,U | W/W  | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E    | W/W  | 4,52   | 4,35   | 4,51   | 4,43   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | L    | W/W  | 4,25   | 4,17   | 4,39   | 4,28   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | N    | W/W  | 4,69   | 4,62   | 4,65   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Seasonal efficiency                     | °A,U | %    | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E    | %    | 177,70 | 171,11 | 177,59 | 174,38 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | L    | %    | 166,98 | 163,66 | 172,63 | 168,23 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | N    | %    | 184,57 | 181,62 | 183,16 | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>SEER - 23/18 (EN14825: 2018) (2)</b> |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                                    | °A,U | W/W  | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E    | W/W  | 5,30   | 5,05   | 5,28   | 5,14   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | L    | W/W  | 4,85   | 4,73   | 5,05   | 4,94   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | N    | W/W  | 5,50   | 5,36   | 5,44   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| Seasonal efficiency                     | °A,U | %    | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E    | %    | 208,80 | 199,00 | 208,00 | 202,60 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | L    | %    | 190,90 | 186,10 | 198,90 | 194,70 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | N    | %    | 217,10 | 211,30 | 214,40 | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>SEPR - (EN 14825: 2018) (2)</b>      |      |      |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                                    | °A,U | W/W  | -      | -      | -      | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E    | W/W  | 6,66   | 6,39   | 6,59   | 6,52   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | L    | W/W  | 6,34   | 6,26   | 6,43   | 6,30   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | N    | W/W  | 6,87   | 6,70   | 6,81   | -      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |   | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A    | -     | -     | -     | -     | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 113,5 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 155,3 |
|                       | A | A    | -     | -     | -     | -     | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 116,4 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 |
|                       | E | A    | 41,6  | 49,9  | 59,5  | 67,6  | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 116,4 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 |
|                       | L | A    | 40,2  | 49,9  | 58,1  | 67,6  | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 113,5 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | -     |
|                       | N | A    | 41,6  | 49,9  | 59,5  | 67,8  | 73,5  | 79,1  | 83,4  | 91,2  | 100,1 | 100,3 | 116,4 | 111,5 | 125,6 | 135,7 | 142,4 | 147,0 | 159,1 |
|                       | U | A    | -     | -     | -     | 67,8  | 73,5  | 79,1  | 83,4  | 91,2  | 100,1 | 100,3 | 116,4 | 111,5 | 125,6 | 135,7 | 142,4 | 147,0 | 159,1 |
| Peak current (LRA)    | ° | A    | -     | -     | -     | -     | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 268,5 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 |
|                       | A | A    | -     | -     | -     | -     | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 271,4 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 |
|                       | E | A    | 161,9 | 174,0 | 214,4 | 222,6 | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 271,4 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 |
|                       | L | A    | 160,5 | 174,0 | 213,0 | 222,6 | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 268,5 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | -     |
|                       | N | A    | 161,9 | 174,0 | 214,4 | 222,8 | 276,8 | 282,5 | 203,7 | 332,4 | 224,2 | 341,5 | 271,4 | 396,5 | 410,7 | 290,7 | 604,7 | 350,4 | 621,4 |
|                       | U | A    | -     | -     | -     | 222,8 | 276,8 | 282,5 | 203,7 | 332,4 | 224,2 | 341,5 | 271,4 | 396,5 | 410,7 | 290,7 | 604,7 | 350,4 | 621,4 |

■ Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

| Size                  |          | 0282 | 0302   | 0332   | 0352   | 0502   | 0552   | 0554   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   | 0802 | 0804 |
|-----------------------|----------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Compressor</b>     |          |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Type                  | °A,E,N,U | type | Scroll |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |      |
|                       | L        | type | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | Scroll | -    | -    |
| Compressor regulation | °A,E,N,U | Type | On-Off |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |      |
|                       | L        | Type | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | On-Off | -    | -    |
| Number                | °A,E,N,U | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 4      | 2      | 4      | 2      | 4      | 2      | 2      | 4      | 2      | 4    | 4    |
|                       | L        | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 4      | 2      | 4      | 2      | 4      | 2      | 2      | 4      | 2      | 4    | -    |
| Circuits              | °A,E,N,U | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 2      | 1      | 2      | 1      | 2      | 1      | 1      | 2      | 1      | 2    | 2    |
|                       | L        | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 2      | 1      | 2      | 1      | 2      | 1      | 1      | 2      | 1      | 2    | -    |
| Refrigerant           | °A,E,N,U | type | R32    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |      |
|                       | L        | type | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | R32    | -    | -    |



| Size                              | 0282     | 0302 | 0332        | 0352        | 0502        | 0552        | 0554        | 0602        | 0604        | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        | 0802 | 0804 |
|-----------------------------------|----------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|
| <b>System side heat exchanger</b> |          |      |             |             |             |             |             |             |             |             |             |             |             |             |             |             |      |      |
| Type                              | °A,E,N,U | type | Braze plate |             |             |             |             |             |             |             |             |             |             |             |             |             |      |      |
|                                   | L        | type | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | Braze plate | -    | -    |
| Number                            | °A,E,N,U | no.  | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1    | 1    |
|                                   | L        | no.  | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | -    | -    |

#### System side hydraulic connections

|                |          |   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------|----------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Sizes (in/out) | °A,E,N,U | Ø | 2" 1/2 |        |        |        |        |        |        |        |        |        |        |        |        |        |   |   |
|                | L        | Ø | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | - | - |

### Fans

| Size       | 0282     | 0302 | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802 | 0804 |
|------------|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| <b>Fan</b> |          |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |
| Type       | °A,E,N,U | type | Axial |       |       |       |       |       |       |       |       |       |       |       |       |       |      |      |
|            | L        | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | -    | -    |
| Number     | °        | no.  | -     | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3    | 3    |
|            | A        | no.  | -     | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3    | 3    |
|            | E        | no.  | 6     | 6     | 8     | 8     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3    | 3    |
|            | L        | no.  | 4     | 6     | 6     | 8     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | -    | -    |
|            | N        | no.  | 6     | 6     | 8     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3    | 3    |
|            | U        | no.  | -     | -     | -     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3    | 3    |

| Size   | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|--|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: °</b>                                   |      |       |       |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Fan</b>                                       |      |       |       |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Air flow rate                                    | °A,U | m³/h  | -     | -     | -     | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E    | m³/h  | 20469 | 20469 | 27112 | 24667 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | L    | m³/h  | 15291 | 20474 | 22212 | 27150 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | N    | m³/h  | 22189 | 22189 | 24655 | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Sound data calculated in cooling mode (1)</b> |      |       |       |       |       |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | °A,U | dB(A) | -     | -     | -     | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E    | dB(A) | 73,0  | 73,5  | 74,3  | 74,5  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | L    | dB(A) | 72,4  | 73,5  | 73,9  | 74,5  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | N    | dB(A) | 73,0  | 73,9  | 74,3  | -     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

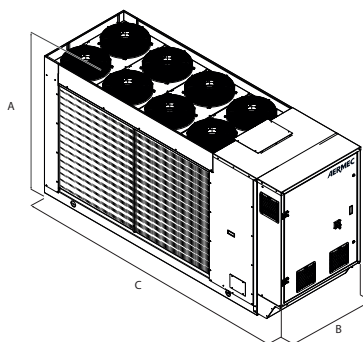
(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size                           | 0282 | 0302  | 0332 | 0352 | 0502 | 0552 | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--------------------------------|------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: M</b>                 |      |       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Without Static pressure</b> |      |       |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate                  | °    | m³/h  | -    | -    | -    | -    | 40400 | 40400 | 40400 | 40400 | 40400 | 40400 | 60600 | 60600 | 60600 | 60600 | 60600 | 60600 |
|                                | A    | m³/h  | -    | -    | -    | -    | 40400 | 40400 | 40400 | 40400 | 40400 | 60600 | 60600 | 60600 | 60600 | 60600 | 60600 | 60600 |
|                                | E    | m³/h  | -    | -    | -    | -    | 26625 | 26625 | 25488 | 25497 | 25488 | 25497 | 40270 | 40267 | 38638 | 38640 | 38638 | 38640 |
|                                | L    | m³/h  | -    | -    | -    | -    | 30672 | 30672 | 29318 | 29318 | 29318 | 29318 | 28069 | 46243 | 44312 | 44307 | 44307 | -     |
|                                | N    | m³/h  | -    | -    | -    | -    | 26623 | 25495 | 25495 | 40269 | 40274 | 40269 | 40274 | 38640 | 38634 | -     | -     | -     |
|                                | U    | m³/h  | -    | -    | -    | -    | 40400 | 40400 | 40400 | 60600 | 60600 | 60600 | 60600 | 60600 | -     | -     | -     | -     |
| Sound power level              | °    | dB(A) | -    | -    | -    | -    | 86,8  | 87,1  | 86,2  | 87,3  | 86,6  | 87,5  | 86,7  | 89,0  | 89,1  | 88,3  | 89,6  | 89,5  |
|                                | A    | dB(A) | -    | -    | -    | -    | 86,8  | 87,1  | 86,2  | 87,3  | 86,6  | 87,5  | 88,3  | 89,0  | 89,1  | 88,3  | 89,6  | 89,5  |
|                                | E    | dB(A) | -    | -    | -    | -    | 81,3  | 82,1  | 76,1  | 82,7  | 76,7  | 83,1  | 77,8  | 84,2  | 84,4  | 78,0  | 85,6  | 83,6  |
|                                | L    | dB(A) | -    | -    | -    | -    | 81,3  | 82,1  | 76,1  | 82,7  | 76,7  | 83,1  | 77,1  | 84,2  | 84,4  | 78,0  | 85,6  | 84,1  |
|                                | N    | dB(A) | -    | -    | -    | -    | 80,3  | 81,3  | 82,1  | 76,9  | 83,6  | 77,5  | 84,0  | 77,8  | 84,2  | -     | -     | -     |
|                                | U    | dB(A) | -    | -    | -    | -    | 86,5  | 86,8  | 87,1  | 88,4  | 88,8  | 88,3  | 88,9  | 88,3  | 89,0  | -     | -     | -     |

| Size   | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                                   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Inverter fan</b>                              |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Air flow rate                                    | °    | m³/h  | -     | -     | -     | -     | 36600 | 36600 | 35100 | 35100 | 35100 | 35100 | 33700 | 55200 | 53100 | 53100 | 53100 | 53100 |
|  | A    | m³/h  | -     | -     | -     | -     | 35100 | 35100 | 33800 | 33800 | 33800 | 33700 | 53100 | 53100 | 51100 | 51100 | 51100 | 51100 |
|  | E    | m³/h  | 20700 | 22200 | 27500 | 24800 | 26800 | 26800 | 25600 | 25600 | 25600 | 25600 | 40500 | 40500 | 38800 | 38800 | 38800 | 38800 |
|  | L    | m³/h  | 15200 | 20700 | 22200 | 27500 | 30900 | 30900 | 29500 | 29500 | 29500 | 29500 | 28300 | 46500 | 44600 | 44600 | 44600 | -     |
|  | N    | m³/h  | 22200 | 27500 | 24800 | 26800 | 25600 | 25600 | 40500 | 40500 | 40500 | 40500 | 38800 | 38800 | 52317 | 52324 | 52317 | 52324 |
|  | U    | m³/h  | -     | -     | -     | -     | 35100 | 33700 | 33700 | 53100 | 53100 | 53100 | 51100 | 51100 | 66361 | 66361 | 66361 | 66361 |
| <b>Sound data calculated in cooling mode (1)</b> |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                                | °    | dB(A) | -     | -     | -     | -     | 85,1  | 85,6  | 84,2  | 85,9  | 84,8  | 86,1  | 84,9  | 87,5  | 87,6  | 86,5  | 88,3  | 88,1  |
|  | A    | dB(A) | -     | -     | -     | -     | 85,1  | 85,6  | 84,2  | 85,9  | 84,8  | 86,1  | 86,5  | 87,5  | 87,6  | 86,5  | 88,3  | 88,1  |
|  | E    | dB(A) | 73,0  | 73,5  | 74,3  | 74,5  | 81,3  | 82,1  | 76,1  | 82,7  | 76,7  | 83,1  | 77,8  | 84,2  | 84,4  | 78,0  | 85,6  | 83,6  |
|  | L    | dB(A) | 72,4  | 73,5  | 73,9  | 74,5  | 81,3  | 82,1  | 76,1  | 82,7  | 76,7  | 83,1  | 77,1  | 84,2  | 84,4  | 78,0  | 85,6  | 84,1  |
|  | N    | dB(A) | 73,0  | 73,9  | 74,3  | 80,3  | 81,3  | 82,1  | 76,9  | 83,6  | 77,5  | 84,0  | 77,8  | 84,2  | 89,3  | 87,4  | 89,7  | 88,5  |
|  | U    | dB(A) | -     | -     | -     | -     | 84,6  | 85,1  | 85,6  | 85,8  | 87,2  | 86,4  | 87,4  | 86,5  | 87,5  | 92,3  | 91,1  | 92,5  |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|-------------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °   | mm   | -    | -    | -    | -    | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                               | A   | mm   | -    | -    | -    | -    | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                               | E   | mm   | 1652 | 1658 | 1658 | 1658 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                               | L   | mm   | 1652 | 1652 | 1658 | 1658 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | -    | -    |
|                               | N   | mm   | 1658 | 1658 | 1658 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| B                             | U   | mm   | -    | -    | -    | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                               | °A  | mm   | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                               | E,N | mm   | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                               | L   | mm   | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | -    | -    |
|                               | U   | mm   | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| C                             | °   | mm   | -    | -    | -    | -    | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                               | A   | mm   | -    | -    | -    | -    | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                               | E   | mm   | 2818 | 3317 | 3317 | 3317 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                               | L   | mm   | 2818 | 2818 | 3317 | 3317 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | -    | -    |
|                               | N   | mm   | 3317 | 3317 | 3317 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                               | U   | mm   | -    | -    | -    | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRG 0282H-0804H

## Reversible air/water heat pump

Cooling capacity 52,5 ÷ 212,0 kW – Heating capacity 56,6 ÷ 214,4 kW

- High efficiency also at partial loads
- Low refrigerant charge
- Compact dimensions



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

### FEATURES

#### Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 60°C (for more details refer to the technical documentation).

#### Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ The leak detector is supplied as per standard.

Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).

#### New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models with inverter fan or with DCPX. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the system architecture, consisting in an integrated and streamlined control of compressors and electronic valve.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save

a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A  |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|       | E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Integrated hydronic kit: 00   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E   | VT17 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L   | VT17 | VT17 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E   | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| L   | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| Integrated hydronic kit: I1, I2, I3, I4, P1, P2, P3, P4                                 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| °   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| A   | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| E   | VT17 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |
| I   | VT17 | VT17 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 | VT22 |

### Condensation control temperature

| Ver | 0282    | 0302    | 0332    | 0352    | 0502        | 0552        | 0554        | 0602        | 0604        |
|-----|---------|---------|---------|---------|-------------|-------------|-------------|-------------|-------------|
| °A  | -       | -       | -       | -       | DCPX146     | DCPX146     | DCPX146     | DCPX146     | DCPX146     |
| E,L | DCPX145 | DCPX145 | DCPX145 | DCPX145 | As standard | As standard | As standard | As standard | As standard |

The accessory cannot be fitted on the configurations indicated with -

| Ver  | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        | 0802        | 0804        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | DCPX146     | DCPX146     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     |
| A    | DCPX146     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     | DCPX147     |
| E, L | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

#### Anti-intrusion grid

| Ver  | 0282 | 0302 | 0332 | 0352 | 0502        | 0552        | 0554        | 0602        | 0604        |
|------|------|------|------|------|-------------|-------------|-------------|-------------|-------------|
| °, A | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |
| E    | GP3  | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |
| L    | GP3  | GP3  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) |

(1) x \_ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

| Ver  | 0652        | 0654        | 0682        | 0702        | 0704        | 0752        | 0754        | 0802        | 0804        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °, L | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| A, E | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

#### Device for peak current reduction

| Ver  | 0282      | 0302      | 0332       | 0352      | 0502      | 0552      | 0554      | 0602      | 0604      |
|------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A | -         | -         | DRENRG332N | -         | DRENRG502 | DRENRG552 | DRENRG554 | DRENRG602 | DRENRG604 |
| E, L | DRENRG282 | DRENRG302 | DRENRG332N | DRENRG352 | DRENRG502 | DRENRG552 | DRENRG554 | DRENRG602 | DRENRG604 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver        | 0652      | 0654       | 0682      | 0702      | 0704      | 0752      | 0754      | 0802      | 0804      |
|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A, E, L | DRENRG652 | DRENRG654N | DRENRG682 | DRENRG702 | DRENRG704 | DRENRG752 | DRENRG754 | DRENRG802 | DRENRG804 |

A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver  | 0282      | 0302      | 0332       | 0352      | 0502      | 0552      | 0554      | 0602      | 0604      |
|------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A | -         | -         | RIFNRG332N | -         | RIFNRG502 | RIFNRG552 | RIFNRG554 | RIFNRG602 | RIFNRG604 |
| E, L | RIFNRG282 | RIFNRG302 | RIFNRG332N | RIFNRG352 | RIFNRG502 | RIFNRG552 | RIFNRG554 | RIFNRG602 | RIFNRG604 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver        | 0652      | 0654       | 0682      | 0702      | 0704      | 0752      | 0754      | 0802      | 0804      |
|------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| °, A, E, L | RIFNRG652 | RIFNRG654N | RIFNRG682 | RIFNRG702 | RIFNRG704 | RIFNRG752 | RIFNRG754 | RIFNRG802 | RIFNRG804 |

A grey background indicates the accessory must be assembled in the factory

#### Double safety valves

| Ver     | 0282   | 0302   | 0332   | 0352   | 0502   | 0552   | 0554   | 0602   | 0604   | 0652   | 0654   | 0682   | 0702   | 0704   | 0752   | 0754   | 0802   | 0804   |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| ° A E L | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 | T6NRG1 | T6NRG2 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency (4)  |
| L              | Standard silenced (4)   |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |

| Field | Description  |
|-------|--|
|       | <b>Kit with storage tank and pump/s</b>                                    |
| 01    | Storage tank with low head pump  |
| 02    | Storage tank with low head pump + stand-by pump                            |
| 03    | Storage tank with high head pump   |
| 04    | Storage tank with high head pump + stand-by pump                           |
|       | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05    | Storage tank with holes for heaters and single low head pump (5)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (5)  |
| 07    | Storage tank with holes for heaters and single high head pump (5)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (5) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |
|       | <b>Kit with inverter pump/s to fixed speed</b>                             |
| I1    | Single low head pump + fixed speed inverter                                |
| I2    | Single low head pump with fixed speed inverter + stand-by pump             |
| I3    | Single high head pump + fixed speed inverter                               |
| I4    | Single high head pump with fixed speed inverter + stand-by pump            |
|       | <b>Kit with storage tank and inverter pump/s to fixed speed</b>            |
| K1    | Single low head pump + storage tank + fixed speed inverter                 |
| K2    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3    | Single high head pump + storage tank + fixed speed inverter                |
| K4    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|       | <b>Kit with storage tank and variable speed inverter pump/s</b>            |
| W1    | Single low head pump + Storage tank + variable speed inverter (6)          |

| Field | Description  |
|-------|--|
| W2    | Double low head pump + Storage tank + variable speed inverter (6)  |
| W3    | Single high head pump + Storage tank + variable speed inverter (6) |
| W4    | Double high head pump + Storage tank + variable speed inverter (6) |

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 18 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.

Not available with desuperheater.

(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35 °C must always be guaranteed on the heat exchanger inlet.

(4) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"

(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

(6) Not available with Low temperature electronic thermostatic valve "Z"

## PERFORMANCE SPECIFICATIONS

### NRG H°

| Size   |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 93,7  | 103,4 | 114,4 | 117,5 | 127,3 | 127,8 | 141,4 | 156,4 | 175,2 | 169,8 | 196,0 | 190,4 | 215,2 | 209,1 |
| Input power                                  | kW  | -    | -    | -    | -    | 34,7  | 39,1  | 37,8  | 43,0  | 43,9  | 48,9  | 50,8  | 51,6  | 59,6  | 58,0  | 69,0  | 66,0  | 79,1  | 74,5  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 62,0  | 66,0  | 60,0  | 73,0  | 80,0  | 82,0  | 91,0  | 87,0  | 97,0  | 109,0 | 111,0 | 117,0 | 126,0 | 126,0 |
| EER  | W/W | -    | -    | -    | -    | 2,70  | 2,65  | 3,03  | 2,73  | 2,90  | 2,61  | 2,78  | 3,03  | 2,94  | 2,93  | 2,84  | 2,89  | 2,72  | 2,81  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 16141 | 17808 | 19683 | 20225 | 21912 | 22017 | 24335 | 26922 | 30168 | 29239 | 33727 | 32773 | 37044 | 35991 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 31    | 38    | 20    | 34    | 24    | 40    | 25    | 48    | 60    | 36    | 60    | 40    | 72    | 49    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 99,6  | 108,8 | 118,2 | 125,6 | 132,1 | 137,6 | 146,9 | 162,6 | 183,1 | 176,7 | 203,0 | 195,8 | 222,4 | 214,4 |
| Input power                                  | kW  | -    | -    | -    | -    | 31,5  | 34,4  | 35,9  | 38,0  | 40,7  | 42,2  | 45,2  | 50,3  | 57,4  | 54,5  | 62,7  | 59,0  | 69,8  | 64,1  |
| Heating total input current                  | A   | -    | -    | -    | -    | 59,0  | 62,0  | 59,0  | 68,0  | 79,0  | 75,0  | 88,0  | 87,0  | 96,0  | 109,0 | 105,0 | 112,0 | 117,0 | 116,0 |
| COP  | W/W | -    | -    | -    | -    | 3,16  | 3,17  | 3,30  | 3,31  | 3,24  | 3,26  | 3,25  | 3,23  | 3,19  | 3,24  | 3,24  | 3,32  | 3,19  | 3,35  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 17265 | 18855 | 20522 | 21779 | 22925 | 23855 | 25482 | 28203 | 31767 | 30659 | 35221 | 33974 | 38576 | 37206 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 36    | 43    | 22    | 40    | 27    | 48    | 28    | 54    | 67    | 41    | 67    | 45    | 80    | 53    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRG HL

| Size   |     | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 52,5 | 60,5  | 69,3  | 80,7  | 91,0  | 100,0 | 110,8 | 113,2 | 122,9 | 122,4 | 135,2 | 152,6 | 170,4 | 165,0 | 189,1 | 184,2 | 205,8 | 202,2 |
| Input power                                  | kW  | 20,2 | 23,0  | 25,4  | 30,1  | 35,2  | 39,6  | 38,4  | 44,3  | 45,0  | 50,9  | 53,2  | 52,2  | 61,2  | 59,1  | 71,5  | 67,9  | 82,7  | 77,3  |
| Cooling total input current                  | A   | 33,0 | 42,0  | 47,0  | 57,0  | 60,0  | 65,0  | 59,0  | 72,0  | 79,0  | 82,0  | 92,0  | 84,0  | 95,0  | 107,0 | 111,0 | 116,0 | 128,0 | 126,0 |
| EER  | W/W | 2,60 | 2,63  | 2,73  | 2,68  | 2,59  | 2,53  | 2,88  | 2,55  | 2,73  | 2,40  | 2,54  | 2,92  | 2,79  | 2,79  | 2,64  | 2,71  | 2,49  | 2,62  |
| Water flow rate system side                  | l/h | 9048 | 10428 | 11932 | 13896 | 15671 | 17215 | 19059 | 19485 | 21152 | 21086 | 23262 | 26277 | 29331 | 28417 | 32540 | 31692 | 35428 | 34793 |
| Pressure drop system side                    | kPa | 30   | 41    | 31    | 43    | 30    | 36    | 19    | 32    | 23    | 37    | 23    | 46    | 56    | 34    | 56    | 37    | 66    | 45    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 56,6 | 65,4  | 74,6  | 87,5  | 99,6  | 108,8 | 118,2 | 125,6 | 132,1 | 137,6 | 146,9 | 162,6 | 183,1 | 176,7 | 203,0 | 195,8 | 222,4 | 214,4 |
| Input power                                  | kW  | 17,4 | 20,2  | 22,3  | 26,5  | 31,5  | 34,4  | 35,9  | 38,0  | 40,7  | 42,2  | 45,2  | 50,3  | 57,4  | 54,5  | 62,7  | 59,0  | 69,8  | 64,1  |
| Heating total input current                  | A   | 29,0 | 40,0  | 44,0  | 54,0  | 59,0  | 62,0  | 59,0  | 68,0  | 79,0  | 75,0  | 88,0  | 87,0  | 96,0  | 109,0 | 105,0 | 112,0 | 117,0 | 116,0 |
| COP  | W/W | 3,26 | 3,24  | 3,35  | 3,30  | 3,16  | 3,17  | 3,30  | 3,31  | 3,24  | 3,26  | 3,25  | 3,23  | 3,19  | 3,24  | 3,24  | 3,32  | 3,19  | 3,35  |
| Water flow rate system side                  | l/h | 9816 | 11328 | 12928 | 15158 | 17265 | 18855 | 20522 | 21779 | 22925 | 23855 | 25482 | 28203 | 31767 | 30659 | 35221 | 33974 | 38576 | 37206 |
| Pressure drop system side                    | kPa | 37   | 48    | 38    | 51    | 36    | 43    | 22    | 40    | 27    | 48    | 28    | 54    | 67    | 41    | 67    | 45    | 80    | 53    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRG HA

| Size   |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | -    | -    | -    | -    | 96,4  | 106,6 | 115,8 | 122,0 | 128,8 | 133,3 | 146,8 | 160,1 | 178,0 | 170,7 | 199,5 | 191,8 | 219,8 | 212,0 |
| Input power                                  | kW  | -    | -    | -    | -    | 32,6  | 36,6  | 37,2  | 39,7  | 43,3  | 45,5  | 48,6  | 49,8  | 57,4  | 56,7  | 66,3  | 64,4  | 75,9  | 72,5  |
| Cooling total input current                  | A   | -    | -    | -    | -    | 60,0  | 64,0  | 60,0  | 70,0  | 80,0  | 78,0  | 90,0  | 85,0  | 94,0  | 108,0 | 108,0 | 116,0 | 123,0 | 124,0 |
| EER  | W/W | -    | -    | -    | -    | 2,95  | 2,91  | 3,11  | 3,07  | 2,97  | 2,93  | 3,02  | 3,21  | 3,10  | 3,01  | 3,01  | 2,98  | 2,90  | 2,93  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 16583 | 18342 | 19918 | 21002 | 22155 | 22958 | 25273 | 27557 | 30631 | 29392 | 34336 | 33010 | 37829 | 36487 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 23    | 28    | 17    | 29    | 21    | 35    | 28    | 40    | 49    | 33    | 54    | 39    | 66    | 48    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | -    | -    | -    | -    | 103,0 | 113,7 | 119,7 | 126,6 | 133,9 | 138,9 | 155,5 | 162,3 | 181,1 | 175,3 | 200,6 | 195,0 | 219,9 | 213,7 |
| Input power                                  | kW  | -    | -    | -    | -    | 31,0  | 33,8  | 35,6  | 37,4  | 40,4  | 41,5  | 47,0  | 49,1  | 55,3  | 53,3  | 60,9  | 57,8  | 67,5  | 62,7  |
| Heating total input current                  | A   | -    | -    | -    | -    | 59,0  | 61,0  | 58,0  | 68,0  | 79,0  | 75,0  | 91,0  | 86,0  | 93,0  | 107,0 | 103,0 | 110,0 | 114,0 | 114,0 |
| COP  | W/W | -    | -    | -    | -    | 3,32  | 3,36  | 3,36  | 3,39  | 3,31  | 3,35  | 3,31  | 3,30  | 3,27  | 3,29  | 3,29  | 3,37  | 3,26  | 3,41  |
| Water flow rate system side                  | l/h | -    | -    | -    | -    | 17866 | 19723 | 20784 | 21964 | 23234 | 24088 | 26976 | 28153 | 31410 | 30409 | 34811 | 33832 | 38148 | 37079 |
| Pressure drop system side                    | kPa | -    | -    | -    | -    | 27    | 32    | 19    | 32    | 23    | 39    | 31    | 42    | 52    | 35    | 57    | 41    | 68    | 49    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## NRG HE

| Size   |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 55,1  | 61,1  | 71,0  | 82,7  | 93,8  | 103,3 | 111,9 | 118,0 | 124,0 | 128,3 | 144,2 | 154,7 | 173,0 | 166,6 | 192,6 | 186,2 | 210,5 | 202,8 |
| Input power                                  | kW  | 19,3  | 22,3  | 24,4  | 28,6  | 33,0  | 37,4  | 38,2  | 40,8  | 44,9  | 46,7  | 48,9  | 50,9  | 58,9  | 57,3  | 68,8  | 65,7  | 79,3  | 75,4  |
| Cooling total input current                  | A   | 32,0  | 42,0  | 47,0  | 56,0  | 58,0  | 62,0  | 60,0  | 69,0  | 80,0  | 78,0  | 87,0  | 82,0  | 93,0  | 106,0 | 109,0 | 114,0 | 125,0 | 123,0 |
| EER  | W/W | 2,85  | 2,75  | 2,91  | 2,89  | 2,84  | 2,76  | 2,93  | 2,89  | 2,76  | 2,75  | 2,95  | 3,04  | 2,94  | 2,91  | 2,80  | 2,83  | 2,65  | 2,69  |
| Water flow rate system side                  | l/h | 9484  | 10522 | 12223 | 14246 | 16136 | 17773 | 19250 | 20314 | 21332 | 22097 | 24814 | 26647 | 29783 | 28680 | 33149 | 32040 | 36227 | 34901 |
| Pressure drop system side                    | kPa | 20    | 24    | 24    | 33    | 22    | 26    | 16    | 27    | 19    | 32    | 26    | 38    | 47    | 31    | 51    | 36    | 60    | 44    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 58,8  | 65,4  | 76,6  | 88,8  | 103,0 | 113,7 | 119,7 | 126,6 | 133,9 | 138,9 | 155,5 | 162,3 | 181,1 | 175,3 | 200,6 | 195,0 | 219,9 | 213,7 |
| Input power                                  | kW  | 17,2  | 19,7  | 22,5  | 26,5  | 31,0  | 33,8  | 35,6  | 37,4  | 40,4  | 41,5  | 47,0  | 49,1  | 55,3  | 53,3  | 60,9  | 57,8  | 67,5  | 62,7  |
| Heating total input current                  | A   | 30,0  | 39,0  | 45,0  | 54,0  | 59,0  | 61,0  | 58,0  | 68,0  | 79,0  | 75,0  | 91,0  | 86,0  | 93,0  | 107,0 | 103,0 | 110,0 | 114,0 | 114,0 |
| COP  | W/W | 3,42  | 3,32  | 3,40  | 3,35  | 3,32  | 3,36  | 3,36  | 3,39  | 3,31  | 3,35  | 3,31  | 3,30  | 3,27  | 3,29  | 3,29  | 3,37  | 3,26  | 3,41  |
| Water flow rate system side                  | l/h | 10207 | 11335 | 13280 | 15399 | 17866 | 19723 | 20784 | 21964 | 23234 | 24088 | 26976 | 28153 | 31410 | 30409 | 34811 | 33832 | 38148 | 37079 |
| Pressure drop system side                    | kPa | 23    | 28    | 29    | 39    | 27    | 32    | 19    | 32    | 23    | 39    | 31    | 42    | 52    | 35    | 57    | 41    | 68    | 49    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA - STANDARD/INVERTER FANS

| Size  |   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|---|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: °</b>  |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER  | ° | W/W  | -    | -    | -    | -    | 3,92 | 3,84 | 3,97 | 4,00 | 3,83 | 3,94 | 3,88 | 4,17 | 4,06 | 3,87 | 3,95 | 3,92 | 3,82 |
|   | A | W/W  | -    | -    | -    | -    | 4,21 | 4,14 | 4,07 | 4,34 | 4,01 | 4,24 | 4,10 | 4,40 | 4,32 | 4,14 | 4,31 | 4,17 | 4,12 |
|   | E | W/W  | 4,40 | 4,32 | 4,37 | 4,33 | 4,26 | 4,13 | 4,03 | 4,29 | 3,97 | 4,10 | 4,06 | 4,36 | 4,21 | 4,10 | 4,20 | 4,13 | 4,07 |
|   | L | W/W  | 4,14 | 4,03 | 4,22 | 4,07 | 3,98 | 3,89 | 3,94 | 4,01 | 3,80 | 3,89 | 3,84 | 4,12 | 4,00 | 3,84 | 3,91 | 3,88 | 3,77 |
| η <sub>sc</sub>   | ° | %    | -    | -    | -    | -    | 154% | 151% | 156% | 157% | 150% | 155% | 152% | 164% | 160% | 152% | 155% | 154% | 150% |
|   | A | %    | -    | -    | -    | -    | 165% | 163% | 160% | 171% | 157% | 167% | 161% | 173% | 170% | 162% | 169% | 164% | 162% |
|   | E | %    | 173% | 170% | 172% | 170% | 167% | 162% | 158% | 169% | 156% | 161% | 160% | 172% | 166% | 161% | 165% | 162% | 160% |
|   | L | %    | 163% | 158% | 166% | 160% | 156% | 153% | 155% | 157% | 149% | 153% | 151% | 162% | 157% | 150% | 153% | 152% | 148% |
| <b>Fans: J</b>  |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b> |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER  | ° | W/W  | -    | -    | -    | -    | 4,04 | 3,96 | 4,10 | 4,12 | 3,96 | 4,06 | 4,00 | 4,30 | 4,19 | 3,99 | 4,07 | 4,04 | 3,94 |
|   | A | W/W  | -    | -    | -    | -    | 4,33 | 4,26 | 4,20 | 4,47 | 4,13 | 4,37 | 4,23 | 4,54 | 4,45 | 4,26 | 4,43 | 4,29 | 4,25 |
|   | E | W/W  | 4,45 | 4,36 | 4,41 | 4,37 | 4,38 | 4,25 | 4,16 | 4,42 | 4,09 | 4,22 | 4,19 | 4,49 | 4,34 | 4,22 | 4,33 | 4,25 | 4,20 |
|   | L | W/W  | 4,18 | 4,07 | 4,26 | 4,10 | 4,10 | 4,01 | 4,06 | 4,12 | 3,92 | 4,01 | 3,96 | 4,25 | 4,13 | 3,95 | 4,03 | 4,00 | 3,89 |
| η <sub>sc</sub>   | ° | %    | -    | -    | -    | -    | 159% | 155% | 161% | 162% | 155% | 159% | 157% | 169% | 164% | 157% | 160% | 158% | 155% |
|   | A | %    | -    | -    | -    | -    | 170% | 168% | 165% | 176% | 162% | 172% | 166% | 178% | 175% | 167% | 174% | 169% | 167% |
|   | E | %    | 175% | 171% | 174% | 172% | 172% | 167% | 163% | 174% | 161% | 166% | 164% | 177% | 171% | 166% | 170% | 167% | 165% |
|   | L | %    | 164% | 160% | 167% | 161% | 161% | 157% | 159% | 162% | 154% | 157% | 155% | 167% | 162% | 155% | 158% | 157% | 153% |

## ENERGY DATA - STANDARD/INVERTER FANS (35 °C)

| Size   |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|--|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J</b>   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Performance in average ambient conditions (average) - 35 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| P <sub>designh</sub>   | °   | kW   | -    | -    | -    | -    | 88   | 97   | 103  | 109  | 115  | 119  | 128  | 141  | 159  | 154  | 178  | 171  | 193  |
|  | A   | kW   | -    | -    | -    | -    | 91   | 101  | 105  | 110  | 117  | 121  | 136  | 141  | 158  | 153  | 176  | 170  | 191  |
|  | E   | kW   | 52   | 58   | 68   | 78   | 91   | 101  | 105  | 110  | 117  | 121  | 136  | 141  | 158  | 153  | 176  | 170  | 191  |
|  | L   | kW   | 50   | 58   | 66   | 77   | 88   | 97   | 103  | 109  | 115  | 119  | 128  | 141  | 159  | 154  | 178  | 171  | 193  |
| SCOP   | °   | W/W  | -    | -    | -    | -    | 3,61 | 3,66 | 3,53 | 3,66 | 3,49 | 3,71 | 3,49 | 3,57 | 3,68 | 3,42 | 3,65 | 3,52 | 3,56 |
|  | A   | W/W  | -    | -    | -    | -    | 3,70 | 3,80 | 3,60 | 3,80 | 3,59 | 3,81 | 3,59 | 3,70 | 3,76 | 3,53 | 3,77 | 3,63 | 3,67 |
|  | E   | W/W  | 4,10 | 4,04 | 4,06 | 3,99 | 3,70 | 3,80 | 3,60 | 3,80 | 3,59 | 3,81 | 3,59 | 3,70 | 3,76 | 3,53 | 3,77 | 3,63 | 3,67 |
|  | L   | W/W  | 3,95 | 3,90 | 3,91 | 3,91 | 3,61 | 3,66 | 3,53 | 3,66 | 3,49 | 3,71 | 3,49 | 3,57 | 3,68 | 3,42 | 3,65 | 3,52 | 3,56 |
| η <sub>sh</sub>  | °   | %    | -    | -    | -    | -    | 141% | 143% | 138% | 143% | 137% | 146% | 136% | 140% | 144% | 134% | 143% | 138% | 139% |
|  | A   | %    | -    | -    | -    | -    | 145% | 149% | 141% | 149% | 141% | 149% | 141% | 145% | 147% | 138% | 148% | 142% | 144% |
|  | E   | %    | 161% | 159% | 159% | 157% | 145% | 149% | 141% | 149% | 141% | 149% | 141% | 145% | 147% | 138% | 148% | 142% | 144% |
|  | L   | %    | 155% | 153% | 153% | 153% | 141% | 143% | 138% | 143% | 137% | 146% | 136% | 140% | 144% | 134% | 143% | 138% | 139% |
| Efficiency energy class  | °A  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | E,L | A+   | A+   | A+   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Efficiencies for low temperature applications (35 °C)



| Size  |     |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|---|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fans: °   |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Performance in average ambient conditions (average) - 35 °C (1) |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Pdesignh  | °   | kW  | -    | -    | -    | -    | 88   | 97   | 103  | 109  | 115  | 119  | 128  | 141  | 159  | 154  | 178  | 171  | 193  | 188  |
|   | A   | kW  | -    | -    | -    | -    | 91   | 101  | 105  | 110  | 117  | 121  | 136  | 141  | 158  | 153  | 176  | 170  | 191  | 187  |
|   | E   | kW  | 52   | 58   | 68   | 78   | 91   | 101  | 105  | 110  | 117  | 121  | 136  | 141  | 158  | 153  | 176  | 170  | 191  | 187  |
|   | L   | kW  | 50   | 58   | 66   | 77   | 88   | 97   | 103  | 109  | 115  | 119  | 128  | 141  | 159  | 154  | 178  | 171  | 193  | 188  |
| SCOP  | °   | W/W | -    | -    | -    | -    | 3,50 | 3,55 | 3,36 | 3,55 | 3,33 | 3,61 | 3,32 | 3,47 | 3,57 | 3,23 | 3,54 | 3,32 | 3,41 | 3,36 |
|   | A   | W/W | -    | -    | -    | -    | 3,59 | 3,69 | 3,43 | 3,69 | 3,42 | 3,70 | 3,38 | 3,59 | 3,65 | 3,33 | 3,66 | 3,42 | 3,56 | 3,44 |
|   | E   | W/W | 4,06 | 4,00 | 4,02 | 3,91 | 3,59 | 3,69 | 3,43 | 3,69 | 3,42 | 3,70 | 3,38 | 3,59 | 3,65 | 3,33 | 3,66 | 3,42 | 3,56 | 3,44 |
|   | L   | W/W | 3,91 | 3,86 | 3,87 | 3,83 | 3,50 | 3,55 | 3,36 | 3,55 | 3,33 | 3,61 | 3,32 | 3,47 | 3,57 | 3,23 | 3,54 | 3,32 | 3,41 | 3,36 |
| ηsh   | °   | %   | -    | -    | -    | -    | 135% | 139% | 131% | 139% | 130% | 141% | 130% | 135% | 139% | 126% | 139% | 130% | 134% | 131% |
|   | A   | %   | -    | -    | -    | -    | 141% | 145% | 134% | 145% | 134% | 145% | 132% | 141% | 143% | 130% | 143% | 134% | 140% | 134% |
|   | E   | %   | 159% | 157% | 158% | 154% | 141% | 145% | 134% | 145% | 134% | 145% | 132% | 141% | 143% | 130% | 143% | 134% | 140% | 134% |
|   | L   | %   | 153% | 151% | 152% | 150% | 135% | 139% | 131% | 139% | 130% | 141% | 130% | 135% | 139% | 126% | 139% | 130% | 134% | 131% |
| Efficiency energy class   | °A  |     | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E,L |     | A+   | A+   | A+   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Efficiencies for low temperature applications (35 °C)

**ENERGY DATA - STANDARD/INVERTER FANS (55°C)**

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0652 | 0682 | 0702 | 0752 | 0802 |      |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fans: J   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Performance in average ambient conditions (average) - 55 °C (1) |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Pdesignh  | °   | kW   | -    | -    | -    | -    | 88   | 98   | 109  | 120  | 139  | 155  | 178  | -    |
|   | A   | kW   | -    | -    | -    | -    | 91   | 103  | 110  | 122  | 139  | 154  | 175  | 187  |
|   | E   | kW   | 52   | 58   | 68   | 78   | 91   | 103  | 110  | 122  | 139  | 154  | 175  | 187  |
|   | L   | kW   | 50   | 57   | 65   | 77   | 88   | 98   | 109  | 120  | 139  | 155  | 178  | -    |
| SCOP  | °   | W/W  | -    | -    | -    | -    | 2,92 | 3,02 | 3,02 | 3,09 | 2,93 | 2,93 | 2,93 | -    |
|   | A   | W/W  | -    | -    | -    | -    | 2,99 | 3,13 | 3,12 | 3,13 | 3,02 | 2,98 | 3,01 | 2,92 |
|   | E   | W/W  | 3,16 | 3,12 | 3,14 | 3,12 | 2,99 | 3,13 | 3,12 | 3,13 | 3,02 | 2,98 | 3,01 | 2,92 |
|   | L   | W/W  | 3,08 | 3,06 | 3,06 | 3,07 | 2,92 | 3,02 | 3,02 | 3,09 | 2,93 | 2,93 | 2,93 | -    |
| ηsh   | °   | %    | -    | -    | -    | -    | 114% | 118% | 118% | 120% | 114% | 114% | 114% | -    |
|   | A   | %    | -    | -    | -    | -    | 117% | 122% | 122% | 122% | 118% | 116% | 117% | 114% |
|   | E   | %    | 123% | 122% | 123% | 122% | 117% | 122% | 122% | 122% | 118% | 116% | 117% | 114% |
|   | L   | %    | 120% | 119% | 119% | 120% | 114% | 118% | 118% | 120% | 114% | 114% | 114% | -    |
| Efficiency energy class   | °A  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E,L | A++  | A++  | A++  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Efficiencies for average temperature applications (55 °C)

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0602 | 0652 | 0682 | 0702 | 0752 | 0802 |      |
|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fans: °   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Performance in average ambient conditions (average) - 55 °C (1) |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Pdesignh  | °   | kW   | -    | -    | -    | -    | 88   | 98   | 109  | 120  | 139  | 155  | 178  | -    |
|   | A   | kW   | -    | -    | -    | -    | 91   | 103  | 110  | 122  | 139  | 154  | 175  | 187  |
|   | E   | kW   | 52   | 58   | 68   | 78   | 91   | 103  | 110  | 122  | 139  | 154  | 175  | 187  |
|   | L   | kW   | 50   | 57   | 65   | 77   | 88   | 98   | 109  | 120  | 139  | 155  | 178  | -    |
| SCOP  | °   | W/W  | -    | -    | -    | -    | 2,84 | 2,94 | 2,93 | 3,00 | 2,84 | 2,84 | 2,84 | -    |
|   | A   | W/W  | -    | -    | -    | -    | 2,91 | 3,05 | 3,03 | 3,04 | 2,93 | 2,89 | 2,92 | 2,84 |
|   | E   | W/W  | 3,13 | 3,10 | 3,11 | 3,06 | 2,91 | 3,05 | 3,03 | 3,04 | 2,93 | 2,89 | 2,92 | 2,84 |
|   | L   | W/W  | 3,05 | 3,03 | 3,03 | 3,01 | 2,84 | 2,94 | 2,93 | 3,00 | 2,84 | 2,84 | 2,84 | -    |
| ηsh   | °   | %    | -    | -    | -    | -    | 111% | 115% | 114% | 117% | 111% | 111% | 111% | -    |
|   | A   | %    | -    | -    | -    | -    | 113% | 119% | 118% | 119% | 114% | 113% | 114% | 110% |
|   | E   | %    | 122% | 121% | 122% | 119% | 113% | 119% | 118% | 119% | 114% | 113% | 114% | 110% |
|   | L   | %    | 119% | 118% | 118% | 117% | 111% | 115% | 114% | 117% | 111% | 111% | 111% | -    |
| Efficiency energy class   | °A  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|   | E,L | A++  | A++  | A++  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

(1) Efficiencies for average temperature applications (55 °C)

**ELECTRIC DATA**

| Size                  |   |   | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electric data         |   |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A | -     | -     | -     | -     | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 113,5 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 | 155,3 |
|                       | A | A | -     | -     | -     | -     | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 116,4 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 | 155,3 |
|                       | E | A | 41,6  | 49,9  | 59,5  | 67,6  | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 116,4 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 | 155,3 |
|                       | L | A | 40,2  | 49,9  | 58,1  | 67,6  | 73,5  | 79,1  | 80,5  | 88,3  | 97,2  | 97,4  | 113,5 | 111,5 | 122,6 | 132,7 | 139,4 | 144,0 | 156,1 | 155,3 |
| Peak current (LRA)    | ° | A | -     | -     | -     | -     | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 268,5 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 | 358,7 |
|                       | A | A | -     | -     | -     | -     | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 271,4 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 | 358,7 |
|                       | E | A | 161,9 | 174,0 | 214,4 | 222,6 | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 271,4 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 | 358,7 |
|                       | L | A | 160,5 | 174,0 | 213,0 | 222,6 | 276,8 | 282,5 | 200,8 | 329,5 | 221,3 | 338,6 | 268,5 | 396,5 | 407,7 | 287,7 | 601,7 | 347,4 | 618,4 | 358,7 |

**Data calculated without hydronic kit and accessories.**



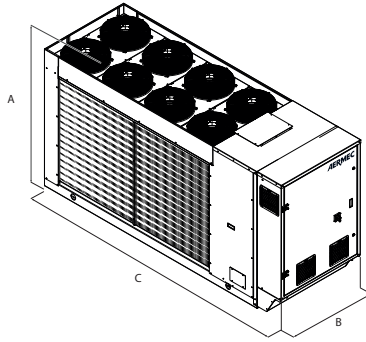
## GENERAL TECHNICAL DATA

| Size                                      |        |                   | 0282                    | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0602  | 0604  | 0652  | 0654  | 0682  | 0702  | 0704  | 0752  | 0754  | 0802  | 0804  |
|---|--------|-------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                                |        |                   |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type              | Scroll                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Compressor regulation                     | °A,E,L | Type              | On-Off                  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °A,E,L | no.               | 2                       | 2     | 2     | 2     | 2     | 2     | 4     | 2     | 4     | 2     | 4     | 2     | 2     | 4     | 2     | 4     | 2     | 4     |
| Circuits                                  | °A,E,L | no.               | 1                       | 1     | 1     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 1     | 2     | 1     | 2     |
| Refrigerant                               | °A,E,L | type              | R32                     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Refrigerant load circuit 1 (1)            | °      | kg                | -                       | -     | -     | -     | 9,5   | 9,5   | 6,8   | 12,2  | 7,1   | 12,2  | 7,1   | 17,7  | 17,7  | 8,1   | 17,7  | 9,0   | 17,7  | 9,0   |
|   | A      | kg                | -                       | -     | -     | -     | 12,8  | 13,3  | 7,4   | 13,3  | 7,7   | 13,3  | 8,7   | 18,2  | 18,2  | 8,3   | 18,4  | 10,0  | 18,4  | 9,5   |
|   | E      | kg                | 6,8                     | 8,3   | 11,2  | 11,1  | 12,8  | 13,3  | 7,4   | 13,3  | 7,7   | 13,3  | 8,7   | 18,2  | 18,2  | 8,3   | 18,4  | 10,0  | 18,4  | 9,5   |
|   | L      | kg                | 6,5                     | 6,8   | 7,4   | 7,4   | 9,5   | 9,5   | 6,8   | 12,2  | 7,1   | 12,2  | 7,1   | 17,7  | 17,7  | 8,1   | 17,7  | 9,0   | 17,7  | 9,0   |
| Refrigerant load circuit 2 (1)            | °L     | kg                | -                       | -     | -     | -     | -     | -     | 6,8   | -     | 7,1   | -     | 7,1   | -     | -     | 8,1   | -     | 9,0   | -     | 9,0   |
|   | A,E    | kg                | -                       | -     | -     | -     | -     | -     | 7,4   | -     | 7,7   | -     | 8,7   | -     | -     | 8,3   | -     | 10,0  | -     | 9,5   |
| Potential global heating                  | °A,E,L | GWP               | 675kgCO <sub>2</sub> eq |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| System side heat exchanger                |        |                   |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type              | Brazed plate            |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °A,E,L | no.               | 1                       | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Fan                                       |        |                   |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | °A,E,L | type              | Axial                   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | °      | no.               | -                       | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
|   | A      | no.               | -                       | -     | -     | -     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
|   | E      | no.               | 6                       | 6     | 8     | 8     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
|   | L      | no.               | 4                       | 6     | 6     | 8     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 3     | 3     | 3     | 3     |
| Air flow rate                             | °      | m <sup>3</sup> /h | -                       | -     | -     | -     | 42831 | 42819 | 40170 | 41067 | 40170 | 41067 | 38299 | 62024 | 62022 | 60681 | 62022 | 60681 | 62022 | 60681 |
|   | A      | m <sup>3</sup> /h | -                       | -     | -     | -     | 41097 | 41097 | 38299 | 39483 | 38299 | 39483 | 60681 | 59734 | 59721 | 57995 | 59721 | 57995 | 59721 | 57995 |
|   | E      | m <sup>3</sup> /h | 21224                   | 21224 | 28177 | 25805 | 31035 | 31035 | 28870 | 29848 | 28870 | 29848 | 45978 | 45211 | 45211 | 43804 | 45211 | 43804 | 45211 | 43804 |
|   | L      | m <sup>3</sup> /h | 15552                   | 21229 | 22716 | 28186 | 32592 | 32592 | 30388 | 31000 | 30388 | 31000 | 28869 | 47029 | 47029 | 45980 | 47029 | 45980 | 47029 | 45980 |
| Sound data calculated in cooling mode (2) |        |                   |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                         | °      | dB(A)             | -                       | -     | -     | -     | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 87,1  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |
|   | A      | dB(A)             | -                       | -     | -     | -     | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 88,8  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |
|   | E      | dB(A)             | 73,6                    | 74,1  | 74,9  | 75,1  | 82,8  | 83,5  | 76,6  | 83,9  | 77,3  | 84,3  | 78,4  | 85,5  | 85,6  | 78,6  | 86,7  | 84,6  | 87,3  | 86,2  |
|   | L      | dB(A)             | 73,0                    | 74,1  | 74,5  | 75,1  | 82,8  | 83,5  | 76,6  | 83,9  | 77,3  | 84,3  | 77,7  | 85,5  | 85,6  | 78,6  | 86,7  | 84,6  | 87,3  | 86,2  |
| Sound data calculated in heating mode (2) |        |                   |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                         | °      | dB(A)             | -                       | -     | -     | -     | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 87,1  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |
|   | A      | dB(A)             | -                       | -     | -     | -     | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 88,8  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |
|   | E      | dB(A)             | 73,6                    | 74,1  | 74,9  | 75,1  | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 88,8  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |
|   | L      | dB(A)             | 73,0                    | 74,1  | 74,5  | 75,1  | 87,2  | 87,5  | 86,5  | 87,7  | 87,1  | 87,9  | 87,1  | 89,4  | 89,5  | 88,8  | 90,0  | 90,1  | 90,1  | 90,0  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



| Size                   |     | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0602 | 0604 | 0652 | 0654 | 0682 | 0702 | 0704 | 0752 | 0754 | 0802 | 0804 |
|------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                      | °   | mm   | -    | -    | -    | -    | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                        | A   | mm   | -    | -    | -    | -    | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                        | E   | mm   | 1652 | 1658 | 1658 | 1658 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
|                        | L   | mm   | 1652 | 1652 | 1658 | 1658 | 1907 | 1907 | 1907 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| B                      | °A  | mm   | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                        | E,L | mm   | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| C                      | °   | mm   | -    | -    | -    | -    | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                        | A   | mm   | -    | -    | -    | -    | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                        | E   | mm   | 2818 | 3317 | 3317 | 3317 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |
|                        | L   | mm   | 2818 | 2818 | 3317 | 3317 | 3567 | 3567 | 3567 | 3567 | 3567 | 3567 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 | 4368 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRGI 151-602

## Air-water chiller

Cooling capacity 31.0 ÷ 132.2 kW



- High efficiency also at partial loads
- High modulation capacity
- Continuous modulation of the cooling capacity
- Compressors and fans with Inverter
- Low refrigerant charge
- Stable temperature control of the outlet water



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas.**

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve**.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

**A** High efficiency

**E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

#### High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

#### Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.

**Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.**

This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for

- High seasonal efficiency
- steady and precise modulation of the chilling demand
- The stability of the outlet water temperature.

### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

**Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.**

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Fans

**Inverter:** standard from size 151 to size 352, available as an optional for the other sizes.

**Boosted, asynchronous with phase cutting:** standard from size 382 to size 602.

Both types of fan permit:

- Steady air flow rate adjustment
- Low consumption and reduced sound level at partial loads
- Operation with low outdoor air temperatures
- Precise condensation control for an extended operating range.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed or variable pumps also inverter.**

- **VARIABLE FLOW RATE:** Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** this function can be activated in all the units, to optimise unit operation at any point by continuously modulating the fan speed. In addition, the use of inverter fans allows increased energy efficiency with partial loads.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

### INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the **system architecture**, consisting in an integrated and streamlined control of compressors and electronic valves.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range.

### ACCESSORIES COMPATIBILITY

| Model            | Ver | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER485P1         | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERBACP          | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERNET           | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| MULTICHILLER-EVO | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PGD1             | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD              | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

#### Remote panel

| Model | Ver | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

#### Antivibration

| Ver  | 151  | 201  | 281  | 302  | 332  | 352  | 382  | 502  | 552  | 602  |
|--|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4</b>                                 |      |      |      |      |      |      |      |      |      |      |
| A,E  | VT17 | VT13 | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4, W1, W2, W3, W4</b> |      |      |      |      |      |      |      |      |      |      |
| A,E  | VT13 | VT13 | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 |

#### Anti-intrusion grid

| Ver | 151 | 201 | 281 | 302 | 332 | 352 | 382         | 502         | 552         | 602         |
|-----|-----|-----|-----|-----|-----|-----|-------------|-------------|-------------|-------------|
| A,E | GP3 | GP4 | GP4 | GP4 | GP4 | GP4 | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

#### Device for peak current reduction

| Ver | 151 | 201 | 281 | 302        | 332        | 352        | 382        | 502        | 552        | 602        |
|-----|-----|-----|-----|------------|------------|------------|------------|------------|------------|------------|
| A,E | -   | -   | -   | DRENRG1302 | DRENRG1332 | DRENRG1352 | DRENRG1382 | DRENRG1502 | DRENRG1552 | DRENRG1602 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

#### Double safety valves

| Ver | 151    | 201    | 281    | 302    | 332    | 352    | 382    | 502    | 552    | 602    |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A,E | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 |

A grey background indicates the accessory must be assembled in the factory

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

- *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3,4</b> | <b>NRGI</b>   |
| <b>5,6,7</b>   | <b>Size</b><br>151, 201, 281, 302, 332, 352, 382, 502, 552, 602 |
| <b>8</b>       | <b>Operating field (1)</b>                                      |
| X              | Electronic thermostatic expansion valve                         |
| <b>9</b>       | <b>Model</b>  |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (2)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins                                 |
| V              | Copper pieps-Coated aluminium fins                              |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Boosted with phase cutting (3)                                  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers                     |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>                                  |
|                | <b>Without hydronic kit</b>                                     |
| 00             | Without hydronic kit  |
|                | <b>Kit with storage tank and pump/s</b>                         |
| 01             | Storage tank with low head pump                                 |
| 02             | Storage tank with low head pump + stand-by pump                 |
| 03             | Storage tank with high head pump                                |
| 04             | Storage tank with high head pump + stand-by pump                |
|                | <b>Kit with pump/s and storage tank with holes for heaters</b>  |

| Field | Description  |
|-------|--|
| 05    | Storage tank with holes for heaters and single low head pump (4)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (4)  |
| 07    | Storage tank with holes for heaters and single high head pump (4)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (4) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |
|       | <b>Kit with inverter pump/s to fixed speed</b>                             |
| I1    | Single low head pump + fixed speed inverter                                |
| I2    | Single low head pump with fixed speed inverter + stand-by pump             |
| I3    | Single high head pump + fixed speed inverter                               |
| I4    | Single high head pump with fixed speed inverter + stand-by pump            |
|       | <b>Kit with storage tank and inverter pump/s to fixed speed</b>            |
| K1    | Single low head pump + storage tank + fixed speed inverter                 |
| K2    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3    | Single high head pump + storage tank + fixed speed inverter                |
| K4    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|       | <b>Kit with storage tank and variable speed inverter pump/s</b>            |
| W1    | Single low head pump + Storage tank + variable speed inverter              |
| W2    | Double low head pump + Storage tank + variable speed inverter              |
| W3    | Single high head pump + Storage tank + variable speed inverter             |
| W4    | Double high head pump + Storage tank + variable speed inverter             |

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.

(2) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(3) Only for 382 - 502 - 552 - 602 sizes

(4) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

### NRGI - A

| Size  |     | 151  | 201  | 281   | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|---|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 39,2 | 52,6 | 58,2  | 69,4  | 77,7  | 83,2  | 93,2  | 103,3 | 114,0 | 132,2 |
| Input power                                 | kW  | 11,8 | 15,2 | 17,5  | 20,8  | 23,3  | 25,6  | 27,6  | 31,4  | 35,1  | 39,1  |
| Cooling total input current                 | A   | 18,0 | 23,0 | 26,0  | 37,0  | 41,0  | 46,0  | 43,0  | 49,0  | 53,0  | 60,0  |
| EER   | W/W | 3,31 | 3,47 | 3,32  | 3,33  | 3,34  | 3,25  | 3,37  | 3,29  | 3,24  | 3,38  |
| Water flow rate system side                 | l/h | 6746 | 9067 | 10028 | 11960 | 13388 | 14335 | 16031 | 17775 | 19616 | 22750 |
| Pressure drop system side                   | kPa | 18   | 33   | 40    | 35    | 44    | 50    | 24    | 23    | 28    | 29    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRGI - E

| Size  |     | 151  | 201  | 281  | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|---|-----|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 31,0 | 40,1 | 46,4 | 61,7  | 70,1  | 75,6  | 84,9  | 91,3  | 101,8 | 119,6 |
| Input power                                 | kW  | 8,9  | 11,0 | 13,1 | 17,9  | 20,2  | 22,5  | 24,6  | 26,9  | 30,8  | 34,2  |
| Cooling total input current                 | A   | 13,0 | 17,0 | 19,0 | 32,0  | 36,0  | 41,0  | 39,0  | 43,0  | 47,0  | 53,0  |
| EER   | W/W | 3,49 | 3,63 | 3,55 | 3,45  | 3,46  | 3,36  | 3,45  | 3,39  | 3,31  | 3,50  |
| Water flow rate system side                 | l/h | 5326 | 6900 | 7994 | 10624 | 12066 | 13021 | 14607 | 15705 | 17509 | 20576 |
| Pressure drop system side                   | kPa | 11   | 19   | 25   | 27    | 35    | 41    | 20    | 18    | 22    | 24    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY DATA

| Size                                   |   |     | 151    | 201    | 281    | 302    | 332    | 352    | 382    | 502    | 552    | 602    |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                         |   |     |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |     |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | A | W/W | 5,19   | 5,32   | 5,37   | 5,04   | 5,07   | 5,22   | 5,33   | 5,36   | 5,18   | 5,33   |
|  | E | W/W | 5,23   | 5,36   | 5,42   | 5,08   | 5,11   | 5,26   | 5,37   | 5,40   | 5,23   | 5,37   |
| Seasonal efficiency                    | A | %   | 204,40 | 209,80 | 211,90 | 198,40 | 199,70 | 205,70 | 210,00 | 211,40 | 204,30 | 210,00 |
|  | E | %   | 206,00 | 211,50 | 213,60 | 200,00 | 201,30 | 207,30 | 211,80 | 213,10 | 206,00 | 211,70 |
| <b>SEER - 23/18 (EN14825:2018) (2)</b> |   |     |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | A | W/W | 6,35   | 6,45   | 6,33   | 5,81   | 5,79   | 5,89   | 6,21   | 6,21   | 5,94   | 6,11   |
|  | E | W/W | 6,52   | 6,75   | 6,58   | 5,93   | 5,84   | 5,91   | 6,31   | 6,32   | 6,00   | 6,21   |
| Seasonal efficiency                    | A | %   | 250,90 | 254,90 | 250,20 | 229,50 | 228,40 | 232,40 | 245,20 | 245,30 | 234,60 | 241,50 |
|  | E | %   | 257,90 | 266,80 | 260,30 | 234,20 | 230,40 | 233,40 | 249,40 | 249,80 | 237,10 | 245,40 |
| <b>SEPR - (EN 14825:2018) (2)</b>      |   |     |        |        |        |        |        |        |        |        |        |        |
| SEPR                                   | A | W/W | 7,10   | 7,60   | 7,50   | 7,10   | 7,30   | 7,40   | 7,10   | 7,10   | 6,50   | 6,50   |
|  | E | W/W | 7,10   | 7,50   | 7,40   | 7,20   | 7,40   | 7,40   | 7,10   | 7,20   | 6,60   | 6,60   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size                                   |   |     | 151 | 201 | 281 | 302 | 332 | 352 | 382    | 502    | 552    | 602    |
|--|---|-----|-----|-----|-----|-----|-----|-----|--------|--------|--------|--------|
| <b>Fans: M</b>                         |   |     |     |     |     |     |     |     |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |     |     |     |     |     |     |     |        |        |        |        |
| SEER                                   | A | W/W | -   | -   | -   | -   | -   | -   | 5,33   | 5,36   | 5,18   | 5,33   |
|  | E | W/W | -   | -   | -   | -   | -   | -   | 5,37   | 5,40   | 5,23   | 5,37   |
| Seasonal efficiency                    | A | %   | -   | -   | -   | -   | -   | -   | 210,00 | 211,40 | 204,30 | 210,00 |
|  | E | %   | -   | -   | -   | -   | -   | -   | 211,80 | 213,10 | 206,00 | 211,70 |
| <b>SEER - 23/18 (EN14825:2018) (2)</b> |   |     |     |     |     |     |     |     |        |        |        |        |
| SEER                                   | A | W/W | -   | -   | -   | -   | -   | -   | 6,21   | 6,21   | 5,94   | 6,11   |
|  | E | W/W | -   | -   | -   | -   | -   | -   | 6,31   | 6,32   | 6,00   | 6,21   |
| Seasonal efficiency                    | A | %   | -   | -   | -   | -   | -   | -   | 245,20 | 245,30 | 234,60 | 241,50 |
|  | E | %   | -   | -   | -   | -   | -   | -   | 249,40 | 249,80 | 237,10 | 245,40 |
| <b>SEPR - (EN 14825:2018) (2)</b>      |   |     |     |     |     |     |     |     |        |        |        |        |
| SEPR                                   | A | W/W | -   | -   | -   | -   | -   | -   | 7,10   | 7,10   | 6,50   | 6,50   |
|  | E | W/W | -   | -   | -   | -   | -   | -   | 7,10   | 7,20   | 6,60   | 6,60   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 151  | 201  | 281  | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|-----------------------|-----|---|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |      |      |      |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 23,8 | 31,6 | 34,9 | 47,6  | 52,8  | 58,1  | 60,1  | 68,8  | 74,4  | 87,5  |
| Peak current (LRA)    | A,E | A | 30,3 | 43,0 | 43,0 | 142,8 | 167,1 | 201,1 | 174,4 | 211,8 | 278,6 | 329,2 |

■ Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

| Size                              |     |      | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|-----------------------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Compressor</b>                 |     |      |     |     |     |     |     |     |     |     |     |     |
| Type                              | A,E | type |     |     |     |     |     |     |     |     |     |     |
| Compressor regulation             | A,E | Type | I   | I   | I   | 1+I | 1+I | 1+I | 1+I | 1+I | 1+I | 1+I |
| Number                            | A,E | no.  | 1   | 1   | 1   | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| Circuits                          | A,E | no.  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |
| Refrigerant                       | A,E | type |     |     |     |     |     |     |     |     |     |     |
| <b>System side heat exchanger</b> |     |      |     |     |     |     |     |     |     |     |     |     |
| Type                              | A,E | type |     |     |     |     |     |     |     |     |     |     |
| Number                            | A,E | no.  | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   |

## FANS DATA

| Size | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

### Fans: J

| Fan           |     |      |          |       |       |       |       |       |       |       |
|---------------|-----|------|----------|-------|-------|-------|-------|-------|-------|-------|
| Type          | A,E | type | Axial    |       |       |       |       |       |       |       |
| Fan motor     | A,E | type | Inverter |       |       |       |       |       |       |       |
| Number        | A,E | no.  | 4        | 6     | 6     | 8     | 8     | 8     | 2     | 3     |
| Air flow rate | A   | m³/h | 16669    | 24469 | 24476 | 30793 | 28649 | 28662 | 36174 | 54601 |
|               | E   | m³/h | 14488    | 21255 | 21255 | 26704 | 24966 | 24966 | 26850 | 40488 |

### Sound data calculated in cooling mode (1)

|                             |   |       |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|---|-------|------|------|------|------|------|------|------|------|------|------|
| Sound power level           | A | dB(A) | 81,8 | 84,6 | 85,9 | 82,2 | 85,0 | 85,1 | 85,4 | 86,5 | 87,7 | 88,1 |
|                             | E | dB(A) | 79,3 | 82,8 | 83,3 | 80,9 | 81,3 | 81,7 | 82,8 | 83,0 | 85,4 | 85,5 |
| Sound pressure level (10 m) | A | dB(A) | 50,0 | 52,7 | 54,1 | 50,3 | 53,2 | 53,3 | 53,5 | 54,5 | 55,8 | 56,0 |
|                             | E | dB(A) | 47,5 | 51,0 | 51,4 | 49,0 | 49,5 | 49,8 | 50,8 | 51,1 | 53,5 | 53,5 |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

### Fans: M

#### Increased fan

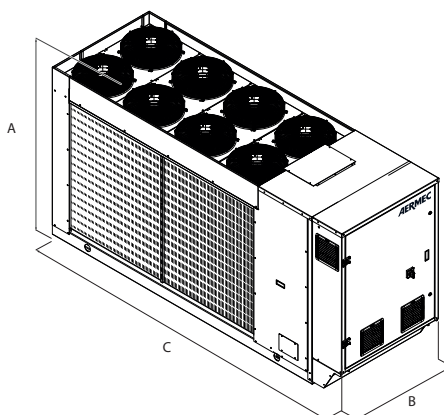
| Fan           |     |                   |                             |   |   |   |   |       |       |       |       |
|---------------|-----|-------------------|-----------------------------|---|---|---|---|-------|-------|-------|-------|
| Type          | A,E | type              | Axial                       |   |   |   |   |       |       |       |       |
| Fan motor     | A,E | type              | Asynchronous with phase cut |   |   |   |   |       |       |       |       |
| Number        | A,E | no.               | -                           | - | - | - | - | 2     | 2     | 2     | 3     |
| Air flow rate | A   | m <sup>3</sup> /h | -                           | - | - | - | - | 36174 | 36174 | 36149 | 54601 |
|               | E   | m <sup>3</sup> /h | -                           | - | - | - | - | 26850 | 26850 | 26781 | 40488 |

### Sound data calculated in cooling mode (1)

|                             |   |       |   |   |   |   |   |      |      |      |      |
|-----------------------------|---|-------|---|---|---|---|---|------|------|------|------|
| Sound power level           | A | dB(A) | - | - | - | - | - | 85,4 | 86,5 | 87,7 | 88,1 |
|                             | E | dB(A) | - | - | - | - | - | 82,8 | 83,0 | 85,4 | 85,5 |
| Sound pressure level (10 m) | A | dB(A) | - | - | - | - | - | 53,5 | 54,5 | 55,8 | 56,0 |
|                             | E | dB(A) | - | - | - | - | - | 50,8 | 51,1 | 53,5 | 53,5 |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

### Dimensions and weights

|   |     |    |      |      |      |      |      |      |      |      |      |
|---|-----|----|------|------|------|------|------|------|------|------|------|
| A | A,E | mm | 1652 | 1652 | 1652 | 1652 | 1652 | 1907 | 1907 | 1907 | 1900 |
| B | A,E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| C | A,E | mm | 2873 | 3372 | 3372 | 3372 | 3372 | 3623 | 3623 | 3623 | 4373 |

| Size | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

### Integrated hydronic kit: 00

#### Weights

|                          |     |    |     |     |     |     |      |      |      |      |      |      |
|--------------------------|-----|----|-----|-----|-----|-----|------|------|------|------|------|------|
| Weight empty + packaging | A,E | kg | 826 | 899 | 899 | 986 | 1027 | 1028 | 1093 | 1101 | 1123 | 1313 |
| Weight functioning       | A,E | kg | 795 | 867 | 867 | 955 | 996  | 997  | 1062 | 1072 | 1094 | 1284 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRGI 151H-602H

## Reversible air/water heat pump

Cooling capacity 28.9 ÷ 123.7 kW – Heating capacity 31.6 ÷ 133.9 kW

- High efficiency also at partial loads
- High modulation capacity
- Continuous modulation of the cooling capacity
- Compressors and fans with Inverter
- Low refrigerant charge
- Stable temperature control of the outlet water



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas.**

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve**.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

**A** High efficiency

**E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49 °C in summer. Hot water production up to 60 °C

For more information refer to the selection program and to the dedicated documentation.

#### High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

#### Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.

**Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.**

This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for

- High seasonal efficiency
- steady and precise modulation of the chilling demand

- The stability of the outlet water temperature.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

- *The leak detector is supplied as per standard.*

#### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

#### Electronic expansion valve

**Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.**

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

#### Inverter fans

All of the units are equipped as per standard with high-efficiency inverter-controlled axial fans which provide:

- Steady air flow rate adjustment
- Low consumption and reduced sound level at partial loads
- Operation with low outdoor air temperatures
- Precise condensation control for an extended operating range.

#### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed or variable pumps also inverter.**

- *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*



## CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Swing HP and LP controls:** available for all models. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

## INTEGRATED SOLUTION

The **"integrated solution" concept has been implemented in the system architecture**, consisting in an integrated and streamlined control of compressors and electronic valves.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER485P1         | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERBACP          | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERNET           | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| MULTICHILLER-EVO | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PGD1             | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD              | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

### Remote panel

| Model | Ver | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | A,E | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver  | 151  | 201  | 281  | 302  | 332  | 352  | 382  | 502  | 552  | 602  |
|--|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4</b>                                 |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT17 | VT13 | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4, W1, W2, W3, W4</b> |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT13 | VT13 | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT22 |

### Anti-intrusion grid

| Ver  | 151 | 201 | 281 | 302 | 332 | 352 | 382         | 502         | 552         | 602         |
|------|-----|-----|-----|-----|-----|-----|-------------|-------------|-------------|-------------|
| A, E | GP3 | GP4 | GP4 | GP4 | GP4 | GP4 | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

### Device for peak current reduction

| Ver  | 151 | 201 | 281 | 302        | 332        | 352        | 382        | 502        | 552        | 602        |
|------|-----|-----|-----|------------|------------|------------|------------|------------|------------|------------|
| A, E | -   | -   | -   | DRENRG1302 | DRENRG1332 | DRENRG1352 | DRENRG1382 | DRENRG1502 | DRENRG1552 | DRENRG1602 |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

### Double safety valves

| Ver  | 151    | 201    | 281    | 302    | 332    | 352    | 382    | 502    | 552    | 602    |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 | T6NRG1 |

A grey background indicates the accessory must be assembled in the factory

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3,4 | NRGI   |
| 5,6,7   | Size<br>151, 201, 281, 302, 332, 352, 382, 502, 552, 602 |
| 8       | Operating field (1)                                      |
| X       | Electronic thermostatic expansion valve                  |
| 9       | Model  |
| H       | Heat pump  |
| 10      | Heat recovery  |
| D       | With desuperheater (2)                                   |
| °       | Without heat recovery                                    |
| 11      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency                                 |
| 12      | Coils  |
| R       | Copper pipes-copper fins                                 |
| S       | Copper pipes-Tinned copper fins                          |
| V       | Copper pieps-Coated aluminium fins                       |
| °       | Copper-aluminium   |
| 13      | Fans   |
| J       | Inverter   |
| °       | Standard with phase cut                                  |
| 14      | Power supply   |
| °       | 400V ~ 3N 50Hz with magnet circuit breakers              |
| 15,16   | Integrated hydronic kit                                  |
|         | Without hydronic kit                                     |
| 00      | Without hydronic kit                                     |
|         | Kit with storage tank and pump/s                         |
| 01      | Storage tank with low head pump                          |
| 02      | Storage tank with low head pump + stand-by pump          |
| 03      | Storage tank with high head pump                         |
| 04      | Storage tank with high head pump + stand-by pump         |

| Field | Description  |
|-------|--|
|       | Kit with pump/s and storage tank with holes for heaters                    |
| 05    | Storage tank with holes for heaters and single low head pump (3)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (3)  |
| 07    | Storage tank with holes for heaters and single high head pump (3)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (3) |
|       | Double loop  |
| 09    | Double loop  |
|       | Kit with pump/s  |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |
|       | Kit with inverter pump/s to fixed speed                                    |
| I1    | Single low head pump + fixed speed inverter                                |
| I2    | Single low head pump with fixed speed inverter + stand-by pump             |
| I3    | Single high head pump + fixed speed inverter                               |
| I4    | Single high head pump with fixed speed inverter + stand-by pump            |
|       | Kit with storage tank and inverter pump/s to fixed speed                   |
| K1    | Single low head pump + storage tank + fixed speed inverter                 |
| K2    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
| K3    | Single high head pump + storage tank + fixed speed inverter                |
| K4    | Storage tank and low head pump with fixed speed inverter + stand-by pump   |
|       | Kit with storage tank and variable speed inverter pump/s                   |
| W1    | Single low head pump + Storage tank + variable speed inverter              |
| W2    | Double low head pump + Storage tank + variable speed inverter              |
| W3    | Single high head pump + Storage tank + variable speed inverter             |
| W4    | Double high head pump + Storage tank + variable speed inverter             |

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.

(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

### NRGI - HA

| Size   |     | 151  | 201  | 281   | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|--|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 36,5 | 48,9 | 54,2  | 64,1  | 72,1  | 77,3  | 87,0  | 95,7  | 106,0 | 123,7 |
| Input power                                  | kW  | 12,1 | 15,6 | 18,1  | 21,5  | 23,9  | 26,3  | 28,4  | 32,3  | 36,1  | 39,1  |
| Cooling total input current                  | A   | 18,0 | 24,0 | 27,0  | 38,0  | 42,0  | 47,0  | 44,0  | 51,0  | 55,0  | 60,0  |
| EER  | W/W | 3,00 | 3,13 | 3,00  | 2,98  | 3,02  | 2,94  | 3,06  | 2,96  | 2,93  | 3,16  |
| Water flow rate system side                  | l/h | 6280 | 8416 | 9328  | 11028 | 12414 | 13315 | 14969 | 16471 | 18246 | 21290 |
| Pressure drop system side                    | kPa | 15   | 28   | 34    | 28    | 35    | 41    | 19    | 18    | 23    | 25    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 39,6 | 53,4 | 59,0  | 69,9  | 78,1  | 84,1  | 94,7  | 104,8 | 115,7 | 133,9 |
| Input power                                  | kW  | 11,6 | 15,4 | 17,3  | 20,3  | 23,0  | 24,9  | 29,4  | 32,2  | 34,6  | 40,6  |
| Heating total input current                  | A   | 18,0 | 24,0 | 27,0  | 38,0  | 42,0  | 46,0  | 46,0  | 52,0  | 54,0  | 64,0  |
| COP  | W/W | 3,42 | 3,46 | 3,42  | 3,45  | 3,40  | 3,37  | 3,22  | 3,25  | 3,34  | 3,30  |
| Water flow rate system side                  | l/h | 6869 | 9260 | 10228 | 12113 | 13544 | 14563 | 16431 | 18188 | 20074 | 23220 |
| Pressure drop system side                    | kPa | 18   | 33   | 40    | 34    | 42    | 49    | 23    | 22    | 27    | 29    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## NRGI - HE

| Size  |     | 151  | 201  | 281  | 302  | 332   | 352   | 382   | 502   | 552   | 602   |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 28,9 | 37,0 | 42,6 | 56,7 | 64,9  | 70,1  | 78,8  | 84,0  | 94,0  | 111,3 |
| Input power                                 | kW  | 9,1  | 11,4 | 13,5 | 18,4 | 20,8  | 23,2  | 25,3  | 27,6  | 31,6  | 34,1  |
| Cooling total input current                 | A   | 13,0 | 17,0 | 20,0 | 33,0 | 36,0  | 41,0  | 39,0  | 44,0  | 49,0  | 53,0  |
| EER   | W/W | 3,17 | 3,25 | 3,15 | 3,07 | 3,12  | 3,03  | 3,12  | 3,04  | 2,97  | 3,26  |
| Water flow rate system side                 | l/h | 4974 | 6363 | 7326 | 9764 | 11165 | 12069 | 13554 | 14451 | 16179 | 19152 |
| Pressure drop system side                   | kPa | 10   | 16   | 21   | 22   | 29    | 33    | 16    | 14    | 18    | 20    |

## Heating performance 40 °C / 45 °C (2)

|                             |     |      |      |      |       |       |       |       |       |       |       |
|-----------------------------|-----|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Heating capacity            | kW  | 31,6 | 41,2 | 47,5 | 62,3  | 70,4  | 76,5  | 87,0  | 93,3  | 104,4 | 122,0 |
| Input power                 | kW  | 9,1  | 11,8 | 13,6 | 18,0  | 20,3  | 22,2  | 27,0  | 28,5  | 31,2  | 36,8  |
| Heating total input current | A   | 15,0 | 20,0 | 22,0 | 35,0  | 38,0  | 43,0  | 43,0  | 47,0  | 50,0  | 59,0  |
| COP                         | W/W | 3,49 | 3,49 | 3,49 | 3,47  | 3,47  | 3,44  | 3,23  | 3,27  | 3,35  | 3,32  |
| Water flow rate system side | l/h | 5484 | 7151 | 8247 | 10814 | 12215 | 13253 | 15103 | 16186 | 18126 | 21177 |
| Pressure drop system side   | kPa | 12   | 20   | 26   | 27    | 34    | 40    | 20    | 18    | 22    | 24    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size           |  | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Fans: J</b> |  |     |     |     |     |     |     |     |     |     |     |

### Performance in average ambient conditions (average) - 35 °C (1)

|                         |   |     |        |        |        |        |        |        |        |        |        |
|-------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency energy class | A |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
|                         | E |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
| Pdesignh                | A | kW  | 34     | 46     | 51     | 61     | 67     | 73     | 82     | 91     | 100    |
|                         | E | kW  | 27     | 35     | 41     | 54     | 61     | 66     | 75     | 81     | 90     |
| SCOP                    | A | W/W | 4,25   | 4,33   | 4,25   | 4,40   | 4,29   | 4,35   | 4,27   | 4,25   | 4,13   |
|                         | E | W/W | 4,28   | 4,35   | 4,28   | 4,43   | 4,33   | 4,38   | 4,30   | 4,29   | 4,17   |
| ηsh                     | A | %   | 167,00 | 170,00 | 167,10 | 173,00 | 168,40 | 170,95 | 167,75 | 167,17 | 162,28 |
|                         | E | %   | 168,00 | 171,00 | 168,00 | 174,00 | 170,00 | 172,00 | 169,12 | 168,53 | 163,60 |

### Performance in average ambient conditions (average) - 55 °C (2)

|                         |   |     |        |        |        |        |        |        |        |        |        |
|-------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency energy class | A |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
|                         | E |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
| Pdesignh                | A | kW  | 35     | 48     | 53     | 62     | 69     | 73     | 83     | 92     | 102    |
|                         | E | kW  | 28     | 37     | 43     | 55     | 62     | 67     | 76     | 82     | 92     |
| SCOP                    | A | W/W | 3,31   | 3,40   | 3,38   | 3,38   | 3,43   | 3,49   | 3,28   | 3,35   | 3,35   |
|                         | E | W/W | 3,33   | 3,40   | 3,38   | 3,38   | 3,40   | 3,48   | 3,39   | 3,37   | 3,36   |
| ηsh                     | A | %   | 129,40 | 133,00 | 132,10 | 132,00 | 134,00 | 136,50 | 128,10 | 130,80 | 130,90 |
|                         | E | %   | 130,00 | 133,00 | 132,00 | 132,00 | 133,00 | 136,00 | 132,50 | 131,80 | 131,20 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Size           |  | 151 | 201 | 281 | 302 | 332 | 352 | 382 | 502 | 552 | 602 |
|----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Fans: °</b> |  |     |     |     |     |     |     |     |     |     |     |

### Performance in average ambient conditions (average) - 35 °C (1)

|                         |   |     |        |        |        |        |        |        |        |        |        |
|-------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency energy class | A |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
|                         | E |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
| Pdesignh                | A | kW  | 34     | 46     | 51     | 61     | 67     | 73     | 82     | 91     | 100    |
|                         | E | kW  | 27     | 35     | 41     | 54     | 61     | 66     | 75     | 81     | 90     |
| SCOP                    | A | W/W | 4,10   | 4,20   | 4,13   | 4,28   | 4,15   | 4,22   | 4,14   | 4,13   | 4,01   |
|                         | E | W/W | 4,15   | 4,20   | 4,15   | 4,30   | 4,18   | 4,25   | 4,17   | 4,16   | 4,04   |
| ηsh                     | A | %   | 161,00 | 165,00 | 162,00 | 168,00 | 163,00 | 165,73 | 162,63 | 162,06 | 157,32 |
|                         | E | %   | 163,00 | 165,00 | 163,00 | 169,00 | 164,00 | 167,00 | 163,96 | 163,38 | 158,60 |

### Performance in average ambient conditions (average) - 55 °C (2)

|                         |   |     |        |        |        |        |        |        |        |        |        |
|-------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Efficiency energy class | A |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
|                         | E |     | A++    | A++    | A++    | A++    | A++    | -      | -      | -      | -      |
| Pdesignh                | A | kW  | 35     | 48     | 53     | 62     | 69     | 73     | 83     | 92     | 102    |
|                         | E | kW  | 28     | 37     | 43     | 55     | 62     | 67     | 76     | 82     | 92     |
| SCOP                    | A | W/W | 3,20   | 3,30   | 3,28   | 3,28   | 3,30   | 3,38   | 3,18   | 3,30   | 3,25   |
|                         | E | W/W | 3,23   | 3,30   | 3,28   | 3,28   | 3,30   | 3,38   | 3,29   | 3,27   | 3,26   |
| ηsh                     | A | %   | 125,00 | 129,00 | 128,00 | 128,00 | 129,00 | 132,30 | 124,20 | 128,80 | 126,90 |
|                         | E | %   | 126,00 | 129,00 | 128,00 | 128,00 | 129,00 | 132,00 | 128,40 | 127,70 | 127,20 |

(1) Efficiencies for low temperature applications (35 °C)

(2) Efficiencies for average temperature applications (55 °C)

| Size   |   | 151 | 201    | 281    | 302    | 332    | 352    | 382    | 502    | 552    | 602    |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (1)</b> |   |     |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W | 4,67   | 4,96   | 4,89   | 4,62   | 4,74   | 4,68   | 4,79   | 4,84   | 4,90   |
|  | E | W/W | 4,71   | 5,00   | 4,93   | 4,66   | 4,78   | 4,72   | 4,83   | 4,88   | 4,94   |
| Seasonal efficiency                                      | A | %   | 183,90 | 195,27 | 192,49 | 181,84 | 186,68 | 184,20 | 188,75 | 190,52 | 192,91 |
|  | E | %   | 185,40 | 196,86 | 194,06 | 183,31 | 188,19 | 185,69 | 190,29 | 192,07 | 194,48 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

| Size   |   |     | 151    | 201    | 281    | 302    | 332    | 352    | 382    | 502    | 552    | 602    |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) with standard fans (1)</b> |   |     |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W | 4,49   | 4,76   | 4,69   | 4,44   | 4,55   | 4,49   | 4,60   | 4,64   | 4,70   | 4,88   |
|  | E | W/W | 4,52   | 4,80   | 4,73   | 4,47   | 4,59   | 4,53   | 4,64   | 4,68   | 4,74   | 4,92   |
| Seasonal efficiency                                      | A | %   | 176,43 | 187,34 | 184,67 | 174,44 | 179,09 | 176,71 | 181,08 | 182,78 | 185,08 | 192,40 |
|  | E | %   | 177,86 | 188,86 | 186,17 | 175,86 | 180,55 | 178,15 | 182,56 | 184,26 | 186,58 | 193,96 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

## ELECTRIC DATA

| Size                  |     |   | 151  | 201  | 281  | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|-----------------------|-----|---|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |      |      |      |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 23,8 | 31,6 | 34,9 | 47,6  | 52,8  | 58,1  | 60,1  | 68,8  | 74,4  | 87,5  |
| Peak current (LRA)    | A   | A | 30,3 | 43,0 | 43,0 | 142,8 | 167,1 | 201,1 | 174,4 | 211,8 | 278,6 | 329,2 |
|                       | E   | A | 30,3 | 43,0 | 43,0 | 136,2 | 160,5 | 194,5 | 166,6 | 204,0 | 270,8 | 317,5 |

Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

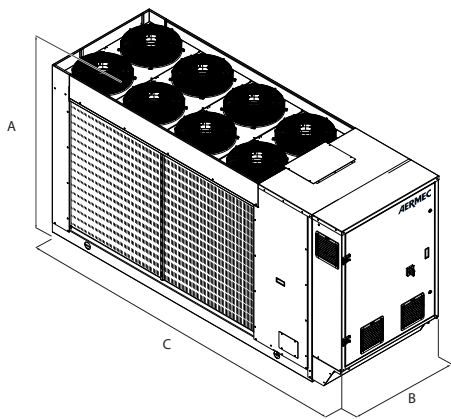
| Size                                      |     |       | 151          | 201      | 281      | 302             | 332             | 352             | 382             | 502             | 552             | 602             |
|---|-----|-------|--------------|----------|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Compressor                                |     |       |              |          |          |                 |                 |                 |                 |                 |                 |                 |
| Type                                      | A,E | type  | Scroll       |          |          |                 |                 |                 |                 |                 |                 |                 |
| Compressor regulation                     | A,E | Type  | Inverter     | Inverter | Inverter | Inverter+On/Off | Inverter+On/Off | Inverter+On/Off | Inverter+On/Off | Inverter+On/Off | Inverter+On/Off | Inverter+On/Off |
| Number                                    | A,E | no.   | 1            | 1        | 1        | 2               | 2               | 2               | 2               | 2               | 2               | 2               |
| Circuits                                  | A,E | no.   | 1            | 1        | 1        | 1               | 1               | 1               | 1               | 1               | 1               | 1               |
| Refrigerant                               | A,E | type  | R32          |          |          |                 |                 |                 |                 |                 |                 |                 |
| System side heat exchanger                |     |       |              |          |          |                 |                 |                 |                 |                 |                 |                 |
| Type                                      | A,E | type  | Brazed plate |          |          |                 |                 |                 |                 |                 |                 |                 |
| Number                                    | A,E | no.   | 1            | 1        | 1        | 1               | 1               | 1               | 1               | 1               | 1               | 1               |
| Sound data calculated in cooling mode (1) |     |       |              |          |          |                 |                 |                 |                 |                 |                 |                 |
| Sound power level                         | A   | dB(A) | 81,8         | 84,6     | 86,0     | 82,2            | 85,0            | 85,1            | 85,4            | 86,5            | 87,8            | 88,1            |
|   | E   | dB(A) | 79,3         | 82,8     | 83,3     | 80,9            | 81,3            | 81,7            | 82,8            | 83,0            | 85,4            | 85,6            |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size           |     |                   | 151      | 201   | 281   | 302   | 332   | 352   | 382   | 502   | 552   | 602   |
|----------------|-----|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b> |     |                   |          |       |       |       |       |       |       |       |       |       |
| <b>Fan</b>     |     |                   |          |       |       |       |       |       |       |       |       |       |
| Type           | A,E | type              | Axial    |       |       |       |       |       |       |       |       |       |
| Fan motor      | A,E | type              | Inverter |       |       |       |       |       |       |       |       |       |
| Number         | A,E | no.               | 4        | 6     | 6     | 8     | 8     | 8     | 2     | 2     | 2     | 3     |
| Air flow rate  | A   | m <sup>3</sup> /h | 16896    | 24887 | 24891 | 31613 | 29660 | 29659 | 36859 | 36859 | 36859 | 55733 |
|                | E   | m <sup>3</sup> /h | 14667    | 21591 | 21591 | 27379 | 25774 | 25774 | 27308 | 27308 | 27307 | 41430 |

DIMENSIONS



| Size                        |     |    | 151  | 201  | 281  | 302  | 332  | 352  | 382  | 502  | 552  | 602  |
|-----------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights      |     |    |      |      |      |      |      |      |      |      |      |      |
| A                           | A,E | mm | 1652 | 1652 | 1652 | 1652 | 1652 | 1652 | 1907 | 1907 | 1907 | 1900 |
| B                           | A,E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| C                           | A,E | mm | 2873 | 3372 | 3372 | 3372 | 3372 | 3372 | 3623 | 3623 | 3623 | 4373 |
| Size                        |     |    | 151  | 201  | 281  | 302  | 332  | 352  | 382  | 502  | 552  | 602  |
| Integrated hydronic kit: 00 |     |    |      |      |      |      |      |      |      |      |      |      |
| Weights                     |     |    |      |      |      |      |      |      |      |      |      |      |
| Weight empty + packaging    | A,E | kg | 856  | 929  | 929  | 1019 | 1063 | 1064 | 1131 | 1137 | 1159 | 1365 |
| Weight functioning          | A,E | kg | 825  | 897  | 897  | 988  | 1032 | 1033 | 1099 | 1108 | 1130 | 1336 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRL 0280-0350

## Air-water chiller

Cooling capacity 56 ÷ 82 kW



- Low noise levels in silenced versions
- High efficiency also at partial loads
- Compact dimensions



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

**E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 47 °C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

#### Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model            | Ver | 0280 | 0300 | 0330 | 0350 |
|------------------|-----|------|------|------|------|
| AER48SP1         | E   | *    | *    | *    | *    |
| AERBACP          | E   | *    | *    | *    | *    |
| AERLINK          | E   | *    | *    | *    | *    |
| AERNET           | E   | *    | *    | *    | *    |
| MULTICHILLER-EVO | E   | *    | *    | *    | *    |
| PGD1             | E   | *    | *    | *    | *    |
| SGD              | E   | *    | *    | *    | *    |
| Model            | Ver | 0280 | 0300 | 0330 | 0350 |
| C-TOUCH          | E   | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0280 | 0300 | 0330 | 0350 |
|-------|-----|------|------|------|------|
| PR4   | E   | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver     | 0280   | 0300   | 0330   | 0350   |
|---------|--------|--------|--------|--------|
| Fans: M |        |        |        |        |
| E       | DCPX63 | DCPX63 | DCPX63 | DCPX63 |

### Antivibration

| Ver   | 0280 | 0300 | 0330 | 0350 |
|---|------|------|------|------|
| Integrated hydronic kit: 00, P1, P2, P3, P4                 |      |      |      |      |
| E   | VT17 | VT17 | VT17 | VT17 |
| Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09 |      |      |      |      |
| E   | VT13 | VT13 | VT13 | VT13 |

### Anti-intrusion grid

| Ver | 0280 | 0300 | 0330 | 0350 |
|-----|------|------|------|------|
| E   | GP3  | GP4  | GP4  | GP4  |

### Device for peak current reduction

| Ver             | 0280       | 0300       | 0330       | 0350       |
|-----------------|------------|------------|------------|------------|
| Power supply: ° |            |            |            |            |
| E               | DRE281 (1) | DRE301 (1) | DRE331 (1) | DRE351 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver | 0280  | 0300  | 0330  | 0350  |
|-----|-------|-------|-------|-------|
| E   | RIF50 | RIF50 | RIF50 | RIF51 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                                     |
|---------|---|
| 1,2,3   | NRL   |
| 4,5,6,7 | Size<br>0280, 0300, 0330, 0350                  |
| 8       | Operating field                                 |
| X       | Electronic thermostatic expansion valve (1)     |
| Y       | Low temperature mechanic thermostatic valve (2) |
| °       | Standard mechanic thermostatic valve (1)        |
| 9       | Model   |
| C       | Motocondensing unit                             |
| °       | Cooling only                                    |
| 10      | Heat recovery                                   |
| D       | With desuperheater (3)                          |
| T       | With total recovery                             |
| °       | Without heat recovery                           |
| 11      | Version (4)                                     |
| E       | Silenced high efficiency                        |
| 12      | Coils   |
| R       | Copper pipes-copper fins                        |
| S       | Copper pipes-Tinned copper fins                 |
| V       | Copper pipes-Coated aluminium fins              |
| °       | Copper-aluminium                                |
| 13      | Fans  |
| J       | Inverter (5)                                    |
| M       | Oversized (6)                                   |
| 14      | Power supply                                    |
| °       | 400V ~ 3N 50Hz with magnet circuit breakers     |
| 15,16   | Integrated hydronic kit                         |
|         | Without hydronic kit                            |

| Field | Description  |
|-------|--|
| 00    | Without hydronic kit   |
|       | <b>Kit with storage tank and pump/s</b>                                    |
| 01    | Storage tank with low head pump  |
| 02    | Storage tank with low head pump + stand-by pump                            |
| 03    | Storage tank with high head pump   |
| 04    | Storage tank with high head pump + stand-by pump                           |
|       | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05    | Storage tank with holes for heaters and single low head pump (7)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (7)  |
| 07    | Storage tank with holes for heaters and single high head pump (7)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (7) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
| 10    | Double loop with supplementary electric heater                             |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |

- (1) Water produced from 4 °C ÷ 18 °C  
 (2) Water produced from 4 °C ÷ 18 °C for version "E", -10 °C for the others versions  
 (3) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program  
 (4) The size up 0280 ÷ 0350 are only available in the silenced versions "E" with inverter fans  
 (5) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.  
 (6) Standard for size 0500, without useful static pressure, option for other size with useful static pressure.  
 (7) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

## NRL - E

| Size  |     | 0280 | 0300  | 0330  | 0350  |
|---|-----|------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |       |       |       |
| Cooling capacity                            | kW  | 56,8 | 64,8  | 73,8  | 82,8  |
| Input power                                 | kW  | 17,1 | 19,7  | 22,1  | 25,5  |
| Cooling total input current                 | A   | 30,0 | 34,0  | 37,0  | 45,0  |
| EER   | W/W | 3,33 | 3,29  | 3,34  | 3,24  |
| Water flow rate system side                 | l/h | 9793 | 11168 | 12714 | 14260 |
| Pressure drop system side                   | kPa | 43   | 39    | 35    | 44    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRL - C

| Size  |   |     | 0280 | 0300 | 0330 | 0350 |
|---|---|-----|------|------|------|------|
| <b>Model: C</b>                             |   |     |      |      |      |      |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |   |     |      |      |      |      |
| Cooling capacity                            | E | kW  | 59,0 | 67,0 | 76,0 | 85,0 |
| Input power                                 | E | kW  | 17,0 | 19,6 | 22,0 | 25,3 |
| Input current                               | E | A   | 35,0 | 39,0 | 43,0 | 49,0 |
| EER   | E | W/W | 3,47 | 3,42 | 3,45 | 3,36 |

(1) Evaporating temperature 5 °C, External air 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

## Energy index data

| Size                             |   |     | 0280   | 0300   | 0330   | 0350   |
|----------------------------------|---|-----|--------|--------|--------|--------|
| Fans: J                          |   |     |        |        |        |        |
| SEER - 12/7 (EN14825: 2018) (1)  |   |     |        |        |        |        |
| SEER                             | E | W/W | - (2)  | - (2)  | - (2)  | - (2)  |
| Seasonal efficiency              | E | %   | - (2)  | - (2)  | - (2)  | - (2)  |
| SEER - 23/18 (EN14825: 2018) (3) |   |     |        |        |        |        |
| SEER                             | E | W/W | 4,55   | 4,70   | 4,62   | 4,47   |
| Seasonal efficiency              | E | %   | 178,90 | 184,90 | 181,60 | 175,90 |
| SEPR - (EN 14825: 2018) (3)      |   |     |        |        |        |        |
| SEPR                             | E | W/W | 5.81   | 5.94   | 5.85   | 5.66   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.



| Size                                    |   |     | 0280   | 0300   | 0330   | 0350   |
|---|---|-----|--------|--------|--------|--------|
| <b>Fans: M</b>                          |   |     |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |   |     |        |        |        |        |
| SEER                                    | E | W/W | - (2)  | - (2)  | - (2)  | - (2)  |
| Seasonal efficiency                     | E | %   | - (2)  | - (2)  | - (2)  | - (2)  |
| <b>SEER - 23/18 (EN14825: 2018) (3)</b> |   |     |        |        |        |        |
| SEER                                    | E | W/W | 4,55   | 4,70   | 4,62   | 4,47   |
| Seasonal efficiency                     | E | %   | 178,90 | 184,90 | 181,60 | 175,90 |
| <b>SEPR - (EN 14825: 2018) (3)</b>      |   |     |        |        |        |        |
| SEPR                                    | E | W/W | 5,81   | 5,94   | 5,85   | 5,66   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |   |   | 0280  | 0300  | 0330  | 0350  |
|-----------------------|---|---|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |
| Maximum current (FLA) | E | A | 46,0  | 53,0  | 58,0  | 63,0  |
| Peak current (LRA)    | E | A | 155,0 | 184,0 | 190,0 | 200,0 |

## GENERAL TECHNICAL DATA

### General data

| Size   |   |       | 0280 | 0300 | 0330 | 0350           |
|--|---|-------|------|------|------|----------------|
| <b>Compressor</b>                                |   |       |      |      |      |                |
| Type   | E | type  |      |      |      | Scroll         |
| Compressor regulation                            | E | Type  |      |      |      | On-Off         |
| Number   | E | no.   | 2    | 2    | 2    | 2              |
| Circuits   | E | no.   | 2    | 2    | 2    | 2              |
| Refrigerant                                      | E | type  |      |      |      | R410A          |
| <b>System side heat exchanger</b>                |   |       |      |      |      |                |
| Type   | E | type  |      |      |      | Brazed plate   |
| Number   | E | no.   | 1    | 1    | 1    | 1              |
| <b>System side hydraulic connections</b>         |   |       |      |      |      |                |
| Connections (in/out)                             | E | Type  |      |      |      | Grooved joints |
| Sizes (in/out)                                   | E | Ø     |      |      |      | 2" 1/2         |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |                |
| Sound power level                                | E | dB(A) | 74,0 | 74,0 | 75,0 | 76,0           |
| Sound pressure level (10 m)                      | E | dB(A) | 42,3 | 42,2 | 43,2 | 44,2           |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## Fans

| Size       |   |      | 0280 | 0300 | 0330 | 0350  |
|------------|---|------|------|------|------|-------|
| <b>Fan</b> |   |      |      |      |      |       |
| Type       | E | type |      |      |      | Axial |
| Number     | E | no.  | 6    | 6    | 8    | 8     |

| Size |  |  | 0280 | 0300 | 0330 | 0350 |
|------|--|--|------|------|------|------|
|------|--|--|------|------|------|------|

### Fans: M

|                      |   |      |  |  |  |                             |
|----------------------|---|------|--|--|--|-----------------------------|
| <b>Increased fan</b> |   |      |  |  |  |                             |
| Fan motor            | E | type |  |  |  | Asynchronous with phase cut |

### Without Static pressure

|                      |   |       |   |   |   |   |
|----------------------|---|-------|---|---|---|---|
| Air flow rate        | E | m³/h  | - | - | - | - |
| High static pressure | E | Pa    | - | - | - | - |
| Sound power level    | E | dB(A) | - | - | - | - |

### With static pressure

|                      |   |       |       |       |       |       |
|----------------------|---|-------|-------|-------|-------|-------|
| Air flow rate        | E | m³/h  | 22000 | 22000 | 27000 | 27000 |
| High static pressure | E | Pa    | 50    | 50    | 50    | 50    |
| Sound power level    | E | dB(A) | 74,0  | 74,0  | 75,0  | 76,0  |

| Size |  |  | 0280 | 0300 | 0330 | 0350 |
|------|--|--|------|------|------|------|
|------|--|--|------|------|------|------|

### Fans: J

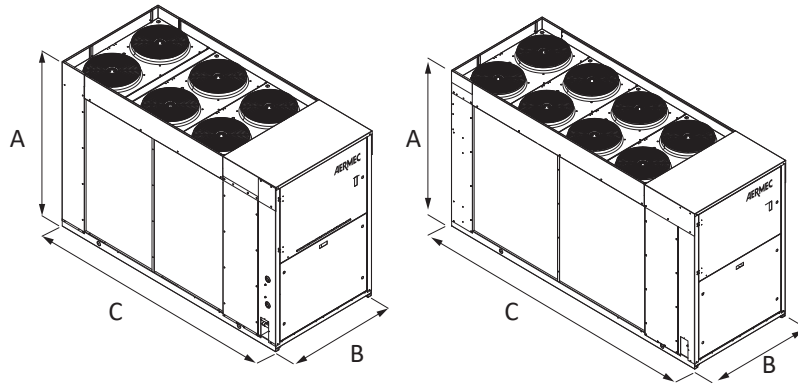
|                      |   |      |       |       |       |          |
|----------------------|---|------|-------|-------|-------|----------|
| <b>Inverter fan</b>  |   |      |       |       |       |          |
| Fan motor            | E | type |       |       |       | Inverter |
| Air flow rate        | E | m³/h | 22000 | 22000 | 27000 | 27000    |
| High static pressure | E | Pa   | 80    | 80    | 80    | 80       |

### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |
|-------------------|---|-------|------|------|------|------|
| Sound power level | E | dB(A) | 74,0 | 74,0 | 75,0 | 76,0 |
|-------------------|---|-------|------|------|------|------|

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



### Dimensions and weights

| Size   |   |    | 0280 | 0300 | 0330 | 0350 |
|--|---|----|------|------|------|------|
| <b>Dimensions and weights</b>                      |   |    |      |      |      |      |
| A  | E | mm | 1606 | 1606 | 1606 | 1606 |
| B  | E | mm | 1100 | 1100 | 1100 | 1100 |
| C  | E | mm | 2450 | 2950 | 2950 | 2950 |
| <b>Dimensions and weights without hydronic kit</b> |   |    |      |      |      |      |
| Empty weight                                       | E | kg | 686  | 751  | 761  | 767  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP:** Anti-intrusion grid.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0280 | 0300 | 0330 | 0350 |
|------------------|-----|------|------|------|------|
| AER48SP1         | E,L | *    | *    | *    | *    |
| AERBACP          | E,L | *    | *    | *    | *    |
| AERLINK          | E,L | *    | *    | *    | *    |
| AERNET           | E,L | *    | *    | *    | *    |
| BMConverter      | E,L | *    | *    | *    | *    |
| MULTICHILLER-EVO | E,L | *    | *    | *    | *    |
| PGD1             | E,L | *    | *    | *    | *    |
| SGD              | E,L | *    | *    | *    | *    |
| Model            | Ver | 0280 | 0300 | 0330 | 0350 |
| C-TOUCH          | E,L | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0280 | 0300 | 0330 | 0350 |
|-------|-----|------|------|------|------|
| PR4   | E,L | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver     | 0280   | 0300   | 0330   | 0350   |
|---------|--------|--------|--------|--------|
| Fans: M |        |        |        |        |
| E, L    | DCPX63 | DCPX63 | DCPX63 | DCPX63 |

### Antivibration

| Ver   | 0280 | 0300 | 0330 | 0350 |
|---|------|------|------|------|
| Integrated hydronic kit: 00, P1, P2, P3, P4                 |      |      |      |      |
| E, L  | VT17 | VT17 | VT17 | VT17 |
| Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09 |      |      |      |      |
| E, L  | VT13 | VT13 | VT13 | VT13 |

### Anti-intrusion grid

| Ver     | 0280 | 0300 | 0330 | 0350 |      |
|---------|------|------|------|------|------|
| E       | GP3  | GP4  | GP4  | GP4  |      |
| L       | GP3  | GP3  | GP3  | GP3  |      |
| Model   | Ver  | 0280 | 0300 | 0330 | 0350 |
| C-TOUCH | E,L  | *    | *    | *    | *    |

### Device for peak current reduction

| Ver  | 0280       | 0300       | 0330       | 0350       |
|------|------------|------------|------------|------------|
| E, L | DRE281 (1) | DRE301 (1) | DRE331 (1) | DRE351 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver  | 0280  | 0300  | 0330  | 0350  |
|------|-------|-------|-------|-------|
| E, L | RIF50 | RIF50 | RIF50 | RIF51 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                                |
|---------|--|
| 1,2,3   | NRL  |
| 4,5,6,7 | Size<br>0280, 0300, 0330, 0350             |
| 8       | Operating field                            |
| X       | Electronic thermostatic expansion valve    |
| °       | Standard mechanic thermostatic valve       |
| 9       | Model                                      |
| H       | Heat pump                                  |
| 10      | Heat recovery                              |
| D       | With desuperheater (1)                     |
| °       | Without heat recovery                      |
| 11      | Version                                    |
| E       | Silenced high efficiency                   |
| L       | Standard silenced                          |
| 12      | Coils                                      |
| R       | Copper pipes-copper fins                   |
| S       | Copper pipes-Tinned copper fins            |
| V       | Copper pipes-Coated aluminium fins         |
| °       | Copper-aluminium                           |
| 13      | Fans                                       |
| J       | Inverter (2)                               |
| M       | Oversized                                  |
| 14      | Power supply                               |
| °       | 400V ~ 3 50Hz with magnet circuit breakers |
| 15,16   | Integrated hydronic kit                    |

| Field | Description  |
|-------|--|
| 00    | Without hydronic kit   |
|       | <b>Kit with storage tank and pump/s</b>                                    |
| 01    | Storage tank with low head pump  |
| 02    | Storage tank with low head pump + stand-by pump                            |
| 03    | Storage tank with high head pump   |
| 04    | Storage tank with high head pump + stand-by pump                           |
|       | <b>Kit with pump/s and storage tank with holes for heaters</b>             |
| 05    | Storage tank with holes for heaters and single low head pump (3)           |
| 06    | Storage tank with holes for heaters and pump low head + stand-by pump (3)  |
| 07    | Storage tank with holes for heaters and single high head pump (3)          |
| 08    | Storage tank with holes for heaters and pump high head + stand-by pump (3) |
|       | <b>Double loop</b>   |
| 09    | Double loop  |
| 10    | Double loop with holes for heaters   |
|       | <b>Kit with pump/s</b>   |
| P1    | Single pump low head   |
| P2    | Pump low head + stand-by pump  |
| P3    | Single pump high head  |
| P4    | Pump high head + stand-by pump   |

- (1) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
- (2) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.
- (3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

### NRL HL

| Size   |     | 0280  | 0300  | 0330  | 0350  |
|--|-----|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |
| Cooling capacity                             | kW  | 50,8  | 60,8  | 65,9  | 72,8  |
| Input power                                  | kW  | 20,4  | 22,8  | 26,4  | 31,4  |
| Cooling total input current                  | A   | 36,0  | 40,0  | 44,0  | 51,0  |
| EER  | W/W | 2,49  | 2,67  | 2,49  | 2,32  |
| Water flow rate system side                  | l/h | 8762  | 10480 | 11340 | 12542 |
| Pressure drop system side                    | kPa | 47    | 43    | 29    | 45    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |
| Heating capacity                             | kW  | 58,2  | 68,2  | 75,2  | 82,3  |
| Input power                                  | kW  | 19,0  | 21,7  | 24,6  | 28,3  |
| Heating total input current                  | A   | 33,0  | 38,0  | 41,0  | 50,0  |
| COP  | W/W | 3,06  | 3,14  | 3,05  | 2,91  |
| Water flow rate system side                  | l/h | 10080 | 11818 | 13035 | 14252 |
| Pressure drop system side                    | kPa | 61    | 54    | 36    | 56    |

- (1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
- (2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRL HE

| Size   |     | 0280  | 0300  | 0330  | 0350  |
|--|-----|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |
| Cooling capacity                             | kW  | 52,9  | 61,9  | 68,8  | 76,8  |
| Input power                                  | kW  | 18,1  | 20,2  | 23,4  | 26,9  |
| Cooling total input current                  | A   | 30,0  | 34,0  | 37,0  | 45,0  |
| EER  | W/W | 2,93  | 3,06  | 2,94  | 2,86  |
| Water flow rate system side                  | l/h | 9106  | 10652 | 11855 | 13229 |
| Pressure drop system side                    | kPa | 27    | 27    | 51    | 29    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |
| Heating capacity                             | kW  | 59,1  | 69,2  | 76,3  | 86,2  |
| Input power                                  | kW  | 17,5  | 20,6  | 23,1  | 26,1  |
| Heating total input current                  | A   | 35,0  | 39,0  | 43,0  | 49,0  |
| COP  | W/W | 3,38  | 3,36  | 3,31  | 3,30  |
| Water flow rate system side                  | l/h | 10254 | 11992 | 13209 | 14947 |
| Pressure drop system side                    | kPa | 25    | 34    | 66    | 34    |

- (1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
- (2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ELECTRIC DATA

| Size                  |   |   | 0280  | 0300  | 0330  | 0350  |
|-----------------------|---|---|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |
| Maximum current (FLA) | E | A | 46,0  | 53,0  | 58,0  | 63,0  |
|                       | L | A | 46,0  | 53,0  | 53,0  | 63,0  |
| Peak current (LRA)    | E | A | 155,0 | 184,0 | 190,0 | 200,0 |
|                       | L | A | 155,0 | 184,0 | 184,0 | 200,0 |

## ENERGY DATA

| Size  |     |     | 0280   | 0300   | 0330   | 0350   |
|---|-----|-----|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                 |     |     |        |        |        |        |
| SEER  | E   | W/W | 3,74   | 3,71   | 3,80   | 3,71   |
|   | L   | W/W | 2,96   | 3,19   | 3,01   | 3,28   |
| $\eta_{sc}$   | E   | %   | 146,50 | 145,20 | 148,90 | 145,30 |
|   | L   | %   | 115,30 | 124,40 | 117,30 | 128,30 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)</b> |     |     |        |        |        |        |
| Efficiency energy class   | E,L |     | A+     | A+     | A+     | -      |
| Pdesigngh   | E,L | kW  | -      | -      | -      | -      |
| $\eta_{sh}$   | E   | %   | 138,00 | 137,00 | 137,00 | 135,00 |
|   | L   | %   | 125,00 | 128,00 | 125,00 | 125,00 |
| SCOP  | E   | W/W | 3,53   | 3,50   | 3,50   | 3,45   |
|   | L   | W/W | 3,20   | 3,28   | 3,20   | 3,20   |

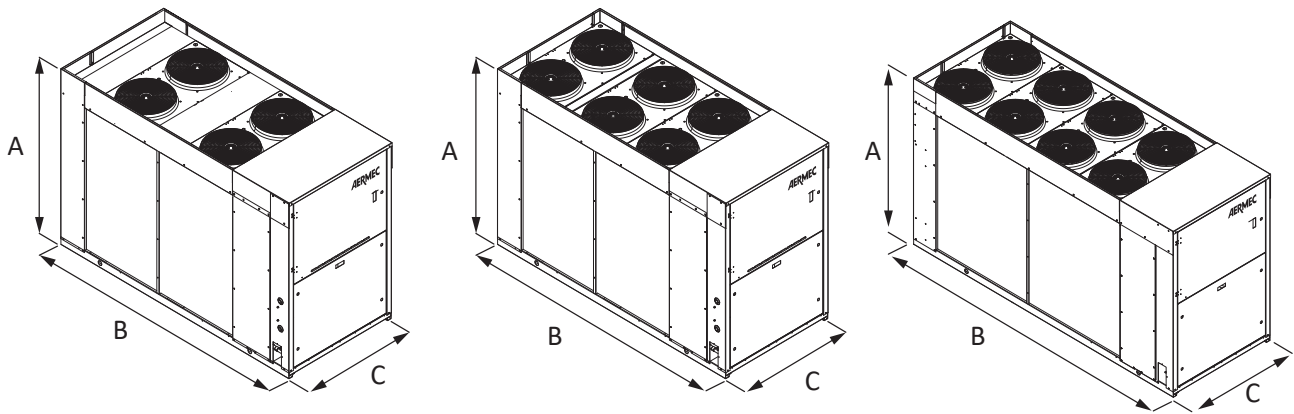
(1) Efficiencies for low temperature applications (35 °C)

## GENERAL TECHNICAL DATA

| Size   |     |       | 0280  | 0300  | 0330           | 0350  |
|--|-----|-------|-------|-------|----------------|-------|
| <b>Compressor</b>                                |     |       |       |       |                |       |
| Type   | E,L | type  |       |       | Scroll         |       |
| Compressor regulation                            | E,L | Type  |       |       | On-Off         |       |
| Number   | E,L | no.   | 2     | 2     | 2              | 2     |
| Circuits   | E,L | no.   | 2     | 2     | 2              | 2     |
| Refrigerant                                      | E,L | type  |       |       | R410A          |       |
| <b>System side heat exchanger</b>                |     |       |       |       |                |       |
| Type   | E,L | type  |       |       | Brazed plate   |       |
| Number   | E,L | no.   | 1     | 1     | 1              | 1     |
| <b>System side hydraulic connections</b>         |     |       |       |       |                |       |
| Connections (in/out)                             | E,L | Type  |       |       | Grooved joints |       |
| Sizes (in/out)                                   | E,L | Ø     |       |       | 2" 1/2         |       |
| <b>Fan</b>                                       |     |       |       |       |                |       |
| Type   | E,L | type  |       |       | axials         |       |
| Number   | E   | no.   | 6     | 8     | 8              | 8     |
|  | L   | no.   | 4     | 6     | 6              | 6     |
| Air flow rate                                    | E   | m³/h  | 20000 | 26000 | 26000          | 26000 |
|  | L   | m³/h  | 14000 | 20000 | 20000          | 20000 |
| <b>Sound data calculated in cooling mode (1)</b> |     |       |       |       |                |       |
| Sound power level                                | E   | dB(A) | 74,0  | 75,0  | 75,0           | 76,0  |
|  | L   | dB(A) | 73,0  | 74,0  | 74,0           | 75,0  |
| Sound pressure level (10 m)                      | E   | dB(A) | 42,3  | 43,2  | 43,2           | 44,2  |
|  | L   | dB(A) | 41,3  | 42,3  | 42,3           | 43,3  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



| Size                   |     |    | 0280 | 0300 | 0330 | 0350 |
|------------------------|-----|----|------|------|------|------|
| Dimensions and weights |     |    |      |      |      |      |
| A                      | E,L | mm | 1606 | 1606 | 1606 | 1606 |
| B                      | E,L | mm | 1100 | 1100 | 1100 | 1100 |
| C                      | E   | mm | -    | 2950 | 2950 | 2950 |
|                        | L   | mm | 2450 | 2450 | 2450 | 2450 |
| Weights                |     |    |      |      |      |      |
| Without hydronic kit   | E   | kg | 730  | 795  | 805  | 811  |
|                        | L   | kg | 713  | 724  | 731  | 740  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## NRG 0800-3600

## Air-water chiller

Cooling capacity 225,7 ÷ 1034,5 kW

- High efficiency also at partial loads
- Low refrigerant charge
- Night mode



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas axial fan, microchannel batteries and plate exchangers.**

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

L Standard silenced

N Silenced very high efficiency

U Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 49°C external air temperature. Unit can produce chilled water up to -10 °C in some versions.

For more information refer to the selection program and to the dedicated documentation.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

**Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).**

### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It's available in various configurations, with storage tank or pumps.**

### CONTROL PCO<sub>5</sub>

**The units from size 0800 to 2400 have 1 control card, while the units from size 2600 to 3600 have 2 control cards.**

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.



- Possibility to control two units in a Master-Slave configuration (from size 0800 to 2400)

## INTEGRATED SOLUTION (2600 ÷ 3600)

The "integrated solution" concept has been implemented in the system architecture, consisting in an integrated and streamlined control of compressors and electronic valve.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver        | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AER485P1 x no. 2 | °A,E,L,N,U |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AERBACP x no. 2  | °A,E,L,N,U |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Remote panel

| Model | Ver        | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|-------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

## Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1800    | 2000    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |
| °  | AVX1125 | AVX1125 | AVX1125 | AVX1125 | AVX1127 | AVX1127 | AVX1127 | AVX1129 | AVX1130 |
| A, L   | AVX1125 | AVX1125 | AVX1127 | AVX1127 | AVX1127 | AVX1143 | AVX1143 | AVX1138 | AVX1138 |
| E, U   | AVX1127 | AVX1127 | AVX1127 | AVX1143 | AVX1143 | AVX1148 | AVX1148 | AVX1136 | AVX1139 |
| N  | AVX1143 | AVX1143 | AVX1143 | AVX1148 | AVX1148 | AVX1148 | AVX1148 | AVX1139 | AVX1141 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ</b> |         |         |         |         |         |         |         |         |         |
| °  | AVX1126 | AVX1126 | AVX1126 | AVX1126 | AVX1128 | AVX1128 | AVX1128 | AVX1131 | AVX1131 |
| A, L   | AVX1126 | AVX1126 | AVX1128 | AVX1128 | AVX1128 | AVX1147 | AVX1147 | AVX1135 | AVX1135 |
| E, U   | AVX1128 | AVX1128 | AVX1128 | AVX1147 | AVX1147 | AVX1135 | AVX1135 | AVX1137 | AVX1140 |
| N  | AVX1147 | AVX1147 | AVX1147 | AVX1135 | AVX1135 | AVX1135 | AVX1137 | AVX1140 | AVX1142 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b>     |         |         |         |         |         |         |         |         |         |
| °  | AVX1125 | AVX1125 | AVX1125 | AVX1125 | AVX1126 | AVX1126 | AVX1126 | AVX1132 | AVX1132 |
| A, L   | AVX1125 | AVX1125 | AVX1126 | AVX1126 | AVX1126 | AVX1144 | AVX1144 | AVX1134 | AVX1138 |
| E, U   | AVX1126 | AVX1126 | AVX1126 | AVX1144 | AVX1144 | AVX1149 | AVX1149 | AVX1136 | AVX1139 |
| N  | AVX1144 | AVX1144 | AVX1144 | AVX1149 | AVX1149 | AVX1149 | AVX1136 | AVX1139 | AVX1141 |

| Ver  | 2200    | 2400    | 2600    | 2800    | 3000    | 3200    | 3400    | 3600    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |
| °  | AVX1130 | AVX1138 | AVX1167 | AVX1167 | AVX1167 | AVX1167 | AVX1168 | AVX1168 |
| A, L   | AVX1150 | AVX1150 | AVX1171 | AVX1171 | AVX1171 | AVX1172 | AVX1172 | AVX1250 |
| E, U   | AVX1139 | AVX1141 | AVX1251 | AVX1170 | AVX1170 | AVX1253 | AVX1253 | AVX1253 |
| N  | AVX1141 | AVX1145 | AVX1174 | AVX1254 | AVX1254 | AVX1254 | AVX1254 | AVX1176 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ</b> |         |         |         |         |         |         |         |         |
| °  | AVX1131 | AVX1135 | AVX1167 | AVX1167 | AVX1167 | AVX1167 | AVX1168 | AVX1168 |
| A, L   | AVX1137 | AVX1137 | AVX1171 | AVX1171 | AVX1172 | AVX1172 | AVX1250 | AVX1251 |
| E, U   | AVX1140 | AVX1142 | AVX1251 | AVX1170 | AVX1252 | AVX1253 | AVX1253 | AVX1174 |
| N  | AVX1142 | AVX1146 | AVX1174 | AVX1254 | AVX1254 | AVX1254 | AVX1176 | AVX1176 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |         |         |         |         |         |         |         |         |
| °  | AVX1132 | AVX1133 | AVX1167 | AVX1167 | AVX1167 | AVX1167 | AVX1168 | AVX1168 |
| A, L   | AVX1150 | AVX1150 | AVX1171 | AVX1171 | AVX1171 | AVX1172 | AVX1250 | AVX1250 |
| E, U   | AVX1139 | AVX1141 | AVX1251 | AVX1170 | AVX1252 | AVX1253 | AVX1253 | AVX1253 |
| N  | AVX1141 | AVX1145 | AVX1174 | AVX1254 | AVX1254 | AVX1254 | AVX1176 | AVX1176 |

### Condensation control temperature

| Ver            | 0800        | 0900        | 1000        | 1100        | 1200        | 1400        | 1600        | 1800        | 2000        |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Fans: M</b> |             |             |             |             |             |             |             |             |             |
| °              | DCPX161     | DCPX161     | DCPX161     | DCPX161     | DCPX163     | DCPX163     | DCPX163     | DCPX165     | DCPX165     |
| A              | DCPX161     | DCPX161     | DCPX163     | DCPX163     | DCPX163     | DCPX165     | DCPX165     | DCPX167     | DCPX167     |
| E, L, N        | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| U              | DCPX163     | DCPX163     | DCPX163     | DCPX165     | DCPX165     | DCPX167     | DCPX167     | DCPX169     | DCPX171     |
| <b>Fans: M</b> |             |             |             |             |             |             |             |             |             |
| °              | DCPX165     | DCPX167     | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| A              | DCPX169     | DCPX169     | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| E, L, N        | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| U              | DCPX171     | DCPX172     | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

### Device for peak current reduction

| Ver              | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L, N, U | DRENRG0800 | DRENRG0900 | DRENRG1000 | DRENRG1100 | DRENRG1200 | DRENRG1400 | DRENRG1600 | DRENRG1800 | DRENRG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver              | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L, N, U | DRENRG2200 | DRENRG2400 | DRENRG2600 | DRENRG2800 | DRENRG3000 | DRENRG3200 | DRENRG3400 | DRENRG3600 |

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver              | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L, N, U | RIFNRG0800 | RIFNRG0900 | RIFNRG1000 | RIFNRG1100 | RIFNRG1200 | RIFNRG1400 | RIFNRG1600 | RIFNRG1800 | RIFNRG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver              | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L, N, U | RIFNRG2200 | RIFNRG2400 | RIFNRG2600 | RIFNRG2800 | RIFNRG3000 | RIFNRG3200 | RIFNRG3400 | RIFNRG3600 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800 | 2000 |
|------|-------|-------|-------|-------|-------|-------|-------|------|------|
| °    | GP2VN | GP2VN | GP2VN | GP2VN | GP3G  | GP3G  | GP3G  | GP4G | GP4G |
| A, L | GP2VN | GP2VN | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5G | GP5G |
| E, U | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5GM | GP5GM | GP6G | GP7G |
| N    | GP4GM | GP4GM | GP4GM | GP5GM | GP5GM | GP5GM | GP6G  | GP7G | GP8G |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|------|------|------|-------|-------|-------|-------|-------|-------|
| °    | GP4G | GP5G | GP11G | GP11G | GP11G | GP11G | GP11G | GP12G |
| A, L | GP6G | GP6G | GP11G | GP12G | GP12G | GP12G | GP13G | GP13G |
| E, U | GP7G | GP8G | GP12G | GP13G | GP14G | GP14G | GP14G | GP15G |
| N    | GP8G | GP9G | GP13G | GP14G | GP15G | GP15G | GP15G | GP15G |

A grey background indicates the accessory must be assembled in the factory

■ GP2VN becomes GP2VNA if configured with a type A or B hydronic kit

### Double safety valves

| Ver              | 0800     | 0900     | 1000     | 1100     | 1200     | 1400     | 1600     | 1800     | 2000     |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| °, A, E, L, N, U | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS2 | T6NRGLS3 |

A grey background indicates the accessory must be assembled in the factory

| Ver              | 2200     | 2400     | 2600     | 2800     | 3000     | 3200     | 3400     | 3600     |
|------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| °, A, E, L, N, U | T6NRGLS3 | T6NRGLS3 | T6NRGLS3 | T6NRGLS4 | T6NRGLS5 | T6NRGLS5 | T6NRGLS5 | T6NRGLS5 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model</b>  |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| T              | With total recovery (4)   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| I              | Copper-aluminium  |
| O              | Coated aluminium microchannel   |
| R              | Copper-copper   |
| S              | Tinned copper   |
| V              | Copper-painted aluminium  |
| °              | Aluminium microchannel  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized (5)   |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (6)  |
|                | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |
| DD             | Pump D + stand-by pump  |
| DE             | Pump E + stand-by pump  |
| DF             | Pump F + stand-by pump  |
| DG             | Pump G + stand-by pump  |
| DH             | Pump H + stand-by pump  |
| DI             | Pump I + stand-by pump  |
| DJ             | Pump J + stand-by pump (6)  |
|                | <b>Kit with storage tank and n° 1 pump</b>  |
| AA             | Storage tank and pump A   |
| AB             | Storage tank and pump B   |
| AC             | Storage tank and pump C   |
| AD             | Storage tank and pump D   |
| AE             | Storage tank and pump E   |
| AF             | Storage tank and pump F   |
| AG             | Storage tank and pump G   |
| AH             | Storage tank and pump H   |
| AI             | Storage tank and pump I   |
| AJ             | Storage tank and pump J (6)   |
|                | <b>Kit with storage tank and n° 1 pump + stand-by pump</b>  |
| BA             | Storage tank with pump A + stand-by pump  |

| Field | Description   |
|-------|---|
| BB    | Storage tank with pump B + stand-by pump  |
| BC    | Storage tank with pump C + stand-by pump  |
| BD    | Storage tank with pump D + stand-by pump  |
| BE    | Storage tank with pump E + stand-by pump  |
| BF    | Storage tank with pump F + stand-by pump  |
| BG    | Storage tank with pump G + stand-by pump  |
| BH    | Storage tank with pump H + stand-by pump  |
| BI    | Storage tank with pump I + stand-by pump  |
| BJ    | Storage tank with pump J + stand-by pump (6)                                    |
|       | <b>Kit with n° 1 inverter pump to fixed speed</b>                               |
| IA    | Pump A equipped with inverter device to work at fixed speed                     |
| IB    | Pump B equipped with inverter device to work at fixed speed                     |
| IC    | Pump C equipped with inverter device to work at fixed speed                     |
| ID    | Pump D equipped with inverter device to work at fixed speed                     |
| IE    | Pump E equipped with inverter device to work at fixed speed                     |
| IF    | Pump F equipped with inverter device to work at fixed speed (7)                 |
| IG    | Pump G equipped with inverter device to work at fixed speed (7)                 |
| IH    | Pump H equipped with inverter device to work at fixed speed (7)                 |
| II    | Pump I equipped with inverter device to work at fixed speed (7)                 |
| IJ    | Pump J equipped with inverter device to work at fixed speed (8)                 |
|       | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>               |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed        |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed        |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed        |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed        |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed        |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (7)    |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (7)    |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed (7)    |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed (7)    |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (8)    |
|       | <b>Kit with storage tank and n° 1 inverter pump to fixed speed</b>              |
| CA    | Buffer tank + pump A, equipped with inverter to work at fixed speed             |
| CB    | Buffer tank + pump B, equipped with inverter to work at fixed speed             |
| CC    | Buffer tank + pump C, equipped with inverter to work at fixed speed             |
| CD    | Buffer tank + pump D, equipped with inverter to work at fixed speed             |
| CE    | Buffer tank + pump E, equipped with inverter to work at fixed speed             |
| CF    | Buffer tank + pump F, equipped with inverter to work at fixed speed (7)         |
| CG    | Buffer tank + pump G, equipped with inverter to work at fixed speed (7)         |
| CH    | Buffer tank + pump H, equipped with inverter to work at fixed speed (7)         |
| CI    | Buffer tank + pump I, equipped with inverter to work at fixed speed (7)         |
| CJ    | Buffer tank + pump J, equipped with inverter to work at fixed speed (7)         |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump to fixed speed</b>       |
| KA    | Buffer tank+pump A+stand-by pump, both with inverter to work at fixed speed     |
| KB    | Buffer tank+pump B+stand-by pump, both with inverter to work at fixed speed     |
| KC    | Buffer tank+pump C+stand-by pump, both with inverter to work at fixed speed     |
| KD    | Buffer tank+pump D+stand-by pump, both with inverter to work at fixed speed     |
| KE    | Buffer tank+pump E+stand-by pump, both with inverter to work at fixed speed     |
| KF    | Buffer tank+pump F+stand-by pump, both with inverter to work at fixed speed (7) |
| KG    | Buffer tank+pump G+stand-by pump, both with inverter to work at fixed speed (7) |
| KH    | Buffer tank+pump H+stand-by pump, both with inverter to work at fixed speed (7) |
| KI    | Buffer tank+pump I+stand-by pump, both with inverter to work at fixed speed (7) |
| KJ    | Buffer tank+pump J+stand-by pump, both with inverter to work at fixed speed (8) |

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 8 °C ÷ -10 °C

(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program

(4) None of the hydronic kits (from PA to KJ) are compatible with the following sizes and with versions with heat recovery T: 0800 - 0900 - 1000 - 1100 version °; 0800 - 0900 version A; 0800 - 0900 version L. None of the hydronic kits with pump(s) and storage tank (AA - AJ, BA-BJ, CA-CJ, KA-KJ) are compatible with all the sizes and with versions with heat recovery T. Total recovery is not compatible with sizes from 2600 to 3600.

(5) As standard in sizes from 800 to 2400. DPCC included as standard in sizes from 2600 to 3600.

(6) For all configurations including pump J please contact the factory.

(7) Hydronic kit not available with sizes 0800 version °/L/A, 0900 version °/L/A, 1000 version °, 1100 version °.

(8) For all possible configurations which include the "J" pump please be in touch with Aermec. Hydronic kit is not available with sizes 0800 version °/L/A, 0900 version °/L/A, 1000 version °, 1100 version °.

## PERFORMANCE SPECIFICATIONS

## NRG - °

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 229,0 | 251,4 | 278,2 | 314,5 | 372,4 | 399,7 | 459,4 | 532,8 | 593,5  | 635,8  | 698,1  | 742,2  | 792,8  | 849,5  | 890,4  | 929,9  | 988,3  |
| Input power                                 | kW  | 70,6  | 80,3  | 90,1  | 107,8 | 118,6 | 129,5 | 152,5 | 170,8 | 197,3  | 212,9  | 226,5  | 237,4  | 260,6  | 286,7  | 302,3  | 318,7  | 329,5  |
| Cooling total input current                 | A   | 121,9 | 138,4 | 155,6 | 182,3 | 197,6 | 222,2 | 248,5 | 282,0 | 325,0  | 353,5  | 366,3  | 399,8  | 449,0  | 492,2  | 512,4  | 547,7  | 550,4  |
| EER   | W/W | 3,24  | 3,13  | 3,09  | 2,92  | 3,14  | 3,09  | 3,01  | 3,12  | 3,01   | 2,99   | 3,08   | 3,13   | 3,04   | 2,96   | 2,94   | 2,92   | 3,00   |
| Water flow rate system side                 | l/h | 39392 | 43247 | 47863 | 54104 | 64061 | 68767 | 79015 | 91640 | 102081 | 109354 | 120062 | 127638 | 136347 | 146093 | 153120 | 159916 | 169959 |
| Pressure drop system side                   | kPa | 36    | 44    | 54    | 51    | 60    | 62    | 42    | 57    | 62     | 62     | 64     | 64     | 73     | 80     | 83     | 85     | 93     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## NRG - L

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 225,7 | 247,6 | 279,0 | 317,6 | 360,5 | 410,2 | 451,3 | 526,9 | 590,3  | 640,5  | 679,3  | 730,9  | 800,5  | 861,6  | 899,4  | 951,1  | 987,3  |
| Input power                                 | kW  | 70,6  | 80,3  | 88,3  | 106,0 | 121,5 | 133,0 | 151,3 | 171,3 | 200,0  | 209,3  | 224,5  | 239,4  | 260,0  | 286,0  | 302,8  | 314,0  | 330,1  |
| Cooling total input current                 | A   | 121,4 | 138,2 | 148,4 | 174,4 | 201,5 | 215,7 | 242,7 | 276,7 | 323,2  | 337,2  | 364,0  | 394,9  | 431,3  | 474,5  | 494,3  | 508,7  | 532,6  |
| EER   | W/W | 3,20  | 3,09  | 3,16  | 3,00  | 2,97  | 3,08  | 2,98  | 3,08  | 2,95   | 3,06   | 3,03   | 3,05   | 3,08   | 3,01   | 2,97   | 3,03   | 2,99   |
| Water flow rate system side                 | l/h | 38832 | 42603 | 47996 | 54644 | 62004 | 70568 | 77616 | 90617 | 101513 | 110161 | 116806 | 125699 | 137666 | 148170 | 154674 | 163553 | 169784 |
| Pressure drop system side                   | kPa | 36    | 43    | 42    | 48    | 47    | 53    | 41    | 49    | 53     | 62     | 39     | 59     | 67     | 73     | 78     | 86     | 80     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## NRG - A

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 230,4 | 253,6 | 287,0 | 328,9 | 374,1 | 424,3 | 468,8 | 542,9 | 608,8  | 663,3  | 702,9  | 746,1  | 816,2  | 880,4  | 920,3  | 971,2  | 1009,6 |
| Input power                                 | kW  | 69,3  | 78,3  | 86,3  | 100,7 | 116,2 | 127,9 | 144,7 | 163,4 | 187,9  | 202,4  | 217,9  | 234,1  | 256,3  | 277,8  | 293,3  | 308,5  | 323,4  |
| Cooling total input current                 | A   | 123,4 | 139,3 | 150,6 | 173,7 | 197,3 | 214,7 | 238,4 | 274,6 | 316,8  | 334,0  | 357,6  | 399,8  | 438,4  | 479,1  | 497,8  | 515,6  | 537,7  |
| EER   | W/W | 3,33  | 3,24  | 3,33  | 3,27  | 3,22  | 3,32  | 3,24  | 3,32  | 3,24   | 3,28   | 3,23   | 3,19   | 3,18   | 3,17   | 3,14   | 3,15   | 3,12   |
| Water flow rate system side                 | l/h | 39642 | 43624 | 49381 | 56584 | 64350 | 72980 | 80631 | 93379 | 104697 | 114081 | 120866 | 128314 | 140372 | 151403 | 158257 | 167010 | 173615 |
| Pressure drop system side                   | kPa | 37    | 45    | 44    | 52    | 52    | 56    | 44    | 53    | 58     | 67     | 42     | 61     | 70     | 77     | 81     | 90     | 84     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## NRG - E

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 229,7 | 256,5 | 280,7 | 330,9 | 378,2 | 424,6 | 466,3 | 542,7 | 617,8  | 652,1  | 705,8  | 746,7  | 822,8  | 892,1  | 930,9  | 968,4  | 1019,2 |
| Input power                                 | kW  | 68,3  | 77,4  | 86,8  | 100,0 | 116,7 | 128,4 | 144,7 | 165,0 | 186,7  | 203,2  | 214,1  | 234,1  | 256,2  | 278,2  | 294,6  | 306,7  | 322,4  |
| Cooling total input current                 | A   | 116,2 | 132,1 | 148,6 | 167,0 | 190,7 | 208,2 | 231,2 | 268,2 | 302,4  | 326,9  | 343,4  | 385,3  | 425,5  | 457,4  | 475,2  | 501,3  | 515,7  |
| EER   | W/W | 3,37  | 3,32  | 3,24  | 3,31  | 3,24  | 3,31  | 3,22  | 3,29  | 3,31   | 3,21   | 3,30   | 3,19   | 3,21   | 3,21   | 3,16   | 3,16   | 3,16   |
| Water flow rate system side                 | l/h | 39530 | 44119 | 48278 | 56919 | 65043 | 73027 | 80200 | 93338 | 106248 | 112132 | 121358 | 128409 | 141496 | 153408 | 160081 | 166526 | 175267 |
| Pressure drop system side                   | kPa | 38    | 35    | 38    | 48    | 39    | 38    | 44    | 47    | 59     | 45     | 37     | 62     | 67     | 78     | 83     | 78     | 82     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## NRG - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 234,8 | 263,0 | 288,8 | 339,2 | 389,3 | 435,6 | 479,7 | 558,1 | 634,0  | 671,3  | 725,0  | 756,9  | 834,1  | 903,8  | 943,7  | 982,9  | 1033,7 |
| Input power                                 | kW  | 68,2  | 76,5  | 85,2  | 99,1  | 114,3 | 126,8 | 142,5 | 163,7 | 185,1  | 200,1  | 212,0  | 231,3  | 253,6  | 274,6  | 290,0  | 304,2  | 319,2  |
| Cooling total input current                 | A   | 120,5 | 135,5 | 150,8 | 171,3 | 192,6 | 212,3 | 233,1 | 271,5 | 307,9  | 329,7  | 348,7  | 392,9  | 434,6  | 469,5  | 486,6  | 510,4  | 528,3  |
| EER   | W/W | 3,44  | 3,44  | 3,39  | 3,42  | 3,41  | 3,44  | 3,37  | 3,41  | 3,43   | 3,35   | 3,42   | 3,27   | 3,29   | 3,29   | 3,25   | 3,23   | 3,24   |
| Water flow rate system side                 | l/h | 40397 | 45241 | 49677 | 58351 | 66957 | 74921 | 82502 | 95984 | 109036 | 115443 | 124657 | 130163 | 143439 | 155430 | 162284 | 169028 | 177747 |
| Pressure drop system side                   | kPa | 40    | 36    | 41    | 50    | 40    | 39    | 47    | 49    | 62     | 48     | 39     | 57     | 69     | 81     | 82     | 80     | 85     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## NRG - N

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b>                           |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 235,0 | 262,1 | 290,7 | 339,2 | 389,2 | 430,7 | 481,8 | 556,2 | 627,9  | 670,3  | 719,8  | 759,5  | 831,3  | 900,0  | 938,8  | 977,7  | 1019,2 |
| Input power                                 | kW  | 67,2  | 76,1  | 85,1  | 98,7  | 113,4 | 126,5 | 141,8 | 163,9 | 184,6  | 198,3  | 212,1  | 231,2  | 253,1  | 273,9  | 290,2  | 304,4  | 317,8  |
| Cooling total input current                 | A   | 114,7 | 129,5 | 144,6 | 163,8 | 185,1 | 208,2 | 225,3 | 262,3 | 297,3  | 320,1  | 337,6  | 379,3  | 419,5  | 452,9  | 470,1  | 494,4  | 515,7  |
| EER   | W/W | 3,50  | 3,44  | 3,42  | 3,44  | 3,43  | 3,40  | 3,40  | 3,39  | 3,40   | 3,38   | 3,39   | 3,29   | 3,28   | 3,29   | 3,24   | 3,21   | 3,21   |
| Water flow rate system side                 | l/h | 40430 | 45090 | 50006 | 58350 | 66941 | 74070 | 82857 | 95663 | 107988 | 115265 | 123768 | 130611 | 142953 | 154767 | 161439 | 168129 | 175265 |
| Pressure drop system side                   | kPa | 41    | 38    | 41    | 50    | 41    | 38    | 42    | 49    | 61     | 47     | 39     | 61     | 69     | 80     | 85     | 79     | 82     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                              |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|-----------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: J                           |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN 14825: 2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                              | ° | W/W | 4,60   | 4,60   | 4,51   | 4,53   | 4,68   | 4,61   | 4,75   | 4,72   | 4,67   | 4,72   | 4,66   | 4,92   | 5,04   | 5,03   | 4,98   | 4,93   | 4,96   |
|                                   | A | W/W | 4,82   | 4,85   | 4,82   | 4,84   | 4,85   | 4,85   | 4,87   | 4,92   | 4,91   | 4,90   | 4,85   | 5,01   | 5,15   | 5,19   | 5,14   | 5,08   | 5,04   |
|                                   | E | W/W | 4,93   | 4,97   | 4,90   | 4,95   | 4,95   | 5,06   | 5,03   | 5,14   | 5,09   | 4,99   | 4,97   | 5,03   | 5,13   | 5,12   | 5,08   | 5,10   | 5,04   |
|                                   | L | W/W | 4,74   | 4,74   | 4,81   | 4,80   | 4,79   | 4,99   | 4,84   | 4,98   | 4,97   | 4,96   | 4,93   | 4,94   | 5,07   | 5,10   | 5,07   | 5,04   | 5,01   |
|                                   | N | W/W | 5,01   | 5,03   | 5,05   | 5,08   | 5,06   | 5,17   | 5,14   | 5,19   | 5,14   | 5,06   | 5,01   | 5,10   | 5,19   | 5,16   | 5,12   | 5,13   | 5,11   |
|                                   | U | W/W | 4,88   | 4,89   | 4,91   | 4,94   | 4,93   | 4,87   | 4,95   | 4,96   | 4,87   | 4,84   | 4,84   | 5,11   | 5,25   | 5,25   | 5,14   | 5,12   | 5,10   |
| Seasonal efficiency               | ° | %   | 181,20 | 180,81 | 177,55 | 178,19 | 184,10 | 181,33 | 187,11 | 185,77 | 183,62 | 185,93 | 183,49 | 193,99 | 198,74 | 198,31 | 196,15 | 194,31 | 195,23 |
|                                   | A | %   | 189,63 | 191,00 | 189,65 | 190,48 | 191,13 | 191,01 | 191,98 | 193,63 | 193,20 | 192,83 | 191,19 | 197,45 | 203,06 | 204,69 | 202,63 | 200,04 | 198,74 |
|                                   | E | %   | 194,09 | 195,85 | 192,97 | 195,14 | 195,09 | 199,22 | 198,28 | 202,75 | 200,40 | 196,73 | 195,73 | 198,31 | 202,20 | 201,77 | 200,04 | 200,90 | 198,74 |
|                                   | L | %   | 186,54 | 186,65 | 189,26 | 188,90 | 188,53 | 196,47 | 190,41 | 196,04 | 195,71 | 195,37 | 194,18 | 194,42 | 199,96 | 200,82 | 199,61 | 198,74 | 197,45 |
|                                   | N | %   | 197,31 | 198,10 | 199,16 | 200,08 | 199,21 | 203,95 | 202,63 | 204,40 | 202,46 | 199,48 | 197,51 | 200,90 | 204,54 | 203,58 | 201,92 | 202,36 | 201,34 |
|                                   | U | %   | 192,19 | 192,79 | 193,28 | 194,65 | 194,13 | 191,62 | 194,98 | 195,59 | 191,72 | 190,54 | 190,68 | 201,34 | 206,95 | 207,06 | 202,63 | 201,77 | 200,98 |
| SEER - 23/18 (EN 14825: 2018) (1) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                              | ° | W/W | 5,47   | 5,43   | 5,32   | 5,34   | 5,61   | 5,49   | 5,60   | 5,61   | 5,55   | 5,57   | 5,56   | 5,81   | 5,97   | 5,97   | 5,90   | 5,85   | 5,86   |
|                                   | A | W/W | 5,77   | 5,79   | 5,79   | 5,78   | 5,74   | 5,78   | 5,72   | 5,84   | 5,84   | 5,84   | 5,80   | 6,00   | 6,17   | 6,22   | 6,15   | 6,07   | 6,03   |
|                                   | E | W/W | 5,91   | 5,94   | 5,80   | 5,90   | 5,83   | 6,01   | 5,91   | 6,08   | 6,01   | 5,92   | 5,92   | 5,96   | 6,08   | 6,06   | 6,01   | 6,04   | 5,97   |
|                                   | L | W/W | 5,69   | 5,66   | 5,69   | 5,66   | 5,59   | 5,88   | 5,64   | 5,82   | 5,80   | 5,81   | 5,77   | 5,78   | 5,95   | 5,97   | 5,94   | 5,91   | 5,87   |
|                                   | N | W/W | 6,04   | 6,05   | 6,05   | 6,11   | 6,03   | 6,11   | 6,07   | 6,16   | 6,10   | 6,02   | 5,99   | 6,07   | 6,18   | 6,14   | 6,09   | 6,11   | 6,08   |
|                                   | U | W/W | 5,93   | 5,92   | 5,90   | 5,96   | 5,89   | 5,80   | 5,87   | 5,93   | 5,86   | 5,85   | 5,86   | 6,18   | 6,35   | 6,35   | 6,21   | 6,19   | 6,16   |
| Seasonal efficiency               | ° | %   | 215,77 | 214,03 | 209,84 | 210,78 | 221,22 | 216,68 | 221,00 | 221,39 | 218,97 | 219,81 | 219,27 | 229,30 | 235,87 | 235,76 | 233,09 | 230,91 | 231,55 |
|                                   | A | %   | 227,94 | 228,49 | 228,46 | 228,12 | 226,73 | 228,27 | 225,89 | 230,58 | 230,52 | 230,72 | 229,10 | 236,89 | 243,65 | 245,61 | 243,10 | 239,80 | 238,34 |
|                                   | E | %   | 233,50 | 234,52 | 229,14 | 233,17 | 230,29 | 237,47 | 233,26 | 240,04 | 237,31 | 233,77 | 233,69 | 235,56 | 240,22 | 239,55 | 237,47 | 238,59 | 235,95 |
|                                   | L | %   | 224,54 | 223,48 | 224,79 | 223,35 | 220,60 | 232,13 | 222,79 | 229,99 | 229,03 | 229,46 | 227,62 | 228,35 | 234,91 | 235,86 | 234,41 | 233,25 | 231,69 |
|                                   | N | %   | 238,70 | 239,11 | 239,16 | 241,55 | 238,13 | 241,52 | 239,72 | 243,56 | 240,96 | 237,95 | 236,49 | 239,74 | 244,07 | 242,76 | 240,75 | 241,39 | 240,13 |
|                                   | U | %   | 234,19 | 233,99 | 232,90 | 235,60 | 232,79 | 228,85 | 231,88 | 234,26 | 231,29 | 230,89 | 231,57 | 244,25 | 250,90 | 250,85 | 245,47 | 244,48 | 243,44 |
| SEPR - (EN 14825: 2018) (2)       |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                              | ° | W/W | 5,84   | 5,73   | 5,82   | 5,67   | 5,95   | 6,14   | 6,27   | 6,31   | 6,09   | 6,12   | 6,30   | 6,38   | 6,60   | 6,61   | 6,53   | 6,47   | 6,47   |
|                                   | A | W/W | 6,12   | 6,09   | 6,21   | 6,13   | 6,12   | 6,35   | 6,41   | 6,46   | 6,38   | 6,45   | 6,48   | 6,68   | 6,89   | 6,96   | 6,89   | 6,78   | 6,74   |
|                                   | E | W/W | 6,24   | 6,26   | 6,28   | 6,23   | 6,14   | 6,72   | 6,72   | 6,78   | 6,73   | 6,64   | 6,62   | 6,70   | 6,84   | 6,82   | 6,77   | 6,80   | 6,72   |
|                                   | L | W/W | 6,10   | 6,05   | 6,16   | 6,08   | 5,87   | 6,54   | 6,44   | 6,56   | 6,54   | 6,50   | 6,43   | 6,47   | 6,67   | 6,73   | 6,70   | 6,64   | 6,69   |
|                                   | N | W/W | 6,36   | 6,35   | 6,37   | 6,38   | 6,43   | 6,82   | 6,80   | 6,93   | 6,85   | 6,78   | 6,71   | 6,85   | 6,99   | 6,95   | 6,89   | 6,92   | 6,88   |
|                                   | U | W/W | 6,38   | 6,36   | 6,36   | 6,25   | 6,30   | 6,55   | 6,63   | 6,55   | 6,50   | 6,59   | 6,64   | 7,01   | 7,21   | 7,21   | 7,05   | 7,02   | 6,98   |

(1) Calculation performed with VARIABLE water flow rate

(2) Calculation performed with FIXED water flow rate

| Size                              |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|-----------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                           |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN 14825: 2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                              | ° | W/W | 4,49   | 4,48   | 4,42   | 4,45   | 4,34   | 4,42   | 4,56   | 4,59   | 4,55   | 4,62   | 4,57   | 4,60   | 4,62   | 4,64   | 4,65   | 4,67   | 4,63   |
|                                   | A | W/W | 4,57   | 4,61   | 4,59   | 4,64   | 4,66   | 4,81   | 4,78   | 4,81   | 4,82   | 4,77   | 4,73   | 4,63   | 4,66   | 4,69   | 4,71   | 4,69   | 4,69   |
|                                   | E | W/W | 4,66   | 4,72   | 4,70   | 4,75   | 4,74   | 4,81   | 4,83   | 4,88   | 4,86   | 4,81   | 4,82   | 4,69   | 4,68   | 4,69   | 4,67   | 4,67   | 4,69   |
|                                   | L | W/W | 4,52   | 4,54   | 4,61   | 4,61   | 4,60   | 4,81   | 4,74   | 4,81   | 4,80   | 4,80   | 4,78   | 4,63   | 4,65   | 4,65   | 4,65   | 4,64   | 4,65   |
|                                   | N | W/W | 4,74   | 4,77   | 4,84   | 4,86   | 4,84   | 4,93   | 4,93   | 4,92   | 4,91   | 4,88   | 4,87   | 4,72   | 4,72   | 4,70   | 4,72   | 4,70   | 4,72   |
|                                   | U | W/W | 4,63   | 4,66   | 4,68   | 4,74   | 4,73   | 4,82   | 4,86   | 4,86   | 4,78   | 4,72   | 4,73   | 4,67   | 4,71   | 4,73   | 4,72   | 4,73   | 4,71   |
| Seasonal efficiency               | ° | %   | 176,62 | 176,29 | 173,89 | 175,16 | 170,44 | 173,62 | 179,47 | 180,79 | 179,09 | 181,96 | 179,69 | 180,94 | 181,88 | 182,75 | 183,18 | 183,61 | 182,32 |
|                                   | A | %   | 179,65 | 181,43 | 180,66 | 182,42 | 183,41 | 189,30 | 188,26 | 189,31 | 189,61 | 187,82 | 186,31 | 182,32 | 183,56 | 184,74 | 185,26 | 184,44 | 184,41 |
|                                   | E | %   | 183,47 | 185,88 | 184,93 | 186,81 | 186,78 | 189,58 | 190,12 | 192,35 | 191,44 | 189,50 | 189,92 | 184,46 | 184,04 | 184,46 | 183,61 | 183,98 | 184,46 |
|                                   | L | %   | 177,91 | 178,50 | 181,50 | 181,45 | 181,06 | 189,43 | 186,65 | 189,36 | 188,92 | 189,17 | 188,22 | 182,32 | 183,14 | 183,10 | 183,14 | 182,71 | 183,14 |
|                                   | N | %   | 186,42 | 187,94 | 190,76 | 191,43 | 190,66 | 194,09 | 194,23 | 193,86 | 193,28 | 192,09 | 191,66 | 185,75 | 184,92 | 185,77 | 185,78 | 184,89 | 185,68 |
|                                   | U | %   | 182,14 | 183,35 | 184,17 | 186,53 | 186,34 | 189,96 | 191,23 | 191,32 | 188,27 | 185,91 | 186,04 | 183,61 | 185,32 | 186,18 | 185,78 | 186,18 | 185,32 |
| SEER - 23/18 (EN 14825: 2018) (1) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                              | ° | W/W | 5,33   | 5,29   | 5,21   | 5,25   | 5,17   | 5,26   | 5,21   | 5,46   | 5,41   | 5,44   | 5,38   | 5,39   | 5,43   | 5,47   | 5,49   | 5,51   | 5,45   |
|                                   | A | W/W | 5,47   | 5,50   | 5,51   | 5,53   | 5,49   | 5,73   | 5,61   | 5,71   | 5,72   | 5,69   | 5,65   | 5,53   | 5,56   | 5,60   | 5,61   | 5,59   | 5,59   |
|                                   | E | W/W | 5,59   | 5,64   | 5,56   | 5,65   | 5,56   | 5,72   | 5,67   | 5,77   | 5,74   | 5,70   | 5,73   | 5,54   | 5,52   | 5,53   | 5,51   | 5,52   | 5,53   |
|                                   | L | W/W | 5,43   | 5,42   | 5,46   | 5,43   | 5,37   | 5,67   | 5,53   | 5,63   | 5,59   | 5,62   | 5,59   | 5,41   | 5,43   | 5,44   | 5,44   | 5,42   | 5,44   |
|                                   | N | W/W | 5,71   | 5,75   | 5,80   | 5,84   | 5,76   | 5,82   | 5,82   | 5,85   | 5,82   | 5,80   | 5,80   | 5,60   | 5,58   | 5,60   | 5,60   | 5,58   | 5,60   |
|                                   | U | W/W | 5,62   | 5,64   | 5,62   | 5,71   | 5,65   | 5,75   | 5,76   | 5,80   | 5,75   | 5,70   | 5,71   | 5,63   | 5,68   | 5,70   | 5,69   | 5,71   | 5,68   |
| Seasonal efficiency               | ° | %   | 210,28 | 208,66 | 205,52 | 207,05 | 203,71 | 207,46 | 205,26 | 215,21 | 213,44 | 214,60 | 212,06 | 212,65 | 214,00 | 215,76 | 216,46 | 217,23 | 214,80 |
|                                   | A | %   | 215,89 | 217,00 | 217,57 | 218,29 | 216,47 | 226,19 | 221,50 | 225,43 | 225,87 | 224,50 | 222,82 | 218,02 | 219,42 | 220,85 | 221,58 | 220,41 | 220,54 |
|                                   | E | %   | 220,65 | 222,52 | 219,54 | 223,14 | 219,44 | 225,89 | 223,61 | 227,72 | 226,58 | 224,85 | 226,30 | 218,58 | 217,96 | 218,35 | 217,34 | 217,87 | 218,39 |
|                                   | L | %   | 214,09 | 213,68 | 215,50 | 214,23 | 211,81 | 223,78 | 218,35 | 222,16 | 220,51 | 221,80 | 220,63 | 213,52 | 214,37 | 214,43 | 214,59 | 213,78 | 214,59 |
|                                   | N | %   | 225,54 | 226,84 | 229,06 | 230,70 | 227,28 | 229,69 | 229,77 | 230,98 | 229,93 | 228,93 | 229,01 | 221,18 | 220,09 | 220,95 | 220,99 | 220,05 | 220,96 |
|                                   | U | %   | 221,93 | 222,50 | 221,86 | 225,46 | 222,97 | 226,86 | 227,42 | 229,11 | 227,10 | 225,09 | 225,49 | 222,28 | 224,20 | 225,07 | 224,68 | 225,27 | 224,11 |

| Size                        |   |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|-----------------------------|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR - (EN 14825: 2018) (2) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                        | ° | W/W | 5,68 | 5,58 | 5,70 | 5,58 | 5,60 | 5,96 | 5,95 | 6,10 | 5,92 | 5,97 | 6,07 | 5,91 | 5,95 | 6,01 | 6,03 | 6,05 | 5,97 |
|                             | A | W/W | 5,79 | 5,78 | 5,93 | 5,95 | 5,87 | 6,34 | 6,27 | 6,33 | 6,32 | 6,30 | 6,31 | 6,11 | 6,16 | 6,20 | 6,23 | 6,19 | 6,20 |
|                             | E | W/W | 5,94 | 5,94 | 6,04 | 6,00 | 5,89 | 6,41 | 6,41 | 6,47 | 6,44 | 6,36 | 6,42 | 6,18 | 6,16 | 6,17 | 6,15 | 6,16 | 6,18 |
|                             | L | W/W | 5,85 | 5,77 | 5,93 | 5,84 | 5,63 | 6,29 | 6,29 | 6,35 | 6,28 | 6,26 | 6,21 | 6,01 | 6,03 | 6,04 | 6,06 | 6,02 | 6,13 |
|                             | N | W/W | 6,03 | 6,02 | 6,12 | 6,13 | 6,17 | 6,49 | 6,50 | 6,60 | 6,52 | 6,50 | 6,49 | 6,28 | 6,25 | 6,27 | 6,28 | 6,26 | 6,28 |
|                             | U | W/W | 6,04 | 6,05 | 6,04 | 6,02 | 6,07 | 6,49 | 6,50 | 6,41 | 6,37 | 6,42 | 6,46 | 6,34 | 6,39 | 6,42 | 6,41 | 6,43 | 6,40 |

(1) Calculation performed with VARIABLE water flow rate

(2) Calculation performed with FIXED water flow rate

## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  | 2400  | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Electric data         |     |   |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | °   | A | 158,2 | 176,5 | 198,8 | 226,7 | 262,4 | 290,3 | 318,1 | 371,7 | 417,5 | 445,4 | 481,1 | 542,5  | 588,3  | 634,1  | 662,0  | 689,9  | 725,5  |
|                       | A,L | A | 162,2 | 180,5 | 200,6 | 228,5 | 256,4 | 290,1 | 317,9 | 369,5 | 415,3 | 449,0 | 476,9 | 542,5  | 596,1  | 641,9  | 669,8  | 705,5  | 733,3  |
|                       | E,U | A | 164,0 | 182,3 | 200,6 | 234,3 | 262,2 | 295,9 | 323,7 | 375,3 | 426,9 | 454,8 | 488,5 | 550,3  | 603,9  | 657,5  | 685,4  | 713,3  | 748,9  |
|                       | N   | A | 169,8 | 188,1 | 206,4 | 240,1 | 268,0 | 295,9 | 329,5 | 381,1 | 432,7 | 460,6 | 494,3 | 558,1  | 611,7  | 665,3  | 693,2  | 721,1  | 748,9  |
| Peak current (LRA)    | °   | A | 361,6 | 417,7 | 440,0 | 689,0 | 724,7 | 752,6 | 780,4 | 834,1 | 879,9 | 907,7 | 943,4 | 1004,8 | 1050,6 | 1096,4 | 1124,3 | 1152,2 | 1187,8 |
|                       | A,L | A | 365,6 | 421,7 | 441,8 | 690,8 | 718,7 | 752,4 | 780,2 | 831,9 | 877,7 | 911,3 | 939,2 | 1004,8 | 1058,4 | 1104,2 | 1132,1 | 1167,8 | 1195,6 |
|                       | E,U | A | 367,4 | 423,5 | 441,8 | 696,6 | 724,5 | 758,2 | 786,0 | 837,7 | 889,3 | 917,1 | 950,8 | 1012,6 | 1066,2 | 1119,8 | 1147,7 | 1175,6 | 1211,2 |
|                       | N   | A | 373,2 | 429,3 | 447,6 | 702,4 | 730,3 | 758,2 | 791,8 | 843,5 | 895,1 | 922,9 | 956,6 | 1020,4 | 1074,0 | 1127,6 | 1155,5 | 1183,4 | 1211,2 |

■ Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

### Compressors

| Size                           |            |      | 0800                    | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|--------------------------------|------------|------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Compressor                     |            |      |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type                           | °A,E,L,N,U | type | Scroll                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation          | °A,E,L,N,U | Type | On/Off                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number                         | °A,E,L,N,U | no.  | 4                       | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    | 7    | 8    | 9    | 9    | 9    | 9    |
| Circuits                       | °A,E,L,N,U | no.  | 2                       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    |
| Refrigerant                    | °A,E,L,N,U | type | R32                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1) | °          | kg   | 10,5                    | 10,9 | 11,3 | 14,0 | 15,0 | 15,0 | 15,8 | 20,6 | 20,6 | 24,1 | 29,0 | 21,0 | 20,5 | 21,6 | 21,6 | 24,6 | 29,0 |
|                                | A,L        | kg   | 11,3                    | 10,9 | 11,0 | 15,0 | 15,8 | 18,0 | 18,0 | 20,6 | 24,0 | 24,4 | 26,3 | 21,0 | 24,0 | 24,0 | 24,0 | 24,4 | 26,3 |
|                                | E,U        | kg   | 15,4                    | 15,0 | 16,1 | 19,9 | 19,9 | 24,0 | 23,3 | 25,9 | 28,1 | 33,8 | 30,8 | 23,3 | 25,9 | 28,1 | 28,1 | 33,8 | 30,8 |
|                                | N          | kg   | 16,0                    | 16,0 | 17,3 | 24,2 | 26,3 | 26,3 | 30,8 | 30,0 | 37,5 | 34,1 | 34,1 | 30,8 | 30,0 | 37,5 | 37,5 | 34,1 | 34,1 |
| Refrigerant load circuit 2 (1) | °          | kg   | 10,5                    | 10,9 | 11,3 | 14,0 | 15,0 | 15,0 | 15,8 | 20,6 | 20,6 | 25,6 | 29,0 | 22,5 | 20,5 | 23,6 | 23,6 | 26,0 | 29,0 |
|                                | A,L        | kg   | 11,3                    | 10,9 | 11,0 | 15,0 | 15,8 | 20,5 | 20,5 | 20,6 | 24,0 | 24,4 | 26,3 | 22,5 | 28,0 | 24,0 | 24,0 | 24,4 | 26,3 |
|                                | E,U        | kg   | 15,4                    | 15,0 | 16,1 | 19,9 | 19,9 | 25,5 | 23,3 | 25,9 | 28,1 | 33,8 | 30,8 | 23,3 | 25,9 | 28,1 | 28,1 | 33,8 | 30,8 |
|                                | N          | kg   | 16,0                    | 16,0 | 18,8 | 25,4 | 26,3 | 26,3 | 30,8 | 30,0 | 37,5 | 34,1 | 34,1 | 30,8 | 30,0 | 37,5 | 37,5 | 34,1 | 30,8 |
| Refrigerant load circuit 3 (1) | °A,E,L,N,U | kg   | -                       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 30,0 | 30,0 | 30,0 | 30,0 | 30,0 | 30,0 |
| Potential global heating       | °A,E,L,N,U | GWP  | 675kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

### System side heat exchanger

| Size                               |            | 0800 | 0900           | 1000         | 1100         | 1200         | 1400         | 1600         | 1800         | 2000         | 2200         | 2400         | 2600         | 2800         | 3000         | 3200         | 3400         | 3600         |
|------------------------------------|------------|------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>System side heat exchanger</b>  |            |      |                |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Type                               | °A,E,L,N,U | type | Brazed plate   | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
| Number                             | °A,E,L,N,U | no.  | 1              | 1            | 1            | 1            | 1            | 1            | 1            | 1            | 1            | 1            | 2            | 2            | 2            | 2            | 2            | 2            |
| <b>Integrated hydronic kit: 00</b> |            |      |                |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| <b>Hydraulic connections</b>       |            |      |                |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Connections (in/out)               | °A,E,L,N,U | Type | Grooved joints |              |              |              |              |              |              |              |              |              |              |              |              |              |              |              |
| Sizes (in/out)                     | °          | Ø    | 3"             | 3"           | 3"           | 3"           | 3"           | 4"           | 4"           | 4"           | 4"           | 4"           | 5"           | 5"           | 5"           | 5"           | 5"           | 5"           |
|                                    | A,L        | Ø    | 3"             | 3"           | 3"           | 3"           | 3"           | 4"           | 4"           | 4"           | 4"           | 5"           | 5"           | 5"           | 5"           | 5"           | 5"           | 5"           |
|                                    | E,N,U      | Ø    | 3"             | 3"           | 3"           | 3"           | 4"           | 4"           | 4"           | 4"           | 4"           | 5"           | 5"           | 5"           | 5"           | 5"           | 5"           | 5"           |

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

## Fans

| Size                |            | 0800 | 0900     | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|---------------------|------------|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J</b>      |            |      |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Inverter fan</b> |            |      |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type                | °A,E,L,N,U | type | Axial    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Fan motor           | °A,E,L,N,U | type | Inverter |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).



| Size          |     | 0800 | 0900  | 1000  | 1100  | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|---------------|-----|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number        | °   | no.  | 4     | 4     | 4     | 4      | 6      | 6      | 8      | 8      | 8      | 10     | 14     | 14     | 14     | 14     | 14     | 16     |
|               | A,L | no.  | 4     | 4     | 6     | 6      | 8      | 8      | 10     | 10     | 12     | 12     | 14     | 16     | 16     | 16     | 18     | 18     |
|               | E,U | no.  | 6     | 6     | 6     | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     | 16     | 18     | 20     | 20     | 22     |
|               | N   | no.  | 8     | 8     | 8     | 10     | 10     | 10     | 12     | 14     | 16     | 16     | 18     | 18     | 20     | 22     | 22     | 22     |
| Air flow rate | °   | m³/h | 65555 | 65555 | 76744 | 76744  | 115121 | 115121 | 153480 | 153480 | 153480 | 191819 | 262339 | 262339 | 262339 | 262339 | 262339 | 299816 |
|               | A   | m³/h | 76743 | 76743 | 98321 | 98321  | 131111 | 131087 | 163789 | 163789 | 196572 | 196572 | 262339 | 299816 | 299816 | 299816 | 337293 | 337293 |
|               | E   | m³/h | 74973 | 74973 | 74973 | 99978  | 99978  | 124970 | 124970 | 149950 | 174934 | 174934 | 199932 | 254531 | 285031 | 315528 | 315528 | 346030 |
|               | L   | m³/h | 62605 | 62605 | 74978 | 74978  | 99996  | 99996  | 124953 | 124953 | 149882 | 149882 | 213489 | 243988 | 243988 | 243988 | 274487 | 274487 |
|               | N   | m³/h | 99973 | 99973 | 99973 | 124966 | 124966 | 149960 | 174953 | 199946 | 199946 | 224939 | 285030 | 315528 | 346027 | 346027 | 346027 | 346027 |
|               | U   | m³/h | 98320 | 98320 | 98320 | 131139 | 131139 | 163815 | 163815 | 196680 | 229462 | 229462 | 262164 | 299816 | 337293 | 374770 | 374770 | 412247 |
|               |     |      |       |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |

#### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound power level | ° | dB(A) | 87,1 | 87,1 | 90,5 | 90,6 | 92,4 | 92,5 | 92,6 | 93,8 | 93,8 | 93,9 | 94,8 | 96,5 | 96,6 | 96,6 | 96,6 | 97,3 |
|                   | A | dB(A) | 90,5 | 90,5 | 88,1 | 88,7 | 89,2 | 89,9 | 90,2 | 90,9 | 91,5 | 92,3 | 92,5 | 96,5 | 97,1 | 97,1 | 97,1 | 97,7 |
|                   | E | dB(A) | 84,4 | 84,5 | 84,5 | 85,8 | 86,5 | 87,6 | 88,1 | 88,6 | 89,0 | 89,7 | 90,2 | 93,4 | 93,9 | 94,3 | 94,4 | 94,9 |
|                   | L | dB(A) | 85,1 | 85,1 | 84,5 | 85,1 | 85,4 | 86,6 | 87,2 | 87,7 | 88,4 | 89,1 | 89,5 | 89,8 | 90,1 | 90,2 | 90,5 | 91,2 |
|                   | N | dB(A) | 85,3 | 85,4 | 85,4 | 86,9 | 87,6 | 88,1 | 89,0 | 89,4 | 89,8 | 90,5 | 91,0 | 93,8 | 94,2 | 94,6 | 94,7 | 94,9 |
|                   | U | dB(A) | 88,6 | 88,6 | 88,6 | 90,1 | 90,5 | 91,6 | 91,9 | 92,5 | 93,0 | 93,2 | 93,8 | 97,0 | 97,5 | 97,9 | 98,0 | 98,5 |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 |
|------|--|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|

#### Fans: M

##### Increased fan

|           |             |      |       |       |       |       |       |       |       |       |
|-----------|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Type      | °,A,E,L,N,U | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Fan motor | °,A,U       | type | - (1) | - (1) | - (1) | - (1) | - (1) | - (1) | - (1) | - (1) |
|           | E,L,N       | type | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) |
|           | °           | no.  | 4     | 4     | 4     | 4     | 6     | 6     | 6     | 8     |
| Number    | A,L         | no.  | 4     | 4     | 6     | 6     | 6     | 8     | 8     | 10    |
|           | E,U         | no.  | 6     | 6     | 6     | 6     | 8     | 8     | 10    | 12    |
|           | N           | no.  | 8     | 8     | 8     | 8     | 10    | 10    | 12    | 14    |

##### Without Static pressure

|                   |   |       |        |        |        |        |        |        |        |        |        |
|-------------------|---|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Air flow rate     | ° | m³/h  | 76740  | 76740  | 76744  | 76744  | 115121 | 115121 | 115121 | 153480 | 153480 |
|                   | A | m³/h  | 76743  | 76743  | 115110 | 115110 | 115110 | 153480 | 153480 | 191850 | 191850 |
|                   | E | m³/h  | 74973  | 74973  | 74973  | 99978  | 99978  | 124970 | 124970 | 149950 | 174934 |
|                   | L | m³/h  | 62605  | 62605  | 74978  | 74978  | 74978  | 99996  | 99996  | 124953 | 124953 |
|                   | N | m³/h  | 99973  | 99973  | 99973  | 124966 | 124966 | 124966 | 149960 | 174953 | 199946 |
|                   | U | m³/h  | 115110 | 115110 | 115110 | 153480 | 153480 | 191850 | 191850 | 230220 | 268590 |
| Sound power level | ° | dB(A) | 89,2   | 89,2   | 90,5   | 90,6   | 92,4   | 92,5   | 92,6   | 93,8   | 93,8   |
|                   | A | dB(A) | 90,5   | 90,5   | 90,5   | 90,8   | 91,1   | 92,1   | 92,3   | 93,1   | 93,4   |
|                   | E | dB(A) | 84,4   | 84,5   | 84,5   | 85,8   | 86,5   | 87,6   | 88,1   | 88,6   | 89,0   |
|                   | L | dB(A) | 85,1   | 85,1   | 84,5   | 85,1   | 85,4   | 86,6   | 87,2   | 87,7   | 88,4   |
|                   | N | dB(A) | 85,3   | 85,4   | 85,4   | 86,9   | 87,6   | 88,1   | 89,0   | 89,4   | 89,8   |
|                   | U | dB(A) | 90,8   | 90,8   | 90,8   | 92,2   | 92,5   | 93,5   | 93,6   | 94,3   | 94,9   |

(1) Asynchronous

(2) Asynchronous with phase cut

| Size |  | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|------|--|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|

#### Fans: M

##### Increased fan

|           |             |      |       |       |       |       |       |       |       |       |
|-----------|-------------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| Type      | °,A,E,L,N,U | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Fan motor | °,A,U       | type | - (1) | - (1) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) |
|           | E,L,N       | type | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) |
|           | °           | no.  | 8     | 10    | 14    | 14    | 14    | 14    | 14    | 16    |
| Number    | A,L         | no.  | 12    | 12    | 14    | 16    | 16    | 16    | 18    | 18    |
|           | E,U         | no.  | 14    | 16    | 16    | 18    | 20    | 20    | 20    | 22    |
|           | N           | no.  | 16    | 18    | 18    | 20    | 22    | 22    | 22    | 22    |

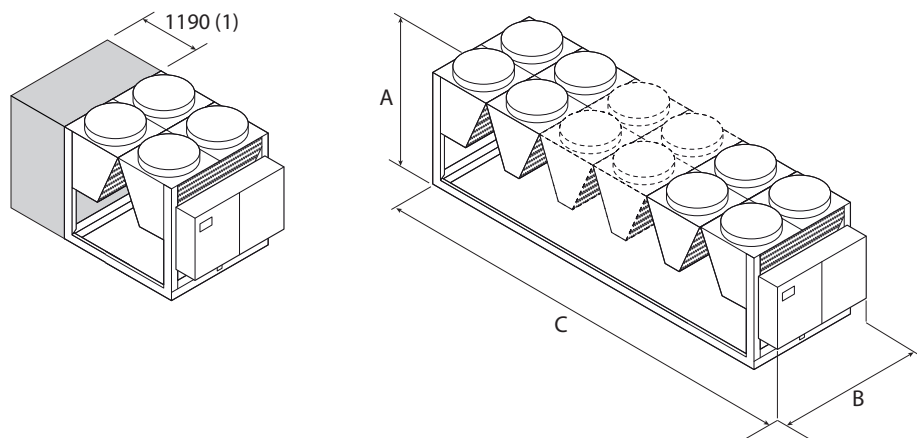
##### Without Static pressure

|                   |   |       |        |        |        |        |        |        |        |        |
|-------------------|---|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Air flow rate     | ° | m³/h  | 153480 | 191819 | 268597 | 268600 | 268600 | 268600 | 268600 | 307026 |
|                   | A | m³/h  | 230220 | 230220 | 268597 | 306979 | 306979 | 306979 | 345327 | 345327 |
|                   | E | m³/h  | 174934 | 199932 | 259432 | 290737 | 322041 | 322041 | 322041 | 353346 |
|                   | L | m³/h  | 149882 | 149882 | 219126 | 250455 | 250455 | 250455 | 281706 | 281706 |
|                   | N | m³/h  | 199946 | 224939 | 290848 | 322029 | 353368 | 353368 | 353368 | 353368 |
|                   | U | m³/h  | 268590 | 306960 | 306970 | 345339 | 383716 | 383711 | 383711 | 422082 |
| Sound power level | ° | dB(A) | 93,9   | 94,8   | 96,5   | 96,6   | 96,6   | 96,6   | 96,7   | 97,3   |
|                   | A | dB(A) | 94,2   | 94,3   | 96,5   | 97,1   | 97,1   | 97,1   | 97,6   | 97,7   |
|                   | E | dB(A) | 89,7   | 90,2   | 93,4   | 93,9   | 94,3   | 94,4   | 94,4   | 94,9   |
|                   | L | dB(A) | 89,1   | 89,5   | 89,8   | 90,1   | 90,2   | 90,5   | 91,0   | 91,2   |
|                   | N | dB(A) | 90,5   | 91,0   | 93,8   | 94,2   | 94,6   | 94,7   | 94,8   | 94,9   |
|                   | U | dB(A) | 95,0   | 95,6   | 97,0   | 97,5   | 97,9   | 98,0   | 98,0   | 98,5   |

(1) Asynchronous

(2) Asynchronous with phase cut

## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:  
 NRG 0800°, 0900°, 1000°, 1100°  
 NRG 0800L, 0900L  
 NRG 0800A, 0900A

| Size                               |            | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|------------------------------------|------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Integrated hydronic kit: 00</b> |            |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| <b>Dimensions and weights</b>      |            |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A                                  | °A,E,L,N,U | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                                  | °A,E,L,N,U | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|                                    | °          | mm   | 2780 | 2780 | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 6350  | 8730  | 8730  | 8730  | 8730  | 9920  |
| C                                  | A,L        | mm   | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540  | 8730  | 9920  | 9920  | 11110 | 11110 |
|                                    | E,U        | mm   | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9920  | 9920  | 11110 | 12300 | 12300 | 13490 |
|                                    | N          | mm   | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 8730 | 9920 | 9920 | 11110 | 11110 | 12300 | 13490 | 13490 | 13490 |

■ The units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; and 0800A, 0900A with the "storage tank" option, are 3970mm long.

| Size                               |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b> |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|                                    | °   | kg   | 2140 | 2140 | 2150 | 2310 | 2850 | 2960 | 3180 | 3830 | 4030 | 4210 | 4740 | 6280 | 6515 | 6810 | 6930 | 7655 |
| Empty weight                       | A,L | kg   | 2160 | 2160 | 2580 | 2730 | 2870 | 3440 | 3650 | 4250 | 4460 | 4960 | 5070 | 6300 | 6960 | 7265 | 7380 | 8015 |
|                                    | E,U | kg   | 2580 | 2590 | 2600 | 3220 | 3430 | 3930 | 4070 | 4660 | 5270 | 5400 | 5990 | 6755 | 7390 | 8120 | 8230 | 8925 |
|                                    | N   | kg   | 3050 | 3070 | 3080 | 3630 | 3850 | 3990 | 4470 | 5110 | 5750 | 5880 | 6370 | 7155 | 7870 | 8565 | 8675 | 8955 |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# NRG 0800H-3600H

## Reversible air/water heat pump

Cooling capacity 194,9 ÷ 962,3 kW – Heating capacity 209,6 ÷ 991,9 kW

- High efficiency also at partial loads
- Low refrigerant charge
- Night mode



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49 °C in summer. Hot water production up to 60 °C (for more details refer to the technical documentation).

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ Refrigerant gas detector is supplied as per standard.

Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).

#### New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

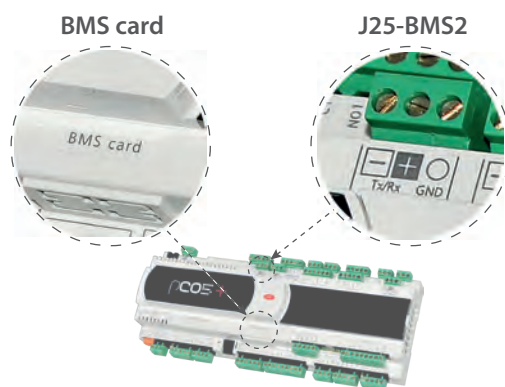
**It is available in different configurations with storage tank or with fixed pumps also inverter.**

### CONTROL PCO<sup>5</sup>

**The units from size 0800 to 2400 have 1 control card, while the units from size 2600 to 3600 have 2 control cards.**

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with an inverter fan or DCPX. Thanks to continuous fan modulation, unit operation is optimised in every working position in cooling mode. The result is enhanced machine energy efficiency with partial loads.
- **"EASYLOG" data logger as per standard:** allows all operating data read by the pCO5 to be stored on an SD card.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.
- Possibility to control two units in a Master-Slave configuration (from size 0800 to 2400)



In the 'BMS card' port, the compatible accessories are:

- AER485P1
- AERBACP
- MULTICHILLER-EVO + AER485P1

In the 'J25-BMS2' port, the compatible accessories are:

- AERNET

■ **Note:**

- "BMS card" and "J25-BMS2" are two ports on the unit's control board. Only one accessory can be connected to each port.
- An 'EASYLOG' diagnostic device may be present in port 'J25-BMS2', possibly disconnect it to connect the accessory AERNET.
- **For other requirements, please contact the company.**

## INTEGRATED SOLUTION

The "integrated solution" concept has been implemented in the **system architecture**, consisting in an integrated and streamlined control of compressors and electronic valve.

This solution allowed a variety of new features to be introduced, such as:

- **Low Superheat Control:** Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
- **DLT control:** Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

## ACCESSORIES COMPATIBILITY

| Model            | Ver    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|------------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AER485P1 x no. 2 | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|-------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver  | 0800        | 0900        | 1000        | 1100        | 1200        | 1400        | 1600        | 1800        | 2000        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | DCPX161     | DCPX161     | DCPX161     | DCPX163     | DCPX163     | DCPX163     | DCPX163     | DCPX165     | DCPX167     |
| A    | DCPX161     | DCPX163     | DCPX163     | DCPX163     | DCPX165     | DCPX165     | DCPX165     | DCPX167     | DCPX167     |
| E, L | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

| Ver  | 2200        | 2400        | 2600        | 2800        | 3000        | 3200        | 3400        | 3600        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | DCPX167     | DCPX167     | DCPX174     | DCPX174     | DCPX175     | DCPX175     | DCPX175     | DCPX175     |
| A    | DCPX169     | DCPX169     | DCPX174     | DCPX175     | DCPX175     | DCPX175     | DCPX176     | DCPX176     |
| E, L | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP:** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

**BRC1:** Condensate drip tray. Consider 1 for each V-block.

## Antivibration

| Ver   | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1800    | 2000    | 2200    | 2400    | 2600    | 2800    | 3000    | 3200    | 3400    | 3600    |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Integrated hydronic kit: 00   |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| °   | AVX1151 | AVX1151 | AVX1151 | AVX1153 | AVX1153 | AVX1153 | AVX1153 | AVX1154 | AVX1163 | AVX1163 | AVX1163 | AVX1167 | AVX1167 | AVX1171 | AVX1171 | AVX1171 | AVX1171 |
| A, L  | AVX1151 | AVX1153 | AVX1153 | AVX1153 | AVX1154 | AVX1154 | AVX1154 | AVX1156 | AVX1156 | AVX1159 | AVX1159 | AVX1167 | AVX1171 | AVX1171 | AVX1171 | AVX1169 | AVX1169 |
| E   | AVX1153 | AVX1154 | AVX1154 | AVX1154 | AVX1156 | AVX1156 | AVX1159 | AVX1161 | AVX1161 | AVX1165 | AVX1165 | AVX1169 | AVX1173 | AVX1173 | AVX1173 | AVX1175 | AVX1175 |
| Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| °   | AVX1152 | AVX1152 | AVX1152 | AVX1152 | AVX1152 | AVX1152 | AVX1152 | AVX1155 | AVX1157 | AVX1157 | AVX1157 | AVX1157 | AVX1168 | AVX1168 | AVX1172 | AVX1172 | AVX1172 |
| A, L  | AVX1152 | AVX1152 | AVX1152 | AVX1152 | AVX1155 | AVX1155 | AVX1155 | AVX1157 | AVX1157 | AVX1160 | AVX1160 | AVX1168 | AVX1172 | AVX1172 | AVX1172 | AVX1170 | AVX1170 |
| E   | AVX1152 | AVX1155 | AVX1155 | AVX1155 | AVX1157 | AVX1157 | AVX1160 | AVX1162 | AVX1162 | AVX1166 | AVX1166 | AVX1170 | AVX1174 | AVX1174 | AVX1174 | AVX1176 | AVX1176 |
| Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| °   | AVX1151 | AVX1151 | AVX1151 | AVX1153 | AVX1153 | AVX1153 | AVX1153 | AVX1154 | AVX1163 | AVX1163 | AVX1163 | AVX1167 | AVX1167 | AVX1171 | AVX1171 | AVX1171 | AVX1171 |
| A, L  | AVX1151 | AVX1153 | AVX1153 | AVX1153 | AVX1154 | AVX1154 | AVX1158 | AVX1156 | AVX1156 | AVX1164 | AVX1164 | AVX1167 | AVX1171 | AVX1171 | AVX1171 | AVX1169 | AVX1169 |
| E   | AVX1153 | AVX1154 | AVX1154 | AVX1154 | AVX1156 | AVX1156 | AVX1159 | AVX1161 | AVX1161 | AVX1165 | AVX1165 | AVX1169 | AVX1173 | AVX1173 | AVX1173 | AVX1175 | AVX1175 |

## Device for peak current reduction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L | DRENRG0800 | DRENRG0900 | DRENRG1000 | DRENRG1100 | DRENRG1200 | DRENRG1400 | DRENRG1600 | DRENRG1800 | DRENRG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L | DRENRG2200 | DRENRG2400 | DRENRG2600 | DRENRG2800 | DRENRG3000 | DRENRG3200 | DRENRG3400 | DRENRG3600 |

A grey background indicates the accessory must be assembled in the factory

## Power factor correction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L | RIFNRG0800 | RIFNRG0900 | RIFNRG1000 | RIFNRG1100 | RIFNRG1200 | RIFNRG1400 | RIFNRG1600 | RIFNRG1800 | RIFNRG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E, L | RIFNRG2200 | RIFNRG2400 | RIFNRG2600 | RIFNRG2800 | RIFNRG3000 | RIFNRG3200 | RIFNRG3400 | RIFNRG3600 |

A grey background indicates the accessory must be assembled in the factory

## Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| °    | GP2VN | GP2VN | GP2VN | GP3G  | GP3G  | GP3G  | GP3G  | GP4G | GP5G | GP5G | GP5G | GP11G | GP10G | GP12G | GP12G | GP12G | GP12G |
| A, L | GP2VN | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP4GM | GP5G | GP5G | GP6G | GP6G | GP11G | GP12G | GP12G | GP12G | GP13G | GP13G |
| E    | GP3G  | GP4GM | GP4GM | GP4GM | GP5GM | GP5GM | GP6G  | GP7G | GP7G | GP8G | GP8G | GP13G | GP14G | GP14G | GP14G | GP15G | GP15G |

A grey background indicates the accessory must be assembled in the factory

■ GP2VN becomes GP2VNA if configured with a type A or B hydronic kit

## Double safety valves

| Ver        | 0800     | 0900     | 1000     | 1100     | 1200     | 1400     | 1600     | 1800     | 2000     | 2200     | 2400     | 2600     | 2800     | 3000     | 3200     | 3400     | 3600     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| °, A, E, L | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS2 | T6NRGLS3 | T6NRGLS3 | T6NRGLS3 | T6NRGLS3 | T6NRGLS4 | T6NRGLS5 | T6NRGLS5 | T6NRGLS5 | T6NRGLS5 |

A grey background indicates the accessory must be assembled in the factory

## Condensate drip.

| Ver  | 0800         | 0900         | 1000         | 1100         | 1200         | 1400         | 1600         | 1800         | 2000         |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| °    | BRC1 x 2 (1) | BRC1 x 2 (1) | BRC1 x 2 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 4 (1) | BRC1 x 5 (1) |
| A, L | BRC1 x 2 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 5 (1) | BRC1 x 5 (1) |
| E    | BRC1 x 3 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 5 (1) | BRC1 x 5 (1) | BRC1 x 6 (1) | BRC1 x 7 (1) | BRC1 x 7 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 2200         | 2400         | 2600         | 2800          | 3000          | 3200          | 3400          | 3600          |
|------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| °    | BRC1 x 5 (1) | BRC1 x 5 (1) | BRC1 x 7 (1) | BRC1 x 7 (1)  | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 8 (1)  |
| A, L | BRC1 x 6 (1) | BRC1 x 6 (1) | BRC1 x 7 (1) | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 9 (1)  | BRC1 x 9 (1)  |
| E    | BRC1 x 8 (1) | BRC1 x 8 (1) | BRC1 x 9 (1) | BRC1 x 10 (1) | BRC1 x 10 (1) | BRC1 x 10 (1) | BRC1 x 11 (1) | BRC1 x 11 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (4)  |
|                | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |
| DD             | Pump D + stand-by pump  |
| DE             | Pump E + stand-by pump  |
| DF             | Pump F + stand-by pump  |
| DG             | Pump G + stand-by pump  |
| DH             | Pump H + stand-by pump  |
| DI             | Pump I + stand-by pump  |
| DJ             | Pump J + stand-by pump (4)  |
|                | <b>Kit with storage tank and n° 1 pump</b>  |
| AA             | Storage tank and pump A   |
| AB             | Storage tank and pump B   |
| AC             | Storage tank and pump C   |
| AD             | Storage tank and pump D   |
| AE             | Storage tank and pump E   |
| AF             | Storage tank and pump F   |
| AG             | Storage tank and pump G   |
| AH             | Storage tank and pump H   |
| AI             | Storage tank and pump I   |
| AJ             | Storage tank and pump J (4)   |
|                | <b>Kit with storage tank and n° 1 pump + stand-by pump</b>  |
| BA             | Storage tank with pump A + stand-by pump  |

| Field | Description   |
|-------|---|
| BB    | Storage tank with pump B + stand-by pump  |
| BC    | Storage tank with pump C + stand-by pump  |
| BD    | Storage tank with pump D + stand-by pump  |
| BE    | Storage tank with pump E + stand-by pump  |
| BF    | Storage tank with pump F + stand-by pump  |
| BG    | Storage tank with pump G + stand-by pump  |
| BH    | Storage tank with pump H + stand-by pump  |
| BI    | Storage tank with pump I + stand-by pump  |
| BJ    | Storage tank with pump J + stand-by pump (4)                                    |
|       | <b>Kit with n° 1 inverter pump to fixed speed</b>                               |
| IA    | Pump A equipped with inverter device to work at fixed speed                     |
| IB    | Pump B equipped with inverter device to work at fixed speed                     |
| IC    | Pump C equipped with inverter device to work at fixed speed                     |
| ID    | Pump D equipped with inverter device to work at fixed speed                     |
| IE    | Pump E equipped with inverter device to work at fixed speed                     |
| IF    | Pump F equipped with inverter device to work at fixed speed (5)                 |
| IG    | Pump G equipped with inverter device to work at fixed speed (5)                 |
| IH    | Pump H equipped with inverter device to work at fixed speed (5)                 |
| II    | Pump I equipped with inverter device to work at fixed speed (5)                 |
| IJ    | Pump J equipped with inverter device to work at fixed speed (6)                 |
|       | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>               |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed        |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed        |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed        |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed        |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed        |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (5)    |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (5)    |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed (5)    |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed (5)    |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (6)    |
|       | <b>Kit with storage tank and n° 1 inverter pump to fixed speed</b>              |
| CA    | Buffer tank + pump A, equipped with inverter to work at fixed speed             |
| CB    | Buffer tank + pump B, equipped with inverter to work at fixed speed             |
| CC    | Buffer tank + pump C, equipped with inverter to work at fixed speed             |
| CD    | Buffer tank + pump D, equipped with inverter to work at fixed speed             |
| EC    | Buffer tank + pump E, equipped with inverter to work at fixed speed             |
| CF    | Buffer tank + pump F, equipped with inverter to work at fixed speed (5)         |
| CG    | Buffer tank + pump G, equipped with inverter to work at fixed speed (5)         |
| CH    | Buffer tank + pump H, equipped with inverter to work at fixed speed (5)         |
| CI    | Buffer tank + pump I, equipped with inverter to work at fixed speed (5)         |
| CJ    | Buffer tank + pump J, equipped with inverter to work at fixed speed (6)         |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump to fixed speed</b>       |
| KA    | Buffer tank+pump A+stand-by pump, both with inverter to work at fixed speed     |
| KB    | Buffer tank+pump B+stand-by pump, both with inverter to work at fixed speed     |
| KC    | Buffer tank+pump C+stand-by pump, both with inverter to work at fixed speed     |
| KD    | Buffer tank+pump D+stand-by pump, both with inverter to work at fixed speed     |
| KE    | Buffer tank+pump E+stand-by pump, both with inverter to work at fixed speed     |
| KF    | Buffer tank+pump F+stand-by pump, both with inverter to work at fixed speed (5) |
| KG    | Buffer tank+pump G+stand-by pump, both with inverter to work at fixed speed (5) |
| KH    | Buffer tank+pump H+stand-by pump, both with inverter to work at fixed speed (5) |
| KI    | Buffer tank+pump I+stand-by pump, both with inverter to work at fixed speed (5) |
| KJ    | Buffer tank+pump J+stand-by pump, both with inverter to work at fixed speed (6) |

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 8 °C ÷ -10 °C

(3) This option is not available with the Z operating field. The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) For all configurations including pump J please contact the factory.

(5) Hydronic kit not available with sizes 0800 version °/L/A, 0900 version °, 1000 version °, 1800 version °.

(6) For all possible configurations which include the "J" pump please be in touch with Aermec. Hydronic kit is not available with sizes 0800 version °/L/A, 0900 version °, 1000 version °, 1800 version °.

## PERFORMANCE SPECIFICATIONS

### NRG H°

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 200,5 | 220,2 | 238,5 | 292,2 | 325,7 | 353,6 | 381,6 | 456,8 | 531,9 | 561,5  | 591,1  | 705,6  | 749,2  | 824,6  | 859,3  | 895,1  | 925,3  |
| Input power                                  | kW  | 72,8  | 83,7  | 95,6  | 107,5 | 123,5 | 144,5 | 160,8 | 179,5 | 199,4 | 219,3  | 239,1  | 249,8  | 277,9  | 299,4  | 317,7  | 334,1  | 354,4  |
| Cooling total input current                  | A   | 127,0 | 144,0 | 163,0 | 182,0 | 207,0 | 238,0 | 268,0 | 300,0 | 333,0 | 362,0  | 391,0  | 424,0  | 485,0  | 506,0  | 527,0  | 567,0  | 597,0  |
| EER  | W/W | 2,75  | 2,63  | 2,49  | 2,72  | 2,64  | 2,45  | 2,37  | 2,55  | 2,67  | 2,56   | 2,47   | 2,83   | 2,70   | 2,75   | 2,70   | 2,68   | 2,61   |
| Water flow rate system side                  | l/h | 34503 | 37880 | 41031 | 50268 | 56029 | 60821 | 65615 | 78560 | 91483 | 96570  | 101650 | 121347 | 128839 | 141815 | 147773 | 153929 | 159128 |
| Pressure drop system side                    | kPa | 25    | 30    | 35    | 45    | 45    | 47    | 29    | 42    | 50    | 49     | 47     | 53     | 60     | 69     | 73     | 75     | 79     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 212,2 | 235,2 | 256,2 | 310,2 | 348,1 | 384,0 | 416,2 | 492,2 | 568,3 | 603,5  | 638,4  | 729,6  | 782,6  | 858,4  | 896,3  | 931,7  | 966,8  |
| Input power                                  | kW  | 66,1  | 73,5  | 80,8  | 98,1  | 109,5 | 123,5 | 129,7 | 153,3 | 175,5 | 186,3  | 198,1  | 232,9  | 252,2  | 275,3  | 288,2  | 299,7  | 312,5  |
| Heating total input current                  | A   | 120,0 | 133,0 | 145,0 | 173,0 | 190,0 | 210,0 | 221,0 | 263,0 | 303,0 | 319,0  | 337,0  | 395,0  | 430,0  | 471,0  | 490,0  | 506,0  | 524,0  |
| COP  | W/W | 3,21  | 3,20  | 3,17  | 3,16  | 3,18  | 3,11  | 3,21  | 3,21  | 3,24  | 3,24   | 3,22   | 3,13   | 3,10   | 3,12   | 3,11   | 3,11   | 3,09   |
| Water flow rate system side                  | l/h | 36823 | 40823 | 44470 | 53838 | 60421 | 66654 | 72264 | 85444 | 98663 | 104778 | 110847 | 126695 | 135884 | 149044 | 155628 | 161773 | 167874 |
| Pressure drop system side                    | kPa | 29    | 36    | 42    | 53    | 54    | 58    | 37    | 52    | 60    | 60     | 58     | 58     | 66     | 76     | 81     | 83     | 88     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRG HL

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 194,9 | 231,4 | 252,7 | 283,9 | 335,9 | 367,7 | 399,5 | 467,1 | 515,0 | 568,3  | 599,3  | 684,6  | 752,3  | 804,8  | 836,8  | 889,9  | 919,8  |
| Input power                                  | kW  | 73,7  | 78,6  | 88,8  | 107,7 | 118,0 | 136,6 | 154,7 | 175,4 | 203,9 | 213,7  | 232,1  | 255,0  | 275,5  | 305,5  | 325,1  | 334,6  | 353,5  |
| Cooling total input current                  | A   | 125,0 | 136,0 | 153,0 | 179,0 | 196,0 | 222,0 | 249,0 | 285,0 | 331,0 | 346,0  | 374,0  | 420,0  | 457,0  | 506,0  | 528,0  | 540,0  | 568,0  |
| EER  | W/W | 2,65  | 2,94  | 2,85  | 2,64  | 2,85  | 2,69  | 2,58  | 2,66  | 2,53  | 2,66   | 2,58   | 2,69   | 2,73   | 2,63   | 2,57   | 2,66   | 2,60   |
| Water flow rate system side                  | l/h | 33540 | 39819 | 43473 | 48838 | 57788 | 63245 | 68702 | 80332 | 88566 | 97728  | 103054 | 117728 | 129370 | 138391 | 143907 | 153027 | 158170 |
| Pressure drop system side                    | kPa | 23    | 33    | 34    | 39    | 45    | 47    | 33    | 39    | 41    | 49     | 35     | 51     | 59     | 64     | 67     | 75     | 70     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 209,6 | 244,9 | 268,8 | 305,3 | 357,3 | 394,2 | 431,7 | 502,3 | 558,0 | 611,4  | 647,2  | 717,8  | 788,1  | 844,0  | 880,6  | 933,5  | 969,8  |
| Input power                                  | kW  | 64,6  | 76,2  | 83,3  | 95,6  | 111,1 | 123,9 | 131,4 | 152,8 | 170,0 | 186,9  | 199,5  | 227,5  | 249,8  | 267,9  | 280,7  | 297,4  | 310,8  |
| Heating total input current                  | A   | 115,0 | 134,0 | 147,0 | 165,0 | 188,0 | 207,0 | 219,0 | 257,0 | 288,0 | 313,0  | 333,0  | 378,0  | 416,0  | 447,0  | 466,0  | 491,0  | 512,0  |
| COP  | W/W | 3,24  | 3,22  | 3,23  | 3,19  | 3,22  | 3,18  | 3,29  | 3,29  | 3,28  | 3,27   | 3,24   | 3,15   | 3,16   | 3,15   | 3,14   | 3,14   | 3,12   |
| Water flow rate system side                  | l/h | 36369 | 42513 | 46657 | 52988 | 62021 | 68420 | 74962 | 87217 | 96884 | 106143 | 112386 | 126465 | 136849 | 146552 | 152908 | 162100 | 168406 |
| Pressure drop system side                    | kPa | 28    | 39    | 40    | 47    | 53    | 56    | 40    | 47    | 51    | 60     | 42     | 57     | 66     | 71     | 75     | 84     | 80     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRG HA

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 200,5 | 236,4 | 258,7 | 292,2 | 344,0 | 378,0 | 412,2 | 480,7 | 532,0 | 584,8  | 618,3  | 700,8  | 768,8  | 824,7  | 859,0  | 911,3  | 943,6  |
| Input power                                  | kW  | 71,4  | 78,5  | 88,2  | 105,8 | 117,2 | 134,5 | 151,4 | 172,4 | 196,2 | 210,0  | 227,1  | 245,1  | 271,0  | 296,0  | 314,1  | 327,9  | 345,4  |
| Cooling total input current                  | A   | 127,0 | 141,0 | 157,0 | 182,0 | 201,0 | 226,0 | 251,0 | 289,0 | 333,0 | 351,0  | 377,0  | 424,0  | 462,0  | 509,0  | 529,0  | 545,0  | 571,0  |
| EER  | W/W | 2,81  | 3,01  | 2,93  | 2,76  | 2,94  | 2,81  | 2,72  | 2,79  | 2,71  | 2,78   | 2,72   | 2,86   | 2,84   | 2,79   | 2,73   | 2,78   | 2,73   |
| Water flow rate system side                  | l/h | 34505 | 40669 | 44506 | 50268 | 59178 | 65028 | 70879 | 82668 | 91485 | 100578 | 106317 | 120517 | 132216 | 141823 | 147725 | 156722 | 162264 |
| Pressure drop system side                    | kPa | 24    | 33    | 34    | 39    | 45    | 47    | 33    | 39    | 42    | 50     | 35     | 53     | 61     | 67     | 70     | 79     | 74     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 214,2 | 249,2 | 273,9 | 311,8 | 364,1 | 404,2 | 439,5 | 510,6 | 568,3 | 624,2  | 661,5  | 726,3  | 796,9  | 854,6  | 892,3  | 944,8  | 982,2  |
| Input power                                  | kW  | 65,5  | 76,7  | 84,1  | 96,3  | 111,6 | 125,5 | 132,9 | 153,9 | 171,9 | 189,2  | 201,7  | 229,0  | 250,4  | 268,2  | 280,9  | 299,3  | 312,3  |
| Heating total input current                  | A   | 119,0 | 139,0 | 152,0 | 170,0 | 195,0 | 215,0 | 227,0 | 265,0 | 298,0 | 325,0  | 344,0  | 389,0  | 428,0  | 458,0  | 477,0  | 506,0  | 526,0  |
| COP  | W/W | 3,27  | 3,25  | 3,25  | 3,24  | 3,26  | 3,22  | 3,31  | 3,32  | 3,31  | 3,30   | 3,28   | 3,17   | 3,18   | 3,19   | 3,18   | 3,16   | 3,15   |
| Water flow rate system side                  | l/h | 37179 | 43255 | 47538 | 54127 | 63192 | 70158 | 76308 | 88642 | 98663 | 108366 | 114875 | 126116 | 138372 | 148390 | 154943 | 164062 | 170550 |
| Pressure drop system side                    | kPa | 29    | 40    | 41    | 49    | 55    | 58    | 41    | 49    | 53    | 62     | 44     | 58     | 67     | 73     | 77     | 86     | 82     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## NRG HE

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 210,2 | 241,4 | 265,0 | 301,3 | 349,5 | 385,3 | 433,9 | 499,0 | 555,3  | 602,8  | 639,1  | 718,4  | 790,6  | 846,2  | 879,4  | 924,9  | 962,3  |
| Input power                                  | kW  | 68,8  | 76,7  | 85,7  | 101,9 | 115,0 | 130,8 | 142,8 | 165,0 | 189,0  | 202,2  | 217,7  | 241,7  | 264,6  | 289,3  | 308,3  | 320,7  | 337,3  |
| Cooling total input current                  | A   | 120,0 | 135,0 | 150,0 | 173,0 | 192,0 | 215,0 | 234,0 | 272,0 | 312,0  | 332,0  | 355,0  | 390,0  | 433,0  | 474,0  | 493,0  | 512,0  | 536,0  |
| EER  | W/W | 3,05  | 3,15  | 3,09  | 2,96  | 3,04  | 2,94  | 3,04  | 3,02  | 2,94   | 2,98   | 2,94   | 2,97   | 2,99   | 2,93   | 2,85   | 2,88   | 2,85   |
| Water flow rate system side                  | l/h | 36167 | 41535 | 45585 | 51820 | 60126 | 66279 | 74616 | 85811 | 95491  | 103665 | 109890 | 123535 | 135965 | 145529 | 151221 | 159049 | 165476 |
| Pressure drop system side                    | kPa | 24    | 33    | 34    | 40    | 45    | 47    | 33    | 40    | 42     | 50     | 35     | 56     | 62     | 70     | 74     | 71     | 74     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 220,6 | 251,8 | 277,3 | 320,3 | 367,5 | 407,1 | 456,1 | 525,1 | 586,9  | 634,6  | 674,7  | 737,8  | 806,3  | 867,9  | 904,3  | 951,9  | 991,9  |
| Input power                                  | kW  | 67,2  | 77,5  | 84,8  | 98,3  | 110,5 | 122,3 | 137,5 | 158,0 | 176,7  | 191,9  | 204,0  | 230,9  | 251,4  | 270,6  | 283,3  | 299,9  | 313,6  |
| Heating total input current                  | A   | 119,0 | 137,0 | 150,0 | 170,0 | 189,0 | 207,0 | 229,0 | 266,0 | 299,0  | 321,0  | 340,0  | 384,0  | 419,0  | 452,0  | 470,0  | 497,0  | 516,0  |
| COP  | W/W | 3,28  | 3,25  | 3,27  | 3,26  | 3,33  | 3,33  | 3,32  | 3,32  | 3,32   | 3,31   | 3,31   | 3,20   | 3,21   | 3,21   | 3,19   | 3,17   | 3,16   |
| Water flow rate system side                  | l/h | 38284 | 43702 | 48137 | 55596 | 63813 | 70679 | 79187 | 91172 | 101894 | 110186 | 117170 | 128108 | 140013 | 150692 | 157019 | 165295 | 172243 |
| Pressure drop system side                    | kPa | 31    | 35    | 39    | 45    | 36    | 35    | 44    | 45    | 55     | 47     | 39     | 60     | 65     | 75     | 79     | 77     | 81     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY INDEX

| Size   |   | 0800 | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | 3,91   | 4,03   | 3,76   | 4,01   | 3,91   | 3,74   | 3,72   | 3,92   | 4,10   | -      | -      | -      | -      | -      | -      | -      |
|  | A | W/W  | 4,13   | 4,47   | 4,22   | 4,21   | 4,48   | 4,13   | 4,21   | 4,29   | 4,27   | 4,57   | 4,58   | 4,56   | 4,55   | 4,56   | 4,55   | 4,55   |
|  | E | W/W  | 4,48   | 4,70   | 4,65   | 4,49   | 4,69   | 4,49   | 4,73   | 4,76   | 4,56   | 4,68   | 4,65   | 4,76   | 4,76   | 4,74   | 4,68   | 4,64   |
|  | L | W/W  | 4,08   | 4,38   | 4,31   | 4,23   | 4,49   | 4,33   | 4,17   | 4,32   | 4,24   | 4,57   | 4,57   | 4,58   | 4,61   | 4,56   | 4,56   | 4,56   |
| Seasonal efficiency  | ° | %    | 153,54 | 158,21 | 147,58 | 157,44 | 153,60 | 146,56 | 145,75 | 153,87 | 160,99 | -      | -      | -      | -      | -      | -      | -      |
|  | A | %    | 162,28 | 175,77 | 165,92 | 165,53 | 176,30 | 162,21 | 165,54 | 168,43 | 167,63 | 179,84 | 180,02 | 179,30 | 179,05 | 179,25 | 179,11 | 179,12 |
|  | E | %    | 176,01 | 184,84 | 182,87 | 176,49 | 184,43 | 176,41 | 186,08 | 187,33 | 179,21 | 184,21 | 182,92 | 187,25 | 187,42 | 186,77 | 184,02 | 184,64 |
|  | L | %    | 160,02 | 172,22 | 169,30 | 166,37 | 176,46 | 170,12 | 163,61 | 169,99 | 166,45 | 179,96 | 179,77 | 180,32 | 181,27 | 179,57 | 179,44 | 179,67 |
| <b>SEER - 23/18 (EN14825: 2018) (2)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | 4,53   | 4,62   | 4,30   | 4,53   | 4,48   | 4,26   | 4,26   | 4,36   | 4,53   | 4,68   | 4,67   | 5,20   | 5,04   | 5,05   | 4,95   | 5,04   |
|  | A | W/W  | 4,82   | 5,14   | 4,88   | 4,83   | 5,05   | 4,68   | 4,77   | 4,78   | 4,70   | 4,74   | 4,81   | 5,32   | 5,32   | 5,33   | 5,34   | 5,33   |
|  | E | W/W  | 5,22   | 5,39   | 5,29   | 5,11   | 5,24   | 5,05   | 5,33   | 5,29   | 5,01   | 5,07   | 5,11   | 5,49   | 5,49   | 5,47   | 5,39   | 5,40   |
|  | L | W/W  | 4,86   | 5,04   | 4,92   | 4,80   | 5,00   | 4,85   | 4,70   | 4,80   | 4,72   | 4,81   | 4,84   | 5,12   | 5,16   | 5,10   | 5,09   | 5,10   |
| Seasonal efficiency  | ° | %    | 178,23 | 181,99 | 169,18 | 178,03 | 176,17 | 167,49 | 167,32 | 171,54 | 178,15 | 184,08 | 183,60 | 205,12 | 198,46 | 198,95 | 195,09 | 198,65 |
|  | A | %    | 189,87 | 202,58 | 192,30 | 190,02 | 199,05 | 184,16 | 187,89 | 188,04 | 185,13 | 186,42 | 189,27 | 209,91 | 209,61 | 210,19 | 210,50 | 210,33 |
|  | E | %    | 205,68 | 212,67 | 208,75 | 201,59 | 206,78 | 199,04 | 210,37 | 208,55 | 197,30 | 199,90 | 201,24 | 216,49 | 216,66 | 215,99 | 212,50 | 213,20 |
|  | L | %    | 191,27 | 198,67 | 193,92 | 188,82 | 196,81 | 191,05 | 185,11 | 189,15 | 185,81 | 189,25 | 190,57 | 201,98 | 203,21 | 201,03 | 200,73 | 201,14 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° | W/W  | 3,75   | 3,72   | 3,74   | 3,65   | 3,72   | 3,69   | 3,84   | 3,87   | 3,90   | 3,92   | 3,98   | 3,85   | 3,79   | 3,79   | 3,78   | 3,76   |
|  | A | W/W  | 3,98   | 3,87   | 3,91   | 3,92   | 3,89   | 3,93   | 4,04   | 4,03   | 4,08   | 4,08   | 4,13   | 4,01   | 4,00   | 3,98   | 3,95   | 3,93   |
|  | E | W/W  | 3,94   | 3,86   | 3,89   | 3,90   | 3,88   | 4,00   | 4,05   | 4,08   | 4,09   | 4,09   | 4,13   | 3,97   | 3,96   | 3,93   | 3,90   | 3,88   |
|  | L | W/W  | 3,85   | 3,81   | 3,86   | 3,82   | 3,85   | 3,87   | 3,94   | 3,98   | 4,02   | 3,99   | 4,06   | 3,91   | 3,90   | 3,89   | 3,87   | 3,85   |
| ηsh  | ° | %    | 147,19 | 145,69 | 146,78 | 143,12 | 145,88 | 144,64 | 150,61 | 151,86 | 152,83 | 153,82 | 156,25 | 151,09 | 148,73 | 148,69 | 148,14 | 148,30 |
|  | A | %    | 156,18 | 151,63 | 153,29 | 153,96 | 152,61 | 154,02 | 158,78 | 158,12 | 160,03 | 160,11 | 162,27 | 157,54 | 157,00 | 156,15 | 155,07 | 154,33 |
|  | E | %    | 154,67 | 151,25 | 152,53 | 152,86 | 152,04 | 156,84 | 159,16 | 160,06 | 160,74 | 160,54 | 162,33 | 155,93 | 155,35 | 154,31 | 152,99 | 152,26 |
|  | L | %    | 151,15 | 149,30 | 151,53 | 149,80 | 151,00 | 151,92 | 154,77 | 156,17 | 157,80 | 156,44 | 159,42 | 153,41 | 152,88 | 152,46 | 151,65 | 150,49 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (4)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° | W/W  | 3,13   | 3,11   | 3,12   | 3,08   | 3,11   | 3,05   | 3,08   | 3,15   | 3,26   | 3,26   | 3,29   | 3,18   | 3,15   | 3,17   | 3,17   | 3,12   |
|  | A | W/W  | 3,30   | 3,26   | 3,28   | 3,28   | 3,25   | 3,24   | 3,24   | 3,26   | 3,36   | 3,37   | 3,35   | 3,30   | 3,31   | 3,30   | 3,29   | 3,20   |
|  | E | W/W  | 3,31   | 3,25   | 3,27   | 3,26   | 3,22   | 3,28   | 3,29   | 3,33   | 3,42   | 3,38   | 3,37   | 3,30   | 3,30   | 3,30   | 3,28   | 3,21   |
|  | L | W/W  | 3,19   | 3,20   | 3,23   | 3,18   | 3,20   | 3,19   | 3,15   | 3,22   | 3,31   | 3,28   | 3,28   | 3,20   | 3,21   | 3,21   | 3,20   | 3,18   |
| ηsh  | ° | %    | 122,27 | 121,29 | 121,95 | 120,26 | 121,59 | 119,01 | 120,35 | 122,90 | 127,46 | 127,29 | 128,67 | 124,30 | 123,00 | 123,82 | 123,69 | 121,67 |
|  | A | %    | 129,05 | 127,35 | 128,02 | 128,24 | 126,95 | 126,45 | 126,66 | 127,60 | 131,34 | 131,91 | 130,84 | 128,88 | 129,31 | 129,14 | 128,59 | 128,77 |
|  | E | %    | 129,38 | 127,17 | 127,67 | 127,41 | 125,90 | 128,13 | 128,78 | 130,27 | 133,70 | 132,16 | 131,79 | 129,12 | 129,08 | 129,12 | 128,32 | 127,41 |
|  | L | %    | 124,44 | 124,94 | 126,12 | 124,20 | 125,05 | 124,58 | 123,06 | 125,71 | 129,24 | 128,27 | 128,14 | 124,91 | 125,29 | 125,42 | 125,07 | 124,38 |
| <b>SEPR - (EN 14825: 2018) (2)</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | ° | W/W  | 5,05   | 5,15   | 4,98   | 5,20   | 5,21   | 5,23   | 5,12   | 5,31   | 5,49   | 5,45   | 5,37   | 5,51   | 5,52   | 5,52   | 5,51   | 5,51   |
|  | A | W/W  | 5,34   | 5,76   | 5,59   | 5,54   | 5,85   | 5,69   | 5,67   | 5,79   | 5,66   | 5,85   | 5,87   | 5,52   | 5,53   | 5,53   | 5,53   | 5,52   |
|  | E | W/W  | 5,91   | 6,15   | 6,16   | 5,82   | 6,03   | 6,22   | 6,44   | 6,48   | 6,24   | 6,31   | 6,25   | 5,56   | 5,57   | 5,57   | 5,56   | 5,56   |
|  | L | W/W  | 5,38   | 5,72   | 5,70   | 5,51   | 5,69   | 5,87   | 5,66   | 5,85   | 5,69   | 5,96   | 5,88   | 5,51   | 5,52   | 5,52   | 5,51   | 5,51   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for low temperature applications (35 °C)

(4) Efficiencies for average temperature applications (55 °C)



| Size   |   | 0800 | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: °</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | 3,82   | 3,93   | 3,69   | 3,95   | 3,76   | 3,66   | 3,63   | 3,77   | 3,94   | -      | -      | -      | -      | -      | -      | -      |
|  | A | W/W  | 3,92   | 4,26   | 4,03   | 4,04   | 4,31   | 4,05   | 4,14   | 4,16   | 4,14   | -      | -      | -      | -      | -      | -      | -      |
|  | E | W/W  | 4,24   | 4,47   | 4,46   | 4,30   | 4,49   | 4,23   | 4,54   | 4,48   | 4,30   | -      | -      | -      | -      | -      | -      | -      |
|  | L | W/W  | 3,89   | 4,20   | 4,14   | 4,07   | 4,32   | 4,14   | 4,09   | 4,16   | 4,05   | -      | -      | -      | -      | -      | -      | -      |
| Seasonal efficiency  | ° | %    | 149,69 | 154,31 | 144,66 | 154,85 | 147,58 | 143,34 | 142,18 | 147,82 | 154,74 | -      | -      | -      | -      | -      | -      | -      |
|  | A | %    | 153,94 | 167,22 | 158,24 | 158,70 | 169,32 | 159,16 | 162,42 | 163,51 | 162,60 | -      | -      | -      | -      | -      | -      | -      |
|  | E | %    | 166,62 | 175,64 | 175,43 | 169,12 | 176,71 | 166,29 | 178,62 | 176,32 | 169,05 | -      | -      | -      | -      | -      | -      | -      |
|  | L | %    | 152,78 | 164,88 | 162,52 | 159,98 | 169,62 | 162,45 | 160,44 | 163,31 | 158,98 | -      | -      | -      | -      | -      | -      | -      |
| <b>SEER - 23/18 (EN14825: 2018) (2)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | 4,42   | 4,52   | 4,23   | 4,46   | 4,31   | 4,17   | 4,16   | 4,25   | 4,43   | 4,56   | 4,55   | 4,84   | 4,69   | 4,70   | 4,61   | 4,69   |
|  | A | W/W  | 4,58   | 4,90   | 4,67   | 4,63   | 4,86   | 4,60   | 4,69   | 4,68   | 4,62   | 4,60   | 4,67   | 4,94   | 4,94   | 4,95   | 4,95   | 4,95   |
|  | E | W/W  | 4,95   | 5,13   | 5,09   | 4,90   | 5,03   | 4,78   | 5,13   | 5,04   | 4,80   | 4,95   | 5,00   | 5,15   | 5,16   | 5,15   | 5,07   | 5,09   |
|  | L | W/W  | 4,65   | 4,84   | 4,73   | 4,62   | 4,81   | 4,64   | 4,62   | 4,66   | 4,56   | 4,64   | 4,67   | 4,81   | 4,84   | 4,80   | 4,79   | 4,81   |
| Seasonal efficiency  | ° | %    | 173,96 | 177,67 | 166,01 | 175,30 | 169,38 | 163,98 | 163,39 | 167,16 | 174,39 | 179,50 | 179,00 | 190,59 | 184,41 | 185,05 | 181,49 | 184,72 |
|  | A | %    | 180,39 | 193,01 | 183,69 | 182,32 | 191,25 | 180,93 | 184,52 | 184,13 | 181,81 | 180,84 | 183,73 | 194,77 | 194,67 | 194,96 | 194,98 | 195,10 |
|  | E | %    | 194,99 | 202,37 | 200,52 | 193,16 | 198,13 | 188,06 | 202,21 | 198,68 | 189,12 | 194,99 | 196,98 | 203,18 | 203,49 | 202,94 | 199,98 | 200,57 |
|  | L | %    | 182,93 | 190,46 | 186,38 | 181,81 | 189,53 | 182,80 | 181,68 | 183,24 | 179,38 | 182,56 | 183,91 | 189,59 | 190,78 | 188,98 | 188,76 | 189,33 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° | W/W  | 3,70   | 3,66   | 3,70   | 3,62   | 3,63   | 3,64   | 3,78   | 3,78   | 3,84   | 3,84   | 3,87   | 3,78   | 3,72   | 3,72   | 3,70   | 3,71   |
|  | A | W/W  | 3,86   | 3,75   | 3,80   | 3,83   | 3,80   | 3,84   | 3,96   | 3,92   | 4,00   | 3,97   | 4,03   | 3,93   | 3,92   | 3,90   | 3,87   | 3,86   |
|  | E | W/W  | 3,82   | 3,74   | 3,79   | 3,80   | 3,78   | 3,86   | 3,96   | 3,93   | 3,99   | 3,96   | 4,02   | 3,90   | 3,88   | 3,86   | 3,82   | 3,81   |
|  | L | W/W  | 3,75   | 3,71   | 3,77   | 3,73   | 3,72   | 3,81   | 3,90   | 3,89   | 3,95   | 3,88   | 3,95   | 3,83   | 3,82   | 3,81   | 3,79   | 3,78   |
| ηsh  | ° | %    | 144,95 | 143,51 | 145,03 | 141,70 | 142,39 | 142,72 | 148,37 | 148,22 | 150,74 | 150,57 | 151,99 | 148,07 | 145,75 | 145,71 | 145,18 | 145,33 |
|  | A | %    | 151,26 | 147,10 | 148,95 | 150,09 | 148,92 | 150,73 | 155,38 | 153,74 | 157,11 | 156,00 | 158,37 | 154,40 | 153,86 | 153,03 | 151,98 | 151,25 |
|  | E | %    | 149,60 | 146,63 | 148,74 | 148,95 | 148,14 | 151,30 | 155,26 | 154,27 | 156,73 | 155,51 | 157,88 | 152,82 | 152,24 | 151,22 | 149,93 | 149,22 |
|  | L | %    | 146,96 | 145,41 | 147,82 | 146,29 | 145,93 | 149,25 | 152,96 | 152,42 | 155,05 | 152,28 | 154,95 | 150,34 | 149,82 | 149,41 | 148,61 | 148,12 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (4)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° | W/W  | 3,08   | 3,05   | 3,08   | 3,05   | 3,03   | 3,00   | 3,03   | 3,06   | 3,21   | 3,18   | 3,18   | 3,12   | 3,09   | 3,11   | 3,11   | 3,11   |
|  | A | W/W  | 3,18   | 3,15   | 3,17   | 3,19   | 3,16   | 3,16   | 3,17   | 3,17   | 3,29   | 3,27   | 3,25   | 3,23   | 3,24   | 3,24   | 3,23   | 3,23   |
|  | E | W/W  | 3,19   | 3,14   | 3,17   | 3,17   | 3,13   | 3,15   | 3,20   | 3,19   | 3,32   | 3,26   | 3,26   | 3,24   | 3,24   | 3,24   | 3,22   | 3,20   |
|  | L | W/W  | 3,09   | 3,10   | 3,14   | 3,10   | 3,08   | 3,12   | 3,11   | 3,13   | 3,23   | 3,18   | 3,17   | 3,14   | 3,14   | 3,15   | 3,14   | 3,15   |
| ηsh  | ° | %    | 120,10 | 119,16 | 120,24 | 118,86 | 118,20 | 117,16 | 118,26 | 119,46 | 125,22 | 124,15 | 124,36 | 121,80 | 120,53 | 121,33 | 121,20 | 121,49 |
|  | A | %    | 124,31 | 122,92 | 123,79 | 124,47 | 123,37 | 123,50 | 123,70 | 123,68 | 128,55 | 127,96 | 127,17 | 126,29 | 126,72 | 126,55 | 126,01 | 126,19 |
|  | E | %    | 124,44 | 122,64 | 123,96 | 123,61 | 122,14 | 122,87 | 125,09 | 124,79 | 129,60 | 127,34 | 127,57 | 126,53 | 126,49 | 126,53 | 125,75 | 124,86 |
|  | L | %    | 120,43 | 121,14 | 122,52 | 120,80 | 120,36 | 121,82 | 121,38 | 122,19 | 126,39 | 124,30 | 123,94 | 122,40 | 122,78 | 122,90 | 122,56 | 122,90 |
| <b>SEPR - (EN 14825: 2018) (2)</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | ° | W/W  | 4,93   | 5,03   | 4,88   | 5,11   | 5,01   | 5,11   | 5,00   | 5,11   | 5,29   | 5,27   | 5,11   | 5,51   | 5,52   | 5,52   | 5,51   | 5,51   |
|  | A | W/W  | 5,07   | 5,49   | 5,34   | 5,31   | 5,63   | 5,58   | 5,57   | 5,62   | 5,49   | 5,55   | 5,58   | 5,52   | 5,53   | 5,53   | 5,53   | 5,53   |
|  | E | W/W  | 5,60   | 5,85   | 5,91   | 5,58   | 5,78   | 5,87   | 6,19   | 6,11   | 5,89   | 6,09   | 6,03   | 5,56   | 5,57   | 5,57   | 5,56   | 5,56   |
|  | L | W/W  | 5,14   | 5,48   | 5,47   | 5,31   | 5,48   | 5,61   | 5,55   | 5,63   | 5,44   | 5,65   | 5,56   | 5,51   | 5,52   | 5,52   | 5,51   | 5,51   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for low temperature applications (35 °C)

(4) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |     | 0800 | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  | 2400  | 2600  | 2800   | 3000   | 3200   | 3400   | 3600   |
|-----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |     |      |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Maximum current (FLA) | °   | A    | 162,2 | 180,5 | 198,8 | 234,5 | 262,4 | 290,3 | 318,1 | 371,7 | 425,3 | 453,2 | 481,1 | 542,5  | 588,3  | 641,9  | 669,8  | 697,7  |
|                       | A,L | A    | 162,2 | 188,3 | 206,6 | 234,5 | 270,2 | 298,1 | 325,9 | 379,5 | 425,3 | 461,0 | 488,9 | 542,5  | 596,1  | 641,9  | 669,8  | 705,5  |
|                       | E   | A    | 170,0 | 196,1 | 214,4 | 242,3 | 278,0 | 305,9 | 341,5 | 395,1 | 440,9 | 476,6 | 504,5 | 558,1  | 611,7  | 657,5  | 685,4  | 721,1  |
| Peak current (LRA)    | °   | A    | 365,6 | 421,7 | 440,0 | 696,8 | 724,7 | 752,6 | 780,4 | 834,1 | 887,7 | 915,5 | 943,4 | 1004,8 | 1050,6 | 1104,2 | 1132,1 | 1160,0 |
|                       | A,L | A    | 365,6 | 429,5 | 447,8 | 696,8 | 732,5 | 760,4 | 788,2 | 841,9 | 887,7 | 923,3 | 951,2 | 1004,8 | 1058,4 | 1104,2 | 1132,1 | 1167,8 |
|                       | E   | A    | 373,4 | 437,3 | 455,6 | 704,6 | 740,3 | 768,2 | 803,8 | 857,5 | 903,3 | 938,9 | 966,8 | 1020,4 | 1074,0 | 1119,8 | 1147,7 | 1183,4 |

Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

## Compressors

| Size                           | 0800 0900 1000 1100 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 |      |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------|--|------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Compressor                     |  |      |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type                           | °A,E,L   | type | Scroll                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation          | °A,E,L   | Type | On-Off                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number                         | °A,E,L   | no.  | 4                       | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    | 7    | 8    | 9    | 9    |
| Circuits                       | °A,E,L   | no.  | 2                       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    |
| Refrigerant                    | °A,E,L   | type | R32                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1) | °  | kg   | 16,5                    | 16,5 | 22,5 | 23,3 | 23,3 | 22,5 | 22,5 | 30,4 | 30,8 | 36,0 | 36,0 | 34,4 | 35,1 | 35,4 | 38,9 |
|                                | A,L  | kg   | 13,0                    | 22,0 | 20,0 | 20,0 | 28,0 | 28,0 | 29,3 | 33,0 | 43,9 | 40,0 | 41,0 | 34,4 | 39,6 | 44,1 | 44,1 |
|                                | E  | kg   | 21,8                    | 28,5 | 29,3 | 27,5 | 29,3 | 34,9 | 42,0 | 51,0 | 53,6 | 56,3 | 51,8 | 48,9 | 48,9 | 50,6 | 52,4 |
| Refrigerant load circuit 2 (1) | °  | kg   | 16,5                    | 16,5 | 22,5 | 23,3 | 23,3 | 22,5 | 22,5 | 30,4 | 30,8 | 36,0 | 36,0 | 34,4 | 35,1 | 35,4 | 38,9 |
|                                | A,L  | kg   | 13,0                    | 22,0 | 22,0 | 20,0 | 28,0 | 28,0 | 29,3 | 33,0 | 43,9 | 40,0 | 41,0 | 34,4 | 39,6 | 44,1 | 44,1 |
|                                | E  | kg   | 21,8                    | 28,5 | 29,3 | 27,5 | 29,3 | 34,9 | 42,0 | 51,0 | 53,6 | 56,3 | 51,8 | 48,9 | 48,9 | 50,6 | 52,4 |
| Refrigerant load circuit 3 (1) | °  | kg   | -                       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 34,4 | 35,1 | 35,4 | 38,9 |
|                                | A,L  | kg   | -                       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 34,4 | 39,6 | 44,1 | 44,1 |
|                                | E  | kg   | -                       | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 48,9 | 48,9 | 50,6 | 52,4 |
| Potential global heating       | °A,E,L   | GWP  | 675kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## System side heat exchanger

| Size                        |        | 0800 0900 1000 1100 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 |             |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----------------------------|--------|--|-------------|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| System side heat exchanger  |        |  |             |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Type                        | °A,E,L | type   | Braze plate |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Number                      | °A,E,L | no.  | 1           | 1              | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 2  | 2  | 2  | 2  |
| Size                        |        | 0800 0900 1000 1100 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 |             |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Integrated hydronic kit: 00 |        |  |             |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Hydraulic connections       |        |  |             |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Connections (in/out)        |        | °A,E,L   | Type        | Grooved joints |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Sizes (in/out)              | °      | Ø  | 3"          | 3"             | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 4" | 5" | 5" | 5" | 5" | 5" |
|                             | A,L    | Ø  | 3"          | 3"             | 3" | 3" | 3" | 4" | 4" | 4" | 4" | 5" | 5" | 5" | 5" | 5" | 5" |
|                             | E      | Ø  | 3"          | 3"             | 3" | 3" | 4" | 4" | 4" | 4" | 4" | 5" | 5" | 5" | 5" | 5" | 5" |

## Fans

| Size          | 0800 0900 1000 1100 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 |      |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---------------|--|------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: °       |  |      |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan           |  |      |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type          | °A,E,L   | type | Axial                       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number        | °  | no.  | 4                           | 4      | 4      | 6      | 6      | 6      | 6      | 8      | 10     | 10     | 10     | 14     | 14     | 16     | 16     |
|               | A,L  | no.  | 4                           | 6      | 6      | 6      | 8      | 8      | 8      | 10     | 10     | 12     | 12     | 14     | 16     | 16     | 18     |
|               | E  | no.  | 6                           | 8      | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     | 16     | 18     | 20     | 20     | 22     |
| Fan motor     | °A   | type | Asynchronous                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|               | E,L  | type | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Air flow rate | °  | m³/h | 82398                       | 82398  | 82424  | 123596 | 123596 | 123561 | 123561 | 164866 | 205969 | 205969 | 205969 | 288399 | 288399 | 329594 | 329598 |
|               | A  | m³/h | 82403                       | 123609 | 123609 | 123605 | 164779 | 164779 | 164779 | 205996 | 205998 | 247152 | 247152 | 288414 | 329556 | 329556 | 370819 |
|               | E  | m³/h | 102378                      | 136491 | 136491 | 136491 | 170613 | 170613 | 204757 | 238871 | 238871 | 272982 | 272982 | 315634 | 349835 | 349835 | 383943 |
|               | L  | m³/h | 68237                       | 102348 | 102348 | 102356 | 136528 | 136528 | 136528 | 170617 | 170614 | 204825 | 204825 | 238801 | 273004 | 273004 | 307010 |

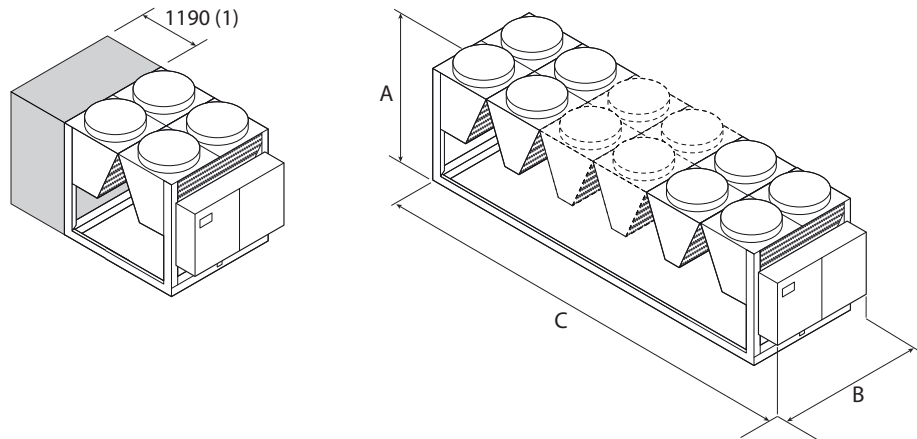
## Sound data

| Size                                      | 0800 0900 1000 1100 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---|--|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sound data calculated in cooling mode (1) |  |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                         | °  | dB(A) | 90,5 | 90,5 | 90,5 | 92,3 | 92,4 | 92,5 | 92,6 | 93,8 | 94,7 | 94,7 | 94,8 | 96,5 | 96,6 | 97,1 | 97,1 | 97,2 | 97,3 |
|   | A  | dB(A) | 90,5 | 92,2 | 92,2 | 92,3 | 93,6 | 93,6 | 93,7 | 94,6 | 94,7 | 95,4 | 95,5 | 96,5 | 97,1 | 97,1 | 97,1 | 97,6 | 97,7 |
|   | E  | dB(A) | 85,2 | 86,2 | 86,2 | 87,0 | 88,3 | 88,8 | 89,7 | 90,1 | 90,2 | 90,9 | 91,2 | 92,2 | 92,5 | 92,6 | 92,8 | 93,3 | 93,5 |
|   | L  | dB(A) | 83,5 | 84,7 | 84,8 | 85,8 | 87,2 | 87,8 | 88,3 | 88,9 | 89,0 | 89,8 | 90,1 | 91,0 | 91,3 | 91,4 | 91,7 | 92,2 | 92,4 |
| Sound pressure level (10 m)               | °  | dB(A) | 58,4 | 58,4 | 58,4 | 60,0 | 60,1 | 60,2 | 60,4 | 61,3 | 62,1 | 62,2 | 62,2 | 63,7 | 63,7 | 64,1 | 64,2 | 64,3 | 64,3 |
|   | A  | dB(A) | 58,4 | 59,9 | 59,9 | 60,0 | 61,2 | 61,2 | 61,3 | 62,1 | 62,1 | 62,8 | 62,8 | 63,7 | 64,1 | 64,1 | 64,2 | 64,6 | 64,6 |
|   | E  | dB(A) | 52,9 | 53,8 | 53,8 | 54,6 | 55,7 | 56,3 | 57,0 | 57,3 | 57,4 | 57,9 | 58,2 | 59,1 | 59,3 | 59,4 | 59,7 | 60,0 | 60,2 |
|   | L  | dB(A) | 51,4 | 52,5 | 52,5 | 53,5 | 54,8 | 55,4 | 55,9 | 56,4 | 56,5 | 57,1 | 57,4 | 58,2 | 58,4 | 58,5 | 58,8 | 59,1 | 59,4 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).



## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:  
 NRG 0800H°, 0900H°, 1000H°  
 NRG 0800HL  
 NRG 0800HA

| Size   |        |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|--|--------|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| <b>Dimensions and weights</b>  |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A  | °A,E,L | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B  | °A,E,L | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|  | °      | mm | 2780 | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 5160 | 6350 | 6350 | 6350 | 8730  | 8730  | 9920  | 9920  | 9920  | 9920  |
| C  | A,L    | mm | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540 | 8730  | 9920  | 9920  | 9920  | 11110 | 11110 |
|  | E      | mm | 3970 | 5160 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9920 | 9920 | 11110 | 12300 | 12300 | 12300 | 13490 | 13490 |
| Size   |        |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ</b>     |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| <b>Dimensions and weights</b>  |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A  | °A,E,L | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B  | °A,E,L | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|  | °      | mm | 3970 | 3970 | 3970 | 3970 | 3970 | 3970 | 3970 | 5160 | 6350 | 6350 | 6350 | 8730  | 8730  | 9920  | 9920  | 9920  | 9920  |
| C  | A,L    | mm | 3970 | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540 | 8730  | 9920  | 9920  | 9920  | 11110 | 11110 |
|  | E      | mm | 3970 | 5160 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9920 | 9920 | 11110 | 12300 | 12300 | 12300 | 13490 | 13490 |
| Size   |        |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
| <b>Integrated hydronic kit: 00</b>   |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| <b>Weights</b>   |        |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| Empty weight   | °      | kg | 2375 | 2405 | 2405 | 3065 | 3215 | 3365 | 3635 | 4480 | 5260 | 5505 | 5620 | 7035  | 7310  | 8070  | 8185  | 8410  | 8520  |
|  | A,L    | kg | 2375 | 2875 | 2885 | 3050 | 3805 | 3965 | 4225 | 4970 | 5305 | 5930 | 5965 | 7035  | 7800  | 8105  | 8220  | 8840  | 8930  |
|  | E      | kg | 2860 | 3485 | 3495 | 3685 | 4460 | 4460 | 5050 | 5875 | 6180 | 6880 | 7010 | 7980  | 8810  | 9090  | 9200  | 9845  | 9970  |
| Weight functioning   | °      | kg | 2397 | 2427 | 2427 | 3090 | 3244 | 3396 | 3688 | 4533 | 5321 | 5577 | 5697 | 7114  | 7392  | 8160  | 8278  | 8514  | 8627  |
|  | A,L    | kg | 2397 | 2897 | 2910 | 3077 | 3838 | 3999 | 4278 | 5031 | 5377 | 6005 | 6048 | 7117  | 7890  | 8206  | 8324  | 8947  | 9043  |
|  | E      | kg | 2882 | 3510 | 3522 | 3714 | 4511 | 4513 | 5103 | 5947 | 6255 | 6961 | 7101 | 8062  | 8911  | 9194  | 9307  | 9958  | 10091 |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
 www.aermec.com

# NRB 0800-2406

## Air-water chiller

Cooling capacity 216,9 ÷ 716,9 kW



- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **HP floating: ESEER +7% with inverter fans**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

They are outdoor units with axial fan scroll compressors, microchannel batteries and plate exchangers.

In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** High efficiency

**E** Silenced high efficiency

**L** Standard silenced

**N** Silenced very high efficiency

**U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 51°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

**It is standard in all sizes from 1805 to 2406.**

### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

## CONFIGURATOR

### Configuration options

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)                                     |
| Y              | Low temperature mechanic thermostatic valve (2)                                 |
| Z              | Low temperature electronic thermostatic valve (2)                               |
| °              | Standard mechanic thermostatic valve (1)  |
| <b>9</b>       | <b>Model</b>  |
| C              | Motocondensing unit (3)   |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (4)  |
| T              | With total recovery (5)   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| I              | Copper-aluminium  |
| O              | Coated aluminium microchannel   |
| R              | Copper-copper   |
| S              | Tinned copper   |
| V              | Copper-painted aluminium  |
| °              | Aluminium microchannel  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized   |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                      |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
|                | <b>Without hydronic kit</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |

| Field | Description  |
|-------|--|
| PH    | Pump H   |
| PI    | Pump I   |
| PJ    | Pump J (6)   |
|       | <b>Pump n° 1 pump + stand-by pump</b>                      |
| DA    | Pump A + stand-by pump (7)                                 |
| DB    | Pump B + stand-by pump (7)                                 |
| DC    | Pump C + stand-by pump (7)                                 |
| DD    | Pump D + stand-by pump (7)                                 |
| DE    | Pump E + stand-by pump (7)                                 |
| DF    | Pump F + stand-by pump (7)                                 |
| DG    | Pump G + stand-by pump (7)                                 |
| DH    | Pump H + stand-by pump (7)                                 |
| DI    | Pump I + stand-by pump (7)                                 |
| DJ    | Pump J + stand-by pump (8)                                 |
|       | <b>Kit with storage tank and n° 1 pump</b>                 |
| AA    | Storage tank and pump A                                    |
| AB    | Storage tank and pump B                                    |
| AC    | Storage tank and pump C                                    |
| AD    | Storage tank and pump D                                    |
| AE    | Storage tank and pump E                                    |
| AF    | Storage tank and pump F                                    |
| AG    | Storage tank and pump G                                    |
| AH    | Storage tank and pump H                                    |
| AI    | Storage tank and pump I                                    |
| AJ    | Storage tank and pump J (6)                                |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump</b> |
| BA    | Storage tank with pump A + stand-by pump (7)               |
| BB    | Storage tank with pump B + stand-by pump (7)               |
| BC    | Storage tank with pump C + stand-by pump (7)               |
| BD    | Storage tank with pump D + stand-by pump (7)               |
| BE    | Storage tank with pump E + stand-by pump (7)               |
| BF    | Storage tank with pump F + stand-by pump (7)               |
| BG    | Storage tank with pump G + stand-by pump (7)               |
| BH    | Storage tank with pump H + stand-by pump (7)               |
| BI    | Storage tank with pump I + stand-by pump (7)               |
| BJ    | Storage tank with pump J + stand-by pump (8)               |

(1) Water produced from 4 °C ÷ 18 °C

(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions

(3) Condensing units "C" are not compatible with the Y/X/Z/T/D option

(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(5) None of the hydronic kits (from PA to BJ) are compatible with the following sizes and with versions with heat recovery T: 0800 - 0900 - 1000 - 1100 version °; 0800 - 0900 version A; 0800 - 0900 version L. None of the hydronic kits with pump(s) and storage tank (from AA to BJ) are compatible with all the sizes and with versions with heat recovery T

(6) For all configurations including pump J please contact the factory.

(7) None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805 versions ° - L-A, 2006-2206 version °.

(8) For all combinations with pump J, please contact our head office. None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805 versions ° - L-A, 2006-2206 version °.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

## ACCESSORIES COMPATIBILITY

| Model            | Ver        | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver        | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|------------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver     | 0800        | 0900        | 1000        | 1100        | 1200        | 1400        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: M |             |             |             |             |             |             |
| °       | DCPX130     | DCPX130     | DCPX130     | DCPX130     | DCPX131     | DCPX131     |
| A       | DCPX130     | DCPX130     | DCPX131     | DCPX131     | DCPX131     | DCPX131     |
| E, L, N | As standard | As standard | As standard | As standard | As standard | As standard |
| U       | DCPX131     | DCPX131     | DCPX131     | DCPX132     | DCPX132     | DCPX132     |
|         |             |             |             |             |             |             |
| Ver     | 1600        | 1805        | 2006        | 2206        | 2406        |             |
| Fans: M |             |             |             |             |             |             |
| °       | DCPX131     | DCPX155     | DCPX155     | DCPX155     | DCPX156     |             |
| A       | DCPX132     | DCPX155     | DCPX156     | DCPX156     | DCPX134     |             |
| E, L, N | As standard | As standard | As standard | As standard | As standard |             |
| U       | DCPX133     | DCPX134     | DCPX134     | DCPX135     | DCPX135     |             |

### Antivibration

| Ver  | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b>   |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX805 | AVX805 | AVX805 | AVX805 | AVX808 | AVX808 | AVX808 | AVX810 | AVX810 | AVX810 | AVX809 |
| A, L   | AVX805 | AVX805 | AVX806 | AVX808 | AVX808 | AVX808 | AVX810 | AVX810 | AVX809 | AVX809 | AVX863 |
| E, U   | AVX806 | AVX806 | AVX808 | AVX807 | AVX807 | AVX810 | AVX809 | AVX863 | AVX863 | AVX813 | AVX813 |
| N  | AVX807 | AVX807 | AVX807 | AVX809 | AVX809 | AVX809 | AVX863 | AVX812 | AVX812 | AVX814 | AVX814 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH</b> |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX844 | AVX844 | AVX844 | AVX844 | AVX844 | AVX848 | AVX848 | AVX845 | AVX845 | AVX845 | AVX847 |
| A, L   | AVX844 | AVX844 | AVX844 | AVX844 | AVX844 | AVX848 | AVX845 | AVX845 | AVX847 | AVX847 | AVX849 |
| E, U   | AVX844 | AVX844 | AVX844 | AVX845 | AVX845 | AVX845 | AVX847 | AVX849 | AVX849 | AVX851 | AVX851 |
| N  | AVX845 | AVX845 | AVX845 | AVX847 | AVX847 | AVX847 | AVX849 | AVX850 | AVX851 | AVX852 | AVX852 |
| <b>Integrated hydronic kit: BI, BJ</b>   |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX844 | AVX844 | AVX844 | AVX844 | AVX846 | AVX848 | AVX848 | AVX845 | AVX845 | AVX845 | AVX847 |
| A, L   | AVX844 | AVX844 | AVX846 | AVX846 | AVX846 | AVX848 | AVX845 | AVX845 | AVX847 | AVX847 | AVX849 |
| E, U   | AVX844 | AVX844 | AVX846 | AVX845 | AVX845 | AVX845 | AVX847 | AVX849 | AVX849 | AVX851 | AVX851 |
| N  | AVX845 | AVX845 | AVX845 | AVX847 | AVX847 | AVX847 | AVX849 | AVX850 | AVX851 | AVX852 | AVX852 |
| <b>Integrated hydronic kit: DA, DB, DC, PA, PB, PC, PD, PE, PF, PG, PH</b>                             |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX822 | AVX822 | AVX822 | AVX822 | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX826 | AVX828 |

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

**XLA:** The Kit, which consists of resistances for the electric power board and "J" inverter fans, allows the outdoor air temperature operating range to be extended from -10°C to -20°C outdoor air.

| Ver  | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, L   | AVX822 | AVX822 | AVX825 | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX828 | AVX828 | AVX830 |
| E, U   | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX826 | AVX828 | AVX830 | AVX830 | AVX832 | AVX832 |
| N  | AVX826 | AVX826 | AVX826 | AVX828 | AVX828 | AVX828 | AVX830 | AVX831 | AVX831 | AVX833 | AVX833 |
| <b>Integrated hydronic kit: DD, DE, DF, DG, DH, PI, PJ</b> |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX823 | AVX823 | AVX823 | AVX823 | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX826 | AVX829 |
| A, L   | AVX823 | AVX823 | AVX825 | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX829 | AVX829 | AVX830 |
| E, U   | AVX825 | AVX825 | AVX825 | AVX826 | AVX826 | AVX826 | AVX829 | AVX830 | AVX830 | AVX832 | AVX832 |
| N  | AVX826 | AVX826 | AVX826 | AVX829 | AVX829 | AVX829 | AVX830 | AVX831 | AVX831 | AVX833 | AVX833 |
| <b>Integrated hydronic kit: DI, DJ</b>                     |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX864 | AVX864 | AVX829 | AVX864 | AVX825 | AVX825 | AVX827 | AVX827 | AVX827 | AVX827 | AVX829 |
| A, L   | AVX864 | AVX864 | AVX825 | AVX825 | AVX825 | AVX825 | AVX827 | AVX827 | AVX829 | AVX829 | AVX830 |
| E, U   | AVX825 | AVX825 | AVX825 | AVX827 | AVX827 | AVX827 | AVX829 | AVX830 | AVX830 | AVX832 | AVX832 |
| N  | AVX827 | AVX827 | AVX827 | AVX829 | AVX829 | AVX829 | AVX830 | AVX831 | AVX831 | AVX833 | AVX833 |

#### Device for peak current reduction

| Ver              | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L, N, U | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

| Ver              | 1600           | 1805           | 2006           | 2206           | 2406           |
|------------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L, N, U | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver     | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|---------|------------|------------|------------|------------|------------|------------|
| °, A, L | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| E, U    | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |
| N       | RIFNRB0801 | RIFNRB0901 | RIFNRB1001 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 1600       | 1805       | 2006       | 2206       | 2406       |
|---------|------------|------------|------------|------------|------------|
| °       | RIFNRB1600 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2406 |
| A, L    | RIFNRB1601 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2416 |
| E, N, U | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805 | 2006 | 2206 | 2406 |
|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| °    | GP2VN | GP2VN | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP4G | GP4G | GP4G | GP5G |
| A, L | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4G | GP5G | GP5G | GP6V |
| E, U | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP4VN | GP5VN | GP6V | GP6V | GP7V | GP7V |
| N    | GP4VN | GP4VN | GP4VN | GP5VN | GP5VN | GP5VN | GP6V  | GP7V | GP7V | GP8V | GP8V |

A grey background indicates the accessory must be assembled in the factory

■ GP2VN becomes GP2VNA if configured with a type A or B hydronic kit

#### Double safety valves

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °    | T6NRB13 | T6NRB13 | T6NRB13 | T6NRB13 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 |
| A, L | T6NRB13 | T6NRB13 | T6NRB14 | T6NRB14 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB16 |
| E, U | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB17 | T6NRB16 | T6NRB19 | T6NRB19 |
| N    | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB15 | T6NRB15 | T6NRB18 | T6NRB19 | T6NRB19 | T6NRB20 | T6NRB20 |

A grey background indicates the accessory must be assembled in the factory

#### Kit for low temperature

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °    | -       | -       | -       | -       | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| A, L | -       | -       | -       | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| E, U | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| N    | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |

(1) With the accessory XLA do not use the DCPX.  
The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

## PERFORMANCE SPECIFICATIONS

### NRB - °

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 221,5 | 244,5 | 270,3 | 299,7 | 353,1 | 404,9 | 439,0 | 511,2 | 560,9 | 598,2  | 675,8  |
| Input power                                 | kW  | 73,3  | 83,1  | 94,1  | 110,3 | 117,5 | 135,4 | 155,1 | 175,7 | 194,0 | 216,6  | 236,5  |
| Cooling total input current                 | A   | 128,3 | 143,1 | 160,0 | 185,5 | 201,6 | 229,9 | 260,8 | 299,7 | 329,8 | 366,5  | 404,6  |
| EER   | W/W | 3,02  | 2,94  | 2,87  | 2,72  | 3,00  | 2,99  | 2,83  | 2,91  | 2,89  | 2,76   | 2,86   |
| Water flow rate system side                 | l/h | 38117 | 42077 | 46498 | 51565 | 60733 | 69640 | 75512 | 87913 | 96469 | 102883 | 116222 |
| Pressure drop system side                   | kPa | 46    | 55    | 38    | 45    | 44    | 39    | 46    | 40    | 47    | 53     | 52     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRB - L

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 216,9 | 237,7 | 272,7 | 307,7 | 343,9 | 391,0 | 438,4 | 498,2 | 555,4 | 608,2  | 666,2  |
| Input power                                 | kW  | 73,0  | 85,9  | 92,0  | 107,4 | 122,7 | 139,0 | 151,9 | 173,3 | 191,6 | 213,6  | 233,8  |
| Cooling total input current                 | A   | 122,8 | 142,3 | 154,5 | 179,0 | 203,4 | 231,8 | 250,8 | 289,7 | 318,6 | 359,2  | 390,2  |
| EER   | W/W | 2,97  | 2,77  | 2,97  | 2,87  | 2,80  | 2,81  | 2,89  | 2,87  | 2,90  | 2,85   | 2,85   |
| Water flow rate system side                 | l/h | 37323 | 40891 | 46905 | 52926 | 59137 | 67243 | 75381 | 85669 | 95498 | 104586 | 114564 |
| Pressure drop system side                   | kPa | 25    | 20    | 27    | 24    | 29    | 23    | 30    | 28    | 37    | 36     | 44     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRB - A

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 224,1 | 252,2 | 283,7 | 326,1 | 361,2 | 411,7 | 462,2 | 519,2 | 576,0 | 633,3  | 697,6  |
| Input power                                 | kW  | 70,6  | 80,9  | 90,2  | 104,7 | 115,3 | 131,8 | 147,6 | 166,3 | 183,5 | 203,1  | 223,3  |
| Cooling total input current                 | A   | 123,9 | 139,9 | 158,8 | 181,8 | 198,2 | 224,1 | 252,4 | 283,8 | 316,2 | 348,7  | 386,3  |
| EER   | W/W | 3,17  | 3,12  | 3,15  | 3,12  | 3,13  | 3,12  | 3,13  | 3,12  | 3,14  | 3,12   | 3,12   |
| Water flow rate system side                 | l/h | 38561 | 43394 | 48802 | 56076 | 62118 | 70789 | 79487 | 89271 | 99048 | 108894 | 119965 |
| Pressure drop system side                   | kPa | 27    | 22    | 30    | 27    | 32    | 25    | 34    | 30    | 39    | 39     | 48     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRB - E

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 219,2 | 248,3 | 275,0 | 321,4 | 358,7 | 403,2 | 455,0 | 514,5 | 569,0 | 637,2  | 688,3  |
| Input power                                 | kW  | 69,6  | 79,4  | 88,5  | 102,2 | 114,9 | 129,8 | 144,5 | 164,7 | 183,0 | 203,4  | 221,4  |
| Cooling total input current                 | A   | 119,5 | 134,7 | 148,8 | 172,1 | 192,6 | 215,7 | 240,1 | 275,1 | 306,1 | 342,6  | 372,8  |
| EER   | W/W | 3,15  | 3,13  | 3,11  | 3,15  | 3,12  | 3,11  | 3,15  | 3,12  | 3,11  | 3,13   | 3,11   |
| Water flow rate system side                 | l/h | 37710 | 42726 | 47303 | 55271 | 61679 | 69338 | 78240 | 88465 | 97841 | 109550 | 118323 |
| Pressure drop system side                   | kPa | 19    | 23    | 20    | 27    | 21    | 27    | 26    | 33    | 33    | 22     | 25     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRB - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006   | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 227,6 | 257,6 | 286,5 | 329,6 | 369,8 | 414,6 | 466,9 | 529,2 | 594,0  | 655,1  | 716,9  |
| Input power                                 | kW  | 68,8  | 77,7  | 86,8  | 99,5  | 111,7 | 126,1 | 140,9 | 159,5 | 179,0  | 197,8  | 215,3  |
| Cooling total input current                 | A   | 124,3 | 138,5 | 152,9 | 176,0 | 195,6 | 218,0 | 244,0 | 278,3 | 311,7  | 347,7  | 377,4  |
| EER   | W/W | 3,30  | 3,31  | 3,30  | 3,31  | 3,31  | 3,28  | 3,31  | 3,32  | 3,32   | 3,31   | 3,33   |
| Water flow rate system side                 | l/h | 39151 | 44308 | 49294 | 56689 | 63596 | 71302 | 80286 | 91003 | 102137 | 112618 | 123250 |
| Pressure drop system side                   | kPa | 20    | 25    | 21    | 29    | 23    | 28    | 27    | 35    | 36     | 23     | 27     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NRB - N

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 227,7 | 260,4 | 284,7 | 327,7 | 367,7 | 412,3 | 466,1 | 521,6 | 579,1 | 645,7  | 702,6  |
| Input power                                 | kW  | 68,5  | 78,9  | 86,4  | 98,5  | 111,9 | 125,4 | 140,4 | 157,8 | 176,0 | 194,6  | 212,9  |
| Cooling total input current                 | A   | 118,2 | 135,1 | 146,9 | 166,9 | 188,6 | 209,4 | 234,0 | 264,2 | 295,4 | 328,9  | 360,0  |
| EER   | W/W | 3,32  | 3,30  | 3,30  | 3,33  | 3,29  | 3,29  | 3,32  | 3,31  | 3,29  | 3,32   | 3,30   |
| Water flow rate system side                 | l/h | 39166 | 44792 | 48972 | 56365 | 63234 | 70905 | 80151 | 89691 | 99569 | 111009 | 120789 |
| Pressure drop system side                   | kPa | 20    | 25    | 21    | 28    | 23    | 28    | 27    | 34    | 34    | 23     | 26     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                            |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|---------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: J                         |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN14825:2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | 4,44   | 4,33   | 4,27   | 4,25   | 4,39   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | A | W/W | 4,65   | 4,55   | 4,66   | 4,70   | 4,69   | 4,73   | 4,76   | 4,64   | 4,64   | 4,62   | 4,61   |
|                                 | E | W/W | 4,75   | 4,67   | 4,63   | 4,81   | 4,82   | 4,76   | 4,88   | 4,73   | 4,67   | 4,70   | 4,74   |
|                                 | L | W/W | 4,56   | 4,42   | 4,50   | 4,51   | 4,58   | 4,59   | 4,67   | 4,56   | 4,56   | 4,58   | 4,57   |
|                                 | N | W/W | 4,85   | 4,79   | 4,83   | 4,96   | 4,93   | 4,97   | 5,03   | 4,93   | 4,82   | 4,89   | 4,83   |
|                                 | U | W/W | 4,76   | 4,75   | 4,71   | 4,89   | 4,85   | 4,86   | 4,91   | 4,84   | 4,77   | 4,82   | 4,78   |
| Seasonal efficiency             | ° | %   | 174,60 | 170,10 | 167,60 | 167,10 | 172,70 | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | A | %   | 182,80 | 179,10 | 183,40 | 185,00 | 184,70 | 186,20 | 187,30 | 182,70 | 182,40 | 181,70 | 181,50 |
|                                 | E | %   | 187,00 | 183,70 | 182,00 | 189,30 | 189,60 | 187,50 | 192,30 | 186,20 | 183,90 | 184,80 | 186,40 |
|                                 | L | %   | 179,20 | 173,80 | 177,00 | 177,50 | 180,10 | 180,40 | 183,90 | 179,50 | 179,40 | 180,10 | 179,60 |
|                                 | N | %   | 191,10 | 188,40 | 190,30 | 195,40 | 194,20 | 195,90 | 198,10 | 194,10 | 189,90 | 192,40 | 190,00 |
|                                 | U | %   | 187,40 | 187,10 | 185,20 | 192,50 | 191,00 | 191,30 | 193,30 | 190,70 | 187,70 | 189,60 | 188,10 |
| SEER - 23/18 (EN14825:2018) (3) |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | 5,28   | 5,16   | 5,07   | 4,96   | 5,40   | 5,44   | 5,18   | 5,07   | 5,13   | 4,77   | 5,07   |
|                                 | A | W/W | 5,50   | 5,35   | 5,50   | 5,51   | 5,55   | 5,55   | 5,63   | 5,34   | 5,44   | 5,30   | 5,42   |
|                                 | E | W/W | 5,62   | 5,53   | 5,46   | 5,70   | 5,69   | 5,63   | 5,77   | 5,50   | 5,52   | 5,48   | 5,59   |
|                                 | L | W/W | 5,34   | 5,14   | 5,35   | 5,33   | 5,37   | 5,34   | 5,47   | 5,26   | 5,32   | 5,20   | 5,26   |
|                                 | N | W/W | 5,92   | 5,71   | 5,76   | 5,91   | 5,88   | 5,91   | 5,99   | 5,75   | 5,74   | 5,71   | 5,75   |
|                                 | U | W/W | 5,65   | 5,67   | 5,59   | 5,82   | 5,76   | 5,80   | 5,83   | 5,67   | 5,69   | 5,61   | 5,68   |
| Seasonal efficiency             | ° | %   | 208,10 | 203,40 | 199,80 | 195,40 | 212,90 | 214,50 | 204,10 | 199,90 | 202,10 | 187,80 | 199,60 |
|                                 | A | %   | 217,00 | 210,90 | 217,00 | 217,50 | 219,10 | 219,10 | 222,10 | 210,50 | 214,60 | 209,10 | 213,60 |
|                                 | E | %   | 221,90 | 218,30 | 215,30 | 224,90 | 224,50 | 222,20 | 227,70 | 216,80 | 217,70 | 216,00 | 220,60 |
|                                 | L | %   | 210,40 | 202,70 | 211,00 | 210,20 | 211,60 | 210,40 | 215,80 | 207,40 | 209,70 | 205,10 | 207,50 |
|                                 | N | %   | 229,90 | 225,30 | 227,50 | 233,50 | 232,10 | 233,40 | 236,40 | 226,80 | 226,40 | 225,50 | 227,10 |
|                                 | U | %   | 222,80 | 223,70 | 220,70 | 229,90 | 227,50 | 228,80 | 230,20 | 223,80 | 224,50 | 221,50 | 224,00 |
| SEPR - (EN 14825:2018) (3)      |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                            | ° | W/W | 5,39   | 5,22   | 5,17   | 5,03   | 5,36   | 5,51   | 5,52   | 5,58   | 5,52   | 5,51   | 5,51   |
|                                 | A | W/W | 5,64   | 5,29   | 5,58   | 5,30   | 5,55   | 5,52   | 5,56   | 5,56   | 5,57   | 5,55   | 5,55   |
|                                 | E | W/W | 5,56   | 5,22   | 5,47   | 5,25   | 5,52   | 5,56   | 5,58   | 5,54   | 5,53   | 5,55   | 5,55   |
|                                 | L | W/W | 5,32   | 5,05   | 5,31   | 5,04   | 5,18   | 5,05   | 5,53   | 5,53   | 5,53   | 5,52   | 5,54   |
|                                 | N | W/W | 5,69   | 5,55   | 5,67   | 5,60   | 5,64   | 5,62   | 5,66   | 5,57   | 5,67   | 5,60   | 5,64   |
|                                 | U | W/W | 5,67   | 5,54   | 5,66   | 5,54   | 5,68   | 5,59   | 5,69   | 5,55   | 5,55   | 5,58   | 5,72   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

| Size                            |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|---------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                         |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN14825:2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | 4,23   | 4,13   | 4,10   | 4,11   | 4,19   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | A | W/W | 4,41   | 4,34   | 4,39   | 4,45   | 4,48   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | E | W/W | 4,47   | 4,40   | 4,40   | 4,54   | 4,54   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | L | W/W | 4,31   | 4,17   | 4,25   | 4,27   | 4,31   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | N | W/W | 4,61   | 4,56   | 4,58   | 4,72   | 4,68   | 4,72   | 4,78   | 4,66   | 4,58   | 4,61   | 4,62   |
|                                 | U | W/W | 4,51   | 4,51   | 4,51   | 4,63   | 4,64   | 4,65   | 4,70   | 4,61   | 4,56   | 4,57   | 4,59   |
| Seasonal efficiency             | ° | %   | 166,00 | 162,30 | 161,00 | 161,20 | 164,70 | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | A | %   | 173,50 | 170,60 | 172,40 | 174,90 | 176,00 | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | E | %   | 175,60 | 173,10 | 173,10 | 178,70 | 178,50 | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | L | %   | 169,40 | 163,60 | 166,80 | 167,60 | 169,20 | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                 | N | %   | 181,30 | 179,30 | 180,00 | 185,70 | 184,10 | 185,90 | 188,20 | 183,40 | 180,30 | 181,50 | 181,60 |
|                                 | U | %   | 177,20 | 177,40 | 177,20 | 182,10 | 182,50 | 183,10 | 184,80 | 181,40 | 179,20 | 179,90 | 180,50 |
| SEER - 23/18 (EN14825:2018) (3) |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                            | ° | W/W | 5,08   | 4,98   | 4,92   | 4,82   | 5,20   | 5,26   | 5,03   | 4,91   | 4,97   | 4,63   | 4,91   |
|                                 | A | W/W | 5,29   | 5,15   | 5,25   | 5,28   | 5,35   | 5,37   | 5,42   | 5,15   | 5,22   | 5,09   | 5,22   |
|                                 | E | W/W | 5,36   | 5,24   | 5,28   | 5,40   | 5,43   | 5,37   | 5,54   | 5,21   | 5,22   | 5,21   | 5,30   |
|                                 | L | W/W | 5,06   | 4,87   | 5,07   | 5,08   | 5,05   | 5,10   | 5,19   | 5,02   | 5,02   | 4,92   | 4,99   |
|                                 | N | W/W | 5,57   | 5,47   | 5,50   | 5,66   | 5,61   | 5,65   | 5,73   | 5,48   | 5,48   | 5,44   | 5,54   |
|                                 | U | W/W | 5,41   | 5,44   | 5,41   | 5,58   | 5,56   | 5,60   | 5,63   | 5,46   | 5,49   | 5,39   | 5,50   |
| Seasonal efficiency             | ° | %   | 200,10 | 196,00 | 193,60 | 189,90 | 205,10 | 207,30 | 198,30 | 193,30 | 195,70 | 182,00 | 193,50 |
|                                 | A | %   | 208,40 | 203,00 | 206,80 | 208,00 | 211,10 | 211,60 | 213,60 | 203,10 | 205,70 | 200,60 | 205,60 |
|                                 | E | %   | 211,40 | 206,40 | 208,30 | 213,00 | 214,00 | 211,80 | 218,50 | 205,50 | 205,70 | 205,30 | 208,90 |
|                                 | L | %   | 199,40 | 191,90 | 199,70 | 200,10 | 199,10 | 200,80 | 204,40 | 197,70 | 197,60 | 193,90 | 196,40 |
|                                 | N | %   | 219,70 | 215,80 | 216,80 | 223,40 | 221,50 | 223,00 | 226,20 | 216,00 | 216,30 | 214,60 | 218,40 |
|                                 | U | %   | 213,40 | 214,40 | 213,30 | 220,00 | 219,50 | 221,00 | 222,20 | 215,30 | 216,40 | 212,50 | 216,90 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

| Size                               |   |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------------------------|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>SEPR - (EN 14825: 2018) (3)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | ° | W/W | 5,39 | 5,22 | 5,17 | 5,03 | 5,36 | 5,51 | 5,52 | 5,58 | 5,52 | 5,51 | 5,51 |
|                                    | A | W/W | 5,64 | 5,29 | 5,58 | 5,30 | 5,55 | 5,52 | 5,56 | 5,56 | 5,57 | 5,55 | 5,55 |
|                                    | E | W/W | 5,56 | 5,22 | 5,47 | 5,25 | 5,52 | 5,56 | 5,58 | 5,54 | 5,53 | 5,55 | 5,55 |
|                                    | L | W/W | 5,32 | 5,05 | 5,31 | 5,04 | 5,18 | 5,05 | 5,53 | 5,53 | 5,53 | 5,52 | 5,54 |
|                                    | N | W/W | 5,69 | 5,55 | 5,67 | 5,60 | 5,64 | 5,62 | 5,66 | 5,57 | 5,63 | 5,60 | 5,64 |
|                                    | U | W/W | 5,67 | 5,54 | 5,66 | 5,54 | 5,68 | 5,59 | 5,69 | 5,55 | 5,55 | 5,58 | 5,72 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °   | A | 164,3 | 180,7 | 197,0 | 226,4 | 262,1 | 291,1 | 320,1 | 371,3 | 416,0 | 445,0 | 480,4 |
|                       | A,L | A | 177,1 | 193,4 | 222,5 | 251,8 | 281,2 | 310,2 | 351,9 | 396,7 | 454,2 | 483,2 | 530,8 |
|                       | E,U | A | 189,8 | 206,1 | 222,5 | 264,5 | 293,9 | 322,9 | 364,6 | 428,0 | 472,8 | 514,5 | 543,5 |
|                       | N   | A | 202,5 | 218,8 | 235,2 | 277,3 | 306,6 | 335,6 | 383,2 | 440,7 | 485,5 | 527,2 | 556,2 |
| Peak current (LRA)    | °   | A | 352,9 | 408,1 | 424,4 | 477,1 | 512,8 | 625,3 | 654,3 | 705,5 | 750,3 | 779,3 | 814,6 |
|                       | A,L | A | 365,6 | 420,8 | 449,9 | 502,5 | 531,9 | 644,4 | 686,1 | 730,9 | 788,4 | 817,4 | 865,0 |
|                       | E,U | A | 378,3 | 433,5 | 449,9 | 515,3 | 544,6 | 657,1 | 698,8 | 762,2 | 807,0 | 848,7 | 877,7 |
|                       | N   | A | 391,1 | 446,2 | 462,6 | 528,0 | 557,3 | 669,8 | 717,4 | 774,9 | 819,7 | 861,4 | 890,4 |

## GENERAL TECHNICAL DATA

| Size                                       |            |      | 0800                     | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|------------|------|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Compressor                                 |            |      |                          |      |      |      |      |      |      |      |      |      |      |
| Type                                       | °A,E,L,N,U | type | Scroll                   |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                      | °A,E,L,N,U | Type | Asynchronous             |      |      |      |      |      |      |      |      |      |      |
| Number                                     | °A,E,L,N,U | no.  | 4                        | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits                                   | °A,E,L,N,U | no.  | 2                        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                | °A,E,L,N,U | type | R410A                    |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load<br>circuit 1 (1)          | °          | kg   | 14,0                     | 14,5 | 15,0 | 16,0 | 20,5 | 21,0 | 21,0 | 26,0 | 26,0 | 26,0 | 31,0 |
|  | A,L        | kg   | 15,0                     | 16,0 | 20,0 | 22,0 | 21,0 | 22,5 | 23,5 | 25,0 | 30,0 | 31,0 | 32,5 |
|  | E,U        | kg   | 20,5                     | 20,0 | 21,5 | 26,0 | 25,0 | 26,0 | 30,0 | 32,0 | 36,0 | 44,5 | 56,0 |
|  | N          | kg   | 25,0                     | 26,5 | 26,5 | 29,0 | 28,0 | 35,0 | 42,0 | 38,0 | 43,0 | 62,0 | 42,0 |
| Refrigerant load<br>circuit 2 (1)          | °          | kg   | 14,0                     | 14,5 | 15,0 | 16,0 | 20,5 | 21,0 | 21,0 | 29,0 | 29,0 | 29,0 | 34,0 |
|  | A,L        | kg   | 15,0                     | 16,0 | 20,0 | 22,0 | 21,0 | 22,5 | 25,5 | 30,0 | 34,0 | 34,0 | 37,5 |
|  | E,U        | kg   | 20,5                     | 20,0 | 21,5 | 27,0 | 28,0 | 27,0 | 32,0 | 37,0 | 39,0 | 45,5 | 56,0 |
|  | N          | kg   | 25,0                     | 26,5 | 26,5 | 30,0 | 31,0 | 35,0 | 42,0 | 42,0 | 47,0 | 62,0 | 49,0 |
| Potential global<br>heating                | °A,E,L,N,U | GWP  | 2088kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |
| System side heat exchanger                 |            |      |                          |      |      |      |      |      |      |      |      |      |      |
| Type                                       | °A,E,L,N,U | type | Braze plate              |      |      |      |      |      |      |      |      |      |      |
| Number                                     | °A,E,L,N,U | no.  | 1                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hydraulic connections                      |            |      |                          |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | °A,E,L,N,U | Type | Grooved joints           |      |      |      |      |      |      |      |      |      |      |
| Hydraulic connections without hydronic kit |            |      |                          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | °A,E,L,N,U | Ø    | 3"                       | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Hydraulic connections with hydronic kit    |            |      |                          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | °A,E,L,N,U | Ø    | 3"                       | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.**

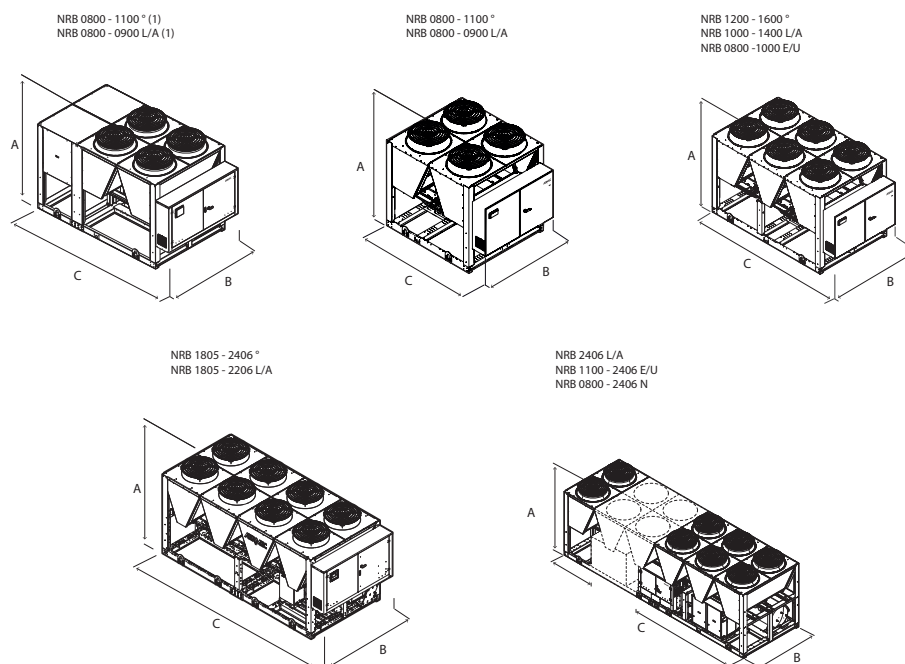


## Fans

| Size   |              |       | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--------------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: M</b>                                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>                                       |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Type   | ° ,A,E,L,N,U | type  | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | ° ,A,U       | type  | Asynchronous                |        |        |        |        |        |        |        |        |        |        |
|  | E,L,N        | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |
|  | °            | no.   | 4                           | 4      | 4      | 4      | 6      | 6      | 6      | 8      | 8      | 8      | 10     |
| Number   | A,L          | no.   | 4                           | 4      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|  | E,U          | no.   | 6                           | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|  | N            | no.   | 8                           | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| <b>With static pressure</b>                      |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 64000                       | 64000  | 64000  | 64000  | 96000  | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 |
|  | A            | m³/h  | 64000                       | 64000  | 96000  | 96000  | 96000  | 96000  | 128000 | 128000 | 160000 | 160000 | 192000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 96000                       | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure                             | ° ,A,U       | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     |
|  | E,L,N        | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    |
| <b>Without Static pressure</b>                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 72000                       | 72000  | 72000  | 72000  | 108000 | 108000 | 108000 | 144000 | 144000 | 144000 | 180000 |
|  | A            | m³/h  | 72000                       | 72000  | 108000 | 108000 | 108000 | 108000 | 144000 | 144000 | 180000 | 180000 | 216000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 108000                      | 108000 | 108000 | 144000 | 144000 | 144000 | 180000 | 216000 | 216000 | 252000 | 252000 |
| High static pressure                             | ° ,A,E,L,N,U | Pa    | 0                           | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| <b>With static pressure</b>                      |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 87,8                        | 87,8   | 87,8   | 87,8   | 90,0   | 90,0   | 90,0   | 92,0   | 92,5   | 93,0   | 94,7   |
|  | A            | dB(A) | 87,8                        | 87,8   | 90,0   | 90,0   | 90,0   | 90,0   | 91,5   | 92,0   | 93,7   | 94,2   | 95,6   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 90,0                        | 90,0   | 90,0   | 91,5   | 91,5   | 91,5   | 92,7   | 94,2   | 94,7   | 96,0   | 96,5   |
| <b>Without Static pressure</b>                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 89,7                        | 89,7   | 89,7   | 89,7   | 91,7   | 91,7   | 91,7   | 93,4   | 93,2   | 93,5   | 94,9   |
|  | A            | dB(A) | 89,7                        | 89,7   | 91,7   | 91,7   | 91,7   | 91,7   | 93,1   | 93,4   | 94,3   | 94,6   | 95,8   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 92,3                        | 92,3   | 92,3   | 93,6   | 93,6   | 93,6   | 94,6   | 95,7   | 95,5   | 96,5   | 96,8   |
| Size   |              |       | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
| <b>Fans: J</b>                                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>                                       |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Type   | ° ,A,E,L,N,U | type  | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | ° ,A,E,L,N,U | type  | Inverter                    |        |        |        |        |        |        |        |        |        |        |
|  | °            | no.   | 4                           | 4      | 4      | 4      | 6      | 6      | 6      | 8      | 8      | 8      | 10     |
| Number   | A,L          | no.   | 4                           | 4      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|  | E,U          | no.   | 6                           | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|  | N            | no.   | 8                           | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| <b>Inverter fan</b>                              |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 64000                       | 64000  | 64000  | 64000  | 96000  | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 |
|  | A            | m³/h  | 64000                       | 64000  | 96000  | 96000  | 96000  | 96000  | 128000 | 128000 | 160000 | 160000 | 192000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 96000                       | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure                             | °            | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 75     | 75     | 75     | 75     |
|  | A,U          | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    |
|  | E,L,N        | Pa    | 200                         | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    |
| <b>Sound data calculated in cooling mode (1)</b> |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 87,8                        | 87,8   | 87,8   | 87,8   | 90,0   | 90,0   | 90,0   | 92,0   | 92,5   | 93,0   | 94,7   |
|  | A            | dB(A) | 87,8                        | 87,8   | 90,0   | 90,0   | 90,0   | 90,0   | 91,5   | 92,0   | 93,7   | 94,2   | 95,6   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 90,0                        | 90,0   | 90,0   | 91,5   | 91,5   | 91,5   | 92,7   | 94,2   | 94,7   | 96,0   | 96,5   |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:  
0800°, 0900°, 1000°, 1100°  
0800L, 0900L  
0800A, 0900A

| Size                          |             |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|-------------|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |             |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °,A,E,L,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B                             | °,A,E,L,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
|                               | °           | mm | 2780 | 2780 | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 6350 |
| C                             | A,L         | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 5160 | 6350 | 6350 | 7140 |
|                               | E,U         | mm | 3970 | 3970 | 3970 | 4760 | 4760 | 4760 | 5950 | 7140 | 7140 | 8330 | 8330 |
|                               | N           | mm | 4760 | 4760 | 4760 | 5950 | 5950 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |

■ The units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; and 0800A, 0900A with the "storage tank" option, are 3970mm long.

| Size                               |     |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                     |     |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                       | °   | kg | 2240 | 2280 | 2350 | 2390 | 2880 | 2930 | 2960 | 3660 | 3830 | 3870 | 4360 |
|                                    | A,L | kg | 2260 | 2320 | 2800 | 2870 | 2910 | 2970 | 3490 | 3710 | 4280 | 4360 | 4780 |
|                                    | E,U | kg | 2720 | 2760 | 2840 | 3370 | 3440 | 3460 | 3940 | 4490 | 4700 | 5350 | 5390 |
|                                    | N   | kg | 3220 | 3270 | 3340 | 3770 | 3840 | 3870 | 4290 | 4940 | 5160 | 5750 | 5790 |

■ The weights are for standard units with plate heat exchangers and no hydronic kit.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRB 0800-2406 Q

## Air-water chiller with shell and tube heat exchanger

Cooling capacity 216,9 ÷ 716,9 kW

- Microchannel coil
- Shell and tube heat exchanger
- Night mode
- Operation up to 50 °C outdoor air
- HP floating: ESEER +7% with inverter fans



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

They are outdoor units with axial fan scroll compressors, microchannel coils and Shell and tube exchangers.

In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** High efficiency

**E** Silenced high efficiency

**L** Standard silenced

**N** Silenced very high efficiency

**U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

**It is standard in all sizes from 1805 to 2406.**

### Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | NRB  |
| 4,5,6,7 | Size<br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| 8       | Operating field  |
| X       | Electronic thermostatic expansion valve (1)                              |
| Y       | Low temperature mechanic thermostatic valve (2)                          |
| Z       | Low temperature electronic thermostatic valve (2)                        |
| °       | Standard mechanic thermostatic valve (1)                                 |
| 9       | Model  |
| Q       | Cooling only with shell and tube heat exchanger                          |
| 10      | Heat recovery  |
| D       | With desuperheater (3)   |
| T       | With total recovery (4)  |
| °       | Without heat recovery  |
| 11      | Version  |
| °       | Standard   |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| L       | Standard silenced  |
| N       | Silenced very high efficiency  |
| U       | Very high efficiency   |
| 12      | Coils  |
| I       | Copper-aluminium   |
| O       | Coated aluminium microchannel  |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins  |
| V       | Copper pipes-Coated aluminium fins                                       |
| °       | Aluminium microchannel   |
| 13      | Fans   |
| J       | Inverter   |
| M       | Oversized  |

### Compatible with total recovery

| Version                       |   | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|---|-----|-----|------|------|------|------|------|------|------|------|------|
| standard                      | ° | -   | -   | -    | -    | -    | -    | -    | -    | -    | -    | *    |
| Standard silenced             | L | -   | -   | -    | -    | -    | -    | -    | -    | *    | *    | *    |
| High efficiency               | A | -   | -   | -    | -    | -    | -    | -    | -    | *    | *    | *    |
| Silenced high efficiency      | E | -   | -   | -    | -    | -    | -    | *    | *    | *    | *    | *    |
| Very high efficiency          | U | -   | -   | -    | -    | -    | -    | *    | *    | *    | *    | *    |
| Silenced very high efficiency | N | -   | -   | -    | *    | *    | *    | *    | *    | *    | *    | *    |

### Compatibility of models with hydronic units available with a configurator

| Version                       |   | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|
| standard                      | ° | -    | -    | -    | -    | *    | -    | -    | *    | *    | *    | *    |
| Standard silenced             | L | -    | -    | *    | -    | -    | -    | *    | *    | *    | *    | *    |
| High efficiency               | A | -    | -    | *    | -    | -    | -    | *    | *    | *    | *    | *    |
| Silenced high efficiency      | E | *    | *    | -    | *    | *    | *    | *    | *    | *    | *    | *    |
| Very high efficiency          | U | *    | *    | -    | *    | *    | *    | *    | *    | *    | *    | *    |
| Silenced very high efficiency | N | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

| Field | Description                                |
|-------|--|
| 14    | Power supply                               |
| °     | 400V ~ 3 50Hz with magnet circuit breakers |
| 15,16 | Integrated hydronic kit                    |
|       | Without hydronic kit (5)                   |
| 00    | Without hydronic kit                       |
|       | Kit with n° 1 pump                         |
| PA    | Pump A                                     |
| PB    | Pump B                                     |
| PC    | Pump C                                     |
| PD    | Pump D                                     |
| PE    | Pump E                                     |
| PF    | Pump F                                     |
| PG    | Pump G                                     |
| PH    | Pump H                                     |
| PI    | Pump I                                     |
| PJ    | Pump J                                     |
|       | Pump n° 1 pump + stand-by pump             |
| DA    | Pump A + stand-by pump                     |
| DB    | Pump B + stand-by pump                     |
| DC    | Pump C + stand-by pump                     |
| DD    | Pump D + stand-by pump                     |
| DE    | Pump E + stand-by pump                     |
| DF    | Pump F + stand-by pump                     |
| DG    | Pump G + stand-by pump                     |
| DH    | Pump H + stand-by pump                     |
| DI    | Pump I + stand-by pump                     |
| DJ    | Pump J + stand-by pump                     |

(1) Water produced from 4 °C ÷ 18 °C

(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions

(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(4) For compatibility with total recovery see table below.

(5) For compatibility with the hydronic kit, see the table below.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP \_:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

## ACCESSORIES COMPATIBILITY

| Model            | Ver             | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|-----------------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| AERBACP          | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| AERNET           | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| FL               | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| MULTICHILLER-EVO | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| PGD1             | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |

### Remote panel

| Model | Ver             | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|-----------------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | ° A, E, L, N, U | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Condensation control temperature

| Ver            | 0800        | 0900        | 1000        | 1100        | 1200        | 1400        |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Fans: M</b> |             |             |             |             |             |             |
| °              | DCPX130     | DCPX130     | DCPX130     | DCPX130     | DCPX131     | DCPX131     |
| A              | DCPX130     | DCPX130     | DCPX131     | DCPX131     | DCPX131     | DCPX131     |
| E, L, N        | As standard | As standard | As standard | As standard | As standard | As standard |
| U              | DCPX131     | DCPX131     | DCPX131     | DCPX132     | DCPX132     | DCPX132     |

| Ver            | 1600        | 1805        | 2006        | 2206        | 2406        |
|----------------|-------------|-------------|-------------|-------------|-------------|
| <b>Fans: M</b> |             |             |             |             |             |
| °              | DCPX131     | DCPX155     | DCPX155     | DCPX155     | DCPX156     |
| A              | DCPX132     | DCPX155     | DCPX156     | DCPX156     | DCPX134     |
| E, L, N        | As standard | As standard | As standard | As standard | As standard |
| U              | DCPX133     | DCPX134     | DCPX134     | DCPX135     | DCPX135     |

### Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1107 | AVX1107 | AVX1107 | AVX1107 | AVX1108 | AVX1108 | AVX1108 | AVX1109 | AVX1109 | AVX1109 | AVX1110 |
| A, L   | AVX1107 | AVX1107 | AVX1108 | AVX1108 | AVX1108 | AVX1108 | AVX1109 | AVX1109 | AVX1110 | AVX1110 | AVX1111 |
| E, U   | AVX1108 | AVX1108 | AVX1108 | AVX1109 | AVX1109 | AVX1109 | AVX1110 | AVX1111 | AVX1111 | AVX1105 | AVX1105 |
| N  | AVX1109 | AVX1109 | AVX1109 | AVX1110 | AVX1110 | AVX1110 | AVX1111 | AVX1105 | AVX1105 | AVX1102 | AVX1102 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |         |         |         |         |         |         |         |         |         |         |         |
| °  | -       | -       | -       | -       | AVX1108 | -       | -       | AVX1109 | AVX1109 | AVX1109 | AVX1110 |
| A, L   | -       | -       | AVX1108 | -       | -       | -       | AVX1109 | AVX1109 | AVX1110 | AVX1110 | AVX1111 |
| E, U   | AVX1108 | AVX1108 | -       | AVX1109 | AVX1109 | AVX1109 | AVX1110 | AVX1111 | AVX1111 | AVX1105 | AVX1105 |
| N  | AVX1109 | AVX1109 | AVX1109 | AVX1110 | AVX1110 | AVX1110 | AVX1111 | AVX1105 | AVX1105 | AVX1102 | AVX1102 |

### Device for peak current reduction

| Ver             | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| ° A, E, L, N, U | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver             | 1600           | 1805           | 2006           | 2206           | 2406           |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| ° A, E, L, N, U | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver    | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|--------|------------|------------|------------|------------|------------|------------|
| ° A, L | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| E, U   | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |
| N      | RIFNRB0801 | RIFNRB0901 | RIFNRB1001 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 1600       | 1805       | 2006       | 2206       | 2406       |
|---------|------------|------------|------------|------------|------------|
| °       | RIFNRB1600 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2406 |
| A, L    | RIFNRB1601 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2416 |
| E, N, U | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

**Anti-intrusion grid**

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Integrated hydronic kit: 00</b>   |       |       |       |       |       |       |       |       |       |       |       |
| °  | GP2VN | GP2VN | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP4VN | GP5VN |
| A, L   | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP5VN | GP5VN | GP5VN |
| E, U   | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP4VN | GP5VN | GP6V  | GP6V  | GP7V  | GP7V  |
| N  | GP4VN | GP4VN | GP4VN | GP5VN | GP5VN | GP5VN | GP6V  | GP7V  | GP7V  | GP8V  | GP4VN |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |       |       |       |       |       |       |       |       |       |       |       |
| °  | -     | -     | -     | -     | GP3VN | -     | -     | GP4VN | GP4VN | GP4VN | GP5VN |
| A, L   | -     | -     | GP3VN | -     | -     | -     | GP4VN | GP4VN | GP5VN | GP5VN | GP5VN |
| E, U   | GP3VN | GP3VN | -     | GP4VN | GP4VN | GP4VN | GP5VN | GP6V  | GP6V  | GP7V  | GP7V  |
| N  | GP4VN | GP4VN | GP4VN | GP5VN | GP5VN | GP5VN | GP6V  | GP7V  | GP7V  | GP8V  | GP4VN |

A grey background indicates the accessory must be assembled in the factory

**Kit for low temperature**

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °    | -       | -       | -       | -       | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| A, L | -       | -       | -       | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| E, U | -       | -       | -       | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |
| N    | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) | XLA (1) |

(1) With the accessory XLA do not use the DCPX.

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

**PERFORMANCE SPECIFICATIONS****NRB - °**

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 221,5 | 244,5 | 270,3 | 299,7 | 353,1 | 404,9 | 439,0 | 511,2 | 560,9 | 598,2  | 675,8  |
| Input power                                 | kW  | 73,3  | 83,1  | 94,1  | 110,3 | 117,5 | 135,4 | 155,1 | 175,7 | 194,0 | 216,6  | 236,5  |
| Cooling total input current                 | A   | 128,3 | 143,1 | 160,0 | 185,5 | 201,6 | 229,9 | 260,8 | 299,7 | 329,8 | 366,5  | 404,6  |
| EER   | W/W | 3,02  | 2,94  | 2,87  | 2,72  | 3,00  | 2,99  | 2,83  | 2,91  | 2,89  | 2,76   | 2,86   |
| Water flow rate system side                 | l/h | 38117 | 42077 | 46498 | 51565 | 60733 | 69640 | 75512 | 87913 | 96469 | 102883 | 116222 |
| Pressure drop system side                   | kPa | 46    | 55    | 38    | 45    | 44    | 39    | 46    | 40    | 47    | 53     | 52     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NRB - L**

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 216,9 | 237,7 | 272,7 | 307,7 | 343,9 | 391,0 | 438,4 | 498,2 | 555,4 | 608,2  | 666,2  |
| Input power                                 | kW  | 73,0  | 85,9  | 92,0  | 107,4 | 122,7 | 139,0 | 151,9 | 173,3 | 191,6 | 213,6  | 233,8  |
| Cooling total input current                 | A   | 122,8 | 142,3 | 154,5 | 179,0 | 203,4 | 231,8 | 250,8 | 289,7 | 318,6 | 359,2  | 390,2  |
| EER   | W/W | 2,97  | 2,77  | 2,97  | 2,87  | 2,80  | 2,81  | 2,89  | 2,87  | 2,90  | 2,85   | 2,85   |
| Water flow rate system side                 | l/h | 37323 | 40891 | 46905 | 52926 | 59137 | 67243 | 75381 | 85669 | 95498 | 104586 | 114564 |
| Pressure drop system side                   | kPa | 25    | 20    | 27    | 24    | 29    | 23    | 30    | 28    | 37    | 36     | 44     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NRB - A**

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 224,1 | 252,2 | 283,7 | 326,1 | 361,2 | 411,7 | 462,2 | 519,2 | 576,0 | 633,3  | 697,6  |
| Input power                                 | kW  | 70,6  | 80,9  | 90,2  | 104,7 | 115,3 | 131,8 | 147,6 | 166,3 | 183,5 | 203,1  | 223,3  |
| Cooling total input current                 | A   | 123,9 | 139,9 | 158,8 | 181,8 | 198,2 | 224,1 | 252,4 | 283,8 | 316,2 | 348,7  | 386,3  |
| EER   | W/W | 3,17  | 3,12  | 3,15  | 3,12  | 3,13  | 3,12  | 3,13  | 3,12  | 3,14  | 3,12   | 3,12   |
| Water flow rate system side                 | l/h | 38561 | 43394 | 48802 | 56076 | 62118 | 70789 | 79487 | 89271 | 99048 | 108894 | 119965 |
| Pressure drop system side                   | kPa | 27    | 22    | 30    | 27    | 32    | 25    | 34    | 30    | 39    | 39     | 48     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NRB - E**

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 219,2 | 248,3 | 275,0 | 321,4 | 358,7 | 403,2 | 455,0 | 514,5 | 569,0 | 637,2  | 688,3  |
| Input power                                 | kW  | 69,6  | 79,4  | 88,5  | 102,2 | 114,9 | 129,8 | 144,5 | 164,7 | 183,0 | 203,4  | 221,4  |
| Cooling total input current                 | A   | 119,5 | 134,7 | 148,8 | 172,1 | 192,6 | 215,7 | 240,1 | 275,1 | 306,1 | 342,6  | 372,8  |
| EER   | W/W | 3,15  | 3,13  | 3,11  | 3,15  | 3,12  | 3,11  | 3,15  | 3,12  | 3,11  | 3,13   | 3,11   |
| Water flow rate system side                 | l/h | 37710 | 42726 | 47303 | 55271 | 61679 | 69338 | 78240 | 88465 | 97841 | 109550 | 118323 |
| Pressure drop system side                   | kPa | 19    | 23    | 20    | 27    | 21    | 27    | 26    | 33    | 33    | 22     | 25     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006   | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 227,6 | 257,6 | 286,5 | 329,6 | 369,8 | 414,6 | 466,9 | 529,2 | 594,0  | 655,1  | 716,9  |
| Input power                                 | kW  | 68,8  | 77,7  | 86,8  | 99,5  | 111,7 | 126,1 | 140,9 | 159,5 | 179,0  | 197,8  | 215,3  |
| Cooling total input current                 | A   | 124,3 | 138,5 | 152,9 | 176,0 | 195,6 | 218,0 | 244,0 | 278,3 | 311,7  | 347,7  | 377,4  |
| EER   | W/W | 3,30  | 3,31  | 3,30  | 3,31  | 3,31  | 3,28  | 3,31  | 3,32  | 3,32   | 3,31   | 3,33   |
| Water flow rate system side                 | l/h | 39151 | 44308 | 49294 | 56689 | 63596 | 71302 | 80286 | 91003 | 102137 | 112618 | 123250 |
| Pressure drop system side                   | kPa | 20    | 25    | 21    | 29    | 23    | 28    | 27    | 35    | 36     | 23     | 27     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NRB - N

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 227,7 | 260,4 | 284,7 | 327,7 | 367,7 | 412,3 | 466,1 | 521,6 | 579,1 | 645,7  | 702,6  |
| Input power                                 | kW  | 68,5  | 78,9  | 86,4  | 98,5  | 111,9 | 125,4 | 140,4 | 157,8 | 176,0 | 194,6  | 212,9  |
| Cooling total input current                 | A   | 118,2 | 135,1 | 146,9 | 166,9 | 188,6 | 209,4 | 234,0 | 264,2 | 295,4 | 328,9  | 360,0  |
| EER   | W/W | 3,32  | 3,30  | 3,30  | 3,33  | 3,29  | 3,29  | 3,32  | 3,31  | 3,29  | 3,32   | 3,30   |
| Water flow rate system side                 | l/h | 39166 | 44792 | 48972 | 56365 | 63234 | 70905 | 80151 | 89691 | 99569 | 111009 | 120789 |
| Pressure drop system side                   | kPa | 20    | 25    | 21    | 28    | 23    | 28    | 27    | 34    | 34    | 23     | 26     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                                    |   | 0800 | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                          |   |      |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W  | 4,44   | 4,33   | 4,27   | 4,25   | 4,39   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A | W/W  | 4,65   | 4,55   | 4,66   | 4,70   | 4,69   | 4,73   | 4,76   | 4,64   | 4,62   | 4,61   |
|   | E | W/W  | 4,75   | 4,67   | 4,63   | 4,81   | 4,82   | 4,76   | 4,88   | 4,73   | 4,67   | 4,74   |
|   | L | W/W  | 4,56   | 4,42   | 4,50   | 4,51   | 4,58   | 4,59   | 4,67   | 4,56   | 4,58   | 4,57   |
|   | N | W/W  | 4,85   | 4,79   | 4,83   | 4,96   | 4,93   | 4,97   | 5,03   | 4,93   | 4,82   | 4,89   |
|   | U | W/W  | 4,76   | 4,75   | 4,71   | 4,89   | 4,85   | 4,86   | 4,91   | 4,84   | 4,77   | 4,82   |
| Seasonal efficiency                     | ° | %    | 174,60 | 170,10 | 167,60 | 167,10 | 172,70 | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A | %    | 182,80 | 179,10 | 183,40 | 185,00 | 184,70 | 186,20 | 187,30 | 182,70 | 182,40 | 181,70 |
|   | E | %    | 187,00 | 183,70 | 182,00 | 189,30 | 189,60 | 187,50 | 192,30 | 186,20 | 183,90 | 184,80 |
|   | L | %    | 179,20 | 173,80 | 177,00 | 177,50 | 180,10 | 180,40 | 183,90 | 179,50 | 179,40 | 180,10 |
|   | N | %    | 191,10 | 188,40 | 190,30 | 195,40 | 194,20 | 195,90 | 198,10 | 194,10 | 189,90 | 192,40 |
|   | U | %    | 187,40 | 187,10 | 185,20 | 192,50 | 191,00 | 191,30 | 193,30 | 190,70 | 187,70 | 189,60 |
| <b>SEER - 23/18 (EN14825: 2018) (3)</b> |   |      |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W  | 5,28   | 5,16   | 5,07   | 4,96   | 5,40   | 5,44   | 5,18   | 5,07   | 5,13   | 4,77   |
|   | A | W/W  | 5,50   | 5,35   | 5,50   | 5,51   | 5,55   | 5,55   | 5,63   | 5,34   | 5,44   | 5,30   |
|   | E | W/W  | 5,62   | 5,53   | 5,46   | 5,70   | 5,69   | 5,63   | 5,77   | 5,50   | 5,52   | 5,48   |
|   | L | W/W  | 5,34   | 5,14   | 5,35   | 5,33   | 5,37   | 5,34   | 5,47   | 5,26   | 5,32   | 5,20   |
|   | N | W/W  | 5,92   | 5,71   | 5,76   | 5,91   | 5,88   | 5,91   | 5,99   | 5,75   | 5,74   | 5,71   |
|   | U | W/W  | 5,65   | 5,67   | 5,59   | 5,82   | 5,76   | 5,80   | 5,83   | 5,67   | 5,69   | 5,61   |
| Seasonal efficiency                     | ° | %    | 208,10 | 203,40 | 199,80 | 195,40 | 212,90 | 214,50 | 204,10 | 199,90 | 202,10 | 187,80 |
|   | A | %    | 217,00 | 210,90 | 217,00 | 217,50 | 219,10 | 219,10 | 222,10 | 210,50 | 214,60 | 209,10 |
|   | E | %    | 221,90 | 218,30 | 215,30 | 224,90 | 224,50 | 222,20 | 227,70 | 216,80 | 217,70 | 216,00 |
|   | L | %    | 210,40 | 202,70 | 211,00 | 210,20 | 211,60 | 210,40 | 215,80 | 207,40 | 209,70 | 205,10 |
|   | N | %    | 229,90 | 225,30 | 227,50 | 233,50 | 232,10 | 233,40 | 236,40 | 226,80 | 226,40 | 225,50 |
|   | U | %    | 222,80 | 223,70 | 220,70 | 229,90 | 227,50 | 228,80 | 230,20 | 223,80 | 224,50 | 221,50 |
| <b>SEPR - (EN 14825: 2018) (3)</b>      |   |      |        |        |        |        |        |        |        |        |        |        |
| SEPR                                    | ° | W/W  | 5,39   | 5,22   | 5,17   | 5,03   | 5,36   | 5,51   | 5,52   | 5,58   | 5,52   | 5,51   |
|   | A | W/W  | 5,64   | 5,29   | 5,58   | 5,30   | 5,55   | 5,52   | 5,56   | 5,56   | 5,57   | 5,55   |
|   | E | W/W  | 5,56   | 5,22   | 5,47   | 5,25   | 5,52   | 5,56   | 5,58   | 5,54   | 5,53   | 5,55   |
|   | L | W/W  | 5,32   | 5,05   | 5,31   | 5,04   | 5,18   | 5,05   | 5,53   | 5,53   | 5,53   | 5,52   |
|   | N | W/W  | 5,69   | 5,55   | 5,67   | 5,60   | 5,64   | 5,62   | 5,66   | 5,57   | 5,67   | 5,60   |
|   | U | W/W  | 5,67   | 5,54   | 5,66   | 5,54   | 5,68   | 5,59   | 5,69   | 5,55   | 5,55   | 5,58   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

| Size                                    |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|---|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: M</b>                          |   |     |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W | 4,23   | 4,13   | 4,10   | 4,11   | 4,19   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A | W/W | 4,41   | 4,34   | 4,39   | 4,45   | 4,48   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | E | W/W | 4,47   | 4,40   | 4,40   | 4,54   | 4,54   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | L | W/W | 4,31   | 4,17   | 4,25   | 4,27   | 4,31   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | N | W/W | 4,61   | 4,56   | 4,58   | 4,72   | 4,68   | 4,72   | 4,78   | 4,66   | 4,58   | 4,61   | 4,62   |
|   | U | W/W | 4,51   | 4,51   | 4,51   | 4,63   | 4,64   | 4,65   | 4,70   | 4,61   | 4,56   | 4,57   | 4,59   |
| Seasonal efficiency                     | ° | %   | 166,00 | 162,30 | 161,00 | 161,20 | 164,70 | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | A | %   | 173,50 | 170,60 | 172,40 | 174,90 | 176,00 | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | E | %   | 175,60 | 173,10 | 173,10 | 178,70 | 178,50 | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | L | %   | 169,40 | 163,60 | 166,80 | 167,60 | 169,20 | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|   | N | %   | 181,30 | 179,30 | 180,00 | 185,70 | 184,10 | 185,90 | 188,20 | 183,40 | 180,30 | 181,50 | 181,60 |
|   | U | %   | 177,20 | 177,40 | 177,20 | 182,10 | 182,50 | 183,10 | 184,80 | 181,40 | 179,20 | 179,90 | 180,50 |
| <b>SEER - 23/18 (EN14825: 2018) (3)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W | 5,08   | 4,98   | 4,92   | 4,82   | 5,20   | 5,26   | 5,03   | 4,91   | 4,97   | 4,63   | 4,91   |
|   | A | W/W | 5,29   | 5,15   | 5,25   | 5,28   | 5,35   | 5,37   | 5,42   | 5,15   | 5,22   | 5,09   | 5,22   |
|   | E | W/W | 5,36   | 5,24   | 5,28   | 5,40   | 5,43   | 5,37   | 5,54   | 5,21   | 5,22   | 5,21   | 5,30   |
|   | L | W/W | 5,06   | 4,87   | 5,07   | 5,08   | 5,05   | 5,10   | 5,19   | 5,02   | 5,02   | 4,92   | 4,99   |
|   | N | W/W | 5,57   | 5,47   | 5,50   | 5,66   | 5,61   | 5,65   | 5,73   | 5,48   | 5,48   | 5,44   | 5,54   |
|   | U | W/W | 5,41   | 5,44   | 5,41   | 5,58   | 5,56   | 5,60   | 5,63   | 5,46   | 5,49   | 5,39   | 5,50   |
| Seasonal efficiency                     | ° | %   | 200,10 | 196,00 | 193,60 | 189,90 | 205,10 | 207,30 | 198,30 | 193,30 | 195,70 | 182,00 | 193,50 |
|   | A | %   | 208,40 | 203,00 | 206,80 | 208,00 | 211,10 | 211,60 | 213,60 | 203,10 | 205,70 | 200,60 | 205,60 |
|   | E | %   | 211,40 | 206,40 | 208,30 | 213,00 | 214,00 | 211,80 | 218,50 | 205,50 | 205,70 | 205,30 | 208,90 |
|   | L | %   | 199,40 | 191,90 | 199,70 | 200,10 | 199,10 | 200,80 | 204,40 | 197,70 | 197,60 | 193,90 | 196,40 |
|   | N | %   | 219,70 | 215,80 | 216,80 | 223,40 | 221,50 | 223,00 | 226,20 | 216,00 | 216,30 | 214,60 | 218,40 |
|   | U | %   | 213,40 | 214,40 | 213,30 | 220,00 | 219,50 | 221,00 | 222,20 | 215,30 | 216,40 | 212,50 | 216,90 |
| <b>SEPR - (EN 14825: 2018) (3)</b>      |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                                    | ° | W/W | 5,39   | 5,22   | 5,17   | 5,03   | 5,36   | 5,51   | 5,52   | 5,58   | 5,52   | 5,51   | 5,51   |
|   | A | W/W | 5,64   | 5,29   | 5,58   | 5,30   | 5,55   | 5,52   | 5,56   | 5,56   | 5,57   | 5,55   | 5,55   |
|   | E | W/W | 5,56   | 5,22   | 5,47   | 5,25   | 5,52   | 5,56   | 5,58   | 5,54   | 5,53   | 5,55   | 5,55   |
|   | L | W/W | 5,32   | 5,05   | 5,31   | 5,04   | 5,18   | 5,05   | 5,53   | 5,53   | 5,53   | 5,52   | 5,54   |
|   | N | W/W | 5,69   | 5,55   | 5,67   | 5,60   | 5,64   | 5,62   | 5,66   | 5,57   | 5,63   | 5,60   | 5,64   |
|   | U | W/W | 5,67   | 5,54   | 5,66   | 5,54   | 5,68   | 5,59   | 5,69   | 5,55   | 5,55   | 5,58   | 5,72   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °   | A | 164,3 | 180,7 | 197,0 | 226,4 | 262,1 | 291,1 | 320,1 | 371,3 | 416,0 | 445,0 | 480,4 |
|                       | A,L | A | 177,1 | 193,4 | 222,5 | 251,8 | 281,2 | 310,2 | 351,9 | 396,7 | 454,2 | 483,2 | 530,8 |
|                       | E,U | A | 189,8 | 206,1 | 222,5 | 264,5 | 293,9 | 322,9 | 364,6 | 428,0 | 472,8 | 514,5 | 543,5 |
|                       | N   | A | 202,5 | 218,8 | 235,2 | 277,3 | 306,6 | 335,6 | 383,2 | 440,7 | 485,5 | 527,2 | 556,2 |
| Peak current (LRA)    | °   | A | 352,9 | 408,1 | 424,4 | 477,1 | 512,8 | 625,3 | 654,3 | 705,5 | 750,3 | 779,3 | 814,6 |
|                       | A,L | A | 365,6 | 420,8 | 449,9 | 502,5 | 531,9 | 644,4 | 686,1 | 730,9 | 788,4 | 817,4 | 865,0 |
|                       | E,U | A | 378,3 | 433,5 | 449,9 | 515,3 | 544,6 | 657,1 | 698,8 | 762,2 | 807,0 | 848,7 | 877,7 |
|                       | N   | A | 391,1 | 446,2 | 462,6 | 528,0 | 557,3 | 669,8 | 717,4 | 774,9 | 819,7 | 861,4 | 890,4 |



## GENERAL TECHNICAL DATA

| Size  |              |      | 0800           | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206  | 2406  |
|---|--------------|------|----------------|------|------|------|------|------|------|------|------|-------|-------|
| Compressor  |              |      |                |      |      |      |      |      |      |      |      |       |       |
| Type  | ° ,A,E,L,N,U | type | Scroll         |      |      |      |      |      |      |      |      |       |       |
| Compressor regulation   | ° ,A,E,L,N,U | Type | On/Off         |      |      |      |      |      |      |      |      |       |       |
| Number  | ° ,A,E,L,N,U | no.  | 4              | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6     | 6     |
| Circuits  | ° ,A,E,L,N,U | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     |
| Partialisation of the unit with mechanical thermostatic valve           | ° ,A,E,L,N,U | %    | 25%            | 25%  | 25%  | 25%  | 25%  | 25%  | 25%  | 17%  | 17%  | 17%   | 17%   |
| Partialisation of the unit with electronic thermostatic expansion valve | ° ,A,E,L,N,U | %    | 25%            | 25%  | 25%  | 25%  | 25%  | 25%  | 25%  | 17%  | 17%  | 17%   | 17%   |
| Refrigerant   | ° ,A,E,L,N,U | type | R410A          |      |      |      |      |      |      |      |      |       |       |
| Refrigerant charge (1)  | °            | kg   | 28,0           | 29,0 | 30,0 | 32,0 | 41,0 | 42,0 | 42,0 | 55,0 | 55,0 | 55,0  | 65,0  |
|   | A,L          | kg   | 30,0           | 32,0 | 40,0 | 44,0 | 42,0 | 45,0 | 49,0 | 55,0 | 64,0 | 65,0  | 70,0  |
|   | E,U          | kg   | 41,0           | 40,0 | 43,0 | 53,0 | 53,0 | 53,0 | 62,0 | 69,0 | 75,0 | 90,0  | 112,0 |
|   | N            | kg   | 50,0           | 53,0 | 53,0 | 59,0 | 59,0 | 70,0 | 84,0 | 80,0 | 90,0 | 124,0 | 91,0  |
| Oil   | ° ,A,E,L,N,U | Type |                |      |      |      |      |      |      |      |      |       |       |
| Oil charge circuit 1  | ° ,A,E,L,N,U | kg   | 9,3            | 11,5 | 13,6 | 13,1 | 12,6 | 12,6 | 12,6 | 16,6 | 24,9 | 24,9  | 12,6  |
| Oil charge circuit 2  | ° ,A,E,L,N,U | kg   | 9,3            | 11,5 | 13,6 | 13,1 | 12,6 | 12,6 | 12,6 | 24,9 | 24,9 | 24,9  | 24,9  |
| System side heat exchanger  |              |      |                |      |      |      |      |      |      |      |      |       |       |
| Type  | ° ,A,E,L,N,U | type | Shell and tube |      |      |      |      |      |      |      |      |       |       |
| Number  | ° ,A,E,L,N,U | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1     | 1     |
| Hydraulic connections   |              |      |                |      |      |      |      |      |      |      |      |       |       |
| Connections (in/out)  | ° ,A,E,L,N,U | Type | Grooved joints |      |      |      |      |      |      |      |      |       |       |
| Hydraulic connections without hydronic kit                              |              |      |                |      |      |      |      |      |      |      |      |       |       |
| Sizes (in/out)  | °            | Ø    | 5"             | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 6"   | 6"   | 6"    | 6"    |
|   | A,L          | Ø    | 5"             | 5"   | 5"   | 5"   | 5"   | 6"   | 6"   | 6"   | 6"   | 6"    | 6"    |
|   | E,N,U        | Ø    | 5"             | 5"   | 5"   | 5"   | 6"   | 6"   | 6"   | 6"   | 6"   | 6"    | 6"    |
| Hydraulic connections with hydronic kit                                 |              |      |                |      |      |      |      |      |      |      |      |       |       |
| Sizes (in/out)  | °            | Ø    | -              | -    | -    | -    | 3"   | -    | -    | 4"   | 4"   | 4"    | 4"    |
|   | A,L          | Ø    | -              | -    | 3"   | -    | -    | -    | 4"   | 4"   | 4"   | 4"    | 4"    |
|   | E,U          | Ø    | 3"             | 3"   | -    | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"    | 4"    |
|   | N            | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"    | 4"    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**Water filter not supplied. Installation is mandatory or the guarantee will void.**

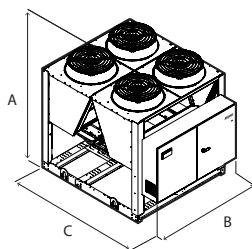
## Fans

| Size   |              |       | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--------------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: M</b>                                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>                                       |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Type   | ° ,A,E,L,N,U | type  | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | ° ,A,U       | type  | Asynchronous                |        |        |        |        |        |        |        |        |        |        |
|  | E,L,N        | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |
|  | °            | no.   | 4                           | 4      | 4      | 4      | 6      | 6      | 6      | 8      | 8      | 8      | 10     |
| Number   | A,L          | no.   | 4                           | 4      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|  | E,U          | no.   | 6                           | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|  | N            | no.   | 8                           | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| <b>With static pressure</b>                      |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 64000                       | 64000  | 64000  | 64000  | 96000  | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 |
|  | A            | m³/h  | 64000                       | 64000  | 96000  | 96000  | 96000  | 96000  | 128000 | 128000 | 160000 | 160000 | 192000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 96000                       | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure                             | ° ,A,U       | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     |
|  | E,L,N        | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    |
| <b>Without Static pressure</b>                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 72000                       | 72000  | 72000  | 72000  | 108000 | 108000 | 108000 | 144000 | 144000 | 144000 | 180000 |
|  | A            | m³/h  | 72000                       | 72000  | 108000 | 108000 | 108000 | 108000 | 144000 | 144000 | 180000 | 180000 | 216000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 108000                      | 108000 | 108000 | 144000 | 144000 | 144000 | 180000 | 216000 | 216000 | 252000 | 252000 |
| High static pressure                             | ° ,A,E,L,N,U | Pa    | 0                           | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| <b>With static pressure</b>                      |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 87,8                        | 87,8   | 87,8   | 87,8   | 90,0   | 90,0   | 90,0   | 92,0   | 92,5   | 93,0   | 94,7   |
|  | A            | dB(A) | 87,8                        | 87,8   | 90,0   | 90,0   | 90,0   | 90,0   | 91,5   | 92,0   | 93,7   | 94,2   | 95,6   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 90,0                        | 90,0   | 90,0   | 91,5   | 91,5   | 91,5   | 92,7   | 94,2   | 94,7   | 96,0   | 96,5   |
| <b>Without Static pressure</b>                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 89,7                        | 89,7   | 89,7   | 89,7   | 91,7   | 91,7   | 91,7   | 93,4   | 93,2   | 93,5   | 94,9   |
|  | A            | dB(A) | 89,7                        | 89,7   | 91,7   | 91,7   | 91,7   | 91,7   | 93,1   | 93,4   | 94,3   | 94,6   | 95,8   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 92,3                        | 92,3   | 92,3   | 93,6   | 93,6   | 93,6   | 94,6   | 95,7   | 95,5   | 96,5   | 96,8   |
| Size   |              |       | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
| <b>Fans: J</b>                                   |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>                                       |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Type   | ° ,A,E,L,N,U | type  | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | ° ,A,E,L,N,U | type  | Inverter                    |        |        |        |        |        |        |        |        |        |        |
|  | °            | no.   | 4                           | 4      | 4      | 4      | 6      | 6      | 6      | 8      | 8      | 8      | 10     |
| Number   | A,L          | no.   | 4                           | 4      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|  | E,U          | no.   | 6                           | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|  | N            | no.   | 8                           | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| <b>Inverter fan</b>                              |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | °            | m³/h  | 64000                       | 64000  | 64000  | 64000  | 96000  | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 |
|  | A            | m³/h  | 64000                       | 64000  | 96000  | 96000  | 96000  | 96000  | 128000 | 128000 | 160000 | 160000 | 192000 |
|  | E            | m³/h  | 69000                       | 69000  | 69000  | 92000  | 92000  | 92000  | 115000 | 138000 | 138000 | 161000 | 161000 |
|  | L            | m³/h  | 46000                       | 46000  | 69000  | 69000  | 69000  | 69000  | 92000  | 92000  | 115000 | 115000 | 138000 |
|  | N            | m³/h  | 92000                       | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|  | U            | m³/h  | 96000                       | 96000  | 96000  | 128000 | 128000 | 128000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure                             | °            | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 75     | 75     | 75     | 75     |
|  | A,U          | Pa    | 120                         | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    |
|  | E,L,N        | Pa    | 200                         | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    | 200    |
| <b>Sound data calculated in cooling mode (1)</b> |              |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °            | dB(A) | 87,8                        | 87,8   | 87,8   | 87,8   | 90,0   | 90,0   | 90,0   | 92,0   | 92,5   | 93,0   | 94,7   |
|  | A            | dB(A) | 87,8                        | 87,8   | 90,0   | 90,0   | 90,0   | 90,0   | 91,5   | 92,0   | 93,7   | 94,2   | 95,6   |
|  | E            | dB(A) | 84,8                        | 84,8   | 84,8   | 86,3   | 86,3   | 86,3   | 87,5   | 89,0   | 89,5   | 90,8   | 91,3   |
|  | L            | dB(A) | 82,7                        | 82,7   | 84,8   | 84,8   | 84,8   | 85,6   | 86,3   | 87,7   | 88,5   | 89,8   | 90,5   |
|  | N            | dB(A) | 86,3                        | 86,3   | 86,3   | 87,5   | 87,5   | 87,5   | 88,5   | 89,8   | 90,3   | 91,5   | 92,0   |
|  | U            | dB(A) | 90,0                        | 90,0   | 90,0   | 91,5   | 91,5   | 91,5   | 92,7   | 94,2   | 94,7   | 96,0   | 96,5   |

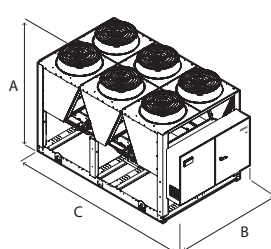
(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS

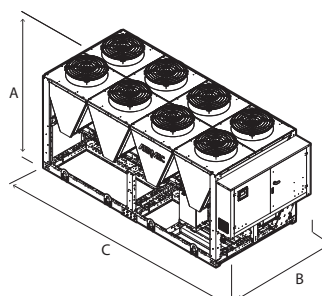
NRB 0800 - 1100 °  
NRB 0800 - 0900 L/A



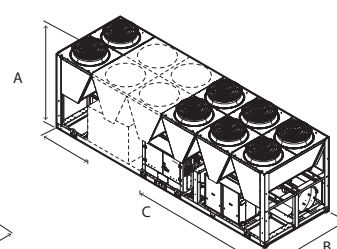
NRB 1200 - 1600 °  
NRB 1000 - 1400 L/A  
NRB 0800 - 1000 E/U



NRB 1805 - 2206 °  
NRB 1600 - 1805 L/A  
NRB 1200 - 1400 E/U  
NRB 0800 - 1000 N



NRB 2406 °  
NRB 2006 - 2406 L/A  
NRB 1600 - 2406 E/U  
NRB 1100 - 2406 N



| Size   |             |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|-------------|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights without hydronic kit</b> |             |    |      |      |      |      |      |      |      |      |      |      |      |
| A  | °,A,E,L,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B  | °,A,E,L,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
|  | °           | mm | 2780 | 2780 | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 6350 |
| C  | A,L         | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 5160 | 6350 | 6350 | 7140 |
|  | E,U         | mm | 3970 | 3970 | 3970 | 4760 | 4760 | 4760 | 5950 | 7140 | 7140 | 8330 | 8330 |
|  | N           | mm | 4760 | 4760 | 4760 | 5950 | 5950 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
| <b>Dimensions and weights with pump/s</b>          |             |    |      |      |      |      |      |      |      |      |      |      |      |
| A  | °           | mm | -    | -    | -    | -    | 2450 | -    | -    | 2450 | 2450 | 2450 | 2450 |
|  | A,L         | mm | -    | -    | 2450 | -    | -    | -    | 2450 | 2450 | 2450 | 2450 | 2450 |
|  | E,U         | mm | 2450 | 2450 | -    | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
|  | N           | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B  | °           | mm | -    | -    | -    | -    | 2200 | -    | -    | 2200 | 2200 | 2200 | 2200 |
|  | A,L         | mm | -    | -    | 2200 | -    | -    | -    | 2200 | 2200 | 2200 | 2200 | 2200 |
|  | E,U         | mm | 2200 | 2200 | -    | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
|  | N           | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C  | °           | mm | -    | -    | -    | -    | 3970 | -    | -    | 5160 | 5160 | 5160 | 6350 |
|  | A,L         | mm | -    | -    | 3970 | -    | -    | -    | 4760 | 5160 | 6350 | 6350 | 7140 |
|  | E,U         | mm | 3970 | 3970 | -    | 4760 | 4760 | 4760 | 5950 | 7140 | 7140 | 8330 | 8330 |
|  | N           | mm | 4760 | 4760 | 4760 | 5950 | 5950 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
| <b>Integrated hydronic kit: 00</b>                 |             |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                                     |             |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                                       | °           | kg | 2390 | 2430 | 2500 | 2540 | 3030 | 3080 | 3110 | 3810 | 3980 | 4020 | 4560 |
|  | A,L         | kg | 2410 | 2470 | 2950 | 3020 | 3060 | 3120 | 3640 | 3910 | 4480 | 4560 | 4980 |
|  | E,U         | kg | 2870 | 2910 | 2990 | 3520 | 3590 | 3610 | 4140 | 4690 | 4900 | 5650 | 5690 |
|  | N           | kg | 3370 | 3420 | 3490 | 3920 | 3990 | 4020 | 4490 | 5140 | 5360 | 6050 | 6090 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRB 0800H-2406H

## Reversible air/water heat pump

Cooling capacity 196,4 ÷ 647,7 kW – Heating capacity 209,8 ÷ 683,9 kW

- High efficiency also at partial loads
- Night mode
- HP floating: ESEER +7% with inverter fans
- Also available with Shell and tube heat exchanger



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

L Standard silenced

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C.

(for more information, refer to the technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

**It is standard in all sizes from 1805 to 2406.**

#### Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL

Microprocessor adjustment, with 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables

in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**BRC1:** Condensate drip tray. Consider 1 for each V-block.

### COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

### ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

#### Remote panel

| Model | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

#### Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1000 | AVX1000 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1006 | AVX1006 | AVX1010 | AVX1010 |
| A, L   | AVX1000 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1006 | AVX1006 | AVX1010 | AVX1010 | AVX1016 | AVX1016 |
| E  | AVX1004 | AVX1006 | AVX1006 | AVX1006 | AVX1006 | AVX1010 | AVX1013 | AVX1024 | AVX1024 | AVX1033 | AVX1033 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, BA, BB, BC</b> |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1003 | AVX1003 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1008 | AVX1012 | AVX1012 |
| A, L   | AVX1003 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1008 | AVX1008 | AVX1008 | AVX1012 | AVX1017 | AVX1017 |
| E  | AVX1005 | AVX1008 | AVX1008 | AVX1008 | AVX1008 | AVX1012 | AVX1015 | AVX1025 | AVX1025 | AVX1035 | AVX1035 |
| <b>Integrated hydronic kit: AI, AJ, BD, BE, BF, BG, BH, BI, BJ</b>         |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1003 | AVX1003 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1008 | AVX1008 | AVX1012 | AVX1012 |
| A, L   | AVX1003 | AVX1005 | AVX1005 | AVX1005 | AVX1005 | AVX1008 | AVX1008 | AVX1012 | AVX1012 | AVX1017 | AVX1017 |
| E  | AVX1005 | AVX1008 | AVX1008 | AVX1008 | AVX1008 | AVX1012 | AVX1015 | AVX1025 | AVX1025 | AVX1035 | AVX1035 |
| <b>Integrated hydronic kit: DA, DB, DC, PA, PB, PC, PD, PE, PF, PG, PH</b> |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1001 | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1009 | AVX1009 | AVX1010 | AVX1010 |
| A, L   | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1009 | AVX1009 | AVX1010 | AVX1010 | AVX1016 | AVX1016 |
| E  | AVX1004 | AVX1006 | AVX1006 | AVX1006 | AVX1009 | AVX1010 | AVX1013 | AVX1024 | AVX1024 | AVX1034 | AVX1034 |
| <b>Integrated hydronic kit: DD, DE, DF, DG, DH, PI, PJ</b>                 |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1001 | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1009 | AVX1009 | AVX1011 | AVX1011 |
| A, L   | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1009 | AVX1009 | AVX1011 | AVX1011 | AVX1016 | AVX1016 |
| E  | AVX1004 | AVX1007 | AVX1007 | AVX1007 | AVX1009 | AVX1011 | AVX1014 | AVX1024 | AVX1024 | AVX1034 | AVX1034 |
| <b>Integrated hydronic kit: DI, DJ</b>                                     |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1002 | AVX1002 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1007 | AVX1007 | AVX1011 | AVX1011 |
| A, L   | AVX1002 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1007 | AVX1007 | AVX1011 | AVX1011 | AVX1016 | AVX1016 |
| E  | AVX1004 | AVX1007 | AVX1007 | AVX1007 | AVX1007 | AVX1011 | AVX1014 | AVX1024 | AVX1024 | AVX1034 | AVX1034 |

#### Condensation control temperature

| Ver     | 0800        | 0900        | 1000        | 1100        | 1200        | 1400        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: ° |             |             |             |             |             |             |
| °       | DCPX130     | DCPX130     | DCPX131     | DCPX131     | DCPX131     | DCPX131     |
| A       | DCPX130     | DCPX131     | DCPX131     | DCPX131     | DCPX131     | DCPX132     |
| E, L    | As standard | As standard | As standard | As standard | As standard | As standard |
| Ver     | 1600        | 1805        | 2006        | 2206        | 2406        |             |
| Fans: ° |             |             |             |             |             |             |
| °       | DCPX131     | DCPX155     | DCPX155     | DCPX156     | DCPX156     |             |
| A       | DCPX132     | DCPX156     | DCPX156     | DCPX134     | DCPX134     |             |
| E, L    | As standard | As standard | As standard | As standard | As standard |             |

#### Device for peak current reduction

| Ver        | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600           | 1805           | 2006           | 2206           | 2406           |
|------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| °    | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| A, L | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1401 |
| E    | RIFNRB0800 | RIFNRB0901 | RIFNRB1001 | RIFNRB1001 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| °    | RIFNRB1600 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2406 |
| A, L | RIFNRB1601 | RIFNRB1805 | RIFNRB2006 | RIFNRB2216 | RIFNRB2416 |
| E    | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805 | 2006 | 2206 | 2406 |
|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| °    | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4G | GP4G | GP5G | GP5G |
| A, L | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP5G | GP5G | GP6V | GP6V |
| E    | GP3VN | GP4VN | GP4VN | GP4VN | GP4VN | GP5VN | GP6V  | GP7V | GP7V | GP8V | GP8V |

A grey background indicates the accessory must be assembled in the factory

**The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long, and they must mount the GP2VNA grids.**

#### Condensate drip

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| °    | BRC1x2 (1) | BRC1x2 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) |
| A, L | BRC1x2 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x4 (1) |
| E    | BRC1x3 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x5 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| °    | BRC1x3 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x5 (1) | BRC1x5 (1) |
| A, L | BRC1x4 (1) | BRC1x5 (1) | BRC1x5 (1) | BRC1x6 (1) | BRC1x6 (1) |
| E    | BRC1x6 (1) | BRC1x7 (1) | BRC1x7 (1) | BRC1x8 (1) | BRC1x8 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)                                     |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (2)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                      |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (3)  |

| Field | Description  |
|-------|--|
|       | <b>Pump n° 1 pump + stand-by pump</b>                      |
| DA    | Pump A + stand-by pump (4)                                 |
| DB    | Pump B + stand-by pump (4)                                 |
| DC    | Pump C + stand-by pump (4)                                 |
| DD    | Pump D + stand-by pump (4)                                 |
| DE    | Pump E + stand-by pump (4)                                 |
| DF    | Pump F + stand-by pump (4)                                 |
| DG    | Pump G + stand-by pump (4)                                 |
| DH    | Pump H + stand-by pump (4)                                 |
| DI    | Pump I + stand-by pump (4)                                 |
| DJ    | Pump J + stand-by pump (5)                                 |
|       | <b>Kit with storage tank and n° 1 pump</b>                 |
| AA    | Storage tank and pump A                                    |
| AB    | Storage tank and pump B                                    |
| AC    | Storage tank and pump C                                    |
| AD    | Storage tank and pump D                                    |
| AE    | Storage tank and pump E                                    |
| AF    | Storage tank and pump F                                    |
| AG    | Storage tank and pump G                                    |
| AH    | Storage tank and pump H                                    |
| AI    | Storage tank and pump I                                    |
| AJ    | Storage tank and pump J (3)                                |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump</b> |
| BA    | Storage tank with pump A + stand-by pump (4)               |
| BB    | Storage tank with pump B + stand-by pump (4)               |
| BC    | Storage tank with pump C + stand-by pump (4)               |
| BD    | Storage tank with pump D + stand-by pump (4)               |
| BE    | Storage tank with pump E + stand-by pump (4)               |
| BF    | Storage tank with pump F + stand-by pump (4)               |
| BG    | Storage tank with pump G + stand-by pump (4)               |
| BH    | Storage tank with pump H + stand-by pump (4)               |
| BI    | Storage tank with pump I + stand-by pump (4)               |
| BJ    | Storage tank with pump J + stand-by pump (5)               |

(1) Electronic thermostatic as standard from size 1805÷2406.

(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) For all configurations including pump J please contact the factory.

(4) None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805-2006 version °.

(5) For all combinations with pump J, please contact our head office. None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805-2006 version °.

## PERFORMANCE SPECIFICATIONS

### NRB H°

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 196,4 | 218,0 | 251,8 | 279,2 | 314,2 | 353,8 | 389,0 | 456,7 | 501,9 | 568,7  | 616,1  |
| Input power                                  | kW  | 74,1  | 86,1  | 91,7  | 107,9 | 119,5 | 141,6 | 155,6 | 172,6 | 193,2 | 211,2  | 231,1  |
| Cooling total input current                  | A   | 131,0 | 150,0 | 163,0 | 189,0 | 207,0 | 242,0 | 263,0 | 296,0 | 331,0 | 365,0  | 398,0  |
| EER  | W/W | 2,65  | 2,53  | 2,74  | 2,59  | 2,63  | 2,50  | 2,50  | 2,65  | 2,60  | 2,69   | 2,67   |
| Water flow rate system side                  | l/h | 33794 | 37515 | 43314 | 48020 | 54046 | 60853 | 66910 | 78531 | 86311 | 97783  | 105939 |
| Pressure drop system side                    | kPa | 34    | 24    | 32    | 26    | 33    | 31    | 37    | 32    | 38    | 37     | 42     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 215,0 | 237,4 | 275,0 | 306,0 | 343,9 | 366,2 | 412,6 | 478,4 | 527,7 | 592,0  | 643,2  |
| Input power                                  | kW  | 70,2  | 77,7  | 89,6  | 99,8  | 112,3 | 121,7 | 137,0 | 157,3 | 174,3 | 193,9  | 210,7  |
| Heating total input current                  | A   | 125,0 | 138,0 | 158,0 | 175,0 | 195,0 | 212,0 | 236,0 | 274,0 | 304,0 | 340,0  | 369,0  |
| COP  | W/W | 3,06  | 3,06  | 3,07  | 3,07  | 3,06  | 3,01  | 3,01  | 3,04  | 3,03  | 3,05   | 3,05   |
| Water flow rate system side                  | l/h | 37311 | 41207 | 47745 | 53116 | 59705 | 63585 | 71640 | 83071 | 91620 | 102803 | 111681 |
| Pressure drop system side                    | kPa | 42    | 28    | 38    | 32    | 40    | 34    | 42    | 36    | 42    | 40     | 46     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**NRB HL**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 197,9 | 227,9 | 247,7 | 275,2 | 301,1 | 359,1 | 392,2 | 453,8 | 495,0 | 552,5  | 592,9  |
| Input power                                  | kW  | 75,3  | 78,6  | 89,8  | 106,2 | 123,2 | 133,0 | 153,4 | 169,0 | 193,9 | 208,9  | 234,1  |
| Cooling total input current                  | A   | 126,0 | 133,0 | 150,0 | 176,0 | 203,0 | 220,0 | 252,0 | 280,0 | 321,0 | 347,0  | 390,0  |
| EER  | W/W | 2,63  | 2,90  | 2,76  | 2,59  | 2,44  | 2,70  | 2,56  | 2,69  | 2,55  | 2,64   | 2,53   |
| Water flow rate system side                  | l/h | 34040 | 39194 | 42596 | 47339 | 51779 | 61758 | 67431 | 78030 | 85114 | 95003  | 101921 |
| Pressure drop system side                    | kPa | 14    | 18    | 15    | 19    | 14    | 20    | 18    | 23    | 23    | 29     | 17     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 209,8 | 250,3 | 274,3 | 304,8 | 334,3 | 394,3 | 431,0 | 497,4 | 543,0 | 609,3  | 654,3  |
| Input power                                  | kW  | 67,1  | 79,5  | 87,1  | 98,9  | 108,2 | 126,2 | 136,7 | 158,3 | 173,1 | 194,8  | 208,8  |
| Heating total input current                  | A   | 119,0 | 139,0 | 152,0 | 171,0 | 187,0 | 216,0 | 234,0 | 272,0 | 299,0 | 336,0  | 363,0  |
| COP  | W/W | 3,13  | 3,15  | 3,15  | 3,08  | 3,09  | 3,12  | 3,15  | 3,14  | 3,14  | 3,13   | 3,13   |
| Water flow rate system side                  | l/h | 36429 | 43447 | 47619 | 52924 | 58032 | 68469 | 74854 | 86379 | 94306 | 105817 | 113644 |
| Pressure drop system side                    | kPa | 15    | 22    | 19    | 23    | 17    | 24    | 21    | 28    | 28    | 35     | 21     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**NRB HA**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 206,2 | 243,8 | 266,9 | 297,0 | 329,2 | 385,5 | 425,3 | 488,4 | 538,3 | 601,4  | 651,3  |
| Input power                                  | kW  | 71,8  | 78,2  | 88,1  | 102,2 | 117,2 | 129,2 | 147,2 | 163,7 | 184,8 | 201,3  | 222,3  |
| Cooling total input current                  | A   | 127,0 | 141,0 | 157,0 | 179,0 | 203,0 | 225,0 | 254,0 | 285,0 | 321,0 | 352,0  | 389,0  |
| EER  | W/W | 2,87  | 3,12  | 3,03  | 2,91  | 2,81  | 2,98  | 2,89  | 2,98  | 2,91  | 2,99   | 2,93   |
| Water flow rate system side                  | l/h | 35459 | 41942 | 45909 | 51076 | 56619 | 66291 | 73125 | 83982 | 92547 | 103407 | 111966 |
| Pressure drop system side                    | kPa | 15    | 21    | 18    | 22    | 17    | 23    | 21    | 27    | 27    | 34     | 21     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 214,3 | 254,4 | 279,0 | 310,5 | 341,2 | 400,9 | 438,9 | 506,0 | 553,2 | 620,0  | 666,5  |
| Input power                                  | kW  | 66,6  | 79,3  | 86,7  | 97,1  | 106,2 | 124,8 | 137,1 | 157,5 | 171,8 | 193,5  | 207,0  |
| Heating total input current                  | A   | 120,0 | 142,0 | 155,0 | 172,0 | 187,0 | 219,0 | 240,0 | 277,0 | 303,0 | 342,0  | 368,0  |
| COP  | W/W | 3,22  | 3,21  | 3,22  | 3,20  | 3,21  | 3,21  | 3,20  | 3,21  | 3,22  | 3,20   | 3,22   |
| Water flow rate system side                  | l/h | 37204 | 44148 | 48436 | 53909 | 59226 | 69618 | 76226 | 87877 | 96076 | 107669 | 115772 |
| Pressure drop system side                    | kPa | 16    | 23    | 20    | 24    | 18    | 25    | 22    | 29    | 29    | 36     | 22     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**NRB HE**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 209,6 | 241,7 | 264,7 | 294,5 | 326,7 | 377,8 | 432,4 | 489,4 | 540,5 | 597,8  | 647,7  |
| Input power                                  | kW  | 67,3  | 77,4  | 85,0  | 98,1  | 112,4 | 125,3 | 139,1 | 157,0 | 177,4 | 192,3  | 215,2  |
| Cooling total input current                  | A   | 115,0 | 132,0 | 144,0 | 164,0 | 187,0 | 208,0 | 230,0 | 261,0 | 296,0 | 322,0  | 362,0  |
| EER  | W/W | 3,12  | 3,12  | 3,11  | 3,00  | 2,91  | 3,02  | 3,11  | 3,12  | 3,05  | 3,11   | 3,01   |
| Water flow rate system side                  | l/h | 36053 | 41586 | 45538 | 50642 | 56185 | 64960 | 74341 | 84155 | 92932 | 102793 | 111352 |
| Pressure drop system side                    | kPa | 15    | 20    | 18    | 22    | 16    | 22    | 21    | 27    | 27    | 33     | 21     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 223,4 | 258,1 | 283,7 | 316,7 | 349,3 | 403,2 | 458,7 | 520,7 | 571,9 | 634,1  | 683,9  |
| Input power                                  | kW  | 69,3  | 80,5  | 87,9  | 98,5  | 109,0 | 126,1 | 143,1 | 162,7 | 177,1 | 198,2  | 211,7  |
| Heating total input current                  | A   | 122,0 | 140,0 | 153,0 | 170,0 | 188,0 | 216,0 | 244,0 | 278,0 | 305,0 | 341,0  | 367,0  |
| COP  | W/W | 3,22  | 3,21  | 3,23  | 3,22  | 3,20  | 3,20  | 3,21  | 3,20  | 3,23  | 3,20   | 3,23   |
| Water flow rate system side                  | l/h | 38791 | 44787 | 49248 | 54989 | 60660 | 70010 | 79655 | 90422 | 99327 | 110122 | 118791 |
| Pressure drop system side                    | kPa | 17    | 23    | 20    | 25    | 19    | 25    | 24    | 31    | 31    | 38     | 23     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.



## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °   | A | 168,6 | 185,0 | 209,8 | 239,2 | 268,5 | 297,5 | 326,5 | 379,8 | 424,6 | 462,1 | 491,1 |
|                       | A,L | A | 168,6 | 193,5 | 209,8 | 239,2 | 268,5 | 306,0 | 335,0 | 388,3 | 433,1 | 470,6 | 499,6 |
|                       | E   | A | 177,1 | 202,0 | 218,3 | 247,7 | 277,0 | 314,5 | 352,0 | 405,3 | 450,1 | 487,6 | 516,6 |
| Peak current (LRA)    | °   | A | 357,2 | 412,4 | 437,2 | 489,9 | 519,2 | 631,7 | 660,7 | 714,0 | 758,8 | 796,3 | 825,3 |
|                       | A,L | A | 357,2 | 420,9 | 437,2 | 489,9 | 519,2 | 640,2 | 669,2 | 722,5 | 767,3 | 804,8 | 833,8 |
|                       | E   | A | 365,7 | 429,4 | 445,7 | 498,4 | 527,7 | 648,7 | 686,2 | 739,5 | 784,3 | 821,8 | 850,8 |

## ENERGY INDICES (REG. 2016/2281 EU)

### NRB H°

| Size   |  |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |  |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   |  | kW  | 203    | 224    | 260    | 289    | 325    | 346    | 296    | 343    | 379    | 425    | 462    |
| SCOP   |  | W/W | 3,65   | 3,65   | 3,65   | 3,68   | 3,65   | 3,60   | 3,73   | 3,73   | 3,80   | 3,73   | 3,80   |
| ηsh  |  | %   | 143,00 | 143,00 | 143,00 | 144,00 | 143,00 | 141,00 | 146,00 | 143,00 | 149,00 | 146,00 | 149,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | 3,79   | 3,66   | 3,88   | 3,81   | 3,91   | 3,80   | 3,89   | 3,92   | 3,80   | -(3)   | -(3)   |
| Seasonal efficiency  |  | %   | 148,40 | 143,50 | 152,20 | 149,50 | 153,20 | 149,10 | 152,70 | 153,80 | 149,00 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,67   | 4,76   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 183,90 | 187,30 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,88   | 5,02   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 192,30 | 197,70 |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,53   | 5,54   |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,53   | 5,54   |

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

### NRB HL

| Size   |  |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |  |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   |  | kW  | 197    | 235    | 258    | 286    | 314    | 370    | 306    | 353    | 385    | 433    | 464    |
| SCOP   |  | W/W | 3,73   | 3,75   | 3,75   | 3,68   | 3,68   | 3,73   | 3,93   | 3,83   | 3,95   | 3,83   | 3,93   |
| ηsh  |  | %   | 146,00 | 147,00 | 147,00 | 144,00 | 144,00 | 146,00 | 154,00 | 150,00 | 155,00 | 150,00 | 154,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | 3,83   | 4,01   | 3,92   | 3,90   | 3,82   | 4,05   | 3,99   | 4,04   | 3,87   | -(3)   | -(3)   |
| Seasonal efficiency  |  | %   | 150,30 | 157,20 | 153,90 | 149,60 | 159,00 | 156,40 | 156,60 | 158,60 | 151,80 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,72   | 4,67   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 185,70 | 183,60 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,08   | 5,11   |
| Seasonal efficiency  |  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 200,30 | 201,20 |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,51   | 5,51   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   |  | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,51   | 5,51   |

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

**NRB HA**

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 196    | 233    | 255    | 284    | 312    | 367    | 304    | 351    | 384    | 430    | 462    |
| SCOP   | W/W | 3,03   | 3,08   | 3,03   | 3,08   | 3,03   | 3,10   | 3,13   | 3,08   | 3,30   | 3,08   | 3,15   |
| ηsh  | %   | 118,00 | 120,00 | 118,00 | 120,00 | 118,00 | 121,00 | 122,00 | 120,00 | 129,00 | 120,00 | 123,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 3,96   | 4,13   | 4,09   | 4,09   | 4,07   | 4,23   | 4,22   | 4,22   | 4,10   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 155,40 | 162,10 | 160,40 | 160,60 | 159,70 | 166,10 | 165,60 | 165,80 | 161,0  | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,58   | 4,57   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 180,3% | 179,6% |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,96   | 5,01   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 195,30 | 197,40 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,58   | 4,57   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 180,30 | 179,60 |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,52   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,52   |

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

**NRB HE**

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 204    | 236    | 259    | 290    | 320    | 369    | 318    | 361    | 397    | 440    | 474    |
| SCOP   | W/W | 3,05   | 3,08   | 3,05   | 3,10   | 3,03   | 3,08   | 3,13   | 3,05   | 3,30   | 3,08   | 3,15   |
| ηsh  | %   | 119,00 | 120,00 | 119,00 | 121,00 | 118,00 | 120,00 | 122,00 | 119,00 | 129,00 | 120,00 | 123,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 4,16   | 4,15   | 4,18   | 4,19   | 4,16   | 4,27   | 4,39   | 4,36   | 4,22   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 163,40 | 163,00 | 164,10 | 164,70 | 163,40 | 167,90 | 172,70 | 171,40 | 165,80 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,71   | 4,67   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 185,4% | 183,7% |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,17   | 5,20   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 203,60 | 204,90 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,71   | 4,67   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,54   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,54   |

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

## FANS

| Size           |        |      | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|----------------|--------|------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: °</b> |        |      |                             |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>     |        |      |                             |        |        |        |        |        |        |        |        |        |        |
| Type           | °A,E,L | type | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor      | °A     | type | Asynchronous                |        |        |        |        |        |        |        |        |        |        |
|                | E,L    | type | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |
| Number         | °      | no.  | 4                           | 4      | 6      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     |
|                | A,L    | no.  | 4                           | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     | 12     |
|                | E      | no.  | 6                           | 8      | 8      | 8      | 8      | 10     | 12     | 14     | 14     | 16     | 16     |
| Air flow rate  | °      | m³/h | 80000                       | 80000  | 120000 | 120000 | 120000 | 120000 | 120000 | 160000 | 160000 | 200000 | 200000 |
|                | A      | m³/h | 80000                       | 120000 | 120000 | 120000 | 120000 | 160000 | 160000 | 200000 | 200000 | 240000 | 240000 |
|                | E      | m³/h | 90000                       | 120000 | 120000 | 120000 | 120000 | 150000 | 180000 | 210000 | 210000 | 240000 | 240000 |
|                | L      | m³/h | 60000                       | 90000  | 90000  | 90000  | 90000  | 120000 | 120000 | 150000 | 150000 | 180000 | 180000 |

## GENERAL TECHNICAL DATA

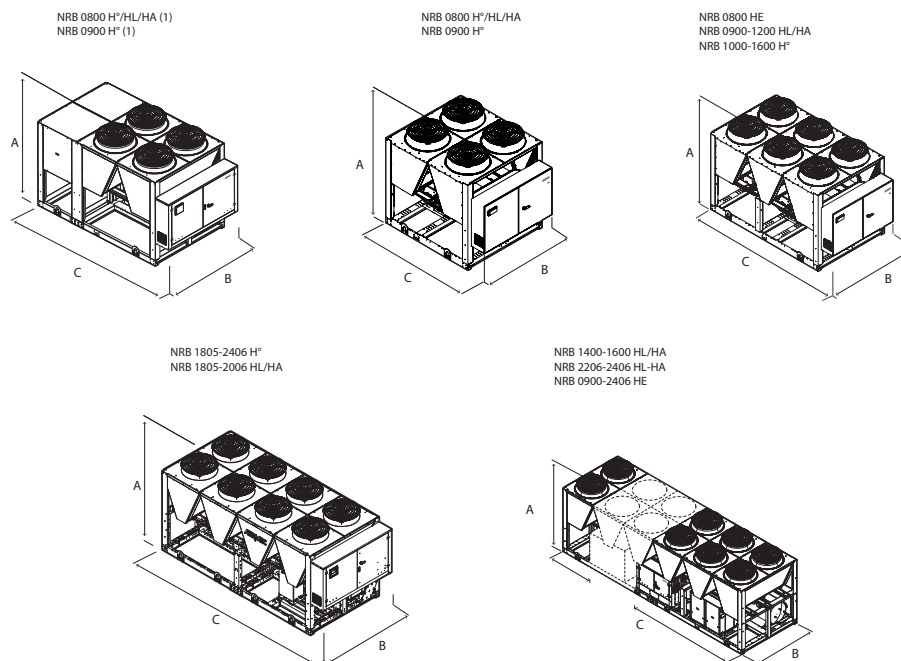
| Size                                       |        |       | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600           | 1805  | 2006  | 2206  | 2406  |
|--|--------|-------|------|------|------|------|------|------|----------------|-------|-------|-------|-------|
| Compressor                                 |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Type                                       | °A,E,L | type  |      |      |      |      |      |      | Scroll         |       |       |       |       |
| Compressor regulation                      | °A,E,L | Type  |      |      |      |      |      |      | On-Off         |       |       |       |       |
| Number                                     | °A,E,L | no.   | 4    | 4    | 4    | 4    | 4    | 4    | 4              | 5     | 6     | 6     | 6     |
| Circuits                                   | °A,E,L | no.   | 2    | 2    | 2    | 2    | 2    | 2    | 2              | 2     | 2     | 2     | 2     |
| Refrigerant                                | °A,E,L | type  |      |      |      |      |      |      | R410A          |       |       |       |       |
| Refrigerant charge (1)                     | °      | kg    | 44,0 | 44,0 | 54,0 | 62,0 | 62,0 | 60,0 | 60,0           | 81,0  | 82,0  | 100,0 | 95,0  |
|  | A      | kg    | 44,0 | 60,0 | 64,0 | 62,0 | 66,0 | 81,0 | 78,0           | 99,0  | 102,0 | 117,0 | 119,0 |
|  | E      | kg    | 58,0 | 76,5 | 78,0 | 76,0 | 78,0 | 93,0 | 112,0          | 136,0 | 143,0 | 152,0 | 152,0 |
|  | L      | kg    | 44,0 | 60,0 | 64,0 | 62,0 | 66,0 | 78,0 | 78,0           | 104,0 | 102,0 | 117,0 | 117,0 |
| System side heat exchanger                 |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Type                                       | °A,E,L | type  |      |      |      |      |      |      | Brazed plate   |       |       |       |       |
| Hydraulic connections                      |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Connections (in/out)                       | °A,E,L | Type  |      |      |      |      |      |      | Grooved joints |       |       |       |       |
| Hydraulic connections without hydronic kit |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Sizes (in/out)                             | °A,E,L | Ø     | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 4"             | 4"    | 4"    | 4"    | 4"    |
| Hydraulic connections with hydronic kit    |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Sizes (in/out)                             | °A,E,L | Ø     | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 4"             | 4"    | 4"    | 4"    | 4"    |
| Sound data calculated in cooling mode (2)  |        |       |      |      |      |      |      |      |                |       |       |       |       |
| Sound power level                          | °      | dB(A) | 89,5 | 89,5 | 91,6 | 91,6 | 91,6 | 91,6 | 91,6           | 93,1  | 93,1  | 94,2  | 94,2  |
|  | A      | dB(A) | 89,5 | 91,6 | 91,6 | 91,6 | 91,6 | 93,1 | 93,1           | 94,2  | 94,2  | 95,1  | 95,1  |
|  | E      | dB(A) | 84,6 | 86,1 | 86,1 | 86,1 | 86,1 | 87,2 | 88,2           | 89,4  | 89,9  | 91,1  | 91,6  |
|  | L      | dB(A) | 82,6 | 84,6 | 84,6 | 84,6 | 84,6 | 86,1 | 86,1           | 87,7  | 88,2  | 89,6  | 90,1  |
| Sound pressure level (10 m)                | °      | dB(A) | 57,4 | 57,4 | 59,3 | 59,3 | 59,3 | 59,3 | 59,3           | 60,7  | 60,7  | 61,7  | 61,7  |
|  | A      | dB(A) | 57,4 | 59,3 | 59,3 | 59,3 | 59,3 | 60,7 | 60,7           | 61,6  | 61,6  | 62,5  | 62,5  |
|  | E      | dB(A) | 52,4 | 53,7 | 53,7 | 53,7 | 53,7 | 54,7 | 55,5           | 56,7  | 57,2  | 58,2  | 58,7  |
|  | L      | dB(A) | 50,5 | 52,4 | 52,4 | 52,4 | 52,4 | 53,8 | 53,8           | 55,2  | 55,7  | 57,0  | 57,5  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

**In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.**

## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:  
NRB 0800H°, 0900H°  
NRB 0800 HL/HA

| Size   |        | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|--------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights without hydronic kit</b> |        |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E,L | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B  | °A,E,L | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
|  | °      | mm   | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 |
| C  | A,L    | mm   | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 6350 | 6350 | 7140 | 7140 |
|  | E      | mm   | 3970 | 4760 | 4760 | 4760 | 4760 | 5950 | 7140 | 8330 | 9520 | 9520 |

■ The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long.

| Size                               |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b> |     |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                     |     |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                       | °   | kg   | 2520 | 2580 | 3160 | 3210 | 3250 | 3310 | 3340 | 4200 | 4370 | 5030 |
|                                    | A,L | kg   | 2550 | 3130 | 3200 | 3240 | 3320 | 3970 | 4040 | 4780 | 4990 | 5730 |
|                                    | E   | kg   | 3080 | 3770 | 3840 | 3870 | 3950 | 4510 | 5020 | 5860 | 6080 | 6800 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRB 0800-2406 W

## Reversible air/water heat pump with shell and tube heat exchanger

Cooling capacity 196,4 ÷ 647,7 kW – Heating capacity 209,8 ÷ 683,9 kW



- Shell and tube heat exchanger
- High efficiency also at partial loads
- Night mode
- HP floating: ESEER +7% with inverter fans



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

They are outdoor units with axial fan scroll compressors and Shell and tube exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

L Standard silenced

### FEATURES

#### Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C. (for more information, refer to the technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

**It is standard in all sizes from 1805 to 2406.**

#### Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables

in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**BRC1:** Condensate drip tray. Consider 1 for each V-block.

### COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

### ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

#### Remote panel

| Model | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °,A,E,L | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

#### Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |
| °  | AVX1001 | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1123 | AVX1123 | AVX1124 | AVX1124 |
| A, L   | AVX1001 | AVX1004 | AVX1004 | AVX1004 | AVX1004 | AVX1123 | AVX1123 | AVX1124 | AVX1124 | AVX1115 | AVX1115 |
| E  | AVX1004 | AVX1123 | AVX1123 | AVX1123 | AVX1123 | AVX1124 | AVX1119 | AVX1117 | AVX1117 | AVX1116 | AVX1116 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |         |         |         |         |         |         |         |         |         |         |         |
| °  | -       | -       | AVX1004 | AVX1004 | AVX1004 | -       | -       | AVX1123 | AVX1123 | AVX1124 | AVX1124 |
| A, L   | -       | AVX1004 | -       | -       | -       | AVX1123 | AVX1123 | AVX1124 | AVX1124 | AVX1115 | AVX1115 |
| E  | AVX1004 | AVX1123 | AVX1123 | AVX1123 | AVX1123 | AVX1124 | AVX1119 | AVX1117 | AVX1117 | AVX1116 | AVX1116 |

#### Device for peak current reduction

| Ver        | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600           | 1805           | 2006           | 2206           | 2406           |
|------------|----------------|----------------|----------------|----------------|----------------|
| °, A, E, L | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| °    | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| A, L | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1401 |
| E    | RIFNRB0800 | RIFNRB0901 | RIFNRB1001 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| °    | RIFNRB1600 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2406 |
| A, L | RIFNRB1601 | RIFNRB1805 | RIFNRB2006 | RIFNRB2216 | RIFNRB2416 |
| E    | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

## Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Integrated hydronic kit: 00</b>   |       |       |       |       |       |       |       |       |       |       |       |
| °  | GP2VN | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP5VN | GP5VN |
| A  | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN | GP4VN | GP5VN | GP4VN | GP6V  | GP6V  |
| E  | GP3VN | GP4VN | GP4VN | GP4VN | GP4VN | GP4VN | GP6V  | GP7V  | GP7V  | GP8V  | GP8V  |
| L  | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP5VN | GP4VN | GP5VN | GP5VN | GP6V  | GP6V  |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |       |       |       |       |       |       |       |       |       |       |       |
| °  | -     | -     | GP3VN | GP3VN | GP3VN | -     | -     | GP4VN | GP4VN | GP5VN | GP5VN |
| A  | -     | GP3VN | -     | -     | -     | GP4VN | GP4VN | GP5VN | GP4VN | GP6V  | GP6V  |
| E  | GP3VN | GP4VN | GP4VN | GP4VN | GP4VN | GP4VN | GP6V  | GP7V  | GP7V  | GP8V  | GP8V  |
| L  | -     | GP3VN | -     | -     | -     | GP5VN | GP4VN | GP5VN | GP5VN | GP6V  | GP6V  |

A grey background indicates the accessory must be assembled in the factory

## Condensate drip

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| °    | BRC1x2 (1) | BRC1x2 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) |
| A, L | BRC1x2 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x3 (1) | BRC1x4 (1) |
| E    | BRC1x3 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x5 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| °    | BRC1x3 (1) | BRC1x4 (1) | BRC1x4 (1) | BRC1x5 (1) | BRC1x5 (1) |
| A, L | BRC1x4 (1) | BRC1x5 (1) | BRC1x5 (1) | BRC1x6 (1) | BRC1x6 (1) |
| E    | BRC1x6 (1) | BRC1x7 (1) | BRC1x7 (1) | BRC1x8 (1) | BRC1x8 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>Model</b>  |
| W              | Heat pump with shell and tube heat exchanger                                    |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (1)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| <b>12</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |

| Field        | Description                                |
|--------------|--|
| °            | 400V ~ 3 50Hz with magnet circuit breakers |
| <b>15,16</b> | <b>Integrated hydronic kit</b>             |
| 00           | Without hydronic kit                       |
| PA           | Pump A                                     |
| PB           | Pump B                                     |
| PC           | Pump C                                     |
| PD           | Pump D                                     |
| PE           | Pump E                                     |
| PF           | Pump F                                     |
| PG           | Pump G                                     |
| PH           | Pump H                                     |
| PI           | Pump I                                     |
| PJ           | Pump J (2)                                 |
| DA           | Pump A + stand-by pump                     |
| DB           | Pump B + stand-by pump                     |
| DC           | Pump C + stand-by pump                     |
| DD           | Pump D + stand-by pump                     |
| DE           | Pump E + stand-by pump                     |
| DF           | Pump F + stand-by pump                     |
| DG           | Pump G + stand-by pump                     |
| DH           | Pump H + stand-by pump                     |
| DI           | Pump I + stand-by pump                     |
| DJ           | Pump J + stand-by pump (2)                 |

(1) The desuperheater can only be used with cold running.

(2) For all configurations including pump J please contact the factory.

## Compatibility of models with hydronic units available with a configurator

| Version                  |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|--------------------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Standard                 | H° | -    | -    | •    | •    | •    | -    | -    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| Standard silenced        | HL | -    | •    | -    | -    | -    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| High efficiency          | HA | -    | •    | -    | -    | -    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |
| Silenced high efficiency | HE | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    | •    |

## PERFORMANCE SPECIFICATIONS

### NRB H°

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 196,4 | 218,0 | 251,8 | 279,2 | 314,2 | 353,8 | 389,0 | 456,7 | 501,9 | 568,7  | 616,1  |
| Input power                                  | kW  | 74,1  | 86,1  | 91,7  | 107,9 | 119,5 | 141,6 | 155,6 | 172,6 | 193,2 | 211,2  | 231,1  |
| Cooling total input current                  | A   | 131,0 | 150,0 | 163,0 | 189,0 | 207,0 | 242,0 | 263,0 | 296,0 | 331,0 | 365,0  | 398,0  |
| EER  | W/W | 2,65  | 2,53  | 2,74  | 2,59  | 2,63  | 2,50  | 2,50  | 2,65  | 2,60  | 2,69   | 2,67   |
| Water flow rate system side                  | l/h | 33794 | 37515 | 43314 | 48020 | 54046 | 60853 | 66910 | 78531 | 86311 | 97783  | 105939 |
| Pressure drop system side                    | kPa | 34    | 24    | 32    | 26    | 33    | 31    | 37    | 32    | 38    | 37     | 42     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 215,0 | 237,4 | 275,0 | 306,0 | 343,9 | 366,2 | 412,6 | 478,4 | 527,7 | 592,0  | 643,2  |
| Input power                                  | kW  | 70,2  | 77,7  | 89,6  | 99,8  | 112,3 | 121,7 | 137,0 | 157,3 | 174,3 | 193,9  | 210,7  |
| Heating total input current                  | A   | 125,0 | 138,0 | 158,0 | 175,0 | 195,0 | 212,0 | 236,0 | 274,0 | 304,0 | 340,0  | 369,0  |
| COP  | W/W | 3,06  | 3,06  | 3,07  | 3,07  | 3,06  | 3,01  | 3,01  | 3,04  | 3,03  | 3,05   | 3,05   |
| Water flow rate system side                  | l/h | 37311 | 41207 | 47745 | 53116 | 59705 | 63585 | 71640 | 83071 | 91620 | 102803 | 111681 |
| Pressure drop system side                    | kPa | 42    | 28    | 38    | 32    | 40    | 34    | 42    | 36    | 42    | 40     | 46     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRB HL

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 197,9 | 227,9 | 247,7 | 275,2 | 301,1 | 359,1 | 392,2 | 453,8 | 495,0 | 552,5  | 592,9  |
| Input power                                  | kW  | 75,3  | 78,6  | 89,8  | 106,2 | 123,2 | 133,0 | 153,4 | 169,0 | 193,9 | 208,9  | 234,1  |
| Cooling total input current                  | A   | 126,0 | 133,0 | 150,0 | 176,0 | 203,0 | 220,0 | 252,0 | 280,0 | 321,0 | 347,0  | 390,0  |
| EER  | W/W | 2,63  | 2,90  | 2,76  | 2,59  | 2,44  | 2,70  | 2,56  | 2,69  | 2,55  | 2,64   | 2,53   |
| Water flow rate system side                  | l/h | 34040 | 39194 | 42596 | 47339 | 51779 | 61758 | 67431 | 78030 | 85114 | 95003  | 101921 |
| Pressure drop system side                    | kPa | 14    | 18    | 15    | 19    | 14    | 20    | 18    | 23    | 23    | 29     | 17     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 209,8 | 250,3 | 274,3 | 304,8 | 334,3 | 394,3 | 431,0 | 497,4 | 543,0 | 609,3  | 654,3  |
| Input power                                  | kW  | 67,1  | 79,5  | 87,1  | 98,9  | 108,2 | 126,2 | 136,7 | 158,3 | 173,1 | 194,8  | 208,8  |
| Heating total input current                  | A   | 119,0 | 139,0 | 152,0 | 171,0 | 187,0 | 216,0 | 234,0 | 272,0 | 299,0 | 336,0  | 363,0  |
| COP  | W/W | 3,13  | 3,15  | 3,15  | 3,08  | 3,09  | 3,12  | 3,15  | 3,14  | 3,14  | 3,13   | 3,13   |
| Water flow rate system side                  | l/h | 36429 | 43447 | 47619 | 52924 | 58032 | 68469 | 74854 | 86379 | 94306 | 105817 | 113644 |
| Pressure drop system side                    | kPa | 15    | 22    | 19    | 23    | 17    | 24    | 21    | 28    | 28    | 35     | 21     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

### NRB HA

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 206,2 | 243,8 | 266,9 | 297,0 | 329,2 | 385,5 | 425,3 | 488,4 | 538,3 | 601,4  | 651,3  |
| Input power                                  | kW  | 71,8  | 78,2  | 88,1  | 102,2 | 117,2 | 129,2 | 147,2 | 163,7 | 184,8 | 201,3  | 222,3  |
| Cooling total input current                  | A   | 127,0 | 141,0 | 157,0 | 179,0 | 203,0 | 225,0 | 254,0 | 285,0 | 321,0 | 352,0  | 389,0  |
| EER  | W/W | 2,87  | 3,12  | 3,03  | 2,91  | 2,81  | 2,98  | 2,89  | 2,98  | 2,91  | 2,99   | 2,93   |
| Water flow rate system side                  | l/h | 35459 | 41942 | 45909 | 51076 | 56619 | 66291 | 73125 | 83982 | 92547 | 103407 | 111966 |
| Pressure drop system side                    | kPa | 15    | 21    | 18    | 22    | 17    | 23    | 21    | 27    | 27    | 34     | 21     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 214,3 | 254,4 | 279,0 | 310,5 | 341,2 | 400,9 | 438,9 | 506,0 | 553,2 | 620,0  | 666,5  |
| Input power                                  | kW  | 66,6  | 79,3  | 86,7  | 97,1  | 106,2 | 124,8 | 137,1 | 157,5 | 171,8 | 193,5  | 207,0  |
| Heating total input current                  | A   | 120,0 | 142,0 | 155,0 | 172,0 | 187,0 | 219,0 | 240,0 | 277,0 | 303,0 | 342,0  | 368,0  |
| COP  | W/W | 3,22  | 3,21  | 3,22  | 3,20  | 3,21  | 3,21  | 3,20  | 3,21  | 3,22  | 3,20   | 3,22   |
| Water flow rate system side                  | l/h | 37204 | 44148 | 48436 | 53909 | 59226 | 69618 | 76226 | 87877 | 96076 | 107669 | 115772 |
| Pressure drop system side                    | kPa | 16    | 23    | 20    | 24    | 18    | 25    | 22    | 29    | 29    | 36     | 22     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.



## NRB HE

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | kW  | 209,6 | 241,7 | 264,7 | 294,5 | 326,7 | 377,8 | 432,4 | 489,4 | 540,5 | 597,8  | 647,7  |
| Input power                                  | kW  | 67,3  | 77,4  | 85,0  | 98,1  | 112,4 | 125,3 | 139,1 | 157,0 | 177,4 | 192,3  | 215,2  |
| Cooling total input current                  | A   | 115,0 | 132,0 | 144,0 | 164,0 | 187,0 | 208,0 | 230,0 | 261,0 | 296,0 | 322,0  | 362,0  |
| EER  | W/W | 3,12  | 3,12  | 3,11  | 3,00  | 2,91  | 3,02  | 3,11  | 3,12  | 3,05  | 3,11   | 3,01   |
| Water flow rate system side                  | l/h | 36053 | 41586 | 45538 | 50642 | 56185 | 64960 | 74341 | 84155 | 92932 | 102793 | 111352 |
| Pressure drop system side                    | kPa | 15    | 20    | 18    | 22    | 16    | 22    | 21    | 27    | 27    | 33     | 21     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | kW  | 223,4 | 258,1 | 283,7 | 316,7 | 349,3 | 403,2 | 458,7 | 520,7 | 571,9 | 634,1  | 683,9  |
| Input power                                  | kW  | 69,3  | 80,5  | 87,9  | 98,5  | 109,0 | 126,1 | 143,1 | 162,7 | 177,1 | 198,2  | 211,7  |
| Heating total input current                  | A   | 122,0 | 140,0 | 153,0 | 170,0 | 188,0 | 216,0 | 244,0 | 278,0 | 305,0 | 341,0  | 367,0  |
| COP  | W/W | 3,22  | 3,21  | 3,23  | 3,22  | 3,20  | 3,20  | 3,21  | 3,20  | 3,23  | 3,20   | 3,23   |
| Water flow rate system side                  | l/h | 38791 | 44787 | 49248 | 54989 | 60660 | 70010 | 79655 | 90422 | 99327 | 110122 | 118791 |
| Pressure drop system side                    | kPa | 17    | 23    | 20    | 25    | 19    | 25    | 24    | 31    | 31    | 38     | 23     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electric data         |     |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °   | A | 168,6 | 185,0 | 209,8 | 239,2 | 268,5 | 297,5 | 326,5 | 423,4 | 487,6 | 516,6 | 570,9 |
|                       | A,L | A | 168,6 | 193,5 | 209,8 | 239,2 | 268,5 | 306,0 | 335,0 | 468,1 | 512,9 | 561,3 | 590,3 |
|                       | E   | A | 177,1 | 202,0 | 218,3 | 247,7 | 277,0 | 314,5 | 352,0 | 487,5 | 532,3 | 580,7 | 609,7 |
| Peak current (LRA)    | °   | A | 357,2 | 412,4 | 437,2 | 489,9 | 519,2 | 631,7 | 660,7 | 757,6 | 821,8 | 850,8 | 905,1 |
|                       | A,L | A | 357,2 | 420,9 | 437,2 | 489,9 | 519,2 | 640,2 | 669,2 | 802,3 | 847,1 | 895,5 | 924,5 |
|                       | E   | A | 365,7 | 429,4 | 445,7 | 498,4 | 527,7 | 648,7 | 686,2 | 821,7 | 866,5 | 914,9 | 943,9 |

## ENERGY INDICES (REG. 2016/2281 EU)

### NRB H°

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 203    | 224    | 260    | 289    | 325    | 346    | 296    | 343    | 379    | 425    | 462    |
| SCOP   | W/W | 3,65   | 3,65   | 3,65   | 3,68   | 3,65   | 3,60   | 3,73   | 3,73   | 3,80   | 3,73   | 3,80   |
| ηsh  | %   | 143,00 | 143,00 | 143,00 | 144,00 | 143,00 | 141,00 | 146,00 | 143,00 | 149,00 | 146,00 | 149,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 3,79   | 3,66   | 3,88   | 3,81   | 3,91   | 3,80   | 3,89   | 3,92   | 3,80   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 148,40 | 143,50 | 152,20 | 149,50 | 153,20 | 149,10 | 152,70 | 153,80 | 149,00 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,67   | 4,76   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 183,90 | 187,30 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,88   | 5,02   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,53   | 5,54   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,53   | 5,54   |

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12 °C / 7 °C

(4) Calculation performed with FIXED water flow rate.

## NRB HL

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 197    | 235    | 258    | 286    | 314    | 370    | 306    | 353    | 385    | 433    | 464    |
| SCOP   | W/W | 3,73   | 3,75   | 3,75   | 3,68   | 3,68   | 3,73   | 3,93   | 3,83   | 3,95   | 3,83   | 3,93   |
| ηsh  | %   | 146,00 | 147,00 | 147,00 | 144,00 | 144,00 | 146,00 | 154,00 | 150,00 | 155,00 | 150,00 | 154,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 3,83   | 4,01   | 3,92   | 3,90   | 3,82   | 4,05   | 3,99   | 4,04   | 3,87   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 150,30 | 157,20 | 153,90 | 149,60 | 159,00 | 156,40 | 156,60 | 158,60 | 151,80 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -(3)   | -(3)   |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,72   | 4,67   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 185,70 | 183,60 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,08   | 5,11   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,51   | 5,51   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,51   | 5,51   |

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

## NRB HA

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 196    | 233    | 255    | 284    | 312    | 367    | 304    | 351    | 384    | 430    | 462    |
| SCOP   | W/W | 3,03   | 3,08   | 3,03   | 3,08   | 3,03   | 3,10   | 3,13   | 3,08   | 3,30   | 3,08   | 3,15   |
| ηsh  | %   | 118,00 | 120,00 | 118,00 | 120,00 | 118,00 | 121,00 | 122,00 | 120,00 | 129,00 | 120,00 | 123,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 3,96   | 4,13   | 4,09   | 4,09   | 4,07   | 4,23   | 4,22   | 4,22   | 4,10   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 155,40 | 162,10 | 160,40 | 160,60 | 159,70 | 166,10 | 165,60 | 165,80 | 161,0  | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,58   | 4,57   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 180,3% | 179,6% |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,96   | 5,01   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 195,30 | 197,40 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,58   | 4,57   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,52   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,52   |

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(4) Calculation performed with FIXED water flow rate.

## NRB HE

| Size   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 204    | 236    | 259    | 290    | 320    | 369    | 318    | 361    | 397    | 440    | 474    |
| SCOP   | W/W | 3,05   | 3,08   | 3,05   | 3,10   | 3,03   | 3,08   | 3,13   | 3,05   | 3,30   | 3,08   | 3,15   |
| ηsh  | %   | 119,00 | 120,00 | 119,00 | 121,00 | 118,00 | 120,00 | 122,00 | 119,00 | 129,00 | 120,00 | 123,00 |
| <b>SEER - 12/7 (EN14825:2018) with standard fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | 4,16   | 4,15   | 4,18   | 4,19   | 4,16   | 4,27   | 4,39   | 4,36   | 4,22   | -(3)   | -(3)   |
| Seasonal efficiency  | %   | 163,40 | 163,00 | 164,10 | 164,70 | 163,40 | 167,90 | 172,70 | 171,40 | 165,80 | -(3)   | -(3)   |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (2)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,71   | 4,67   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 185,4% | 183,7% |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (4)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,17   | 5,20   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | 203,60 | 204,90 |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 4,71   | 4,67   |
| Seasonal efficiency  | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,54   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (4)</b>                                  |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | 5,52   | 5,54   |

(1) Efficiencies for average temperature applications (55 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12 °C / 7 °C

(4) Calculation performed with FIXED water flow rate.

## GENERAL TECHNICAL DATA

| Size                                       |        |      | 0800           | 0900 | 1000 | 1100 | 1200 | 1400 | 1600  | 1805  | 2006  | 2206  | 2406  |
|--|--------|------|----------------|------|------|------|------|------|-------|-------|-------|-------|-------|
| Compressor                                 |        |      |                |      |      |      |      |      |       |       |       |       |       |
| Type                                       | °A,E,L | type | Scroll         |      |      |      |      |      |       |       |       |       |       |
| Compressor regulation                      | °A,E,L | Type | On-Off         |      |      |      |      |      |       |       |       |       |       |
| Number                                     | °A,E,L | no.  | 4              | 4    | 4    | 4    | 4    | 4    | 5     | 6     | 6     | 6     |       |
| Circuits                                   | °A,E,L | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     | 2     |       |
| Refrigerant                                | °A,L   | type | R410A          |      |      |      |      |      |       |       |       |       |       |
|  | E      | type |                |      |      |      |      |      |       |       |       |       |       |
|  | °      | kg   | 41,0           | 42,0 | 55,0 | 56,0 | 56,0 | 58,0 | 58,0  | 84,0  | 84,0  | 100,0 | 100,0 |
| Refrigerant charge (1)                     | A,L    | kg   | 43,0           | 56,0 | 58,0 | 58,0 | 60,0 | 84,0 | 87,0  | 100,0 | 103,0 | 116,0 | 125,0 |
|  | E      | kg   | 56,0           | 80,0 | 82,0 | 82,0 | 84,0 | 97,0 | 113,0 | 137,0 | 140,0 | 153,0 | 162,0 |
| System side heat exchanger                 |        |      |                |      |      |      |      |      |       |       |       |       |       |
| Type                                       | °A,E,L | type | Shell and tube |      |      |      |      |      |       |       |       |       |       |
| Hydraulic connections                      |        |      |                |      |      |      |      |      |       |       |       |       |       |
| Connections (in/out)                       | °A,E,L | Type | Grooved joints |      |      |      |      |      |       |       |       |       |       |
| Hydraulic connections without hydronic kit |        |      |                |      |      |      |      |      |       |       |       |       |       |
| Sizes (in/out)                             | °      | Ø    | 5"             | 5"   | 5"   | 5"   | 5"   | 5"   | 5"    | 6"    | 6"    | 6"    | 6"    |
|  | A,E,L  | Ø    | 5"             | 5"   | 5"   | 5"   | 6"   | 6"   | 6"    | 6"    | 6"    | 6"    | 6"    |
| Hydraulic connections with hydronic kit    |        |      |                |      |      |      |      |      |       |       |       |       |       |
| Sizes (in/out)                             | °      | Ø    | -              | -    | 3"   | 3"   | 3"   | -    | -     | 4"    | 4"    | 4"    | 4"    |
|  | A,L    | Ø    | -              | 3"   | -    | -    | -    | 3"   | 4"    | 4"    | 4"    | 4"    | 4"    |
|  | E      | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 3"   | 4"    | 4"    | 4"    | 4"    | 4"    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**Water filter not supplied. Installation is mandatory or the guarantee will void.**

| Size   |        |       | 0800                        | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|--|--------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fan</b>                                       |        |       |                             |        |        |        |        |        |        |        |        |        |        |
| Type   | °A,E,L | type  | Axial                       |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | °A     | type  | Asynchronous                |        |        |        |        |        |        |        |        |        |        |
|  | E,L    | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |
| Number   | °      | no.   | 4                           | 4      | 6      | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     |
|  | A,L    | no.   | 4                           | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     | 12     |
| Air flow rate                                    | E      | no.   | 6                           | 8      | 8      | 8      | 8      | 10     | 12     | 14     | 14     | 16     | 16     |
|  | °      | m³/h  | 80000                       | 80000  | 120000 | 120000 | 120000 | 120000 | 120000 | 160000 | 160000 | 200000 | 200000 |
|  | A      | m³/h  | 80000                       | 120000 | 120000 | 120000 | 120000 | 160000 | 160000 | 200000 | 200000 | 240000 | 240000 |
|  | E      | m³/h  | 90000                       | 120000 | 120000 | 120000 | 120000 | 150000 | 180000 | 210000 | 210000 | 240000 | 240000 |
|  | L      | m³/h  | 60000                       | 90000  | 90000  | 90000  | 90000  | 120000 | 120000 | 150000 | 150000 | 180000 | 180000 |
| <b>Sound data calculated in cooling mode (1)</b> |        |       |                             |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | °      | dB(A) | 89,5                        | 89,5   | 91,6   | 91,6   | 91,6   | 91,6   | 91,6   | 93,1   | 93,1   | 94,2   | 94,2   |
|  | A      | dB(A) | 89,5                        | 91,6   | 91,6   | 91,6   | 91,6   | 93,1   | 93,1   | 94,2   | 94,2   | 95,1   | 95,1   |
|  | E      | dB(A) | 84,6                        | 86,1   | 86,1   | 86,1   | 86,1   | 87,2   | 88,2   | 89,4   | 89,9   | 91,1   | 91,6   |
|  | L      | dB(A) | 82,6                        | 84,6   | 84,6   | 84,6   | 84,6   | 86,1   | 86,1   | 87,7   | 88,2   | 89,6   | 90,1   |
| Sound pressure level (10 m)                      | °      | dB(A) | 57,4                        | 57,4   | 59,3   | 59,3   | 59,3   | 59,3   | 59,3   | 60,7   | 60,7   | 61,7   | 61,7   |
|  | A      | dB(A) | 57,4                        | 59,3   | 59,3   | 59,3   | 59,3   | 60,7   | 60,7   | 61,6   | 61,6   | 62,5   | 62,5   |
|  | E      | dB(A) | 52,4                        | 53,7   | 53,7   | 53,7   | 53,7   | 54,7   | 55,5   | 56,7   | 57,2   | 58,2   | 58,7   |
|  | L      | dB(A) | 50,5                        | 52,4   | 52,4   | 52,4   | 52,4   | 53,8   | 53,8   | 55,2   | 55,7   | 57,0   | 57,5   |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

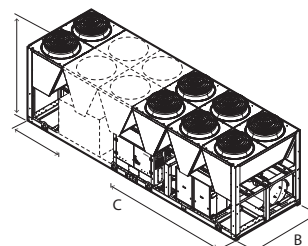
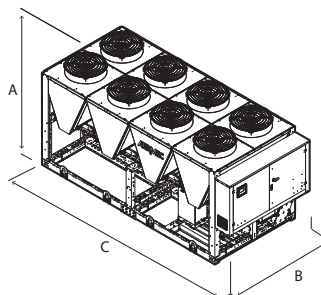
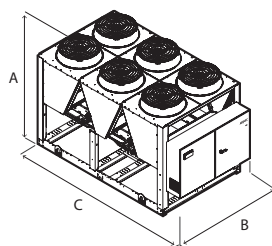
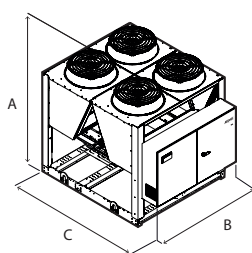
## DIMENSIONS

NRB 0800 - 0900 °  
NRB 0800 L/A

NRB 1000 - 1600 °  
NRB 0900 - 1200 L/A  
NRB 0800 E

NRB 1805 - 2006 °  
NRB 1400 - 1600 L/A  
NRB 0900 - 1200 E

NRB 2206 - 2406 °  
NRB 1805 - 2406 L/A  
NRB 1400 - 2406 E



| Size   |        |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|--------|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights without hydronic kit</b> |        |    |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E,L | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B  | °A,E,L | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C  | °      | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 |
|  | A,L    | mm | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 4760 | 6350 | 6350 | 7140 | 7140 |
|  | E      | mm | 3970 | 4760 | 4760 | 4760 | 4760 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
| <b>Dimensions and weights with pump/s</b>          |        |    |      |      |      |      |      |      |      |      |      |      |      |
| A  | °      | mm | -    | -    | 2450 | 2450 | 2450 | -    | -    | 2450 | 2450 | 2450 | 2450 |
|  | A,L    | mm | -    | 2450 | -    | -    | -    | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
|  | E      | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B  | °      | mm | -    | -    | 2200 | 2200 | 2200 | -    | -    | 2200 | 2200 | 2200 | 2200 |
|  | A,L    | mm | -    | 2200 | -    | -    | -    | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
|  | E      | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C  | °      | mm | -    | -    | 3970 | 3970 | 3970 | -    | -    | 5160 | 5160 | 6350 | 6350 |
|  | A,L    | mm | -    | 3970 | -    | -    | -    | 4760 | 4760 | 6350 | 6350 | 7140 | 7140 |
|  | E      | mm | 3970 | 4760 | 4760 | 4760 | 4760 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
| <b>Integrated hydronic kit: 00</b>                 |        |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                                     |        |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                                       | °      | kg | 2670 | 2730 | 3310 | 3360 | 3400 | 3460 | 3490 | 4350 | 4520 | 5190 | 5230 |
|  | A,L    | kg | 2700 | 3280 | 3350 | 3390 | 3470 | 4120 | 4240 | 4980 | 5190 | 5690 | 6030 |
|  | E      | kg | 3230 | 3920 | 3990 | 4020 | 4100 | 4660 | 5220 | 6060 | 6280 | 6810 | 7100 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# CL 025-200

## Air-water chiller

Cooling capacity 5,8 ÷ 41 kW



- **Standard version**
- **Version with Integrated hydronic kit system side**
- **Fan Plug-fan**



### DESCRIPTION

Chillers for indoor installation for chilled water production with scroll compressors, plugfan fans, external copper coils with aluminum louvers. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A** With storage tank and pump
- P** With pump

### FEATURES

#### Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

#### EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.

In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

#### Air supply

Horizontal or vertical, adjustable during installation for all sizes.

Directional air discharge hood:

- plastic for sizes 050 to 090
- galvanised steel for the other sizes

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

#### Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

**VT:** Anti-vibration supports.

**CLPA:** Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**KR:** Anti-freeze electric heater for the plate heat exchanger.

**GPCL:** Protection grille for the source side exchange coil.

### COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model        | Ver     | 025 | 030 | 050 | 070 | 090 | 100 | 150 | 200 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU  | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| AERLINK      | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| AERSET       | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL   | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| PR3          | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD          | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |
| SPLW (1)     | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

### Remote panel

| Model | Ver     | 025 | 030 | 040 | 050 | 070 | 080 | 090 | 100 | 150 | 200 |
|-------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### Antivibration

| Ver   | 025   | 030   | 050   | 070   | 090   | 100  | 150  | 200  |
|-------|-------|-------|-------|-------|-------|------|------|------|
| ° , P | VT9   | VT9   | VT9   | VT9   | VT9   | VT15 | VT15 | VT15 |
| A     | VT15A | VT15A | VT15A | VT15A | VT15A | VT15 | VT15 | VT15 |

### Galvanised steel plenum

| Ver      | 025       | 030       | 050       | 070       | 090       | 100   | 150   | 200   |
|----------|-----------|-----------|-----------|-----------|-----------|-------|-------|-------|
| ° , A, P | CLPA1 (1) | CLPA1 (1) | CLPA2 (2) | CLPA2 (2) | CLPA2 (2) | CLPA3 | CLPA3 | CLPA3 |

(1) Not compatible with the GPCL1 accessory

(2) Not compatible with the GPCL2 accessory

### Device for peak current reduction

| Ver      | 025      | 030      | 050      | 070      | 090      | 100          | 150          | 200          |
|----------|----------|----------|----------|----------|----------|--------------|--------------|--------------|
| ° , A, P | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Antifreeze electric heater

| Ver      | 025 | 030 | 050 | 070 | 090 | 100   | 150   | 200   |
|----------|-----|-----|-----|-----|-----|-------|-------|-------|
| ° , A, P | KR2 | KR2 | KR2 | KR2 | KR2 | KR100 | KR100 | KR100 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver      | 025   | 030   | 050   | 070   | 090   | 100   | 150   | 200   |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| ° , A, P | GPCL1 | GPCL1 | GPCL2 | GPCL2 | GPCL2 | GPCL3 | GPCL3 | GPCL3 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field | Description                                       |
|-------|---|
| 1,2   | CL  |
| 3,4,5 | Size<br>025, 030, 050, 070, 090, 100, 150, 200    |
| 6     | Model   |
| °     | Cooling only                                      |
| 7     | Execution   |
| °     | Standard  |
| 8     | Version   |
| °     | Standard  |
| A     | With storage tank and pump                        |
| P     | With pump   |
| 9     | Heat recovery                                     |
| D     | With desuperheater (1)                            |
| °     | Without heat recovery                             |
| 10    | Coils   |
| R     | Copper pipes-copper fins                          |
| S     | Copper pipes-Tinned copper fins                   |
| V     | Copper pipes-Coated aluminium fins                |
| °     | Copper-aluminium                                  |
| 11    | Operating field                                   |
| Y     | Low temperature mechanic thermostatic valve (2)   |
| Z     | Low temperature electronic thermostatic valve (3) |
| °     | Standard mechanic thermostatic valve (4)          |
| 12    | Evaporator  |
| C     | Motocondensing unit                               |
| °     | Standard  |
| 13    | Power supply                                      |
| M     | 230V ~ 3 50Hz (5)                                 |
| °     | 400V ~ 3N 50Hz with magnet circuit breakers (6)   |

(1) It is only available in size CL 050 ÷ 200; If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the desuperheater.

(2) Water produced from 0 °C ÷ - 10 °C

(3) Water produced from 0 °C ÷ 4 °C

(4) Water produced from 4 °C ÷ 18 °C

(5) Only for CL 025 ÷ 030 sizes

(6) Only for CL 025 ÷ 200 sizes

## PERFORMANCE SPECIFICATIONS

### CL ° - (version °) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 025  | 030  | 050  | 070  | 090  | 100  | 150  | 200  |
|---|-----|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,8  | 7,1  | 12,7 | 16,3 | 20,2 | 26,3 | 33,0 | 40,6 |
| Input power                                 | kW  | 2,2  | 2,6  | 4,3  | 5,5  | 6,8  | 8,8  | 11,3 | 14,4 |
| Cooling total input current - 400V          | A   | 4,8  | 5,1  | 8,4  | 10,0 | 13,0 | 17,0 | 19,0 | 25,0 |
| Cooling total input current - 230V          | A   | 10,0 | 13,0 | -    | -    | -    | -    | -    | -    |
| EER   | W/W | 2,70 | 2,72 | 2,98 | 3,00 | 2,98 | 2,99 | 2,91 | 2,82 |
| Water flow rate system side                 | l/h | 1008 | 1233 | 2189 | 2817 | 3484 | 4533 | 5695 | 7001 |
| Pressure drop system side                   | kPa | 19   | 26   | 27   | 29   | 29   | 45   | 53   | 72   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### CL ° - (versions A/P) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 025  | 030  | 050  | 070  | 090  | 100  | 150  | 200  |
|---|-----|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 5,9  | 7,2  | 12,8 | 16,5 | 20,4 | 26,5 | 33,4 | 41,0 |
| Input power                                 | kW  | 2,1  | 2,6  | 4,2  | 5,4  | 6,8  | 8,9  | 11,6 | 14,6 |
| Cooling total input current - 400V          | A   | 5,1  | 5,4  | 9,0  | 11,0 | 13,0 | 18,0 | 21,0 | 27,0 |
| Cooling total input current - 230V          | A   | 11,0 | 14,0 | -    | -    | -    | -    | -    | -    |
| EER   | W/W | 2,76 | 2,78 | 3,02 | 3,04 | 3,02 | 2,97 | 2,87 | 2,81 |
| Water flow rate system side                 | l/h | 1008 | 1233 | 2189 | 2817 | 3484 | 4533 | 5695 | 7001 |
| Useful head system side                     | kPa | 71   | 62   | 73   | 66   | 58   | 83   | 131  | 122  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY DATA

| Size  |     |     | 025    | 030    | 050    | 070    | 090    | 100    | 150    | 200    |
|---|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) with standard fans (1)</b>              |     |     |        |        |        |        |        |        |        |        |
| SEER  | °   | W/W | 4,11   | 4,11   | 4,10   | 4,11   | 4,12   | 4,38   | 4,32   | 4,10   |
|   | A,P | W/W | 4,22   | 4,22   | 4,17   | 4,21   | 4,22   | 4,21   | 4,13   | 4,12   |
| Seasonal efficiency   | °   | %   | 161,3% | 161,4% | 161,1% | 161,3% | 161,8% | 172,0% | 169,7% | 161,0% |
|   | A,P | %   | 165,7% | 165,7% | 163,8% | 165,2% | 165,6% | 165,5% | 162,3% | 161,8% |
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (2)</b>            |     |     |        |        |        |        |        |        |        |        |
| SEER  | °   | W/W | 4,72   | 4,47   | 4,50   | 4,44   | 4,52   | 5,13   | 4,99   | 4,51   |
|   | A,P | W/W | 4,86   | 4,62   | 4,64   | 4,58   | 4,72   | 4,90   | 4,65   | 4,36   |
| Seasonal efficiency   | °   | %   | 185,9% | 175,9% | 176,8% | 174,7% | 177,7% | 202,2% | 196,6% | 177,2% |
|   | A,P | %   | 191,2% | 181,7% | 182,6% | 180,0% | 185,7% | 193,1% | 183,0% | 171,5% |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (2)</b> |     |     |        |        |        |        |        |        |        |        |
| SEPR  | °   | W/W | 5,38   | 5,10   | 5,10   | 5,03   | 5,04   | 5,67   | 5,59   | 5,30   |
|   | A,P | W/W | 5,49   | 5,21   | 5,18   | 5,13   | 5,16   | 5,56   | 5,37   | 5,20   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                   |     |   | 025  | 030  | 050  | 070  | 090   | 100  | 150  | 200   |
|------------------------|-----|---|------|------|------|------|-------|------|------|-------|
| <b>Power supply: °</b> |     |   |      |      |      |      |       |      |      |       |
| <b>Electric data</b>   |     |   |      |      |      |      |       |      |      |       |
| Maximum current (FLA)  | °   | A | 11,0 | 11,6 | 13,6 | 15,4 | 20,4  | 27,4 | 30,8 | 40,8  |
|                        | A,P | A | 11,4 | 12,0 | 14,4 | 16,1 | 21,1  | 29,3 | 33,8 | 43,8  |
| Peak current (LRA)     | °   | A | 44,6 | 40,6 | 77,2 | 77,2 | 105,2 | 90,9 | 92,6 | 125,6 |
|                        | A,P | A | 45,0 | 41,0 | 77,9 | 77,9 | 105,9 | 92,8 | 95,6 | 128,6 |
| Size                   |     |   | 025  | 030  | 050  | 070  | 090   | 100  | 150  | 200   |
| <b>Power supply: M</b> |     |   |      |      |      |      |       |      |      |       |
| <b>Electric data</b>   |     |   |      |      |      |      |       |      |      |       |
| Maximum current (FLA)  | °   | A | 22,0 | 25,0 | -    | -    | -     | -    | -    | -     |
|                        | A,P | A | 22,6 | 25,6 | -    | -    | -     | -    | -    | -     |
| Peak current (LRA)     | °   | A | 67,0 | 88,0 | -    | -    | -     | -    | -    | -     |
|                        | A,P | A | 67,6 | 88,6 | -    | -    | -     | -    | -    | -     |

## GENERAL TECHNICAL DATA

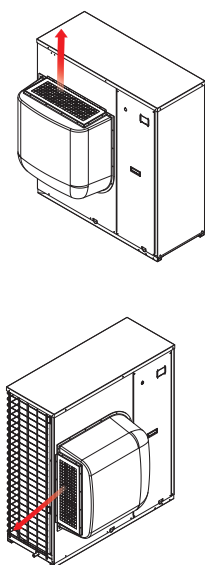
| Size  |        |       | 025         | 030  | 050  | 070  | 090  | 100   | 150   | 200   |
|---|--------|-------|-------------|------|------|------|------|-------|-------|-------|
| Compressor                                  |        |       |             |      |      |      |      |       |       |       |
| Type  | ° ,A,P | type  | Scroll      |      |      |      |      |       |       |       |
| Compressor regulation                       | ° ,A,P | Type  | On-off      |      |      |      |      |       |       |       |
| Number                                      | ° ,A,P | no.   | 1           | 1    | 1    | 1    | 1    | 2     | 2     | 2     |
| Circuits                                    | ° ,A,P | no.   | 1           | 1    | 1    | 1    | 1    | 1     | 1     | 1     |
| Refrigerant                                 | ° ,A,P | type  | R410A       |      |      |      |      |       |       |       |
| Refrigerant charge (1)                      | ° ,A,P | kg    | 1,5         | 2,7  | 4,0  | 4,0  | 4,0  | 5,5   | 7,5   | 7,5   |
| System side heat exchanger                  |        |       |             |      |      |      |      |       |       |       |
| Type  | ° ,A,P | type  | Braze plate |      |      |      |      |       |       |       |
| Number                                      | ° ,A,P | no.   | 1           | 1    | 1    | 1    | 1    | 1     | 1     | 1     |
| Hydraulic connections                       |        |       |             |      |      |      |      |       |       |       |
| Connections (in/out)                        | ° ,A,P | Type  | Gas - F     |      |      |      |      |       |       |       |
| Size (in)                                   | ° ,A,P | Ø     | 1¼          |      |      |      |      |       |       |       |
| Size (out)                                  | ° ,A,P | Ø     | 1¼          |      |      |      |      |       |       |       |
| Fan   |        |       |             |      |      |      |      |       |       |       |
| Type  | ° ,A,P | type  | Plug-fan    |      |      |      |      |       |       |       |
| Fan motor                                   | ° ,A,P | type  | Inverter    |      |      |      |      |       |       |       |
| Number                                      | ° ,A,P | no.   | 1           | 1    | 1    | 1    | 1    | 2     | 2     | 2     |
| Air flow rate                               | ° ,A,P | m³/h  | 4000        | 4000 | 6500 | 6500 | 7500 | 10000 | 12000 | 12000 |
| High static pressure                        | ° ,A,P | Pa    | 50          | 50   | 50   | 50   | 50   | 50    | 50    | 50    |
| Intake plus machine body                    |        |       |             |      |      |      |      |       |       |       |
| Sound power level                           | ° ,A,P | dB(A) | 78,0        | 78,0 | 73,0 | 73,0 | 76,0 | 74,0  | 79,0  | 79,0  |
| Sound pressure level in cooling mode (10 m) | ° ,A,P | dB(A) | 46,0        | 46,0 | 41,0 | 41,0 | 44,0 | 42,0  | 47,0  | 47,0  |
| Machine exhaust                             |        |       |             |      |      |      |      |       |       |       |
| Sound power level                           | ° ,A,P | dB(A) | 78,0        | 78,0 | 78,0 | 78,0 | 81,0 | 78,0  | 83,0  | 83,0  |
| Sound pressure level in cooling mode (10 m) | ° ,A,P | dB(A) | 46,0        | 46,0 | 46,0 | 46,0 | 49,0 | 47,0  | 52,0  | 52,0  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

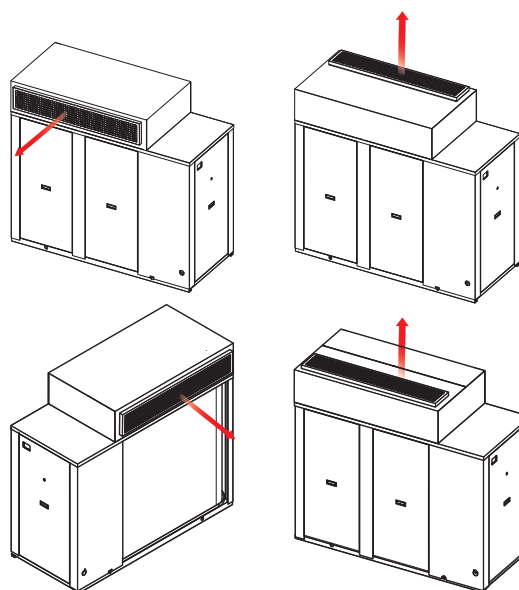


## DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200



Air supply

Horizontal or vertical, adjustable during installation for all sizes.

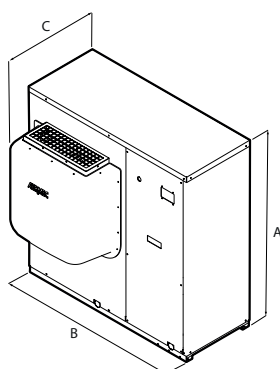
Directional air discharge hood:

— plastic for sizes 050 to 090

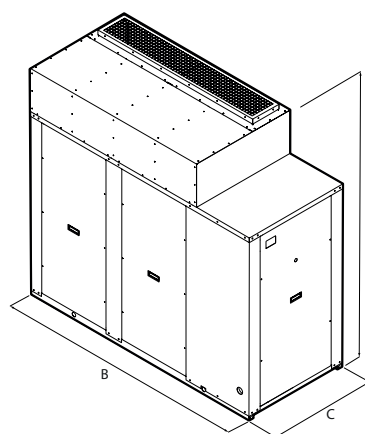
— galvanised steel for the other sizes

## DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



| Size                          |      |    | 025  | 030  | 050  | 070  | 090  | 100  | 150  | 200  |
|-------------------------------|------|----|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |      |    |      |      |      |      |      |      |      |      |
| A                             | °A,P | mm | 1028 | 1281 | 1281 | 1281 | 1281 | 1674 | 1674 | 1674 |
|                               | °P   | mm | 1005 | 1006 | 1160 | 1160 | 1160 | 1897 | 1897 | 1897 |
| B                             | A    | mm | 1366 | 1458 | 1610 | 1610 | 1610 | 1897 | 1897 | 1897 |
|                               | °A,P | mm | 702  | 754  | 798  | 798  | 798  | 801  | 801  | 801  |
| C                             | °    | kg | 127  | 160  | 208  | 210  | 212  | 469  | 471  | 475  |
|                               | A    | kg | 157  | 201  | 252  | 260  | 256  | 532  | 537  | 542  |
| Empty weight                  | P    | kg | 133  | 166  | 217  | 225  | 221  | 482  | 487  | 492  |

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# CL 025H-200H

## Reversible air/water heat pump

Cooling capacity 6,5 ÷ 50,9 kW – Heating capacity 7,7 ÷ 44,8 kW

- **Cooling / heating / high-temperature water production even for DHW production.**
- **Water produced up to 60 °C**
- **Heating operations with external temperatures down to -15 °C**
- **Fan Plug-fan**



### DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

**A** With storage tank and pump

**P** With pump

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 46 °C in summer. Hot water production up to 60 °C.

#### EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.

In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

#### Air supply

Horizontal or vertical, adjustable during installation for all sizes.

Directional air discharge hood:

— plastic for sizes 050 to 090

— galvanised steel for the other sizes

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

#### Hot water production

Special attention has been paid to winter operation: compared with traditional heat pumps, the operating limits have been extended thanks to particular technological expedients.

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**MULTICONTROL:** Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SDHW:** Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating

system during the photovoltaic production phase and release it at times when heating demand is highest.

**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring

**VT:** Anti-vibration supports.

**CLPA:** Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model        | Ver     | 025 | 030 | 040 | 050 | 070 | 080 | 090 | 100 | 150 | 200 |
|--------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU  | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERLINK      | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERSET       | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL   | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| MULTICONTROL | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PR3          | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SDHW (1)     | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD          | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SPLW (2)     | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

(1) Probe required for MULTICONTROL for managing the domestic hot water system.

(2) Probe required for MULTICONTROL to manage the secondary circuit system.

■ **MODU-485BL = Accessory mandatory for the production of domestic hot water**

### Remote panel

| Model | Ver     | 025 | 030 | 040 | 050 | 070 | 080 | 090 | 100 | 150 | 200 |
|-------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | ° ,A, P | *   | *   | *   | *   | *   | *   | *   | *   | *   | *   |

For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

### Antivibration

| Ver   | 025   | 030   | 040   | 050   | 070   | 080   | 090   | 100  | 150  | 200  |
|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| ° , P | VT9   | VT9   | VT9   | VT9   | VT9   | VT9   | VT9   | VT15 | VT15 | VT15 |
| A     | VT15A | VT15A | VT15A | VT15A | VT15A | VT15A | VT15A | VT15 | VT15 | VT15 |

### BSKW: Electric heater kit

| Ver                    | 025                  | 030                  | 040                  | 050                  | 070                  | 080                  | 090                  | 100                  | 150                  | 200                  |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Power supply: M</b> |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| ° , A, P               | BS4KW230M, BS6KW230M | BS4KW230M, BS6KW230M | BS4KW230M, BS6KW230M | -                    | -                    | -                    | -                    | -                    | -                    | -                    |
| <b>Power supply: °</b> |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| ° , A, P               | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T | BS6KW400T, BS9KW400T |

### Galvanised steel plenum

| Ver      | 025       | 030       | 040       | 050       | 070       | 080       | 090       | 100   | 150   | 200   |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-------|-------|
| ° , A, P | CLPA1 (1) | CLPA1 (1) | CLPA2 (2) | CLPA2 (2) | CLPA2 (2) | CLPA2 (2) | CLPA2 (2) | CLPA3 | CLPA3 | CLPA3 |

(1) Not compatible with the GPCL1 accessory

(2) Not compatible with the GPCL2 accessory

### Device for peak current reduction

| Ver                    | 025      | 030      | 040      | 050      | 070      | 080      | 090      | 100          | 150          | 200          |
|------------------------|----------|----------|----------|----------|----------|----------|----------|--------------|--------------|--------------|
| <b>Power supply: °</b> |          |          |          |          |          |          |          |              |              |              |
| ° , A, P               | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES (1) | DRES x 2 (1) | DRES x 2 (1) | DRES x 2 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Electric Heater for the Base

| Ver      | 025      | 030      | 040      | 050      | 070      | 080      | 090      | 100      | 150      | 200      |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| ° , A, P | KRB4 (1) | KRB4 (1) | KRB5 (1) | KRB5 (1) | KRB5 (1) | KRB5 (1) | KRB5 (1) | KRB6 (1) | KRB6 (1) | KRB6 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver      | 025   | 030   | 040   | 050   | 070   | 080   | 090   | 100   | 150   | 200   |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ° , A, P | GPCL1 | GPCL1 | GPCL2 | GPCL2 | GPCL2 | GPCL2 | GPCL2 | GPCL3 | GPCL3 | GPCL3 |

A grey background indicates the accessory must be assembled in the factory

■ **For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.**

## FACTORY FITTED ACCESSORIES

**KRB:** Electric anti-freeze resistance kit for base.

**GPCL:** Protection grille for the source side exchange coil.

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

## CONFIGURATOR

| Field | Description  |
|-------|--|
| 1,2   | CL   |
| 3,4,5 | Size<br>025, 030, 040, 050, 070, 080, 090, 100, 150, 200 |
| 6     | Model  |
| H     | Heat pump  |
| 7     | Execution  |
| °     | Standard   |
| 8     | Version  |
| °     | Standard   |
| A     | With storage tank and pump (1)                           |
| P     | With pump  |
| 9     | Heat recovery  |
| °     | Without heat recovery                                    |
| 10    | Coils  |
| R     | Copper pipes-copper fins                                 |
| S     | Copper pipes-Tinned copper fins                          |
| V     | Copper pipes-Coated aluminium fins                       |
| °     | Copper-aluminium   |
| 11    | Operating field  |
| Y     | Low temperature mechanic thermostatic valve (2)          |
| Z     | Low temperature electronic thermostatic valve (3)        |
| °     | Standard mechanic thermostatic valve (4)                 |
| 12    | Evaporator   |
| °     | Standard   |
| 13    | Power supply   |
| M     | 230V ~ 50Hz (5)  |
| °     | 400V 3N ~ 50Hz (6)                                       |

(1) The version with integrated storage tank is not suitable for the production of domestic hot water (DHW).

(2) Water produced from 0 °C ÷ - 10 °C

(3) Water produced from 0 °C ÷ 4 °C

(4) Water produced from 4 °C ÷ 18 °C

(5) Only for CL 025 ÷ 040 sizes

(6) Only for CL 025 ÷ 200 sizes

## PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

## CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

| Size  |     | 025  | 030  | 040  | 050  | 070  | 080  | 090  | 100  | 150  | 200  |
|---|-----|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | kW  | 6,4  | 8,4  | 10,4 | 11,9 | 14,0 | 15,5 | 19,0 | 23,9 | 31,3 | 37,6 |
| Input power                                 | kW  | 2,6  | 3,1  | 3,8  | 4,2  | 4,8  | 5,6  | 6,8  | 8,2  | 10,9 | 14,4 |
| Cooling total input current - 400V          | A   | 5,5  | 6,3  | 6,6  | 7,5  | 8,3  | 9,6  | 13,0 | 14,0 | 21,0 | 26,0 |
| Cooling total input current - 230V          | A   | 13,0 | 15,0 | 16,0 | -    | -    | -    | -    | -    | -    | -    |
| EER   | W/W | 2,44 | 2,73 | 2,74 | 2,87 | 2,90 | 2,77 | 2,81 | 2,93 | 2,86 | 2,61 |
| Water flow rate system side                 | l/h | 1104 | 1441 | 1785 | 2054 | 2411 | 2676 | 3272 | 4122 | 5388 | 6477 |
| Pressure drop system side                   | kPa | 13   | 12   | 13   | 11   | 15   | 26   | 26   | 34   | 22   | 43   |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                            | kW  | 7,9  | 9,8  | 12,5 | 14,4 | 15,9 | 18,6 | 21,0 | 27,8 | 34,8 | 43,8 |
| Input power                                 | kW  | 2,3  | 2,9  | 3,7  | 4,1  | 4,7  | 5,5  | 6,5  | 8,1  | 10,6 | 14,4 |
| Heating total input current - 400V          | A   | 5,5  | 6,2  | 6,4  | 7,5  | 8,1  | 9,2  | 13,0 | 14,0 | 19,0 | 26,0 |
| Heating total input current - 230V          | A   | 12,0 | 14,0 | 15,0 | -    | -    | -    | -    | -    | -    | -    |
| COP   | W/W | 3,41 | 3,32 | 3,40 | 3,52 | 3,36 | 3,40 | 3,20 | 3,44 | 3,27 | 3,03 |
| Water flow rate system side                 | l/h | 1368 | 1693 | 2164 | 2502 | 2756 | 3214 | 3634 | 4822 | 6034 | 7581 |
| Pressure drop system side                   | kPa | 19   | 16   | 18   | 17   | 21   | 32   | 34   | 49   | 30   | 42   |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 025  | 030  | 040  | 050  | 070  | 080  | 090  | 100  | 150  | 200  |
|--|-----|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 6,5  | 8,4  | 10,5 | 12,0 | 14,1 | 15,7 | 19,1 | 24,2 | 31,6 | 38,0 |
| Input power                                  | kW  | 2,6  | 3,0  | 3,7  | 4,2  | 4,8  | 5,6  | 6,7  | 8,3  | 11,3 | 14,7 |
| Cooling total input current - 400V           | A   | 5,8  | 6,7  | 7,0  | 8,1  | 8,9  | 10,0 | 14,0 | 15,0 | 23,0 | 28,0 |
| Cooling total input current - 230V           | A   | 13,0 | 16,0 | 16,0 | -    | -    | -    | -    | -    | -    | -    |
| EER  | W/W | 2,49 | 2,79 | 2,79 | 2,90 | 2,94 | 2,82 | 2,85 | 2,91 | 2,81 | 2,58 |
| Water flow rate system side                  | l/h | 1104 | 1441 | 1785 | 2054 | 2411 | 2676 | 3272 | 4122 | 5388 | 6477 |
| Useful head system side                      | kPa | 76   | 75   | 69   | 92   | 86   | 80   | 64   | 99   | 158  | 145  |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 7,8  | 9,7  | 12,4 | 14,3 | 15,8 | 18,4 | 20,8 | 27,6 | 34,5 | 43,4 |
| Input power                                  | kW  | 2,3  | 2,9  | 3,6  | 4,1  | 4,7  | 5,4  | 6,5  | 8,2  | 11,0 | 14,8 |
| Heating total input current - 400V           | A   | 5,9  | 6,6  | 6,8  | 8,1  | 8,7  | 9,9  | 13,0 | 15,0 | 21,0 | 28,0 |
| Heating total input current - 230V           | A   | 12,0 | 15,0 | 16,0 | -    | -    | -    | -    | -    | -    | -    |
| COP  | W/W | 3,42 | 3,34 | 3,42 | 3,50 | 3,35 | 3,40 | 3,21 | 3,35 | 3,14 | 2,92 |
| Water flow rate system side                  | l/h | 1368 | 1693 | 2164 | 2502 | 2756 | 3214 | 3634 | 4822 | 6034 | 7581 |
| Useful head system side                      | kPa | 68   | 67   | 56   | 84   | 78   | 66   | 53   | 72   | 133  | 103  |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

**PERFORMANCE SPECIFICATIONS 23 °C / 18 °C - 30 °C / 35 °C****CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 025  | 030  | 040  | 050  | 070  | 080  | 090  | 100  | 150  | 200  |
|--|-----|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 8,5  | 11,1 | 13,8 | 15,8 | 18,6 | 20,6 | 25,2 | 31,7 | 41,6 | 49,9 |
| Input power                                  | kW  | 2,8  | 3,3  | 4,0  | 4,4  | 5,1  | 6,0  | 7,2  | 8,7  | 11,6 | 15,4 |
| Cooling total input current - 400V           | A   | 5,8  | 6,6  | 6,9  | 8,0  | 8,7  | 10,0 | 14,0 | 15,0 | 22,0 | 27,0 |
| Cooling total input current - 230V           | A   | 13,0 | 16,0 | 17,0 | -    | -    | -    | -    | -    | -    | -    |
| EER  | W/W | 3,05 | 3,42 | 3,43 | 3,59 | 3,63 | 3,45 | 3,50 | 3,63 | 3,57 | 3,24 |
| Water flow rate system side                  | l/h | 1472 | 1922 | 2381 | 2740 | 3216 | 3570 | 4364 | 5498 | 7187 | 8639 |
| Pressure drop system side                    | kPa | 23   | 21   | 23   | 20   | 27   | 46   | 46   | 60   | 39   | 77   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 8,2  | 10,1 | 12,9 | 15,0 | 16,5 | 19,2 | 21,7 | 28,9 | 36,1 | 45,4 |
| Input power                                  | kW  | 2,0  | 2,5  | 3,1  | 3,5  | 4,0  | 4,6  | 5,5  | 6,8  | 9,0  | 12,4 |
| Heating total input current - 400V           | A   | 4,7  | 5,3  | 5,4  | 6,4  | 6,8  | 7,8  | 11,0 | 12,0 | 16,0 | 22,0 |
| Heating total input current - 230V           | A   | 10,0 | 12,0 | 13,0 | -    | -    | -    | -    | -    | -    | -    |
| COP  | W/W | 4,16 | 4,08 | 4,15 | 4,30 | 4,12 | 4,17 | 3,93 | 4,22 | 3,99 | 3,67 |
| Water flow rate system side                  | l/h | 1413 | 1749 | 2235 | 2585 | 2846 | 3320 | 3754 | 4981 | 6233 | 7832 |
| Pressure drop system side                    | kPa | 20   | 17   | 19   | 18   | 22   | 34   | 36   | 52   | 32   | 45   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

**CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)**

| Size   |     | 025  | 030  | 040  | 050  | 070  | 080  | 090  | 100  | 150  | 200  |
|--|-----|------|------|------|------|------|------|------|------|------|------|
| <b>Cooling performance 23 °C / 18 °C (1)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Cooling capacity                             | kW  | 8,6  | 11,2 | 13,9 | 16,0 | 18,7 | 20,8 | 25,4 | 32,0 | 41,9 | 50,3 |
| Input power                                  | kW  | 2,7  | 3,2  | 4,0  | 4,4  | 5,1  | 5,9  | 7,2  | 8,9  | 12,1 | 15,8 |
| Cooling total input current - 400V           | A   | 6,2  | 7,0  | 7,3  | 8,6  | 9,4  | 11,0 | 15,0 | 16,0 | 24,0 | 30,0 |
| Cooling total input current - 230V           | A   | 14,0 | 17,0 | 17,0 | -    | -    | -    | -    | -    | -    | -    |
| EER  | W/W | 3,13 | 3,50 | 3,50 | 3,64 | 3,69 | 3,52 | 3,55 | 3,58 | 3,45 | 3,18 |
| Water flow rate system side                  | l/h | 1472 | 1922 | 2381 | 2740 | 3216 | 3570 | 4364 | 5498 | 7187 | 8639 |
| Useful head system side                      | kPa | 63   | 59   | 48   | 79   | 66   | 55   | 27   | 41   | 81   | 57   |
| <b>Heating performance 30 °C / 35 °C (2)</b> |     |      |      |      |      |      |      |      |      |      |      |
| Heating capacity                             | kW  | 8,1  | 10,0 | 12,8 | 14,8 | 16,3 | 19,1 | 21,6 | 28,6 | 35,8 | 45,0 |
| Input power                                  | kW  | 1,9  | 2,4  | 3,1  | 3,4  | 4,0  | 4,6  | 5,5  | 7,0  | 9,4  | 12,8 |
| Heating total input current - 400V           | A   | 5,0  | 5,6  | 5,8  | 7,0  | 7,5  | 8,5  | 11,0 | 13,0 | 18,0 | 24,0 |
| Heating total input current - 230V           | A   | 11,0 | 13,0 | 14,0 | -    | -    | -    | -    | -    | -    | -    |
| COP  | W/W | 4,18 | 4,11 | 4,19 | 4,30 | 4,13 | 4,19 | 3,94 | 4,09 | 3,80 | 3,52 |
| Water flow rate system side                  | l/h | 1413 | 1749 | 2235 | 2585 | 2846 | 3320 | 3754 | 4981 | 6233 | 7832 |
| Useful head system side                      | kPa | 66   | 65   | 54   | 82   | 76   | 63   | 49   | 65   | 124  | 93   |

(1) Data EN 14511:2022; System side water heat exchanger 23 °C / 18 °C; External air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size   |     |     | 025    | 030    | 040    | 050    | 070    | 080    | 090    | 100    | 150    | 200    |
|--|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>  |     |     |        |        |        |        |        |        |        |        |        |        |
| SEER   | °   | W/W | 2,93   | 3,27   | 3,32   | 3,45   | 3,43   | 3,27   | 3,39   | 4,06   | 4,06   | 3,66   |
|  | A,P | W/W | 3,11   | 3,47   | 3,53   | 3,62   | 3,62   | 3,46   | 3,60   | 4,06   | 3,85   | 3,60   |
| η <sub>sc</sub>  | °   | %   | 114,20 | 127,60 | 129,60 | 134,80 | 134,00 | 127,80 | 132,40 | 159,20 | 159,20 | 143,40 |
|  | A,P | %   | 121,40 | 135,90 | 138,00 | 142,00 | 141,70 | 135,30 | 141,00 | 159,50 | 150,80 | 141,10 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - P<sub>designh</sub> ≤ 70 kW (1)</b> |     |     |        |        |        |        |        |        |        |        |        |        |
| P <sub>designh</sub>   | °   | kW  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|  | A,P | kW  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| SCOP   | °   | W/W | 3,35   | 3,35   | 3,45   | 3,58   | 3,45   | 3,53   | 3,30   | 3,53   | 3,35   | 3,23   |
|  | A,P | W/W | 3,43   | 3,43   | 3,53   | 3,63   | 3,50   | 3,58   | 3,35   | 3,45   | 3,23   | 3,20   |
| η <sub>sh</sub>  | °   | %   | 131,00 | 131,00 | 135,00 | 140,00 | 135,00 | 138,00 | 129,00 | 138,00 | 131,00 | 126,00 |
|  | A,P | %   | 134,00 | 134,00 | 138,00 | 142,00 | 137,00 | 140,00 | 131,00 | 135,00 | 126,00 | 125,00 |
| Efficiency energy class  | °   | A,P | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     | A+     |

(1) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                   |     |   | 025  | 030  | 040  | 050  | 070  | 080  | 090   | 100  | 150   | 200   |
|------------------------|-----|---|------|------|------|------|------|------|-------|------|-------|-------|
| <b>Power supply: °</b> |     |   |      |      |      |      |      |      |       |      |       |       |
| <b>Electric data</b>   |     |   |      |      |      |      |      |      |       |      |       |       |
| Maximum current (FLA)  | °   | A | 11,0 | 11,9 | 11,9 | 13,5 | 14,7 | 15,2 | 20,4  | 27,0 | 30,3  | 40,8  |
|                        | A,P | A | 11,4 | 12,4 | 12,3 | 14,3 | 15,4 | 15,9 | 21,1  | 29,0 | 33,4  | 43,8  |
| Peak current (LRA)     | °   | A | 44,6 | 44,6 | 57,1 | 64,2 | 74,2 | 94,2 | 105,2 | 77,7 | 109,3 | 125,6 |
|                        | A,P | A | 45,0 | 45,0 | 57,6 | 64,9 | 74,9 | 94,9 | 105,9 | 79,6 | 112,4 | 128,6 |
| Size                   |     |   | 025  | 030  | 040  | 050  | 070  | 080  | 090   | 100  | 150   | 200   |
| <b>Power supply: M</b> |     |   |      |      |      |      |      |      |       |      |       |       |
| <b>Electric data</b>   |     |   |      |      |      |      |      |      |       |      |       |       |
| Maximum current (FLA)  | °   | A | 19,0 | 24,0 | 24,0 | -    | -    | -    | -     | -    | -     | -     |
|                        | A,P | A | 19,8 | 24,7 | 25,0 | -    | -    | -    | -     | -    | -     | -     |
| Peak current (LRA)     | °   | A | 86,0 | 96,0 | 96,0 | -    | -    | -    | -     | -    | -     | -     |
|                        | A,P | A | 87,1 | 96,5 | 97,1 | -    | -    | -    | -     | -    | -     | -     |

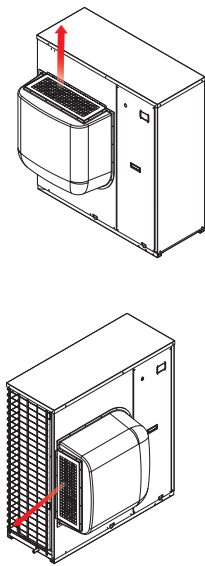
## GENERAL TECHNICAL DATA

| Size  |   |           | 025  | 030  | 040  | 050  | 070  | 080          | 090  | 100   | 150   | 200   |
|---|---|-----------|------|------|------|------|------|--------------|------|-------|-------|-------|
| <b>Compressor</b>                           |   |           |      |      |      |      |      |              |      |       |       |       |
| Type  | ° | A,P type  |      |      |      |      |      | Scroll       |      |       |       |       |
| Compressor regulation                       | ° | A,P type  |      |      |      |      |      | On-off       |      |       |       |       |
| Number                                      | ° | A,P no.   | 1    | 1    | 1    | 1    | 1    | 1            | 1    | 2     | 2     | 2     |
| Circuits                                    | ° | A,P no.   | 1    | 1    | 1    | 1    | 1    | 1            | 1    | 1     | 1     | 1     |
| Refrigerant                                 | ° | A,P type  |      |      |      |      |      | R410A        |      |       |       |       |
| Refrigerant charge (1)                      | ° | A,P kg    | 2,7  | 2,7  | 4,3  | 5,6  | 5,6  | 5,6          | 5,7  | 8,3   | 8,0   | 7,5   |
| <b>System side heat exchanger</b>           |   |           |      |      |      |      |      |              |      |       |       |       |
| Type  | ° | A,P type  |      |      |      |      |      | Brazed plate |      |       |       |       |
| Number                                      | ° | A,P no.   | 1    | 1    | 1    | 1    | 1    | 1            | 1    | 1     | 1     | 1     |
| <b>Hydraulic connections</b>                |   |           |      |      |      |      |      |              |      |       |       |       |
| Connections (in/out)                        | ° | A,P type  |      |      |      |      |      | Gas - F      |      |       |       |       |
| Size (in)                                   | ° | A,P Ø     |      |      |      |      |      | 1¼           |      |       |       |       |
| Size (out)                                  | ° | A,P Ø     |      |      |      |      |      | 1¼           |      |       |       |       |
| <b>Fan</b>                                  |   |           |      |      |      |      |      |              |      |       |       |       |
| Type  | ° | A,P type  |      |      |      |      |      | Plug-fan     |      |       |       |       |
| Fan motor                                   | ° | A,P type  |      |      |      |      |      | Inverter     |      |       |       |       |
| Number                                      | ° | A,P no.   | 1    | 1    | 1    | 1    | 1    | 1            | 1    | 2     | 2     | 2     |
| Air flow rate                               | ° | A,P m³/h  | 4000 | 4000 | 6500 | 6500 | 6500 | 6500         | 7500 | 10000 | 12000 | 16000 |
| High static pressure                        | ° | A,P Pa    | 50   | 50   | 50   | 80   | 80   | 80           | 80   | 80    | 100   | 100   |
| <b>Intake plus machine body</b>             |   |           |      |      |      |      |      |              |      |       |       |       |
| Sound power level                           | ° | A,P dB(A) | 78,0 | 78,0 | 73,0 | 73,0 | 73,0 | 73,0         | 76,0 | 74,0  | 79,0  | 80,0  |
| Sound pressure level in cooling mode (10 m) | ° | A,P dB(A) | 46,0 | 46,0 | 41,0 | 41,0 | 41,0 | 41,0         | 44,0 | 42,0  | 47,0  | 48,0  |
| <b>Machine exhaust</b>                      |   |           |      |      |      |      |      |              |      |       |       |       |
| Sound power level                           | ° | A,P dB(A) | 78,0 | 78,0 | 78,0 | 78,0 | 78,0 | 78,0         | 81,0 | 78,0  | 83,0  | 85,0  |
| Sound pressure level in cooling mode (10 m) | ° | A,P dB(A) | 46,0 | 46,0 | 46,0 | 46,0 | 46,0 | 46,0         | 49,0 | 47,0  | 52,0  | 54,0  |

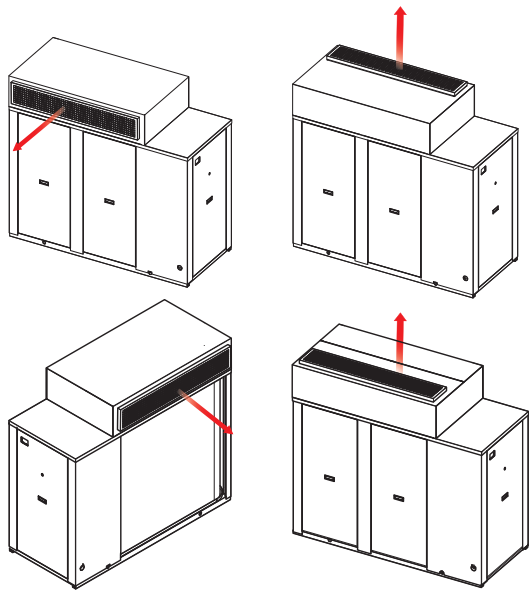
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

# DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200

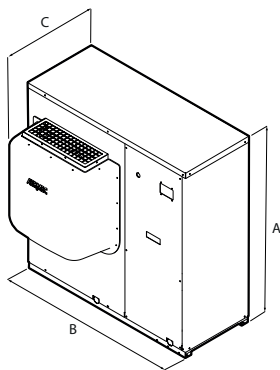


Air supply  
Horizontal or vertical, adjustable during installation for all sizes.  
Directional air discharge hood:

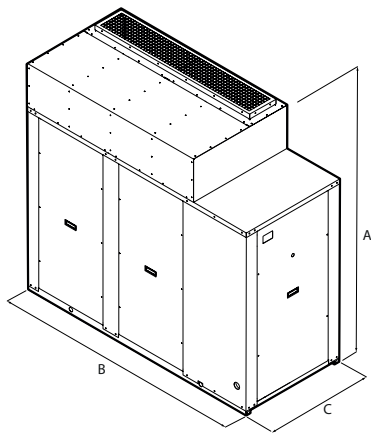
— plastic for sizes 050 to 090  
— galvanised steel for the other sizes

## DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



| Size                   |      |    | 025  | 030  | 040  | 050  | 070  | 080  | 090  | 100  | 150  | 200  |
|------------------------|------|----|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights |      |    |      |      |      |      |      |      |      |      |      |      |
| A                      | °A,P | mm | 1028 | 1028 | 1281 | 1281 | 1281 | 1281 | 1281 | 1674 | 1674 | 1674 |
|                        | °P   | mm | 1005 | 1005 | 1160 | 1160 | 1160 | 1160 | 1160 | 1897 | 1897 | 1897 |
| B                      | A    | mm | 1366 | 1366 | 1610 | 1610 | 1610 | 1610 | 1610 | 1897 | 1897 | 1897 |
|                        | °A,P | mm | 702  | 702  | 798  | 798  | 798  | 798  | 798  | 801  | 801  | 801  |
| C                      | °    | kg | 142  | 142  | 229  | 229  | 240  | 240  | 234  | 504  | 527  | 515  |
|                        | A    | kg | 172  | 172  | 274  | 274  | 284  | 284  | 279  | 567  | 593  | 581  |
|                        | P    | kg | 148  | 148  | 239  | 239  | 250  | 250  | 243  | 517  | 543  | 531  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NLC 0280-1250

## Air-water chiller

Cooling capacity 53 ÷ 322 kW



- High efficiency also at partial loads
- Complete air flow versatility
- EC fan Plug-fan with high performance



### DESCRIPTION

Chiller offering chilled/hot water, designed to meet air conditioning needs in residential / commercial complexes or industrial applications. Indoor units with Scroll compressors, centrifugal fans and plate heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

E Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

#### Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.

In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

### Hot water production

In the configuration with desuperheater or total recovery, it is also possible to produce free-hot water.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for BACnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (Wi-Fi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click it is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating



system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

**VT:** Anti-vibration supports.

**FLG:** Flange for ducts.

**FILW:** Water filter

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**KRQ:** Electric heater for the control and electric power board.

**KRA:** Anti-freeze electric heater for the buffer tank.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model   | Ver     | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| C-TOUCH | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver     | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °, A, E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### FILTROW

| Ver     | 0280              | 0300              | 0330              | 0350              | 0550              | 0600              | 0650              | 0675              |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| °, A, E | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) |

(1) Installation is mandatory, contrarily guarantee becomes void.

| Ver     | 0700              | 0750              | 0800              | 0900              | 1000              | 1100              | 1250              |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| °, A, E | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) |

(1) Installation is mandatory, contrarily guarantee becomes void.

### Flange for ducts

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550         | 0600         | 0650         | 0675         |
|------|------|------|------|------|--------------|--------------|--------------|--------------|
| °    | FLG1 | FLG1 | FLG1 | FLG1 | FLG1         | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) |
| A, E | FLG1 | FLG1 | FLG1 | FLG1 | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) |

(1) x... indicates the quantity to buy.

| Ver  | 0700         | 0750                | 0800         | 0900                | 1000         | 1100         | 1250         |
|------|--------------|---------------------|--------------|---------------------|--------------|--------------|--------------|
| °    | FLG1 x 2 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) |
| A, E | FLG1 x 2 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG2 x 4 (1)        | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) |

(1) x... indicates the quantity to buy.

### Antivibration

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|--|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b>                             |      |      |      |      |      |      |      |      |
| °, A, E  | VT17 | VT17 | VT17 | VT17 | -    | -    | -    | -    |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |      |      |      |      |
| °, A, E  | VT11 | VT11 | VT11 | VT11 | -    | -    | -    | -    |
| <b>Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8</b> |      |      |      |      |      |      |      |      |
| °, A, E  | VT13 | VT13 | VT13 | VT13 | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

### Antivibration

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550   | 0600   | 0650   | 0675   |
|--|------|------|------|------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b>                             |      |      |      |      |        |        |        |        |
| °  | -    | -    | -    | -    | AVX437 | AVX421 | AVX421 | AVX421 |
| A, E   | -    | -    | -    | -    | AVX421 | AVX421 | AVX421 | AVX421 |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |        |        |        |        |
| °  | -    | -    | -    | -    | AVX439 | AVX423 | AVX423 | AVX423 |
| A, E   | -    | -    | -    | -    | AVX423 | AVX423 | AVX423 | AVX423 |
| <b>Integrated hydronic kit: P1, P3, P5, P7</b>                 |      |      |      |      |        |        |        |        |
| °  | -    | -    | -    | -    | AVX438 | AVX421 | AVX421 | AVX421 |
| A, E   | -    | -    | -    | -    | AVX421 | AVX421 | AVX421 | AVX421 |

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550   | 0600   | 0650   | 0675   |
|--|------|------|------|------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: P2, P4, P6, P8</b> |      |      |      |      |        |        |        |        |
| °  | -    | -    | -    | -    | AVX438 | AVX422 | AVX422 | AVX422 |
| A, E   | -    | -    | -    | -    | AVX422 | AVX422 | AVX422 | AVX422 |

The accessory cannot be fitted on the configurations indicated with -

| Ver  | 0700   | 0750   | 0800   | 0900   | 1000   | 1100   | 1250   |
|--|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b>             |        |        |        |        |        |        |        |
| °  | AVX424 | AVX440 | AVX440 | AVX444 | AVX431 | AVX431 | AVX431 |
| A, E   | AVX424 | AVX428 | AVX431 | AVX431 | AVX431 | AVX431 | AVX431 |
| <b>Integrated hydronic kit: 01, 03, 05, 07</b> |        |        |        |        |        |        |        |
| °  | AVX427 | AVX441 | AVX441 | AVX446 | AVX435 | AVX434 | AVX434 |
| A, E   | AVX427 | AVX430 | AVX434 | AVX434 | AVX434 | AVX434 | AVX434 |
| <b>Integrated hydronic kit: 02, 04, 06, 08</b> |        |        |        |        |        |        |        |
| °  | AVX427 | AVX441 | AVX441 | AVX446 | AVX435 | AVX436 | AVX436 |
| A, E   | AVX427 | AVX430 | AVX435 | AVX435 | AVX435 | AVX436 | AVX436 |
| <b>Integrated hydronic kit: P1, P3, P5, P7</b> |        |        |        |        |        |        |        |
| °  | AVX425 | AVX425 | AVX442 | AVX445 | AVX432 | AVX432 | AVX432 |
| A, E   | AVX425 | AVX429 | AVX432 | AVX432 | AVX432 | AVX432 | AVX432 |
| <b>Integrated hydronic kit: P2, P4, P6, P8</b> |        |        |        |        |        |        |        |
| °  | AVX426 | AVX426 | AVX443 | AVX445 | AVX433 | AVX433 | AVX433 |
| A, E   | AVX426 | AVX429 | AVX433 | AVX433 | AVX433 | AVX433 | AVX433 |

#### DRE: Device for peak current reduction

| Ver     | 0280       | 0300       | 0330       | 0350       | 0550       | 0600       | 0650       | 0675       |
|---------|------------|------------|------------|------------|------------|------------|------------|------------|
| °, A, E | DRE275 (1) | DRE275 (1) | DRE300 (1) | DRE350 (1) | DRE552 (1) | DRE602 (1) | DRE652 (1) | DRE675 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

| Ver     | 0700       | 0750       | 0800       | 0900       | 1000       | 1100       | 1250        |
|---------|------------|------------|------------|------------|------------|------------|-------------|
| °, A, E | DRE350 x 2 | DRE552 x 2 | DRE552 x 2 | DRE602 x 2 | DRE652 x 2 | DRE675 x 2 | DRE1250 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver     | 0280    | 0300    | 0330    | 0350    | 0550    | 0600    | 0650    | 0675    |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A, E | RIFNLC1 | RIFNLC1 | RIFNLC2 | RIFNLC3 | RIFNLC1 | RIFNLC1 | RIFNLC1 | RIFNLC4 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 0700            | 0750                  | 0800            | 0900            | 1000            | 1100            | 1250            |
|---------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| °, A, E | RIFNLC3 x 2 (1) | RIFNLC3 + RIFNLC2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC4 x 2 (1) | RIFNLC3 x 2 (1) |

(1) x... indicates the quantity to buy.

A grey background indicates the accessory must be assembled in the factory

#### Anti-condensate electric board resistance

| Ver     | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|---------|------|------|------|------|------|------|------|------|
| °, A, E | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---------|------|------|------|------|------|------|------|
| °, A, E | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  |

A grey background indicates the accessory must be assembled in the factory

#### Anti-freeze electric heater for the storage tank

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 |
|--|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |      |      |      |      |
| °, A, E  | KRA1 | KRA1 | KRA1 | KRA1 | KRA2 | KRA2 | KRA2 | KRA2 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|--|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |      |      |      |
| °, A, E  | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | NLC  |
| 4,5,6,7 | Size<br>0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250 |
| 8       | Operating field  |
| X       | Electronic thermostatic expansion valve (1)  |
| Y       | Low temperature mechanic thermostatic valve (2)  |
| Z       | Low temperature electronic thermostatic valve (2)  |
| °       | Standard mechanic thermostatic valve (1)   |
| 9       | Model  |
| C       | Motocondensing unit  |
| °       | Cooling only   |
| 10      | Heat recovery  |
| D       | With desuperheater (3)   |
| T       | With total recovery (4)  |
| °       | Without heat recovery  |
| 11      | Version  |
| °       | Standard   |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| 12      | Coils  |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins  |
| V       | Copper pipes-Coated aluminium fins   |
| °       | Copper-aluminium   |
| 13      | Fans   |
| J       | Inverter   |
| 14      | Power supply   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers   |
| 15,16   | Integrated hydronic kit  |
| 00      | Without hydronic kit   |
|         | <b>Kit with storage tank and pump/s</b>  |
| 01      | Storage tank with low head pump  |
| 02      | Storage tank with low head pump + stand-by pump  |
| 03      | Storage tank with high head pump   |
| 04      | Storage tank with high head pump + stand-by pump   |
|         | <b>Kit with storage tank and inverter pump/s</b>   |
| 05      | Storage tank with low-head inverter pump   |
| 06      | Storage tank with low head inverter pump + stand-by pump   |
| 07      | Storage tank with high head inverter pump  |
| 08      | Storage tank with high head inverter pump + stand-by pump  |
|         | <b>Kit with pump/s</b>   |
| P1      | Single pump low head   |
| P2      | Pump low head + stand-by pump  |
| P3      | Single pump high head  |
| P4      | Pump high head + stand-by pump   |
|         | <b>Kit with pump/s, with inverter speed</b>  |
| P5      | Single low head pump + fixed speed inverter (5)  |
| P6      | Single low head pump with fixed speed inverter + stand-by pump (5)                               |
| P7      | Single high head pump + fixed speed inverter (5)   |
| P8      | Single high head pump with fixed speed inverter + stand-by pump (5)                              |

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from 4 °C ÷ -10 °C

(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(4) Options not available for standard unit "om", condensing unit and with alls hydronic kit.

(5) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

## PERFORMANCE SPECIFICATIONS

### NLC - °

| Size  |     | 0280 | 0300 | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|---|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                              |     |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 52,1 | 57,1 | 62,8  | 75,4  | 94,2  | 112,0 | 123,0 | 137,4 | 151,4 | 170,2 | 189,7 | 220,2 | 242,6 | 277,4 | 306,7 |
| Input power                                 | kW  | 20,4 | 23,4 | 24,3  | 28,9  | 39,3  | 44,3  | 50,1  | 53,7  | 58,6  | 66,6  | 79,0  | 86,4  | 99,8  | 107,6 | 121,3 |
| Cooling total input current                 | A   | 38,0 | 42,0 | 46,0  | 57,0  | 68,0  | 77,0  | 85,0  | 92,0  | 113,0 | 121,0 | 136,0 | 148,0 | 169,0 | 181,0 | 208,0 |
| EER   | W/W | 2,56 | 2,44 | 2,59  | 2,61  | 2,40  | 2,53  | 2,45  | 2,56  | 2,58  | 2,56  | 2,40  | 2,55  | 2,43  | 2,58  | 2,53  |
| Water flow rate system side                 | l/h | 8969 | 9828 | 10807 | 12972 | 16236 | 19277 | 21167 | 23676 | 26081 | 29294 | 32644 | 37884 | 41733 | 47712 | 52763 |
| Pressure drop system side                   | kPa | 19   | 22   | 28    | 27    | 43    | 27    | 31    | 43    | 37    | 30    | 38    | 35    | 35    | 41    | 48    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NLC - A

| Size  |     | 0280 | 0300  | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|---|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                              |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 54,0 | 59,4  | 66,9  | 78,6  | 106,3 | 119,5 | 129,2 | 146,3 | 157,4 | 177,9 | 209,7 | 233,2 | 257,6 | 290,6 | 319,2 |
| Input power                                 | kW  | 19,5 | 21,5  | 23,4  | 27,7  | 37,7  | 42,9  | 45,0  | 52,4  | 55,3  | 60,3  | 75,4  | 84,8  | 89,6  | 105,7 | 115,9 |
| Cooling total input current                 | A   | 36,0 | 40,0  | 43,0  | 53,0  | 63,0  | 71,0  | 73,0  | 87,0  | 107,0 | 113,0 | 126,0 | 139,0 | 146,0 | 173,0 | 198,0 |
| EER   | W/W | 2,77 | 2,76  | 2,85  | 2,84  | 2,82  | 2,78  | 2,87  | 2,79  | 2,85  | 2,95  | 2,78  | 2,75  | 2,88  | 2,75  | 2,75  |
| Water flow rate system side                 | l/h | 9295 | 10223 | 11511 | 13539 | 18298 | 20566 | 22250 | 25188 | 27095 | 30617 | 36080 | 40118 | 44310 | 49980 | 54911 |
| Pressure drop system side                   | kPa | 20   | 24    | 22    | 30    | 25    | 30    | 36    | 36    | 25    | 25    | 33    | 33    | 35    | 37    | 43    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NLC - E

| Size  |     | 0280 | 0300 | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|---|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                              |     |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 52,2 | 58,0 | 64,2  | 73,4  | 102,9 | 115,6 | 124,5 | 142,6 | 151,1 | 171,3 | 201,2 | 224,8 | 248,0 | 282,8 | 310,6 |
| Input power                                 | kW  | 19,3 | 21,5 | 23,7  | 27,4  | 37,6  | 42,7  | 45,9  | 52,5  | 55,4  | 60,1  | 74,9  | 85,2  | 90,6  | 105,8 | 116,0 |
| Cooling total input current                 | A   | 36,0 | 39,0 | 43,0  | 53,0  | 62,0  | 69,0  | 73,0  | 85,0  | 106,0 | 112,0 | 123,0 | 138,0 | 146,0 | 170,0 | 197,0 |
| EER   | W/W | 2,70 | 2,70 | 2,71  | 2,67  | 2,74  | 2,71  | 2,71  | 2,72  | 2,73  | 2,85  | 2,69  | 2,64  | 2,74  | 2,67  | 2,68  |
| Water flow rate system side                 | l/h | 8986 | 9982 | 11047 | 12628 | 17714 | 19896 | 21442 | 24552 | 25995 | 29483 | 34637 | 38675 | 42661 | 48640 | 53433 |
| Pressure drop system side                   | kPa | 19   | 23   | 20    | 26    | 23    | 29    | 34    | 34    | 23    | 24    | 31    | 30    | 33    | 35    | 41    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                                    |   | 0280 | 0300   | 0330   | 0350   | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900   | 1000   | 1100   | 1250   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                          |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W  | 5,33   | 5,02   | 4,92   | 4,97   | 4,25   | 4,87   | 4,57   | 4,73   | 4,28   | 4,15   | 4,10   | 4,12   | 4,10   | 4,15   |
|   | A | W/W  | 5,79   | 5,77   | 5,33   | 5,34   | 5,24   | 5,33   | 5,15   | 5,03   | 4,75   | 4,93   | 4,55   | 4,46   | 4,63   | 4,42   |
|   | E | W/W  | 4,83   | 4,98   | 4,74   | 4,80   | 4,58   | 4,70   | 4,53   | 4,55   | 4,48   | 4,63   | 4,19   | 4,14   | 4,31   | 4,19   |
| Seasonal efficiency                     | ° | %    | 210,30 | 197,80 | 193,90 | 195,80 | 167,10 | 191,60 | 179,60 | 186,00 | 168,20 | 162,80 | 161,00 | 161,90 | 161,10 | 163,10 |
|   | A | %    | 228,60 | 227,60 | 210,20 | 210,40 | 206,70 | 210,10 | 202,90 | 198,30 | 186,90 | 194,00 | 178,80 | 175,50 | 182,30 | 173,90 |
|   | E | %    | 190,30 | 196,00 | 186,70 | 189,00 | 180,10 | 185,00 | 178,30 | 179,10 | 176,20 | 182,10 | 164,60 | 162,70 | 169,20 | 164,40 |
| <b>SEER - 23/18 (EN14825: 2018) (2)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                    | ° | W/W  | 6,25   | 5,89   | 5,79   | 5,84   | 5,02   | 5,72   | 5,37   | 5,58   | 5,08   | 4,91   | 4,86   | 4,90   | 4,86   | 4,93   |
|   | A | W/W  | 6,84   | 6,82   | 6,27   | 6,17   | 6,27   | 6,07   | 5,93   | 5,62   | 5,84   | 5,39   | 5,29   | 5,49   | 5,25   | 5,16   |
|   | E | W/W  | 5,68   | 5,85   | 5,58   | 5,64   | 5,39   | 5,54   | 5,35   | 5,37   | 5,29   | 5,46   | 4,96   | 4,90   | 5,10   | 4,95   |
| Seasonal efficiency                     | ° | %    | 246,80 | 232,50 | 228,50 | 230,50 | 197,70 | 225,80 | 211,90 | 220,10 | 200,00 | 193,40 | 191,40 | 192,80 | 191,50 | 194,10 |
|   | A | %    | 270,60 | 269,70 | 247,60 | 247,70 | 243,60 | 247,80 | 239,80 | 234,30 | 221,80 | 230,40 | 212,40 | 208,50 | 216,60 | 206,90 |
|   | E | %    | 224,20 | 230,80 | 220,30 | 222,70 | 212,70 | 218,40 | 211,00 | 211,80 | 208,60 | 215,50 | 195,30 | 193,00 | 200,90 | 195,00 |
| <b>SEPR - (EN 14825: 2018) (2)</b>      |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                                    | ° | W/W  | 6,54   | 6,22   | 6,12   | 6,02   | 5,18   | 5,73   | 5,32   | 5,70   | 5,45   | 5,08   | 5,04   | 5,25   | 5,04   | 5,07   |
|   | A | W/W  | 6,87   | 6,88   | 6,44   | 6,47   | 6,21   | 6,35   | 5,98   | 5,90   | 5,94   | 6,32   | 5,65   | 5,40   | 5,72   | 5,41   |
|   | E | W/W  | 5,91   | 5,92   | 5,65   | 5,55   | 5,14   | 5,36   | 5,03   | 5,15   | 5,12   | 5,48   | 5,09   | 5,01   | 5,09   | 5,05   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

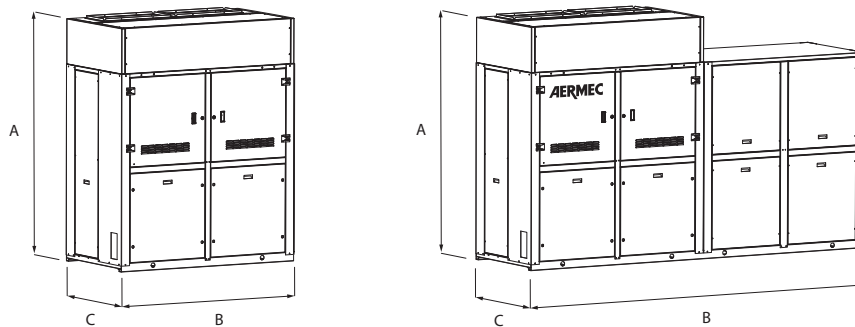
## ELECTRIC DATA

| Size                  |     | 0280 | 0300  | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|-----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °   | A    | 52,0  | 56,0  | 62,0  | 73,0  | 103,0 | 111,0 | 119,0 | 132,0 | 146,0 | 169,0 | 206,0 | 222,0 | 238,0 | 263,0 |
|                       | A,E | A    | 52,0  | 56,0  | 62,0  | 73,0  | 92,0  | 111,0 | 119,0 | 132,0 | 146,0 | 158,0 | 183,0 | 210,0 | 238,0 | 263,0 |
| Peak current (LRA)    | °   | A    | 128,0 | 130,0 | 133,0 | 216,0 | 261,0 | 273,0 | 281,0 | 358,0 | 290,0 | 346,0 | 353,0 | 372,0 | 400,0 | 489,0 |
|                       | A,E | A    | 128,0 | 130,0 | 133,0 | 216,0 | 273,0 | 281,0 | 358,0 | 290,0 | 357,0 | 376,0 | 384,0 | 400,0 | 489,0 | 515,0 |

## GENERAL TECHNICAL DATA

| Size   |      |       | 0280               | 0300  | 0330  | 0350  | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900  | 1000  | 1100  | 1250  |
|--|------|-------|--------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| <b>Fans: J</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| <b>Compressor</b>  |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Type   | °A,E | type  | Scroll             |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Compressor regulation  | °A,E | Type  | On/Off             |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Number   | °A,E | no.   | 2                  | 2     | 2     | 2     | 2      | 2      | 2      | 2      | 4      | 4      | 4      | 4     | 4     | 4     | 4     |
| Circuits   | °A,E | no.   | 1                  | 1     | 1     | 1     | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2     | 2     | 2     | 2     |
| Refrigerant  | °A,E | type  | R410A              |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Refrigerant load circuit 1 (1)   | °    | kg    | 7,0                | 7,0   | 8,5   | 9,0   | 13,7   | 15,0   | 18,0   | 19,0   | 9,5    | 8,3    | 13,8   | 13,5  | 15,0  | 19,1  | 19,1  |
|  | A    | kg    | 8,7                | 8,5   | 9,5   | 10,0  | 18,0   | 18,7   | 22,0   | 22,0   | 10,7   | 9,5    | 18,7   | 19,5  | 22,0  | 22,0  | 22,0  |
|  | E    | kg    | 8,7                | 8,5   | 9,5   | 10,0  | 18,0   | 18,7   | 21,0   | 21,5   | 10,7   | 9,5    | 18,7   | 19,0  | 21,1  | 22,0  | 22,0  |
| Refrigerant load circuit 2 (1)   | °    | kg    | -                  | -     | -     | -     | -      | -      | -      | -      | 9,5    | 12,3   | 13,8   | 13,5  | 15,0  | 19,1  | 19,1  |
|  | A    | kg    | -                  | -     | -     | -     | -      | -      | -      | -      | 10,7   | 17,0   | 18,7   | 19,5  | 22,0  | 22,0  | 22,0  |
|  | E    | kg    | -                  | -     | -     | -     | -      | -      | -      | -      | 10,7   | 17,0   | 18,7   | 19,0  | 20,6  | 22,0  | 22,0  |
| <b>System side heat exchanger</b>  |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Type   | °A,E | type  | Braze plate        |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Number   | °A,E | no.   | 1                  | 1     | 1     | 1     | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1     | 1     | 1     | 1     |
| (1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office. |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Size   |      |       | 0280               | 0300  | 0330  | 0350  | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900  | 1000  | 1100  | 1250  |
| <b>Integrated hydronic kit: 00</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| <b>System side hydraulic connections</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Connections (in/out)   | °A,E | Type  | Grooved joints     |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Sizes (in/out)   | °    | Ø     | 2"                 | 2"    | 2"    | 2"    | 2"     | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"    | 3"    | 3"    | 3"    |
|  | A,E  | Ø     | 2"                 | 2"    | 2"    | 2"    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"    | 3"    | 3"    | 3"    |
| Size   |      |       | 0280               | 0300  | 0330  | 0350  | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900  | 1000  | 1100  | 1250  |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, P1, P2, P3, P4, P5, P6, P7, P8</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| <b>System side hydraulic connections</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Connections (in/out)   | °A,E | Type  | Grooved joints     |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Sizes (in/out)   | °A,E | Ø     | 2"                 | 2"    | 2"    | 2"    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"     | 3"    | 3"    | 3"    | 3"    |
| Size   |      |       | 0280               | 0300  | 0330  | 0350  | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900  | 1000  | 1100  | 1250  |
| <b>Fans: J</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| <b>Fan</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Type   | °A,E | type  | Plug-fun           |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Fan motor  | °A,E | type  | EC Inverter motors |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Number   | °    | no.   | 2                  | 2     | 2     | 2     | 2      | 4      | 4      | 4      | 4      | 4      | 4      | 6     | 8     | 8     | 8     |
|  | A,E  | no.   | 2                  | 2     | 2     | 2     | 4      | 4      | 4      | 4      | 4      | 4      | 6      | 8     | 8     | 8     | 8     |
| Air flow rate  | °    | m³/h  | 21600              | 24000 | 21150 | 23600 | 23200  | 34050  | 34050  | 38200  | 47150  | 46750  | 46350  | 62150 | 68100 | 66650 | 71750 |
|  | A    | m³/h  | 21150              | 23600 | 19400 | 22050 | 27700  | 33350  | 27150  | 32750  | 44050  | 57900  | 55350  | 55350 | 54300 | 65450 | 65450 |
|  | E    | m³/h  | 15000              | 18400 | 14650 | 16450 | 14900  | 22200  | 14600  | 21750  | 32900  | 41900  | 29850  | 29850 | 29200 | 43500 | 43500 |
| <b>Machine exhaust</b>   |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Sound power level  | °    | dB(A) | 83,3               | 85,6  | 82,9  | 85,4  | 87,5   | 83,9   | 83,9   | 86,1   | 88,4   | 89,6   | 90,5   | 86,9  | 86,9  | 89,1  | 89,1  |
|  | A    | dB(A) | 83,6               | 86,1  | 81,9  | 84,5  | 82,9   | 85,2   | 82,9   | 85,1   | 87,5   | 85,8   | 85,9   | 88,2  | 85,9  | 88,1  | 88,1  |
|  | E    | dB(A) | 76,7               | 80,1  | 76,5  | 78,3  | 75,2   | 78,5   | 75,2   | 78,4   | 81,3   | 80,0   | 78,2   | 81,5  | 78,2  | 81,4  | 81,4  |
| <b>Intake plus machine body</b>  |      |       |                    |       |       |       |        |        |        |        |        |        |        |       |       |       |       |
| Sound power level  | °    | dB(A) | 78,4               | 80,1  | 79,2  | 81,0  | 83,8   | 86,4   | 84,8   | 85,6   | 83,9   | 85,1   | 86,7   | 87,7  | 87,2  | 89,3  | 89,3  |
|  | A    | dB(A) | 78,7               | 80,1  | 80,0  | 81,2  | 86,1   | 87,4   | 86,1   | 87,1   | 84,0   | 86,5   | 89,1   | 92,5  | 89,1  | 90,1  | 90,4  |
|  | E    | dB(A) | 76,8               | 76,7  | 78,6  | 79,2  | 84,2   | 85,1   | 84,1   | 84,7   | 81,0   | 82,4   | 86,2   | 89,7  | 86,2  | 86,6  | 86,8  |

## DIMENSIONS



| Size   |      | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b>             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E | mm   | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
|  | °    | mm   | 1750 | 1750 | 1750 | 1750 | 1750 | 3150 | 3150 | 3150 | 3500 | 3500 | 3500 | 4900 | 6300 | 6300 |
| B  | A,E  | mm   | 1750 | 1750 | 1750 | 1750 | 3150 | 3150 | 3150 | 3150 | 3500 | 4900 | 6300 | 6300 | 6300 | 6300 |
| C  | °A,E | mm   | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|  | °    | kg   | 759  | 759  | 787  | 798  | 994  | 1409 | 1415 | 1450 | 1510 | 1682 | 1858 | 2294 | 2692 | 2775 |
| Empty weight                                   | A,E  | kg   | 775  | 775  | 809  | 813  | 1432 | 1436 | 1470 | 1485 | 1553 | 2156 | 2728 | 2744 | 2818 | 2844 |
|  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Size   |      | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
| <b>Integrated hydronic kit: 01, 03, 05, 07</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E | mm   | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
|  | °    | mm   | 3400 | 3400 | 3400 | 3400 | 3500 | 4150 | 4150 | 4150 | 5250 | 4900 | 5250 | 5900 | 7300 | 7300 |
| B  | A,E  | mm   | 3400 | 3400 | 3400 | 3400 | 4150 | 4150 | 4150 | 4150 | 5250 | 5900 | 7300 | 7300 | 7300 | 7300 |
| C  | °A,E | mm   | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|  | °    | kg   | 973  | 973  | 1001 | 1022 | 1479 | 1691 | 1707 | 1741 | 1889 | 2061 | 2259 | 2599 | 3018 | 3101 |
| Empty weight                                   | A,E  | kg   | 989  | 989  | 1023 | 1038 | 1715 | 1719 | 1761 | 1777 | 1931 | 2438 | 3035 | 3050 | 3144 | 3170 |
|  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Size   |      | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
| <b>Integrated hydronic kit: 02, 04, 06, 08</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E | mm   | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
|  | °    | mm   | 3400 | 3400 | 3400 | 3400 | 3500 | 4150 | 4150 | 4150 | 5250 | 4900 | 5250 | 5900 | 7300 | 7300 |
| B  | A,E  | mm   | 3400 | 3400 | 3400 | 3400 | 4150 | 4150 | 4150 | 4150 | 5250 | 5900 | 7300 | 7300 | 7300 | 7300 |
| C  | °A,E | mm   | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|  | °    | kg   | 1016 | 1016 | 1044 | 1076 | 1533 | 1745 | 1770 | 1804 | 1942 | 2114 | 2334 | 2674 | 3114 | 3197 |
| Empty weight                                   | A,E  | kg   | 1032 | 1032 | 1066 | 1091 | 1768 | 1772 | 1824 | 1840 | 1985 | 2492 | 3110 | 3126 | 3240 | 3266 |
|  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Size   |      | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
| <b>Integrated hydronic kit: P1, P3, P5, P7</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E | mm   | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
|  | °    | mm   | 2500 | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 4250 | 4250 | 7300 | 4900 | 6300 | 6300 |
| B  | A,E  | mm   | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 3150 | 4250 | 4900 | 6300 | 6300 | 6300 | 6300 |
| C  | °A,E | mm   | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|  | °    | kg   | 888  | 888  | 916  | 937  | 1146 | 1468 | 1483 | 1518 | 1664 | 1836 | 2041 | 2375 | 2793 | 2876 |
| Empty weight                                   | A,E  | kg   | 904  | 904  | 939  | 953  | 1491 | 1495 | 1538 | 1554 | 1707 | 2215 | 2809 | 2825 | 2919 | 2945 |
|  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Size   |      | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
| <b>Integrated hydronic kit: P2, P4, P6, P8</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | °A,E | mm   | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
|  | °    | mm   | 2500 | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 4250 | 4250 | 7300 | 4900 | 6300 | 6300 |
| B  | A,E  | mm   | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 3150 | 4250 | 4900 | 6300 | 6300 | 6300 | 6300 |
| C  | °A,E | mm   | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|  | °    | kg   | 931  | 960  | 991  | 1199 | 1522 | 1546 | 1581 | 1718 | 1890 | 2117 | 2451 | 2888 | 2972 | 3054 |
| Empty weight                                   | A    | kg   | 948  | 948  | 982  | 1007 | 1545 | 1549 | 1601 | 1617 | 1760 | 2268 | 2885 | 2900 | 3014 | 3040 |
|  | E    | kg   | 948  | 948  | 982  | 1007 | 1545 | 1549 | 1601 | 1617 | 1760 | 2268 | 2885 | 2900 | 3014 | 3040 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NLC 0280H-1250H

## Reversible air/water heat pump

Cooling capacity 53 ÷ 322 kW – Heating capacity 55 ÷ 342 kW



- High efficiency also at partial loads
- Complete air flow versatility
- EC fan Plug-fan with high performance



### DESCRIPTION

Reversible heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

Indoor units with Scroll compressors, centrifugal fans and plate heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Work up to 44°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software / technical documentation.

#### Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.

In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

#### Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**FLG:** Flange for ducts.

**FILW:** Water filter

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**KRB:** Electric anti-freeze resistance kit for base.

**KRQ:** Electric heater for the control and electric power board.

**KRA:** Anti-freeze electric heater for the buffer tank.

**C-TOUCH:** 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

## COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Water filter

| Ver  | 0280              | 0300              | 0330              | 0350              | 0550              | 0600              | 0650              | 0675              |
|------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| A, E | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN50 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) | FILTRO W DN65 (1) |

(1) Installation is mandatory, contrarily guarantee becomes void.

| Ver  | 0700              | 0750              | 0800              | 0900              | 1000              | 1100              | 1250              |
|------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| A, E | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) | FILTRO W DN80 (1) |

(1) Installation is mandatory, contrarily guarantee becomes void.

### Flange for ducts

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550         | 0600         | 0650         | 0675         |
|------|------|------|------|------|--------------|--------------|--------------|--------------|
| A, E | FLG1 | FLG1 | FLG1 | FLG1 | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) | FLG2 x 2 (1) |

(1) x... indicates the quantity to buy.

| Ver  | 0700         | 0750                | 0800         | 0900         | 1000         | 1100         | 1250         |
|------|--------------|---------------------|--------------|--------------|--------------|--------------|--------------|
| A, E | FLG1 x 2 (1) | FLG1 + FLG2 x 2 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) | FLG2 x 4 (1) |

(1) x... indicates the quantity to buy.

### Antivibration

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b>                             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT17 | VT17 | VT17 | VT17 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT11 | VT11 | VT11 | VT11 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
| <b>Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A, E   | VT13 | VT13 | VT13 | VT13 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

### Antivibration

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900   | 1000   | 1100   | 1250   |
|--|------|------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b>             |      |      |      |      |        |        |        |        |        |        |        |        |        |        |        |
| A, E   | -    | -    | -    | -    | AVX410 | AVX410 | AVX410 | AVX410 | AVX410 | AVX416 | AVX418 | AVX418 | AVX420 | AVX420 | AVX420 |
| <b>Integrated hydronic kit: 01, 02, 03, 04</b> |      |      |      |      |        |        |        |        |        |        |        |        |        |        |        |
| A, E   | -    | -    | -    | -    | AVX412 | AVX412 | AVX412 | AVX412 | AVX415 | AVX417 | AVX419 | AVX419 | AVX419 | AVX419 | AVX419 |
| <b>Integrated hydronic kit: 05, 06, 07, 08</b> |      |      |      |      |        |        |        |        |        |        |        |        |        |        |        |
| A  | -    | -    | -    | -    | AVX423 | AVX412 | AVX412 | AVX412 | AVX415 | AVX417 | AVX419 | AVX419 | AVX419 | AVX419 | AVX419 |
| E  | -    | -    | -    | -    | AVX412 | AVX412 | AVX412 | AVX412 | AVX415 | AVX417 | AVX419 | AVX419 | AVX419 | AVX419 | AVX419 |
| <b>Integrated hydronic kit: P1, P3, P5, P7</b> |      |      |      |      |        |        |        |        |        |        |        |        |        |        |        |
| A, E   | -    | -    | -    | -    | AVX410 | AVX410 | AVX410 | AVX410 | AVX413 | AVX416 | AVX418 | AVX418 | AVX420 | AVX420 | AVX420 |
| <b>Integrated hydronic kit: P2, P4, P6, P8</b> |      |      |      |      |        |        |        |        |        |        |        |        |        |        |        |
| A, E   | -    | -    | -    | -    | AVX411 | AVX411 | AVX411 | AVX411 | AVX414 | AVX416 | AVX418 | AVX418 | AVX420 | AVX420 | AVX420 |

The accessory cannot be fitted on the configurations indicated with -



**DRE: Device for peak current reduction**

| Ver  | 0280       | 0300       | 0330       | 0350       | 0550       | 0600       | 0650       | 0675       |
|------|------------|------------|------------|------------|------------|------------|------------|------------|
| A, E | DRE275 (1) | DRE275 (1) | DRE300 (1) | DRE350 (1) | DRE552 (1) | DRE602 (1) | DRE652 (1) | DRE675 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

| Ver  | 0700       | 0750       | 0800       | 0900       | 1000       | 1100       | 1250        |
|------|------------|------------|------------|------------|------------|------------|-------------|
| A, E | DRE350 x 2 | DRE552 x 2 | DRE552 x 2 | DRE602 x 2 | DRE652 x 2 | DRE675 x 2 | DRE1250 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

**Power factor correction**

| Ver  | 0280    | 0300    | 0330    | 0350    | 0550    | 0600    | 0650    | 0675    |
|------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E | RIFNLC1 | RIFNLC1 | RIFNLC2 | RIFNLC3 | RIFNLC1 | RIFNLC1 | RIFNLC1 | RIFNLC4 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 0700            | 0750                  | 0800            | 0900            | 1000            | 1100            | 1250            |
|------|-----------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| A, E | RIFNLC3 x 2 (1) | RIFNLC3 + RIFNLC2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC1 x 2 (1) | RIFNLC4 x 2 (1) | RIFNLC3 x 2 (1) |

(1) x... indicates the quantity to buy.  
A grey background indicates the accessory must be assembled in the factory

**Anti-condensate electric board resistance**

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A, E | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  | KRQ  |

A grey background indicates the accessory must be assembled in the factory

**Anti-freeze electric heater for the storage tank**

| Ver  | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| A, E | KRA1 | KRA1 | KRA1 | KRA1 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 | KRA2 |

A grey background indicates the accessory must be assembled in the factory

**Electric heater for the base**

| Ver  | 0280      | 0300      | 0330      | 0350      | 0550      | 0600      | 0650      | 0675      | 0700      | 0750      | 0800      | 0900      | 1000      | 1100      | 1250      |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| A, E | KRB21 (1) | KRB21 (1) | KRB21 (1) | KRB21 (1) | KRB22 (1) | KRB22 (1) | KRB22 (1) | KRB22 (1) | KRB23 (1) | KRB24 (1) | KRB25 (1) | KRB25 (1) | KRB25 (1) | KRB25 (1) | KRB25 (1) |

(1) Incompatible with the condensate collection basin accessory with integrated resistance.  
A grey background indicates the accessory must be assembled in the factory

**CONFIGURATOR**

| Field   | Description  |
|---------|--|
| 1,2,3   | NLC  |
| 4,5,6,7 | Size<br>0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250 |
| 8       | Operating field (1)  |
| X       | Electronic thermostatic expansion valve  |
| °       | Standard mechanic thermostatic valve   |
| 9       | Model  |
| H       | Heat pump  |
| 10      | Heat recovery  |
| D       | With desuperheater (2)   |
| °       | Without heat recovery  |
| 11      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| 12      | Coils  |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins  |
| V       | Copper pipes-Coated aluminium fins   |
| °       | Copper-aluminium   |
| 13      | Fans   |
| J       | Inverter   |
| 14      | Power supply   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers   |
| 15,16   | Integrated hydronic kit  |

| Field | Description   |
|-------|---|
| 00    | Without hydronic kit  |
|       | <b>Kit with storage tank and pump/s</b>                             |
| 01    | Storage tank with low head pump                                     |
| 02    | Storage tank with low head pump + stand-by pump                     |
| 03    | Storage tank with high head pump                                    |
| 04    | Storage tank with high head pump + stand-by pump                    |
|       | <b>Kit with storage tank and inverter pump/s</b>                    |
| 05    | Storage tank with low-head inverter pump                            |
| 06    | Storage tank with low head inverter pump + stand-by pump            |
| 07    | Storage tank with high head inverter pump                           |
| 08    | Storage tank with high head inverter pump + stand-by pump           |
|       | <b>Kit with pump/s</b>  |
| P1    | Single pump low head  |
| P2    | Pump low head + stand-by pump                                       |
| P3    | Single pump high head   |
| P4    | Pump high head + stand-by pump                                      |
|       | <b>Kit with pump/s, with inverter speed</b>                         |
| P5    | Single low head pump + fixed speed inverter (3)                     |
| P6    | Single low head pump with fixed speed inverter + stand-by pump (3)  |
| P7    | Single high head pump + fixed speed inverter (3)                    |
| P8    | Single high head pump with fixed speed inverter + stand-by pump (3) |

- (1) Water produced from 4 °C ÷ 18 °C  
(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.  
(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

## PERFORMANCE SPECIFICATIONS

### NLC - HA / HE

| Size   |     |     | 0280 | 0300  | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|--|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                               |     |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | A   | kW  | 54,4 | 60,4  | 66,7  | 78,6  | 102,5 | 115,3 | 126,0 | 143,4 | 158,1 | 181,1 | 202,0 | 232,5 | 252,7 | 287,1 | 316,5 |
|  | E   | kW  | 52,1 | 58,2  | 63,5  | 75,0  | 97,8  | 110,6 | 118,5 | 136,8 | 150,2 | 172,1 | 192,7 | 223,8 | 242,2 | 273,7 | 305,0 |
| Input power                                  | A   | kW  | 20,0 | 22,5  | 24,4  | 28,6  | 37,7  | 43,4  | 46,9  | 54,6  | 57,4  | 66,3  | 74,7  | 87,1  | 93,6  | 108,9 | 127,4 |
|  | E   | kW  | 20,4 | 23,0  | 25,5  | 29,4  | 40,1  | 46,0  | 49,1  | 56,5  | 58,8  | 67,2  | 79,8  | 90,2  | 97,1  | 112,6 | 128,0 |
| Cooling total input current                  | A   | A   | 36,0 | 41,0  | 45,0  | 56,0  | 68,0  | 77,0  | 81,0  | 96,0  | 112,0 | 121,0 | 136,0 | 155,0 | 162,0 | 192,0 | 219,0 |
|  | E   | A   | 36,0 | 40,0  | 45,0  | 55,0  | 69,0  | 77,0  | 83,0  | 95,0  | 111,0 | 121,0 | 139,0 | 153,0 | 166,0 | 191,0 | 218,0 |
| EER  | A   | W/W | 2,72 | 2,69  | 2,73  | 2,75  | 2,72  | 2,66  | 2,69  | 2,63  | 2,75  | 2,73  | 2,70  | 2,67  | 2,70  | 2,64  | 2,48  |
|  | E   | W/W | 2,55 | 2,53  | 2,49  | 2,55  | 2,44  | 2,40  | 2,41  | 2,42  | 2,55  | 2,56  | 2,42  | 2,48  | 2,49  | 2,43  | 2,38  |
| Water flow rate system side                  | A   | l/h | 9368 | 10396 | 11480 | 13535 | 17638 | 19855 | 21700 | 24691 | 27213 | 31158 | 34751 | 40001 | 43480 | 49382 | 54436 |
|  | E   | l/h | 8967 | 10021 | 10934 | 12905 | 16829 | 19040 | 20401 | 23542 | 25847 | 29620 | 33162 | 38500 | 41662 | 47091 | 52474 |
| Pressure drop system side                    | A   | kPa | 21   | 25    | 23    | 30    | 24    | 29    | 35    | 35    | 26    | 25    | 34    | 34    | 36    | 38    | 44    |
|  | E   | kPa | 20   | 24    | 20    | 27    | 20    | 25    | 29    | 30    | 24    | 25    | 33    | 35    | 38    | 42    | 53    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | A,E | kW  | 56,4 | 63,5  | 70,7  | 82,6  | 109,8 | 122,4 | 137,1 | 156,5 | 168,5 | 193,6 | 218,3 | 244,7 | 273,4 | 312,4 | 348,1 |
| Input power                                  | A,E | kW  | 19,1 | 21,9  | 24,0  | 27,8  | 37,0  | 41,5  | 46,4  | 53,7  | 55,9  | 65,1  | 73,6  | 82,9  | 91,5  | 105,2 | 118,1 |
| Heating total input current                  | A,E | A   | 36,0 | 40,0  | 44,0  | 54,0  | 65,0  | 74,0  | 78,0  | 91,0  | 105,0 | 114,0 | 129,0 | 145,0 | 153,0 | 179,0 | 199,0 |
| COP  | A,E | W/W | 2,95 | 2,90  | 2,95  | 2,97  | 2,97  | 2,95  | 2,95  | 2,91  | 3,01  | 2,97  | 2,97  | 2,95  | 2,99  | 2,97  | 2,95  |
| Water flow rate system side                  | A,E | l/h | 9781 | 11023 | 12266 | 14321 | 19050 | 21235 | 23760 | 27154 | 29225 | 33591 | 37889 | 42470 | 47456 | 54236 | 60425 |
| Pressure drop system side                    | A,E | kPa | 22   | 27    | 25    | 32    | 27    | 32    | 40    | 41    | 29    | 28    | 38    | 37    | 41    | 43    | 52    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size   |     |     | 0280   | 0300   | 0330   | 0350   | 0550   | 0600   | 0650   | 0675   | 0700   | 0750   | 0800   | 0900   | 1000   | 1100   | 1250   |
|--|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |     |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>  |     |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A   | W/W | 4,48   | 4,50   | 4,52   | 4,71   | 4,89   | 4,74   | 4,65   | 4,52   | 4,38   | 4,33   | 4,51   | 4,47   | 4,36   | 4,29   | 4,08   |
|  | E   | W/W | 4,16   | 4,16   | 4,08   | 4,50   | 4,29   | 4,23   | 4,29   | 4,22   | 4,20   | 4,14   | 3,98   | 4,21   | 4,13   | 3,99   | 3,86   |
| η <sub>sc</sub>  | A   | %   | 176,10 | 177,10 | 177,80 | 185,20 | 192,50 | 186,40 | 183,10 | 177,70 | 172,20 | 170,30 | 177,50 | 175,80 | 171,40 | 168,70 | 160,00 |
|  | E   | %   | 163,20 | 163,50 | 160,30 | 177,10 | 168,50 | 166,00 | 168,40 | 165,90 | 165,00 | 162,60 | 156,20 | 165,30 | 162,20 | 156,40 | 151,40 |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - P<sub>designh</sub> ≤ 70 kW (1)</b> |     |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | A,E | W/W | 3,28   | 3,20   | 3,28   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| η <sub>sh</sub>  | A,E | %   | 128,00 | 125,00 | 128,00 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Efficiency energy class  | A,E |     | A+     | A+     | A+     | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |

(1) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |     |   | 0280  | 0300  | 0330  | 0350  | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800  | 0900  | 1000  | 1100  | 1250  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 52,2  | 55,6  | 62,0  | 71,4  | 103,0 | 110,9 | 118,8 | 131,8 | 142,8 | 167,1 | 206,0 | 221,8 | 237,6 | 263,6 | 289,6 |
| Peak current (LRA)    | A,E | A | 127,9 | 129,6 | 132,8 | 215,4 | 272,9 | 272,9 | 280,8 | 357,8 | 286,8 | 355,6 | 375,9 | 383,8 | 399,6 | 489,6 | 515,6 |

## GENERAL TECHNICAL DATA

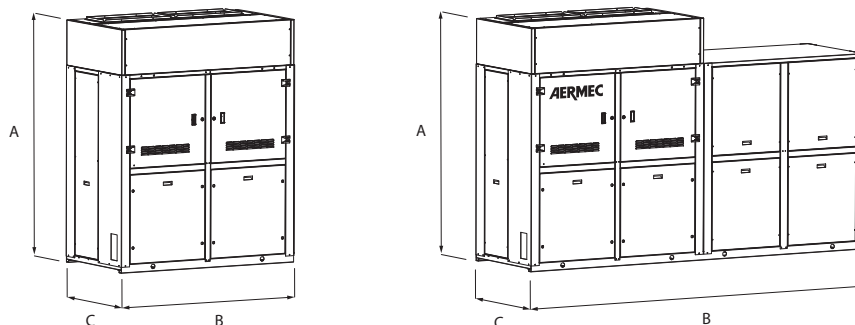
| Size                              |     |       | 0280               | 0300 | 0330 | 0350 | 0550  | 0600  | 0650  | 0675  | 0700  | 0750  | 0800 | 0900 | 1000 | 1100 | 1250 |
|-----------------------------------|-----|-------|--------------------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Fans: J</b>                    |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| <b>Compressor</b>                 |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Type                              | A,E | type  | Scroll             |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Compressor regulation             | A,E | Type  | On-Off             |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Number                            | A,E | no.   | 2                  | 2    | 2    | 2    | 2     | 2     | 2     | 2     | 4     | 4     | 4    | 4    | 4    | 4    | 4    |
| Circuits                          | A,E | no.   | 1                  | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 2     | 2     | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                       | A,E | type  | R410A              |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Refrigerant charge (1)            | A,E | kg    | 9,2                | 9,5  | 11,0 | 11,0 | 18,5  | 20,0  | 25,0  | 25,0  | 23,0  | 32,0  | 42,0 | 42,0 | 50,0 | 50,0 | 50,0 |
| <b>System side heat exchanger</b> |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Type                              | A,E | type  | Braze plate        |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Number                            | A,E | no.   | 1                  | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1    | 1    | 1    | 1    | 1    |
| <b>Hydraulic connections</b>      |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Connections (in/out)              | A,E | Type  | Grooved joints     |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Sizes (in/out)                    | A,E | Ø     | 2"                 | 2"   | 2"   | 2"   | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>Fan</b>                        |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Type                              | A,E | type  | Plug-fun           |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Fan motor                         | A,E | type  | EC Inverter motors |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Number                            | A,E | no.   | 2                  | 2    | 2    | 2    | 4     | 4     | 4     | 4     | 4     | 6     | 8    | 8    | 8    | 8    | 8    |
| <b>Machine exhaust</b>            |     |       |                    |      |      |      |       |       |       |       |       |       |      |      |      |      |      |
| Sound power level                 | A   | dB(A) | 84,1               | 87,9 | 86,3 | 88,9 | 85,2  | 87,9  | 86,4  | 89,5  | 91,9  | 86,7  | 88,2 | 90,9 | 89,4 | 92,5 | 92,5 |
|                                   | E   | dB(A) | 77,3               | 80,5 | 77,6 | 81,5 | 78,5  | 81,3  | 79,4  | 83,2  | 84,5  | 79,4  | 81,5 | 84,3 | 82,4 | 86,2 | 86,2 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                            |   |       | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|---------------------------------|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Intake plus machine body</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level               | A | dB(A) | 78,9 | 81,7 | 80,6 | 83,1 | 83,9 | 85,1 | 84,4 | 85,7 | 85,3 | 86,0 | 87,2 | 88,2 | 87,2 | 88,9 | 89,3 |
|                                 | E | dB(A) | 75,1 | 78,0 | 76,0 | 79,7 | 82,3 | 82,8 | 82,3 | 84,1 | 82,7 | 85,3 | 85,3 | 85,8 | 85,3 | 87,1 | 88,2 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## DIMENSIONS



| Size   |     |    | 0280 | 0300 | 0330 | 0350 | 0550 | 0600 | 0650 | 0675 | 0700 | 0750 | 0800 | 0900 | 1000 | 1100 | 1250 |
|--|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>                              |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B  | A,E | mm | 1750 | 1750 | 1750 | 1750 | 3150 | 3150 | 3150 | 3150 | 3500 | 4900 | 6300 | 6300 | 6300 | 6300 | 6300 |
| C  | A,E | mm | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Empty weight   | A,E | kg | 790  | 790  | 828  | 832  | 1452 | 1456 | 1492 | 1507 | 1586 | 2194 | 2768 | 2783 | 2863 | 2889 | 2903 |
| <b>Dimensions and weights with pump/s</b>                  |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B  | A,E | mm | 2500 | 2500 | 2500 | 2500 | 3150 | 3150 | 3150 | 4250 | 4900 | 6300 | 6300 | 6300 | 6300 | 6300 | 6300 |
| C  | A,E | mm | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| <b>Dimensions and weights with storage tank and pump/s</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A  | A,E | mm | 2154 | 2154 | 2154 | 2154 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 | 2196 |
| B  | A,E | mm | 3400 | 3400 | 3400 | 3400 | 4150 | 4150 | 4150 | 4150 | 5250 | 5900 | 7300 | 7300 | 7300 | 7300 | 7300 |
| C  | A,E | mm | 950  | 950  | 950  | 950  | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## NSM 1402-9603

## Air-water chiller

Cooling capacity 302 ÷ 2100 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **HP floating: ESEER +5% with inverter fans**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with high-efficiency screw compressors axial fans, micro-channel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A High efficiency
- E Silenced high efficiency
- L Standard silenced
- N Silenced very high efficiency
- U Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 51 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

#### Inverter fans

**Standard inverter fans for sizes and versions (°) from 2002 to 9603, optional for other sizes and versions. Option for all configurations.**

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

- *As standard from size 5202÷6402 and 8403÷9603, optional for all other sizes.*

### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO<sub>5</sub>

**Units include 1 control board for each compressor.**

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load. **ESEER up to +5% with inverter fans**
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.
- Possibility to control two units in a Master-Slave configuration (from size 1402 to 6402)

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud con-

nection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

## ACCESSORIES COMPATIBILITY

| Model            | Ver        | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model            | Ver        | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
|                  | °A,L       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AER485P1 x no. 3 | E,U        |      |      |      |      |      |      |      | *    | *    | *    | *    |      |      |
|                  | N          |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERBACP x no. 2  | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
|                  | °A,L       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 3  | E,U        |      |      |      |      |      |      |      | *    | *    | *    | *    |      |      |
|                  | N          |      |      |      |      |      |      |      | *    |      |      |      |      |      |
|                  | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

|         | Ver         | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        | 3002        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: M |             |             |             |             |             |             |             |             |             |             |             |
| °       | DCPX110     | DCPX110     | DCPX110     | DCPX110     | DCPX110     | DCPX110     | DCPX110     | DCPX110     | DCPX111     | DCPX111     | DCPX112     |
| A       | DCPX111     | DCPX111     | DCPX111     | DCPX111     | DCPX111     | DCPX112     | DCPX112     | DCPX112     | DCPX113     | DCPX113     | DCPX113     |
| E, L, N | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| U       | DCPX111     | DCPX111     | DCPX112     | DCPX112     | DCPX112     | DCPX113     | DCPX113     | DCPX114     | DCPX114     | DCPX114     | DCPX114     |

|         | Ver         | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        | 5602        | 6002        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fans: M |             |             |             |             |             |             |             |             |             |             |             |
| °       | DCPX112     | DCPX112     | DCPX112     | DCPX113     | DCPX113     | DCPX114     | DCPX114     | DCPX114     | DCPX115     | DCPX115     | DCPX115     |
| A       | DCPX113     | DCPX114     | DCPX114     | DCPX115     | DCPX115     | DCPX116     | DCPX116     | DCPX116     | DCPX117     | DCPX117     | DCPX118     |
| E, N    | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |
| L       | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | -           | -           |
| U       | DCPX114     | DCPX115     | DCPX115     | DCPX116     | DCPX117     | DCPX117     | DCPX118     | DCPX118     | DCPX119     | DCPX130     | DCPX131     |

|         | Ver         | 6402            | 6503            | 6703            | 6903            | 7203            | 8403            | 9603            |
|---------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Fans: M |             |                 |                 |                 |                 |                 |                 |                 |
| °       | DCPX116     | DCPX135+DCPX113 | DCPX135+DCPX113 | DCPX125+DCPX114 | DCPX114+DCPX136 | DCPX114+DCPX136 | DCPX114+DCPX136 | DCPX114+DCPX136 |
| A       | DCPX118     | DCPX115+DCPX136 | DCPX115+DCPX136 | DCPX116+DCPX136 | DCPX116+DCPX136 | DCPX117+DCPX136 | DCPX117+DCPX136 | DCPX118+DCPX137 |
| E       | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | -               | -               |
| L       | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | As standard     | -               |
| N       | As standard | As standard     | -               | -               | -               | -               | -               | -               |
| U       | DCPX132     | DCPX116+DCPX137 | DCPX117+DCPX137 | DCPX117+DCPX137 | DCPX118+DCPX137 | DCPX118+DCPX137 | -               | -               |

## Antivibration

|   | Ver    | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °   | AVX900 | AVX900 | AVX900 | AVX904 | AVX904 | AVX904 | AVX904 | AVX904 | AVX904 | AVX904 | AVX959 | AVX959 | AVX960 | AVX960 | AVX911 |
| A, L  | AVX901 | AVX901 | AVX901 | AVX904 | AVX959 | AVX959 | AVX959 | AVX903 | AVX903 | AVX903 | AVX903 | AVX909 | AVX909 | AVX909 | AVX907 |
| E, U  | AVX901 | AVX901 | AVX959 | AVX959 | AVX959 | AVX903 | AVX903 | AVX906 | AVX906 | AVX906 | AVX906 | AVX906 | AVX907 | AVX907 | AVX912 |
| N   | AVX959 | AVX959 | AVX903 | AVX903 | AVX903 | AVX906 | AVX906 | AVX907 | AVX907 | AVX907 | AVX907 | AVX907 | AVX912 | AVX910 | AVX913 |

| Ver  | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00, TF, TG, TH, TI, TJ</b>                 |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX911 | AVX909 | AVX909 | AVX907 | AVX907 | AVX907 | AVX912 | AVX914 | AVX914 | AVX915 | AVX916 | AVX916 | AVX916 |
| A, L   | AVX907 | AVX912 | AVX912 | AVX912 | AVX910 | AVX913 | AVX913 | AVX924 | AVX924 | AVX925 | AVX925 | AVX927 | AVX926 |
| E, U   | AVX910 | AVX910 | AVX913 | AVX913 | AVX920 | AVX917 | AVX918 | AVX925 | AVX927 | AVX927 | AVX928 | -      | -      |
| N  | AVX913 | AVX917 | AVX918 | AVX919 | AVX921 | AVX921 | AVX921 | AVX926 | -      | -      | -      | -      | -      |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, PA, PB, PC, PD, PE</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX911 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| A, L   | AVX907 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| E, U   | AVX910 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| N  | AVX913 | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| <b>Integrated hydronic kit: DF, DG, DH, DI, DJ, PF, PG, PH, PI, PJ</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °  | AVX911 | AVX909 | AVX909 | AVX907 | AVX907 | AVX907 | AVX912 | -      | -      | -      | -      | -      | -      |
| A, L   | AVX907 | AVX912 | AVX912 | AVX912 | AVX910 | AVX913 | AVX913 | -      | -      | -      | -      | -      | -      |
| E, U   | AVX910 | AVX910 | AVX913 | AVX913 | AVX920 | AVX917 | AVX918 | -      | -      | -      | -      | -      | -      |
| N  | AVX913 | AVX917 | AVX918 | AVX919 | AVX921 | AVX921 | AVX921 | -      | -      | -      | -      | -      | -      |

### Power factor correction

| Ver  | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802Q |
| A, L | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802C |
| E    | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| N    | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802C | RIFNSM2002Q | RIFNSM2202C | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| U    | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002C | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3002        | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        |
|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °          | RIFNSM3002Q | RIFNSM3202Q | RIFNSM3402Q | RIFNSM3602Q | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| A, E, L, U | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| N          | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver     | 5602        | 6002        | 6402        | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|---------|-------------|-------------|-------------|------|------|------|------|------|------|
| °, A, L | RIFNSM5602C | RIFNSM6002C | RIFNSM6402C | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

### Grids

| Ver  | 1402 | 1602 | 1802  | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 |
|------|------|------|-------|------|------|------|------|------|------|
| °    | GP3V | GP3V | GP3V  | GP4V | GP4V | GP4V | GP4V | GP4V | GP4V |
| A, L | GP4V | GP4V | GP4VN | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V |
| E, U | GP4V | GP4V | GP5V  | GP5V | GP5V | GP6V | GP6V | GP7V | GP7V |
| N    | GP5V | GP5V | GP6V  | GP6V | GP6V | GP7V | GP7V | GP8V | GP8V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 3002 | 3202 | 3402 | 3602  | 3902  | 4202  | 4502      | 4802      | 5202      |
|------|------|------|------|-------|-------|-------|-----------|-----------|-----------|
| °    | GP5V | GP5V | GP5V | GP5V  | GP6V  | GP6V  | GP7V      | GP7V      | GP8V      |
| A, L | GP6V | GP6V | GP7V | GP7V  | GP8V  | GP8V  | GP9V      | GP9V      | GP9V      |
| E, U | GP7V | GP7V | GP8V | GP8V  | GP9V  | GP10V | GP10V     | GP11V     | GP11V     |
| N    | GP8V | GP8V | GP9V | GP10V | GP11V | GP11V | GP6V+GP7V | GP7V+GP7V | GP7V+GP8V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 5602      | 6002      | 6402      | 6503       | 6703       | 6903       | 7203       | 8403       | 9603       |
|------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| °    | GP8V      | GP8V      | GP9V      | GP9V       | GP9V       | GP10V      | GP11V      | GP11V      | GP11V      |
| A, L | GP11V     | GP11V     | GP11V     | GP4V+GP8V  | GP4V+GP8V  | GP5V+GP9V  | GP5V+GP9V  | GP5V+GP10V | GP6V+GP11V |
| E, U | GP6V+GP6V | GP6V+GP7V | GP7V+GP7V | GP5V+GP9V  | GP5V+GP10V | GP5V+GP10V | GP6V+GP11V | -          | -          |
| N    | GP8V+GP8V | GP8V+GP8V | GP8V+GP8V | GP6V+GP11V | -          | -          | -          | -          | -          |

A grey background indicates the accessory must be assembled in the factory

### Heater exchangers

| Ver     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| °, A, L | KRS22 | KRS22 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |
| E, N, U | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002  | 3202  | 3402  | 3602  | 3902  | 4202  | 4502        | 4802        | 5202        |
|---------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------------|
| °       | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23       | KRS24       | KRS24       |
| A, E, L | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24       | KRS24       | KRS24       |
| N       | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24       | KRS23+KRS23 | KRS23+KRS23 |
| U       | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS23+KRS23 | KRS24       | KRS24       |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 5602        | 6002        | 6402        | 6503        | 6703        | 6903        | 7203        | 8403        | 9603        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       |
| A, L | KRS24       | KRS24       | KRS24       | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 |
| E, U | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | -           | -           |
| N    | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | -           | -           | -           | -           | -           |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NSM</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Y              | Low temperature mechanic thermostatic valve (2)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| °              | Standard mechanic thermostatic valve (3)  |
| <b>9</b>       | <b>Model</b>  |
| C              | Motocondensing unit (4)   |
| °              | Cooling only  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (5)  |
| T              | With total recovery (6)   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| L              | Standard silenced   |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils</b>  |
| I              | Copper-aluminium  |
| O              | Coated aluminium microchannel   |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Aluminium microchannel  |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized   |
| <b>14</b>      | <b>Power supply</b>   |
| 8              | 400V~3 50Hz with magnet circuit breakers  |
| °              | 400V~3 50Hz with fuses  |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |

| Field | Description                           |
|-------|---------------------------------------|
|       | <b>Without hydronic kit</b>           |
| 00    | Without hydronic kit                  |
|       | <b>Kit with n° 1 pump</b>             |
| PA    | Pump A                                |
| PB    | Pump B                                |
| PC    | Pump C                                |
| PD    | Pump D                                |
| PE    | Pump E                                |
| PF    | Pump F                                |
| PG    | Pump G                                |
| PH    | Pump H                                |
| PI    | Pump I                                |
| PJ    | Pump J                                |
|       | <b>Pump n° 1 pump + stand-by pump</b> |
| DA    | Pump A + stand-by pump                |
| DB    | Pump B + stand-by pump                |
| DC    | Pump C + stand-by pump                |
| DD    | Pump D + stand-by pump                |
| DE    | Pump E + stand-by pump                |
| DF    | Pump F + stand-by pump                |
| DG    | Pump G + stand-by pump                |
| DH    | Pump H + stand-by pump                |
| DI    | Pump I + stand-by pump                |
| DJ    | Pump J + stand-by pump                |
|       | <b>Kit with 2 pumps</b>               |
| TF    | Double pump F (7)                     |
| TG    | Double pump G (7)                     |
| TH    | Double pump H (7)                     |
| TI    | Double pump I (7)                     |
| TJ    | Double pump J (7)                     |

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from 4 °C ÷ - 8 °C

(3) Water produced from 4 °C ÷ 15 °C

(4) The motor condensing units are not configurable with option D and T, and with the integrated hydronic kit

(5) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(6) The models 1402° - 1602° - 1802° cannot have total recovery, which is available for all the other sizes and versions. If it is necessary to have total recovery as well as the hydronic kit, feasibility must be evaluated when ordering.

(7) The unit from 5602 to 9603 can only have hydronic kit "TF - TG - TH - TI - TJ"

## PERFORMANCE SPECIFICATIONS

### NSM - °

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 307,5 | 348,9 | 397,0 | 450,3 | 489,4 | 524,7 | 543,8 | 577,3 | 613,8  | 680,5  | 725,1  | 770,1  | 813,8  | 906,1  |
| Input power                                 | kW  | 104,8 | 121,0 | 139,0 | 152,8 | 166,4 | 180,6 | 193,9 | 210,5 | 226,5  | 232,7  | 247,5  | 272,1  | 298,3  | 316,2  |
| Cooling total input current                 | A   | 182,0 | 207,0 | 229,0 | 257,0 | 281,0 | 306,0 | 329,0 | 356,0 | 381,0  | 392,0  | 414,0  | 447,0  | 484,0  | 520,0  |
| EER   | W/W | 2,93  | 2,88  | 2,86  | 2,95  | 2,94  | 2,91  | 2,81  | 2,74  | 2,71   | 2,92   | 2,93   | 2,83   | 2,73   | 2,87   |
| Water flow rate system side                 | l/h | 52881 | 59999 | 68270 | 77459 | 84185 | 90223 | 93509 | 99261 | 105543 | 117009 | 124685 | 132413 | 139916 | 155801 |
| Pressure drop system side                   | kPa | 27    | 36    | 38    | 49    | 57    | 26    | 28    | 33    | 35     | 39     | 42     | 47     | 38     | 46     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NSM °

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 958,5  | 1051,2 | 1099,1 | 1168,1 | 1195,0 | 1237,7 | 1327,6 | 1393,8 | 1439,8 | 1578,6 | 1669,7 | 1742,2 | 1859,9 |
| Input power                                 | kW  | 345,9  | 360,3  | 388,1  | 403,4  | 430,8  | 453,1  | 460,3  | 488,6  | 517,2  | 559,8  | 575,1  | 659,2  | 730,6  |
| Cooling total input current                 | A   | 573,0  | 597,0  | 641,0  | 668,0  | 712,0  | 749,0  | 766,0  | 806,0  | 857,0  | 927,0  | 966,0  | 1103,0 | 1230,0 |
| EER   | W/W | 2,77   | 2,92   | 2,83   | 2,90   | 2,77   | 2,73   | 2,88   | 2,85   | 2,78   | 2,82   | 2,90   | 2,64   | 2,55   |
| Water flow rate system side                 | l/h | 164794 | 180726 | 188953 | 200816 | 205451 | 212795 | 228246 | 239604 | 247511 | 271348 | 287011 | 299461 | 319697 |
| Pressure drop system side                   | kPa | 41     | 48     | 42     | 46     | 48     | 55     | 62     | 44     | 46     | 30     | 33     | 36     | 40     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NSM - L

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 302,4 | 344,0 | 392,7 | 428,1 | 490,9 | 513,8 | 537,4 | 583,4  | 602,8  | 664,4  | 709,1  | 771,0  | 826,1  | 908,8  |
| Input power                                 | kW  | 102,7 | 117,2 | 135,7 | 155,9 | 167,8 | 179,4 | 192,5 | 202,9  | 215,3  | 238,3  | 261,2  | 265,4  | 296,6  | 316,1  |
| Cooling total input current                 | A   | 173,0 | 196,0 | 218,0 | 254,0 | 277,0 | 297,0 | 319,0 | 336,0  | 354,0  | 391,0  | 426,0  | 429,0  | 473,0  | 509,0  |
| EER   | W/W | 2,94  | 2,94  | 2,89  | 2,75  | 2,93  | 2,86  | 2,79  | 2,88   | 2,80   | 2,79   | 2,72   | 2,91   | 2,79   | 2,88   |
| Water flow rate system side                 | l/h | 52016 | 59162 | 67531 | 73600 | 84402 | 88342 | 92402 | 100313 | 103652 | 114244 | 121903 | 132545 | 142018 | 156242 |
| Pressure drop system side                   | kPa | 27    | 36    | 38    | 18    | 24    | 25    | 28    | 33     | 31     | 36     | 23     | 23     | 25     | 32     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NSM - L

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 949,7  | 1032,5 | 1076,9 | 1122,7 | 1183,7 | 1254,5 | 1295,6 | 1395,1 | 1436,6 | 1605,1 | 1649,4 | 1758,0 | 1946,7 |
| Input power                                 | kW  | 348,7  | 365,9  | 395,0  | 428,8  | 442,3  | 453,2  | 476,4  | 491,5  | 523,6  | 556,9  | 586,7  | 660,2  | 713,5  |
| Cooling total input current                 | A   | 567,0  | 593,0  | 638,0  | 693,0  | 716,0  | 736,0  | 776,0  | 793,0  | 849,0  | 914,0  | 960,0  | 1067,0 | 1163,0 |
| EER   | W/W | 2,72   | 2,82   | 2,73   | 2,62   | 2,68   | 2,77   | 2,72   | 2,84   | 2,74   | 2,88   | 2,81   | 2,66   | 2,73   |
| Water flow rate system side                 | l/h | 163268 | 177512 | 185148 | 193004 | 203496 | 215669 | 222723 | 239820 | 246956 | 275911 | 283536 | 302181 | 334622 |
| Pressure drop system side                   | kPa | 34     | 44     | 46     | 33     | 36     | 42     | 45     | 33     | 34     | 45     | 47     | 34     | 45     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NSM - A

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 315,6 | 360,2 | 415,2 | 461,4 | 509,5 | 544,9 | 576,9 | 620,9  | 658,9  | 699,4  | 741,7  | 800,6  | 884,3  | 955,2  |
| Input power                                 | kW  | 99,0  | 113,7 | 133,7 | 148,3 | 161,8 | 173,6 | 183,3 | 197,5  | 208,3  | 223,6  | 237,4  | 253,4  | 281,2  | 303,8  |
| Cooling total input current                 | A   | 175,0 | 198,0 | 223,0 | 250,0 | 278,0 | 298,0 | 314,0 | 340,0  | 355,0  | 378,0  | 399,0  | 421,0  | 459,0  | 502,0  |
| EER   | W/W | 3,19  | 3,17  | 3,11  | 3,11  | 3,15  | 3,14  | 3,15  | 3,14   | 3,16   | 3,13   | 3,12   | 3,16   | 3,15   | 3,14   |
| Water flow rate system side                 | l/h | 54280 | 61954 | 71417 | 79331 | 87600 | 93687 | 99196 | 106766 | 113293 | 120259 | 127516 | 137633 | 152015 | 164211 |
| Pressure drop system side                   | kPa | 30    | 39    | 43    | 21    | 26    | 28    | 32    | 37     | 37     | 40     | 25     | 25     | 29     | 36     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### NSM - A

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 1021,7 | 1084,5 | 1160,1 | 1213,2 | 1275,8 | 1352,3 | 1402,7 | 1462,2 | 1531,9 | 1682,9 | 1753,4 | 1908,6 | 2106,4 |
| Input power                                 | kW  | 328,5  | 347,0  | 371,7  | 389,2  | 410,5  | 432,6  | 451,5  | 466,3  | 493,4  | 534,6  | 560,2  | 614,3  | 673,3  |
| Cooling total input current                 | A   | 547,0  | 577,0  | 614,0  | 647,0  | 685,0  | 725,0  | 758,0  | 772,0  | 821,0  | 897,0  | 936,0  | 1017,0 | 1132,0 |
| EER   | W/W | 3,11   | 3,13   | 3,12   | 3,12   | 3,11   | 3,13   | 3,11   | 3,14   | 3,10   | 3,15   | 3,13   | 3,11   | 3,13   |
| Water flow rate system side                 | l/h | 175657 | 186457 | 199460 | 208561 | 219327 | 232478 | 241144 | 251345 | 263330 | 289291 | 301409 | 328062 | 362058 |
| Pressure drop system side                   | kPa | 39     | 49     | 53     | 38     | 42     | 49     | 52     | 36     | 39     | 49     | 53     | 41     | 52     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C



**NSM - E**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 319,6 | 368,5 | 417,6 | 472,4 | 514,2 | 543,2 | 579,6 | 615,2  | 652,1  | 695,4  | 740,6  | 796,5  | 881,6  | 951,8  |
| Input power                                 | kW  | 101,7 | 117,4 | 132,3 | 150,0 | 165,4 | 173,7 | 186,0 | 194,8  | 210,1  | 224,0  | 238,6  | 255,4  | 283,8  | 305,7  |
| Cooling total input current                 | A   | 171,0 | 196,0 | 214,0 | 245,0 | 272,0 | 288,0 | 309,0 | 324,0  | 347,0  | 367,0  | 389,0  | 411,0  | 450,0  | 490,0  |
| EER   | W/W | 3,14  | 3,14  | 3,16  | 3,15  | 3,11  | 3,13  | 3,12  | 3,16   | 3,10   | 3,11   | 3,10   | 3,12   | 3,11   | 3,11   |
| Water flow rate system side                 | l/h | 54958 | 63367 | 71800 | 81228 | 88406 | 93396 | 99657 | 105762 | 112115 | 119555 | 127316 | 136926 | 151562 | 163628 |
| Pressure drop system side                   | kPa | 15    | 14    | 18    | 21    | 24    | 26    | 30    | 24     | 26     | 29     | 26     | 25     | 29     | 36     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSM - E**

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                            | kW  | 1018,9 | 1082,1 | 1159,1 | 1206,7 | 1265,2 | 1322,0 | 1389,6 | 1464,9 | 1528,1 | 1670,1 | 1752,6 | -    | -    |
| Input power                                 | kW  | 325,9  | 347,4  | 370,9  | 387,8  | 405,6  | 422,2  | 443,7  | 469,4  | 489,0  | 534,5  | 563,0  | -    | -    |
| Cooling total input current                 | A   | 529,0  | 560,0  | 598,0  | 628,0  | 656,0  | 686,0  | 724,0  | 764,0  | 792,0  | 861,0  | 898,0  | -    | -    |
| EER   | W/W | 3,13   | 3,11   | 3,13   | 3,11   | 3,12   | 3,13   | 3,13   | 3,12   | 3,13   | 3,12   | 3,11   | -    | -    |
| Water flow rate system side                 | l/h | 175173 | 186051 | 199271 | 207449 | 217481 | 227238 | 238869 | 251810 | 262683 | 287098 | 301260 | -    | -    |
| Pressure drop system side                   | kPa | 40     | 49     | 36     | 38     | 24     | 24     | 29     | 35     | 40     | 49     | 45     | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSM - U**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 331,0 | 378,1 | 432,1 | 481,7 | 527,6 | 564,7 | 590,5  | 635,0  | 675,3  | 708,2  | 750,8  | 811,2  | 902,5  | 975,6  |
| Input power                                 | kW  | 98,6  | 113,5 | 128,9 | 145,7 | 161,0 | 169,2 | 178,4  | 190,3  | 204,2  | 214,1  | 228,0  | 245,2  | 273,3  | 294,9  |
| Cooling total input current                 | A   | 173,0 | 197,0 | 218,0 | 248,0 | 275,0 | 292,0 | 309,0  | 330,0  | 352,0  | 366,0  | 387,0  | 410,0  | 448,0  | 490,0  |
| EER   | W/W | 3,36  | 3,33  | 3,35  | 3,31  | 3,28  | 3,34  | 3,31   | 3,34   | 3,31   | 3,31   | 3,29   | 3,31   | 3,30   | 3,31   |
| Water flow rate system side                 | l/h | 56933 | 65026 | 74302 | 82821 | 90716 | 97089 | 101524 | 109164 | 116096 | 121764 | 129073 | 139455 | 155146 | 167724 |
| Pressure drop system side                   | kPa | 17    | 15    | 19    | 21    | 25    | 28    | 31     | 25     | 28     | 30     | 26     | 26     | 30     | 37     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSM - U**

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503       | 6703   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|------------|--------|--------|--------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |            |        |        |        |      |      |
| Cooling capacity                            | kW  | 1043,4 | 1104,7 | 1184,6 | 1234,0 | 1301,2 | 1360,8 | 1419,5 | 1505,6 (2) | 1579,3 | 1693,4 | 1772,6 | -    | -    |
| Input power                                 | kW  | 315,2  | 336,8  | 357,4  | 380,5  | 400,8  | 418,5  | 427,8  | 453,3      | 472,9  | 522,1  | 540,7  | -    | -    |
| Cooling total input current                 | A   | 530,0  | 562,0  | 597,0  | 634,0  | 671,0  | 706,0  | 725,0  | 762,0      | 795,0  | 870,0  | 896,0  | -    | -    |
| EER   | W/W | 3,31   | 3,28   | 3,31   | 3,24   | 3,25   | 3,25   | 3,32   | 3,32       | 3,34   | 3,24   | 3,28   | -    | -    |
| Water flow rate system side                 | l/h | 179384 | 189926 | 203652 | 212142 | 223669 | 233910 | 244004 | 258808     | 271482 | 291091 | 304708 | -    | -    |
| Pressure drop system side                   | kPa | 42     | 51     | 38     | 40     | 26     | 26     | 31     | 37         | 42     | 51     | 46     | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Unit not Eurovent certified because it exceeds 1500 kW

**NSM - N**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 329,8 | 375,3 | 431,9 | 474,4 | 517,0 | 550,9 | 578,6 | 620,4  | 659,2  | 701,2  | 743,2  | 803,1  | 879,6  | 955,4  |
| Input power                                 | kW  | 98,1  | 113,1 | 127,6 | 144,8 | 160,4 | 168,7 | 178,2 | 190,1  | 204,5  | 217,3  | 231,1  | 247,6  | 270,2  | 292,6  |
| Cooling total input current                 | A   | 165,0 | 190,0 | 207,0 | 237,0 | 265,0 | 281,0 | 297,0 | 317,0  | 339,0  | 358,0  | 378,0  | 399,0  | 429,0  | 470,0  |
| EER   | W/W | 3,36  | 3,32  | 3,38  | 3,28  | 3,22  | 3,27  | 3,25  | 3,26   | 3,22   | 3,23   | 3,22   | 3,24   | 3,26   | 3,27   |
| Water flow rate system side                 | l/h | 56717 | 64546 | 74260 | 81573 | 88881 | 94723 | 99476 | 106664 | 113329 | 120551 | 127777 | 138054 | 151226 | 164260 |
| Pressure drop system side                   | kPa | 16    | 15    | 19    | 21    | 24    | 28    | 30    | 25     | 27     | 29     | 26     | 25     | 30     | 37     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSM - N**

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703 | 6903 | 7203 | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |      |      |      |      |      |
| Cooling capacity                            | kW  | 1014,4 | 1086,1 | 1169,7 | 1219,0 | 1267,1 | 1317,0 | 1367,2 | 1452,6 | -    | -    | -    | -    | -    |
| Input power                                 | kW  | 315,6  | 332,8  | 352,6  | 374,6  | 396,5  | 410,4  | 428,2  | 450,1  | -    | -    | -    | -    | -    |
| Cooling total input current                 | A   | 513,0  | 540,0  | 569,0  | 605,0  | 643,0  | 668,0  | 700,0  | 731,0  | -    | -    | -    | -    | -    |
| EER   | W/W | 3,21   | 3,26   | 3,32   | 3,25   | 3,20   | 3,21   | 3,19   | 3,23   | -    | -    | -    | -    | -    |
| Water flow rate system side                 | l/h | 174394 | 186718 | 201086 | 209575 | 217799 | 226384 | 235022 | 249705 | -    | -    | -    | -    | -    |
| Pressure drop system side                   | kPa | 40     | 35     | 44     | 44     | 26     | 26     | 30     | 37     | -    | -    | -    | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

## Increased fan

| Size                        |   |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|-----------------------------|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fans: M                     |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN 14825: 2018) (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                        | ° | W/W | 5,41 | 5,44 | 5,37 | 5,53 | 5,54 | 5,51 | 5,54 | 5,51 | 5,53 | 5,51 | 5,51 | 5,52 | 5,52 | 5,53 |
|                             | A | W/W | 5,70 | 5,67 | 5,57 | 5,54 | 5,61 | 5,60 | 5,62 | 5,62 | 5,65 | 5,51 | 5,52 | 5,53 | 5,60 | 5,61 |
|                             | E | W/W | 5,82 | 5,76 | 5,80 | 5,71 | 5,66 | 5,79 | 5,74 | 5,77 | 5,73 | 5,64 | 5,60 | 5,63 | 5,72 | 5,74 |
|                             | L | W/W | 5,62 | 5,59 | 5,48 | 5,54 | 5,53 | 5,52 | 5,56 | 5,54 | 5,60 | 5,52 | 5,52 | 5,52 | 5,55 | 5,54 |
|                             | N | W/W | 5,94 | 5,85 | 5,98 | 5,79 | 5,70 | 5,78 | 5,75 | 5,77 | 5,70 | 5,63 | 5,57 | 5,65 | 5,73 | 5,74 |
|                             | U | W/W | 5,91 | 5,85 | 5,89 | 5,81 | 5,77 | 5,88 | 5,84 | 5,87 | 5,83 | 5,75 | 5,68 | 5,74 | 5,82 | 5,84 |

(1) Calculation performed with FIXED water flow rate.

| Size                        |  |   | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |      |
|-----------------------------|--|---|------|------|------|------|------|------|------|------|------|------|------|------|
| Fans: M                     |  |   |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN 14825: 2018) (1) |  |   |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                        |  | ° | W/W  | 5,53 | 5,52 | 5,53 | 5,52 | 5,52 | 5,64 | 5,51 | 5,54 | 5,55 | 5,51 | 5,54 |
|                             |  | A | W/W  | 5,60 | 5,57 | 5,60 | 5,60 | 5,57 | 5,66 | 5,61 | 5,71 | 5,69 | 5,62 | 5,68 |
|                             |  | E | W/W  | 5,75 | 5,62 | 5,60 | 5,60 | 5,74 | 5,85 | 5,90 | 5,70 | 5,77 | -    | -    |
|                             |  | L | W/W  | 5,55 | 5,54 | 5,56 | 5,55 | 5,52 | 5,64 | 5,61 | 5,68 | 5,66 | 5,63 | 5,68 |
|                             |  | N | W/W  | 5,73 | 5,79 | 5,65 | 5,67 | 5,65 | 5,79 | -    | -    | -    | -    | -    |
|                             |  | U | W/W  | 5,85 | 5,73 | 5,71 | 5,72 | 5,84 | 5,93 | 5,98 | 5,82 | 5,87 | -    | -    |

(1) Calculation performed with FIXED water flow rate.

## Inverter fan

| Size                           |   |     | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|--------------------------------|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: J                        |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER - 12/7 (EN14825:2018) (1) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                           | ° | W/W | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                | A | W/W | 4,44   | 4,40   | 4,55   | 4,56   | 4,56   | 4,56   | 4,57   | 4,55   | 4,56   | 4,56   | 4,57   | 4,57   | 4,56   | 4,56   |
|                                | E | W/W | 4,48   | 4,47   | 4,57   | 4,57   | 4,58   | 4,58   | 4,58   | 4,58   | 4,58   | 4,59   | 4,59   | 4,59   | 4,59   | 4,60   |
|                                | L | W/W | 4,43   | 4,39   | 4,53   | 4,55   | 4,56   | 4,56   | 4,56   | 4,55   | 4,56   | 4,56   | 4,56   | 4,56   | 4,56   | 4,56   |
|                                | N | W/W | 4,54   | 4,51   | 4,60   | 4,60   | 4,61   | 4,59   | 4,60   | 4,61   | 4,60   | 4,61   | 4,60   | 4,60   | 4,60   | 4,60   |
|                                | U | W/W | 4,49   | 4,48   | 4,57   | 4,59   | 4,60   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,60   |
| Seasonal efficiency            | ° | %   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   | -(2)   |
|                                | A | %   | 174,50 | 172,80 | 179,00 | 179,20 | 179,40 | 179,40 | 179,70 | 179,10 | 179,50 | 179,50 | 179,70 | 179,60 | 179,50 | 179,40 |
|                                | E | %   | 176,30 | 175,60 | 179,60 | 179,80 | 180,20 | 180,00 | 180,10 | 180,00 | 180,20 | 180,60 | 180,40 | 180,40 | 180,50 | 180,80 |
|                                | L | %   | 174,00 | 172,40 | 178,30 | 179,00 | 179,30 | 179,20 | 179,20 | 179,00 | 179,40 | 179,20 | 179,30 | 179,30 | 179,30 | 179,20 |
|                                | N | %   | 178,70 | 177,40 | 180,80 | 180,90 | 181,30 | 180,70 | 180,90 | 181,20 | 180,90 | 181,30 | 181,10 | 181,10 | 181,00 | 181,10 |
|                                | U | %   | 176,60 | 176,10 | 179,80 | 180,40 | 180,90 | 180,50 | 180,70 | 180,60 | 180,70 | 180,60 | 180,60 | 180,40 | 180,50 | 180,90 |
| SEPR - (EN 14825:2018) (3)     |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                           | ° | W/W | 5,41   | 5,44   | 5,37   | 5,53   | 5,54   | 5,51   | 5,54   | 5,51   | 5,53   | 5,51   | 5,51   | 5,52   | 5,52   | 5,53   |
|                                | A | W/W | 5,70   | 5,67   | 5,57   | 5,54   | 5,61   | 5,60   | 5,62   | 5,62   | 5,65   | 5,51   | 5,52   | 5,53   | 5,60   | 5,61   |
|                                | E | W/W | 5,82   | 5,76   | 5,80   | 5,71   | 5,66   | 5,79   | 5,74   | 5,77   | 5,73   | 5,64   | 5,60   | 5,63   | 5,72   | 5,74   |
|                                | L | W/W | 5,62   | 5,59   | 5,48   | 5,54   | 5,53   | 5,52   | 5,56   | 5,54   | 5,60   | 5,52   | 5,52   | 5,52   | 5,55   | 5,54   |
|                                | N | W/W | 5,94   | 5,85   | 5,98   | 5,79   | 5,70   | 5,78   | 5,75   | 5,77   | 5,70   | 5,63   | 5,57   | 5,65   | 5,73   | 5,74   |
|                                | U | W/W | 5,91   | 5,85   | 5,89   | 5,81   | 5,77   | 5,88   | 5,84   | 5,87   | 5,83   | 5,75   | 5,68   | 5,74   | 5,82   | 5,84   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

| Size                                   |   |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                         |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER                                   | ° | W/W | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|  | A | W/W | 4,56   | 4,56   | 4,56   | 4,55   | 4,57   | 4,56   | 4,56   | 4,56   | 4,57   | 4,56   | 4,56   | 4,56   | 4,57   |
|  | E | W/W | 4,58   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,59   | 4,60   | 4,58   | 4,59   | -      | -      |
|  | L | W/W | 4,55   | 4,56   | 4,55   | 4,56   | 4,56   | 4,57   | 4,56   | 4,57   | 4,56   | 4,56   | 4,56   | 4,56   | 4,56   |
|  | N | W/W | 4,60   | 4,60   | 4,60   | 4,60   | 4,60   | 4,61   | 4,60   | 4,61   | -      | -      | -      | -      | -      |
|  | U | W/W | 4,59   | 4,59   | 4,60   | 4,60   | 4,60   | 4,60   | 4,59   | 4,60   | 4,60   | 4,59   | 4,59   | -      | -      |
| Seasonal efficiency                    | ° | %   | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  | - (2)  |
|  | A | %   | 179,50 | 179,40 | 179,40 | 179,10 | 179,80 | 179,40 | 179,40 | 179,20 | 179,60 | 179,20 | 179,40 | 179,50 | 179,70 |
|  | E | %   | 180,30 | 180,60 | 180,70 | 180,60 | 180,40 | 180,40 | 180,60 | 180,50 | 180,90 | 180,20 | 180,40 | -      | -      |
|  | L | %   | 179,00 | 179,20 | 179,10 | 179,20 | 179,40 | 179,60 | 179,40 | 179,60 | 179,30 | 179,20 | 179,50 | 179,40 | 179,50 |
|  | N | %   | 180,80 | 181,00 | 181,10 | 181,00 | 181,10 | 181,20 | 180,80 | 181,40 | -      | -      | -      | -      | -      |
|  | U | %   | 180,40 | 180,60 | 180,80 | 180,90 | 180,90 | 180,80 | 180,60 | 180,80 | 180,90 | 180,60 | 180,60 | -      | -      |
| <b>SEPR - (EN 14825: 2018) (3)</b>     |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR                                   | ° | W/W | 5,51   | 5,52   | 5,53   | 5,52   | 5,53   | 5,52   | 5,52   | 5,64   | 5,51   | 5,54   | 5,55   | 5,51   | 5,54   |
|  | A | W/W | 5,56   | 5,60   | 5,60   | 5,57   | 5,60   | 5,60   | 5,57   | 5,66   | 5,61   | 5,71   | 5,69   | 5,62   | 5,68   |
|  | E | W/W | 5,75   | 5,70   | 5,75   | 5,62   | 5,60   | 5,60   | 5,74   | 5,85   | 5,90   | 5,70   | 5,77   | -      | -      |
|  | L | W/W | 5,51   | 5,53   | 5,55   | 5,54   | 5,56   | 5,55   | 5,52   | 5,64   | 5,61   | 5,68   | 5,66   | 5,63   | 5,68   |
|  | N | W/W | 5,71   | 5,71   | 5,73   | 5,79   | 5,65   | 5,67   | 5,65   | 5,79   | -      | -      | -      | -      | -      |
|  | U | W/W | 5,85   | 5,81   | 5,85   | 5,73   | 5,71   | 5,72   | 5,84   | 5,93   | 5,98   | 5,82   | 5,87   | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 1402  | 1602  | 1802  | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902  |
|-----------------------|-----|---|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| <b>Electric data</b>  |     |   |       |       |       |        |        |        |        |        |        |        |        |        |        |       |
| Maximum current (FLA) | °   | A | 229,0 | 257,0 | 284,0 | 324,0  | 357,0  | 379,0  | 400,0  | 433,0  | 458,0  | 466,0  | 466,0  | 514,0  | 562,0  | 619,0 |
|                       | A,L | A | 235,0 | 263,0 | 291,0 | 324,0  | 364,0  | 385,0  | 406,0  | 437,0  | 462,0  | 462,0  | 462,0  | 516,0  | 564,0  | 619,0 |
|                       | E,U | A | 235,0 | 263,0 | 297,0 | 330,0  | 364,0  | 391,0  | 413,0  | 444,0  | 468,0  | 468,0  | 468,0  | 523,0  | 571,0  | 625,0 |
|                       | N   | A | 242,0 | 270,0 | 303,0 | 337,0  | 370,0  | 398,0  | 419,0  | 450,0  | 475,0  | 475,0  | 475,0  | 529,0  | 583,0  | 644,0 |
| Peak current (LRA)    | °   | A | 251,0 | 292,0 | 335,0 | 380,0  | 403,0  | 450,0  | 467,0  | 502,0  | 512,0  | 521,0  | 521,0  | 645,0  | 685,0  | 814,0 |
|                       | A,L | A | 257,0 | 299,0 | 342,0 | 380,0  | 409,0  | 456,0  | 473,0  | 507,0  | 517,0  | 517,0  | 517,0  | 647,0  | 687,0  | 814,0 |
|                       | E,U | A | 257,0 | 299,0 | 348,0 | 386,0  | 409,0  | 462,0  | 480,0  | 513,0  | 523,0  | 523,0  | 523,0  | 653,0  | 693,0  | 821,0 |
|                       | N   | A | 263,0 | 305,0 | 354,0 | 392,0  | 415,0  | 469,0  | 486,0  | 519,0  | 529,0  | 529,0  | 529,0  | 660,0  | 706,0  | 839,0 |
| <b>Electric data</b>  |     |   |       |       |       |        |        |        |        |        |        |        |        |        |        |       |
| Maximum current (FLA) | °   | A | 667,0 | 714,0 | 753,0 | 805,0  | 848,0  | 882,0  | 924,0  | 949,0  | 997,0  | 1084,0 | 1137,0 | 1266,0 | 1368,0 |       |
|                       | A,L | A | 667,0 | 712,0 | 751,0 | 813,0  | 865,0  | 913,0  | 947,0  | 955,0  | 1003,0 | 1094,0 | 1133,0 | 1268,0 | 1406,0 |       |
|                       | E,U | A | 679,0 | 718,0 | 770,0 | 813,0  | 862,0  | 902,0  | 943,0  | 968,0  | 1022,0 | 1100,0 | 1145,0 | -      | -      |       |
|                       | N   | A | 692,0 | 743,0 | 789,0 | 838,0  | 887,0  | 921,0  | 955,0  | 987,0  | -      | -      | -      | -      | -      |       |
| Peak current (LRA)    | °   | A | 841,0 | 914,0 | 936,0 | 1100,0 | 1147,0 | 1259,0 | 1264,0 | 1038,0 | 1065,0 | 1160,0 | 1197,0 | 1446,0 | 1552,0 |       |
|                       | A,L | A | 841,0 | 911,0 | 934,0 | 1108,0 | 1164,0 | 1290,0 | 1287,0 | 1044,0 | 1071,0 | 1170,0 | 1193,0 | 1448,0 | 1590,0 |       |
|                       | E,U | A | 854,0 | 918,0 | 953,0 | 1108,0 | 1161,0 | 1279,0 | 1283,0 | 1056,0 | 1090,0 | 1176,0 | 1205,0 | -      | -      |       |
|                       | N   | A | 866,0 | 943,0 | 972,0 | 1133,0 | 1186,0 | 1298,0 | 1295,0 | 1076,0 | -      | -      | -      | -      | -      |       |

## GENERAL TECHNICAL DATA

| Size                           |            |      | 1402     | 1602     | 1802     | 2002     | 2202     | 2352     | 2502     | 2652     | 2802     |
|--------------------------------|------------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Compressor</b>              |            |      |          |          |          |          |          |          |          |          |          |
| Type                           | °A,E,L,N,U | type | Screw    |          |          |          |          |          |          |          |          |
| Number                         | °A,E,L,N,U | no.  | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Circuits                       | °A,E,L,N,U | no.  | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        |
| Refrigerant                    | °A,E,L,N,U | type | R134a    |          |          |          |          |          |          |          |          |
| Refrigerant load circuit 1 (1) | °          | kg   | 24,0     | 24,0     | 24,0     | 30,0     | 30,0     | 35,0     | 35,0 (2) | 35,0     | 35,0     |
|                                | A          | kg   | 26,5     | 34,0 (2) | 28,0     | 28,0     | 34,0     | 35,0     | 38,5     | 40,5     | 45,0     |
|                                | E          | kg   | 28,0     | 30,0     | 41,0 (2) | 41,0 (2) | 46,0 (2) | 43,0     | 41,0     | 46,0     | 45,0     |
|                                | L          | kg   | 24,0     | 34,0 (2) | 37,0 (2) | 28,0     | 34,0     | 35,0     | 38,5     | 40,0     | 42,0 (2) |
|                                | N          | kg   | 36,0 (2) | 38,0 (2) | 44,0 (2) | 44,0 (2) | 49,0 (2) | 53,0 (2) | 56,0 (2) | 60,0 (2) | 64,0 (2) |
|                                | U          | kg   | 32,0 (2) | 34,0 (2) | 34,0     | 35,0     | 46,0 (2) | 49,0 (2) | 49,0     | 46,0 (2) | 45,0 (2) |
| Refrigerant load circuit 2 (1) | °          | kg   | 24,0     | 25,0     | 25,0     | 41,0     | 33,0     | 38,0     | 37,0 (2) | 37,5     | 36,5     |
|                                | A          | kg   | 28,0     | 34,0 (2) | 29,5     | 36,0     | 34,0     | 49,0     | 40,5     | 45,0     | 47,5     |
|                                | E          | kg   | 30,0     | 31,5     | 41,0 (2) | 46,0 (2) | 46,0 (2) | 45,0     | 46,0     | 52,0     | 53,0     |
|                                | L          | kg   | 27,0     | 34,0 (2) | 37,0 (2) | 36,0     | 34,0     | 40,0     | 40,5     | 43,0     | 46,0 (2) |
|                                | N          | kg   | 36,0 (2) | 38,0 (2) | 44,0 (2) | 49,0 (2) | 49,0 (2) | 56,0 (2) | 56,0 (2) | 64,0 (2) | 64,0 (2) |
|                                | U          | kg   | 32,0 (2) | 34,0 (2) | 36,0     | 41,5     | 46,0 (2) | 53,0 (2) | 54,0     | 52,0 (2) | 48,5 (2) |
| Refrigerant load circuit 3 (1) | °A,E,L,N,U | kg   | -        | -        | -        | -        | -        | -        | -        | -        | -        |

**System side heat exchanger**

|        |            |      |                |   |   |   |   |   |   |   |   |
|--------|------------|------|----------------|---|---|---|---|---|---|---|---|
| Type   | °A,E,L,N,U | type | Shell and tube |   |   |   |   |   |   |   |   |
| Number | °A,E,L,N,U | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) The refrigerant gas charge is approximate, for more information contact the office.

| Size                           |            |      | 3002     | 3202     | 3402     | 3602     | 3902     | 4202     | 4502      | 4802      | 5202      |
|--------------------------------|------------|------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| <b>Compressor</b>              |            |      |          |          |          |          |          |          |           |           |           |
| Type                           | °A,E,L,N,U | type | Screw    |          |          |          |          |          |           |           |           |
| Number                         | °A,E,L,N,U | no.  | 2        | 2        | 2        | 2        | 2        | 2        | 2         | 2         | 2         |
| Circuits                       | °A,E,L,N,U | no.  | 2        | 2        | 2        | 2        | 2        | 2        | 2         | 2         | 2         |
| Refrigerant                    | °A,E,L,N,U | type | R134a    |          |          |          |          |          |           |           |           |
| Refrigerant load circuit 1 (1) | °          | kg   | 40,0     | 46,0     | 42,5     | 44,5     | 51,0     | 52,0     | 55,0      | 55,0 (2)  | 63,0 (2)  |
|                                | A          | kg   | 44,0 (2) | 47,0     | 52,0 (2) | 55,0     | 74,0 (2) | 62,0     | 67,0      | 67,0      | 70,0      |
|                                | E          | kg   | 45,0 (2) | 57,0     | 54,0 (2) | 74,0 (2) | 60,0 (2) | 70,0     | 89,0 (2)  | 80,0 (2)  | 100,0 (2) |
|                                | L          | kg   | 44,0     | 47,0     | 52,0 (2) | 54,0     | 56,0 (2) | 62,0     | 67,0 (2)  | 67,0      | 70,0      |
|                                | N          | kg   | 64,0 (2) | 55,0 (2) | 72,0 (2) | 81,0 (2) | 85,0 (2) | 92,0 (2) | 99,0 (2)  | 110,0 (2) | 114,0 (2) |
|                                | U          | kg   | 60,0 (2) | 54,5     | 58,0     | 58,0     | 60,0 (2) | 70,0     | 89,0 (2)  | 80,0      | 85,0 (2)  |
| Refrigerant load circuit 2 (1) | °          | kg   | 50,0     | 48,0     | 46,0     | 46,0     | 59,0     | 59,0     | 64,0      | 64,0 (2)  | 70,0 (2)  |
|                                | A          | kg   | 52,0 (2) | 50,0     | 55,0 (2) | 60,0     | 81,0 (2) | 70,0     | 78,0      | 78,0      | 82,0      |
|                                | E          | kg   | 53,0 (2) | 59,0     | 59,0 (2) | 74,0 (2) | 77,0 (2) | 85,0     | 96,0 (2)  | 90,0 (2)  | 110,0 (2) |
|                                | L          | kg   | 52,0     | 50,0     | 55,0 (2) | 58,0     | 72,0 (2) | 70,0     | 79,0 (2)  | 78,0      | 82,0      |
|                                | N          | kg   | 69,0 (2) | 57,0 (2) | 77,0 (2) | 81,0 (2) | 92,0 (2) | 92,0 (2) | 107,0 (2) | 110,0 (2) | 124,0 (2) |
|                                | U          | kg   | 65,0 (2) | 59,0     | 62,0     | 63,0     | 77,0 (2) | 85,0     | 96,0 (2)  | 90,0      | 103,0 (2) |
| Refrigerant load circuit 3 (1) | °A,E,L,N,U | kg   | -        | -        | -        | -        | -        | -        | -         | -         | -         |

**System side heat exchanger**

|        |            |      |                |   |   |   |   |   |   |   |   |
|--------|------------|------|----------------|---|---|---|---|---|---|---|---|
| Type   | °A,E,L,N,U | type | Shell and tube |   |   |   |   |   |   |   |   |
| Number | °A,E,L,U   | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|        | N          | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) The refrigerant gas charge is approximate, for more information contact the office.

| Size                           |            |      | 5602      | 6002      | 6402      | 6503     | 6703     | 6903     | 7203      | 8403      | 9603      |
|--------------------------------|------------|------|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|
| <b>Compressor</b>              |            |      |           |           |           |          |          |          |           |           |           |
| Type                           | °A,E,L,N,U | type | Screw     |           |           |          |          |          |           |           |           |
| Number                         | °A,L       | no.  | 2         | 2         | 2         | 3        | 3        | 3        | 3         | 3         | 3         |
|                                | E,U        | no.  | 2         | 2         | 2         | 3        | 3        | 3        | 3         | -         | -         |
|                                | N          | no.  | 2         | 2         | 2         | 3        | -        | -        | -         | -         | -         |
| Circuits                       | °A,L       | no.  | 2         | 2         | 2         | 3        | 3        | 3        | 3         | 3         | 3         |
|                                | E,U        | no.  | 2         | 2         | 2         | 3        | 3        | 3        | 3         | -         | -         |
|                                | N          | no.  | 2         | 2         | 2         | 3        | -        | -        | -         | -         | -         |
| Refrigerant                    | °A,E,L,N,U | type | R134a     |           |           |          |          |          |           |           |           |
| Refrigerant load circuit 1 (1) | °          | kg   | 65,0 (2)  | 62,0      | 70,0 (2)  | 67,0 (2) | 55,0     | 78,0 (2) | 62,0 (2)  | 99,0 (2)  | 112,0 (2) |
|                                | A          | kg   | 106,0 (2) | 82,0      | 82,0 (2)  | 74,0 (2) | 81,0 (2) | 85,0 (2) | 70,0      | 106,0 (2) | 80,0      |
|                                | E          | kg   | 113,0 (2) | 86,0      | 95,0 (2)  | 77,0 (2) | 89,0 (2) | 89,0 (2) | 100,0 (2) | -         | -         |
|                                | L          | kg   | 106,0 (2) | 82,0      | 82,0 (2)  | 74,0 (2) | 81,0 (2) | 85,0 (2) | 70,0 (2)  | 106,0 (2) | 80,0      |
|                                | N          | kg   | 128,0 (2) | 128,0 (2) | 138,0 (2) | 85,0 (2) | -        | -        | -         | -         | -         |
|                                | U          | kg   | 113,0 (2) | 86,0      | 95,0      | 77,0 (2) | 89,0 (2) | 89,0 (2) | 100,0 (2) | -         | -         |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) The refrigerant gas charge is approximate, for more information contact the office.

| Size                              |            |      | 5602           | 6002      | 6402      | 6503     | 6703     | 6903     | 7203      | 8403      | 9603      |
|-----------------------------------|------------|------|----------------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|
| Refrigerant load circuit 2 (1)    | °          | kg   | 71,0 (2)       | 73,0      | 80,0 (2)  | 74,0 (2) | 61,0     | 85,0 (2) | 70,0 (2)  | 99,0 (2)  | 112,0 (2) |
|                                   | A          | kg   | 106,0 (2)      | 99,0      | 99,0 (2)  | 81,0 (2) | 81,0 (2) | 92,0 (2) | 75,0      | 106,0 (2) | 95,0      |
|                                   | E          | kg   | 113,0 (2)      | 98,0      | 97,0 (2)  | 85,0 (2) | 89,0 (2) | 96,0 (2) | 100,0 (2) | -         | -         |
|                                   | L          | kg   | 106,0 (2)      | 99,0      | 99,0 (2)  | 81,0 (2) | 81,0 (2) | 92,0 (2) | 75,0 (2)  | 106,0 (2) | 95,0      |
|                                   | N          | kg   | 128,0 (2)      | 138,0 (2) | 138,0 (2) | 92,0 (2) | -        | -        | -         | -         | -         |
|                                   | U          | kg   | 113,0 (2)      | 98,0      | 97,0      | 85,0 (2) | 89,0 (2) | 96,0 (2) | 100,0 (2) | -         | -         |
| Refrigerant load circuit 3 (1)    | °          | kg   | -              | -         | -         | 74,0 (2) | 65,0     | 85,0 (2) | 80,0 (2)  | 99,0 (2)  | 112,0 (2) |
|                                   | A          | kg   | -              | -         | -         | 81,0 (2) | 81,0 (2) | 92,0 (2) | 75,0      | 106,0 (2) | 85,0      |
|                                   | E,U        | kg   | -              | -         | -         | 85,0 (2) | 89,0 (2) | 96,0 (2) | 100,0 (2) | -         | -         |
|                                   | L          | kg   | -              | -         | -         | 81,0 (2) | 81,0 (2) | 92,0 (2) | 75,0 (2)  | 106,0 (2) | 85,0      |
|                                   | N          | kg   | -              | -         | -         | 92,0 (2) | -        | -        | -         | -         | -         |
| <b>System side heat exchanger</b> |            |      |                |           |           |          |          |          |           |           |           |
| Type                              | °A,E,L,N,U | type | Shell and tube |           |           |          |          |          |           |           |           |
| Number                            | °          | no.  | 1              | 1         | 1         | 1        | 1        | 1        | 1         | 1         | 1         |
|                                   | A,L        | no.  | 1              | 1         | 1         | 2        | 2        | 2        | 2         | 2         | 2         |
|                                   | E,U        | no.  | 2              | 2         | 2         | 2        | 2        | 2        | 2         | -         | -         |
|                                   | N          | no.  | 2              | 2         | 2         | 2        | -        | -        | -         | -         | -         |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) The refrigerant gas charge is approximate, for more information contact the office.

## FANS DATA

### Oversized

| Size                    |            |       | 1402                        | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   |
|-------------------------|------------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                 |            |       |                             |        |        |        |        |        |        |        |        |
| Increased fan           |            |       |                             |        |        |        |        |        |        |        |        |
| Type                    | °A,E,L,N,U | type  | axials                      |        |        |        |        |        |        |        |        |
| Fan motor               | °A,U       | type  | Asynchronous                |        |        |        |        |        |        |        |        |
|                         | E,L,N      | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |
| Fan                     |            |       |                             |        |        |        |        |        |        |        |        |
| Number                  | °          | no.   | 6                           | 6      | 6      | 8      | 8      | 8      | 8      | 8      | 8      |
|                         | A,L        | no.   | 8                           | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 12     |
|                         | E,U        | no.   | 8                           | 8      | 10     | 10     | 10     | 12     | 12     | 14     | 14     |
|                         | N          | no.   | 10                          | 10     | 12     | 12     | 12     | 14     | 14     | 16     | 16     |
| With static pressure    |            |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °          | m³/h  | 96000                       | 96000  | 96000  | 128000 | 128000 | 128000 | 128000 | 144000 | 144000 |
|                         | A          | m³/h  | 128000                      | 128000 | 128000 | 128000 | 160000 | 160000 | 160000 | 192000 | 192000 |
|                         | E          | m³/h  | 92000                       | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 161000 | 161000 |
|                         | L          | m³/h  | 92000                       | 92000  | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 |
|                         | N          | m³/h  | 115000                      | 115000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|                         | U          | m³/h  | 128000                      | 128000 | 160000 | 160000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure    | °          | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | -      | -      |
|                         | A,E,L,N,U  | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     |
| Without Static pressure |            |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °          | m³/h  | 108000                      | 108000 | 108000 | 144000 | 144000 | 144000 | 144000 | 144000 | 144000 |
|                         | A          | m³/h  | 144000                      | 144000 | 144000 | 144000 | 180000 | 180000 | 180000 | 216000 | 216000 |
|                         | E          | m³/h  | 92000                       | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 161000 | 161000 |
|                         | L          | m³/h  | 92000                       | 92000  | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 |
|                         | N          | m³/h  | 115000                      | 115000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 | 184000 |
|                         | U          | m³/h  | 144000                      | 144000 | 180000 | 180000 | 180000 | 216000 | 216000 | 252000 | 252000 |
| High static pressure    | °A,E,L,N,U | Pa    | 0                           | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| With static pressure    |            |       |                             |        |        |        |        |        |        |        |        |
| Sound power level       | °          | dB(A) | 96,8                        | 97,0   | 97,2   | 97,6   | 97,8   | 98,0   | 98,2   | 98,4   | 98,4   |
|                         | A          | dB(A) | 97,3                        | 97,4   | 97,8   | 97,9   | 98,2   | 98,3   | 98,4   | 98,8   | 98,9   |
|                         | E          | dB(A) | 89,3                        | 89,4   | 90,2   | 90,3   | 90,4   | 90,8   | 91,2   | 91,8   | 92,0   |
|                         | L          | dB(A) | 88,9                        | 89,0   | 89,1   | 89,2   | 90,3   | 90,5   | 90,6   | 90,8   | 90,9   |
|                         | N          | dB(A) | 90,0                        | 90,4   | 90,9   | 91,0   | 91,1   | 91,4   | 91,4   | 92,1   | 92,2   |
|                         | U          | dB(A) | 97,0                        | 97,4   | 98,0   | 98,2   | 98,4   | 98,8   | 98,8   | 99,0   | 99,1   |
| Without Static pressure |            |       |                             |        |        |        |        |        |        |        |        |
| Sound power level       | °          | dB(A) | 97,5                        | 97,6   | 97,6   | 97,9   | 98,1   | 98,2   | 98,4   | 98,4   | 98,4   |
|                         | A          | dB(A) | 98,2                        | 98,2   | 98,6   | 98,7   | 99,1   | 99,2   | 99,2   | 99,7   | 99,8   |
|                         | E          | dB(A) | 89,3                        | 89,4   | 90,2   | 90,3   | 90,4   | 90,8   | 91,2   | 91,8   | 92,0   |
|                         | L          | dB(A) | 88,9                        | 89,0   | 89,1   | 89,2   | 90,3   | 90,5   | 90,6   | 90,8   | 90,9   |
|                         | N          | dB(A) | 90,0                        | 90,4   | 90,9   | 91,0   | 91,1   | 91,4   | 91,4   | 92,1   | 92,2   |
|                         | U          | dB(A) | 97,9                        | 98,2   | 98,9   | 99,1   | 99,2   | 99,7   | 99,7   | 100,0  | 100,1  |
| Size                    |            |       | 3002                        | 3202   | 3402   | 3602   | 3902   | 4202   | 4502   | 4802   | 5202   |
| Fans: M                 |            |       |                             |        |        |        |        |        |        |        |        |
| Increased fan           |            |       |                             |        |        |        |        |        |        |        |        |
| Type                    | °A,E,L,N,U | type  | axials                      |        |        |        |        |        |        |        |        |
| Fan motor               | °A,U       | type  | Asynchronous                |        |        |        |        |        |        |        |        |
|                         | E,L,N      | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |

| Size                    | 3002        |       |                             | 3202   | 3402   | 3602   | 3902   | 4202   | 4502   | 4802   | 5202   |
|-------------------------|-------------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fan                     |             |       |                             |        |        |        |        |        |        |        |        |
| Number                  | °           | no.   | 10                          | 10     | 10     | 10     | 12     | 12     | 14     | 14     | 16     |
|                         | A,L         | no.   | 12                          | 12     | 14     | 14     | 16     | 16     | 18     | 18     | 18     |
|                         | E,U         | no.   | 14                          | 14     | 16     | 16     | 18     | 20     | 20     | 22     | 22     |
|                         | N           | no.   | 16                          | 16     | 18     | 20     | 22     | 22     | 26     | 28     | 30     |
| With static pressure    |             |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °           | m³/h  | 180000                      | 180000 | 180000 | 180000 | 216000 | 216000 | 252000 | 252000 | 288000 |
|                         | A           | m³/h  | 192000                      | 192000 | 224000 | 224000 | 256000 | 256000 | 288000 | 288000 | 324000 |
|                         | E           | m³/h  | 161000                      | 161000 | 184000 | 184000 | 207000 | 230000 | 230000 | 253000 | 253000 |
|                         | L           | m³/h  | 138000                      | 138000 | 161000 | 161000 | 184000 | 184000 | 207000 | 207000 | 234000 |
|                         | N           | m³/h  | 184000                      | 184000 | 207000 | 230000 | 253000 | 253000 | 299000 | 322000 | 345000 |
|                         | U           | m³/h  | 224000                      | 224000 | 256000 | 256000 | 288000 | 320000 | 320000 | 352000 | 352000 |
| High static pressure    | °           | Pa    | -                           | -      | -      | -      | -      | -      | -      | -      | -      |
|                         | A,L         | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | 50     | -      |
|                         | E,N,U       | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     | 50     | 50     |
| Without Static pressure |             |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °           | m³/h  | 180000                      | 180000 | 180000 | 180000 | 216000 | 216000 | 252000 | 252000 | 288000 |
|                         | A           | m³/h  | 216000                      | 216000 | 252000 | 252000 | 288000 | 288000 | 324000 | 324000 | 324000 |
|                         | E           | m³/h  | 161000                      | 161000 | 184000 | 184000 | 207000 | 230000 | 230000 | 253000 | 253000 |
|                         | L           | m³/h  | 138000                      | 138000 | 161000 | 161000 | 184000 | 184000 | 207000 | 207000 | 234000 |
|                         | N           | m³/h  | 184000                      | 184000 | 207000 | 230000 | 253000 | 253000 | 299000 | 322000 | 345000 |
|                         | U           | m³/h  | 252000                      | 252000 | 288000 | 288000 | 324000 | 360000 | 360000 | 396000 | 396000 |
| High static pressure    | °,A,E,L,N,U | Pa    | 0                           | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| With static pressure    |             |       |                             |        |        |        |        |        |        |        |        |
| Sound power level       | °           | dB(A) | 99,4                        | 99,5   | 99,6   | 99,8   | 100,7  | 100,8  | 101,2  | 101,3  | 101,7  |
|                         | A           | dB(A) | 99,0                        | 99,1   | 99,3   | 99,4   | 100,1  | 100,2  | 100,4  | 100,8  | 101,5  |
|                         | E           | dB(A) | 92,2                        | 92,3   | 92,8   | 93,0   | 93,2   | 93,5   | 93,6   | 93,7   | 93,8   |
|                         | L           | dB(A) | 91,0                        | 91,1   | 91,3   | 91,4   | 92,4   | 92,5   | 93,0   | 93,1   | 93,2   |
|                         | N           | dB(A) | 92,3                        | 92,4   | 92,8   | 93,1   | 93,3   | 93,4   | 94,3   | 94,4   | 94,8   |
|                         | U           | dB(A) | 99,2                        | 99,3   | 99,9   | 100,0  | 100,4  | 100,7  | 101,0  | 101,3  | 101,6  |
| Without Static pressure |             |       |                             |        |        |        |        |        |        |        |        |
| Sound power level       | °           | dB(A) | 99,4                        | 99,5   | 99,6   | 99,8   | 100,7  | 100,8  | 101,2  | 101,3  | 101,7  |
|                         | A           | dB(A) | 99,9                        | 100,0  | 100,2  | 100,3  | 101,0  | 101,1  | 101,3  | 101,7  | 101,5  |
|                         | E           | dB(A) | 92,2                        | 92,3   | 92,8   | 93,0   | 93,2   | 93,5   | 93,6   | 93,7   | 93,8   |
|                         | L           | dB(A) | 91,0                        | 91,1   | 91,3   | 91,4   | 92,4   | 92,5   | 93,0   | 93,1   | 93,2   |
|                         | N           | dB(A) | 92,3                        | 92,4   | 92,8   | 93,1   | 93,3   | 93,4   | 94,3   | 94,4   | 94,8   |
|                         | U           | dB(A) | 100,2                       | 100,2  | 100,8  | 100,9  | 101,3  | 101,7  | 101,9  | 102,2  | 102,5  |
|                         |             |       |                             |        |        |        |        |        |        |        |        |
| Size                    | 5602        |       |                             | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   |        |        |
| Fans: M                 |             |       |                             |        |        |        |        |        |        |        |        |
| Increased fan           |             |       |                             |        |        |        |        |        |        |        |        |
| Type                    | °,A,E,L,N,U | type  | axials                      |        |        |        |        |        |        |        |        |
| Fan motor               | °,A,U       | type  | Asynchronous                |        |        |        |        |        |        |        |        |
| Fan                     | E,L,N       | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |
| Number                  | °           | no.   | 16                          | 16     | 18     | 18     | 18     | 20     | 22     |        |        |
|                         | A,L         | no.   | 20                          | 22     | 22     | 24     | 24     | 28     | 28     |        |        |
|                         | E,U         | no.   | 24                          | 26     | 28     | 28     | 30     | 30     | 32     |        |        |
|                         | N           | no.   | 32                          | 32     | 32     | 34     | -      | -      | -      |        |        |
| With static pressure    |             |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °           | m³/h  | 288000                      | 288000 | 324000 | 324000 | 324000 | 360000 | 396000 |        |        |
|                         | A           | m³/h  | 360000                      | 396000 | 396000 | 384000 | 384000 | 448000 | 448000 |        |        |
|                         | E           | m³/h  | 276000                      | 299000 | 322000 | 322000 | 345000 | 345000 | 368000 |        |        |
|                         | L           | m³/h  | 260000                      | 286000 | 286000 | 276000 | 276000 | 322000 | 322000 |        |        |
|                         | N           | m³/h  | 368000                      | 368000 | 368000 | 391000 | -      | -      | -      |        |        |
|                         | U           | m³/h  | 384000                      | 416000 | 448000 | 448000 | 480000 | 480000 | 512000 |        |        |
| High static pressure    | °           | Pa    | -                           | -      | -      | -      | -      | -      | -      |        |        |
|                         | A,L         | Pa    | -                           | -      | -      | 50     | 50     | 50     | 50     |        |        |
|                         | E,U         | Pa    | 50                          | 50     | 50     | 50     | 50     | 50     | 50     |        |        |
|                         | N           | Pa    | 50                          | 50     | 50     | 50     | -      | -      | -      |        |        |
| Without Static pressure |             |       |                             |        |        |        |        |        |        |        |        |
| Air flow rate           | °           | m³/h  | 288000                      | 288000 | 324000 | 324000 | 324000 | 360000 | 396000 |        |        |
|                         | A           | m³/h  | 360000                      | 396000 | 396000 | 432000 | 432000 | 504000 | 504000 |        |        |
|                         | E           | m³/h  | 276000                      | 299000 | 322000 | 322000 | 345000 | 345000 | 368000 |        |        |
|                         | L           | m³/h  | 260000                      | 286000 | 286000 | 276000 | 276000 | 322000 | 322000 |        |        |
|                         | N           | m³/h  | 368000                      | 368000 | 368000 | 391000 | -      | -      | -      |        |        |
|                         | U           | m³/h  | 432000                      | 468000 | 504000 | 504000 | 540000 | 540000 | 576000 |        |        |
| High static pressure    | °,A,E,L,U   | Pa    | 0                           | 0      | 0      | 0      | 0      | 0      | 0      |        |        |
|                         | N           | Pa    | 0                           | 0      | 0      | 0      | 0      | -      | -      |        |        |

| Size                    |   |       | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  |
|-------------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| With static pressure    |   |       |       |       |       |       |       |       |       |
| Sound power level       | ° | dB(A) | 101,7 | 101,8 | 102,1 | 102,3 | 102,4 | 103,0 | 103,1 |
|                         | A | dB(A) | 101,7 | 101,9 | 102,0 | 102,0 | 102,1 | 102,3 | 102,4 |
|                         | E | dB(A) | 93,9  | 94,0  | 94,2  | 94,3  | 94,3  | 94,4  | 94,8  |
|                         | L | dB(A) | 93,7  | 93,9  | 94,0  | 94,2  | 94,2  | 94,3  | 94,3  |
|                         | N | dB(A) | 95,0  | 95,2  | 95,3  | 95,4  | -     | -     | -     |
|                         | U | dB(A) | 102,0 | 102,1 | 102,2 | 102,2 | 102,3 | 102,4 | 102,4 |
| Without Static pressure |   |       |       |       |       |       |       |       |       |
| Sound power level       | ° | dB(A) | 101,7 | 101,8 | 102,1 | 102,3 | 102,4 | 103,0 | 103,1 |
|                         | A | dB(A) | 101,7 | 101,9 | 102,0 | 102,9 | 103,0 | 103,2 | 103,3 |
|                         | E | dB(A) | 93,9  | 94,0  | 94,2  | 94,3  | 94,3  | 94,4  | 94,8  |
|                         | L | dB(A) | 93,7  | 93,9  | 94,0  | 94,2  | 94,2  | 94,3  | 94,3  |
|                         | N | dB(A) | 95,0  | 95,2  | 95,3  | 95,4  | -     | -     | -     |
|                         | U | dB(A) | 102,9 | 103,0 | 103,2 | 103,2 | 103,3 | 103,4 | 103,4 |

## Inverter

| Size                 |            |      | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   |
|----------------------|------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fan</b>           |            |      |        |        |        |        |        |        |        |        |        |
| Type                 | °A,E,L,N,U | type |        |        |        |        | axials |        |        |        |        |
| Fan motor            | °A,E,L,N,U | type |        |        |        |        | On-Off |        |        |        |        |
| Number               | °          | no.  | 6      | 6      | 6      | 8      | 8      | 8      | 8      | 8      | 8      |
|                      | A,L        | no.  | 8      | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 12     |
|                      | E,U        | no.  | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 14     | 14     |
|                      | N          | no.  | 10     | 10     | 12     | 12     | 12     | 14     | 14     | 16     | 16     |
| <b>Inverter fan</b>  |            |      |        |        |        |        |        |        |        |        |        |
| Air flow rate        | °          | m³/h | 96000  | 96000  | 96000  | 128000 | 128000 | 128000 | 128000 | 144000 | 144000 |
|                      | A          | m³/h | 12800  | 12800  | 12800  | 12800  | 16000  | 16000  | 160000 | 160000 | 160000 |
|                      | E          | m³/h | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 161000 | 161000 |
|                      | L          | m³/h | 115000 | 115000 | 115000 | 138000 | 138000 | 138000 | 138000 | 161000 | 161000 |
|                      | N          | m³/h | 15000  | 15000  | 18000  | 18000  | 18000  | 21000  | 21000  | 24000  | 24000  |
|                      | U          | m³/h | 128000 | 128000 | 160000 | 160000 | 160000 | 192000 | 192000 | 224000 | 224000 |
| High static pressure | °          | Pa   | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 75     | 75     |
|                      | A,E,L,N,U  | Pa   | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    | 120    |

### Sound data calculated in cooling mode (1)

|                   |            |       |   |   |   |   |   |   |   |   |   |
|-------------------|------------|-------|---|---|---|---|---|---|---|---|---|
| Sound power level | °A,E,L,N,U | dB(A) | - | - | - | - | - | - | - | - | - |
|-------------------|------------|-------|---|---|---|---|---|---|---|---|---|

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size                 |            |      | 3002   | 3202   | 3402   | 3602   | 3902     | 4202   | 4502   | 4802   | 5202   |
|----------------------|------------|------|--------|--------|--------|--------|----------|--------|--------|--------|--------|
| <b>Fans: J</b>       |            |      |        |        |        |        |          |        |        |        |        |
| <b>Fan</b>           |            |      |        |        |        |        |          |        |        |        |        |
| Type                 | °A,E,L,N,U | type |        |        |        |        | axials   |        |        |        |        |
| Fan motor            | °A,E,L,N,U | type |        |        |        |        | Inverter |        |        |        |        |
| Number               | °          | no.  | 10     | 10     | 10     | 10     | 12       | 12     | 14     | 14     | 16     |
|                      | A,L        | no.  | 12     | 12     | 14     | 14     | 16       | 16     | 18     | 18     | 18     |
|                      | E,U        | no.  | 14     | 14     | 16     | 16     | 18       | 20     | 20     | 22     | 22     |
|                      | N          | no.  | 16     | 16     | 18     | 20     | 22       | 22     | 26     | 28     | 30     |
| <b>Inverter fan</b>  |            |      |        |        |        |        |          |        |        |        |        |
| Air flow rate        | °          | m³/h | 180000 | 180000 | 180000 | 180000 | 216000   | 216000 | 252000 | 252000 | 288000 |
|                      | A          | m³/h | 192000 | 192000 | 224000 | 224000 | 256000   | 256000 | 288000 | 288000 | 324000 |
|                      | E          | m³/h | 161000 | 161000 | 184000 | 184000 | 207000   | 230000 | 230000 | 253000 | 253000 |
|                      | L          | m³/h | 138000 | 138000 | 161000 | 161000 | 184000   | 184000 | 207000 | 207000 | 234000 |
|                      | N          | m³/h | 184000 | 184000 | 207000 | 230000 | 253000   | 253000 | 299000 | 322000 | 345000 |
|                      | U          | m³/h | 224000 | 224000 | 256000 | 256000 | 288000   | 320000 | 320000 | 352000 | 352000 |
| High static pressure | °          | Pa   | 75     | 75     | 75     | 75     | 75       | 75     | 75     | 75     | 75     |
|                      | A,L        | Pa   | 120    | 120    | 120    | 120    | 120      | 120    | 120    | 120    | 75     |
|                      | E,N,U      | Pa   | 120    | 120    | 120    | 120    | 120      | 120    | 120    | 120    | 120    |

### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |       |       |       |       |       |       |
|-------------------|---|-------|------|------|------|-------|-------|-------|-------|-------|-------|
| Sound power level | ° | dB(A) | 99,4 | 99,5 | 99,6 | 99,8  | 100,7 | 100,8 | 101,2 | 101,3 | 101,7 |
|                   | A | dB(A) | 99,0 | 99,1 | 99,3 | 99,4  | 100,1 | 100,2 | 100,4 | 100,8 | 101,5 |
|                   | E | dB(A) | 92,2 | 92,3 | 92,8 | 93,0  | 93,2  | 93,5  | 93,6  | 93,7  | 93,8  |
|                   | L | dB(A) | 91,0 | 91,1 | 91,3 | 91,4  | 92,4  | 92,5  | 93,0  | 93,1  | 93,2  |
|                   | N | dB(A) | 92,3 | 92,4 | 92,8 | 93,1  | 93,3  | 93,4  | 94,3  | 94,4  | 94,8  |
|                   | U | dB(A) | 99,2 | 99,3 | 99,9 | 100,0 | 100,4 | 100,7 | 101,0 | 101,3 | 101,6 |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

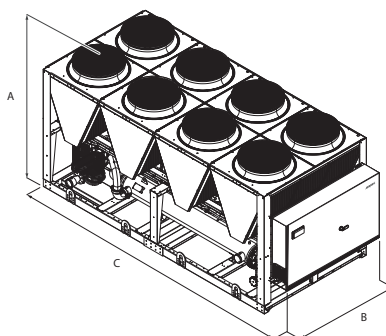
| Size           |            |  | 5602 | 6002 | 6402 | 6503 | 6703     | 6903 | 7203 |
|----------------|------------|--|------|------|------|------|----------|------|------|
| <b>Fans: J</b> |            |  |      |      |      |      |          |      |      |
| <b>Fan</b>     |            |  |      |      |      |      |          |      |      |
| Type           | °A,E,L,N,U |  |      |      |      |      | axials   |      |      |
| Fan motor      | °A,E,L,N,U |  |      |      |      |      | Inverter |      |      |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size   |     |                   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   |
|--|-----|-------------------|--------|--------|--------|--------|--------|--------|--------|
| Number   | °   | no.               | 16     | 16     | 18     | 18     | 18     | 20     | 22     |
|  | A,L | no.               | 20     | 22     | 22     | 24     | 24     | 28     | 28     |
|  | E,U | no.               | 24     | 26     | 28     | 28     | 30     | 30     | 32     |
|  | N   | no.               | 32     | 32     | 32     | 34     | -      | -      | -      |
| <b>Inverter fan</b>                              |     |                   |        |        |        |        |        |        |        |
| Air flow rate                                    | °   | m <sup>3</sup> /h | 288000 | 288000 | 324000 | 324000 | 324000 | 360000 | 396000 |
|  | A   | m <sup>3</sup> /h | 360000 | 396000 | 396000 | 384000 | 384000 | 448000 | 448000 |
|  | E   | m <sup>3</sup> /h | 276000 | 299000 | 322000 | 322000 | 345000 | 345000 | 368000 |
|  | L   | m <sup>3</sup> /h | 260000 | 286000 | 286000 | 276000 | 276000 | 322000 | 322000 |
|  | N   | m <sup>3</sup> /h | 368000 | 368000 | 368000 | 391000 | -      | -      | -      |
|  | U   | m <sup>3</sup> /h | 384000 | 416000 | 448000 | 448000 | 480000 | 480000 | 512000 |
| High static pressure                             | °   | Pa                | 75     | 75     | 75     | 75     | 75     | 75     | 75     |
|  | A,L | Pa                | 75     | 75     | 75     | 120    | 120    | 120    | 120    |
|  | E,U | Pa                | 120    | 120    | 120    | 120    | 120    | 120    | 120    |
|  | N   | Pa                | 120    | 120    | 120    | 120    | -      | -      | -      |
| <b>Sound data calculated in cooling mode (1)</b> |     |                   |        |        |        |        |        |        |        |
| Sound power level                                | °   | dB(A)             | 101,7  | 101,8  | 102,1  | 102,3  | 102,4  | 103,0  | 103,1  |
|  | A   | dB(A)             | 101,7  | 101,9  | 102,0  | 102,0  | 102,1  | 102,3  | 102,4  |
|  | E   | dB(A)             | 93,9   | 94,0   | 94,2   | 94,3   | 94,3   | 94,4   | 94,8   |
|  | L   | dB(A)             | 93,7   | 93,9   | 94,0   | 94,2   | 94,2   | 94,3   | 94,3   |
|  | N   | dB(A)             | 95,0   | 95,2   | 95,3   | 95,4   | -      | -      | -      |
|  | U   | dB(A)             | 102,0  | 102,1  | 102,2  | 102,2  | 102,3  | 102,4  | 102,4  |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                   |                   |    | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|------------------------|-------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights |                   |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | ° , A, E, L, N, U | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                      | ° , A, E, L, N, U | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                      | °                 | mm | 3970  | 3970  | 3970  | 5160  | 5160  | 5160  | 5160  | 5160  | 5160  | 6350  | 6350  | 6350  | 6350  | 7140  |
|                        | A, L              | mm | 5160  | 5160  | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 7140  | 7140  | 8330  | 8330  | 9520  |
|                        | E, U              | mm | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 8330  | 8330  | 8330  | 8330  | 9520  | 9520  | 10710 |
|                        | N                 | mm | 6350  | 6350  | 7140  | 7140  | 7140  | 8330  | 8330  | 9520  | 9520  | 9520  | 9520  | 10710 | 11900 | 13090 |
| Size                   |                   |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |       |
| Dimensions and weights |                   |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | ° , A, L          | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|                        | E, U              | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     |
|                        | N                 | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     | -     | -     | -     | -     |
| B                      | ° , A, L          | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|                        | E, U              | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     |
|                        | N                 | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     | -     | -     | -     | -     |
| C                      | °                 | mm | 7140  | 8330  | 8330  | 9520  | 9520  | 9520  | 10710 | 11110 | 11110 | 11900 | 13090 | 13090 | 13090 | 13090 |
|                        | A, L              | mm | 9520  | 10710 | 10710 | 10710 | 11900 | 13090 | 13090 | 14280 | 14280 | 16660 | 16660 | 17850 | 17850 | 20230 |
|                        | E, U              | mm | 11900 | 11900 | 13090 | 13090 | 14280 | 15470 | 16660 | 16660 | 17850 | 17850 | 19040 | 19040 | -     | -     |
|                        | N                 | mm | 13090 | 15470 | 16660 | 17850 | 19040 | 19040 | 19040 | 20230 | -     | -     | -     | -     | -     | -     |

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.



| Size                        |     |    | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|-----------------------------|-----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Integrated hydronic kit: 00 |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Weights                     |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight                | °   | kg | 3660  | 3702  | 3831  | 4670  | 5040  | 5053  | 5077  | 5273  | 5396  | 5922  | 5977  | 6410  | 6901  | 7477  |
|                             | A,L | kg | 4213  | 4249  | 4373  | 4699  | 5472  | 5488  | 5691  | 6228  | 6424  | 6477  | 6577  | 7656  | 8129  | 8647  |
|                             | E,U | kg | 4373  | 4394  | 4840  | 5431  | 5785  | 6333  | 6356  | 6805  | 6896  | 6914  | 6953  | 8149  | 8660  | 9431  |
|                             | N   | kg | 4791  | 4812  | 5373  | 5965  | 6318  | 6741  | 6764  | 7254  | 7346  | 7416  | 7508  | 8882  | 9759  | 10383 |
| Weight functioning          | °   | kg | 3753  | 3790  | 3962  | 4801  | 5171  | 5202  | 5226  | 5548  | 5671  | 6244  | 6299  | 6732  | 7214  | 7790  |
|                             | A,L | kg | 4306  | 4337  | 4505  | 4848  | 5621  | 5637  | 5966  | 6503  | 6747  | 6799  | 6871  | 8173  | 8645  | 9152  |
|                             | E,U | kg | 4505  | 4543  | 4989  | 5753  | 6107  | 6655  | 6679  | 7118  | 7209  | 7279  | 7352  | 8718  | 9177  | 9936  |
|                             | N   | kg | 4923  | 4962  | 5522  | 6287  | 6641  | 7063  | 7086  | 7567  | 7659  | 7729  | 7802  | 9399  | 10276 | 10888 |
| Size                        |     |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |       |
| Integrated hydronic kit: 00 |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Weights                     |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight                | °   | kg | 7574  | 7993  | 8302  | 8826  | 8954  | 9017  | 9719  | 11612 | 11688 | 12216 | 12761 | 13047 | 13176 |       |
|                             | A,L | kg | 8710  | 9428  | 9481  | 9902  | 10433 | 11018 | 11060 | 13354 | 13417 | 14572 | 14625 | 15743 | 16934 |       |
|                             | E,U | kg | 9922  | 9983  | 10887 | 11013 | 11820 | 12261 | 12701 | 14514 | 15005 | 15119 | 16034 | -     | -     |       |
|                             | N   | kg | 10456 | 11646 | 12355 | 12989 | 12721 | 13666 | 13709 | 16119 | -     | -     | -     | -     | -     |       |
| Weight functioning          | °   | kg | 7868  | 8287  | 8819  | 9342  | 9471  | 9522  | 10224 | 12527 | 12603 | 13089 | 13633 | 13920 | 14048 |       |
|                             | A,L | kg | 9215  | 9922  | 9974  | 10795 | 11327 | 11898 | 11940 | 14121 | 14184 | 15328 | 15381 | 16950 | 18126 |       |
|                             | E,U | kg | 10427 | 10476 | 11781 | 11907 | 12446 | 12886 | 13327 | 15281 | 15772 | 15875 | 17190 | -     | -     |       |
|                             | N   | kg | 10961 | 12171 | 12880 | 13564 | 14249 | 14292 | 14726 | 16937 | -     | -     | -     | -     | -     |       |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NSMI 1251-6102

## Air-water chiller

Cooling capacity 285,6 ÷ 1342,6 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **Low electrical consumption**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with high-efficiency screw compressors axial fans, micro-channel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

#### Unit with 1 / 2 cooling circuits

Unit with 1–2 refrigerant circuits. The single circuit units have the inverter compressor, while the dual-circuit have an asynchronous compressor on/off switch and an inverter, the combination provides both high efficiency at part load and full load.

#### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### Low noise version

**Silenced versions "E" feature a special compressor jacket which ensures a further noise reduction of approximately 4dB.**

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**GP\_:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

## ACCESSORIES COMPATIBILITY

### Accessories

| Model            | Ver | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | .    | .    | .    |      |      |      |      |      |      |      |      |      |      |      |      |
| AER485P1 x no. 2 | A,E |      |      |      | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP          | A,E | .    | .    | .    |      |      |      |      |      |      |      |      |      |      |      |      |
| AERBACP x no. 2  | A,E |      |      |      | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET           | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

### Antivibration

| Ver | 1251   | 1601   | 1801   | 2352   | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A   | AVX991 | AVX992 | AVX993 | AVX996 | AVX970 | AVX995 | AVX995 | AVX995 | AVX996 | AVX988 | AVX997 | AVX998 | AVX998 | AVX998 | AVX998 |
| E   | AVX991 | AVX992 | AVX994 | AVX996 | AVX970 | AVX995 | AVX995 | AVX995 | AVX996 | AVX988 | AVX997 | AVX998 | AVX998 | AVX998 | AVX998 |

### Heater exchangers

| Ver  | 1251  | 1601  | 1801  | 2352  | 2652  | 2802  | 3202  | 3402  | 3802  | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A, E | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid kit

| Ver  | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402  | 4802  | 5202  | 5702  | 6102  |
|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| A, E | GP4V | GP4V | GP5V | GP5V | GP6V | GP7V | GP7V | GP7V | GP8V | GP9V | GP10V | GP11V | GP11V | GP11V | GP11V |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description  |
|----------------|--|
| <b>1,2,3,4</b> | <b>NSMI</b>  |
|                | <b>Size</b>  |
| <b>5,6,7,8</b> | 1251, 1601, 1801, 2352, 2652, 2802, 3202, 3402, 3802, 4102, 4402, 4802, 5202, 5702, 6102 |
| <b>9</b>       | <b>Model</b>   |
| °              | Cooling only   |
| <b>10</b>      | <b>Heat recovery</b>   |
| D              | With desuperheater (1)   |
| T              | With total recovery  |
| °              | Without heat recovery  |
| <b>11</b>      | <b>Version</b>   |
| A              | High efficiency  |
| E              | Silenced high efficiency   |
| <b>12</b>      | <b>Coils</b>   |
| I              | Copper-aluminium   |
| O              | Coated aluminium microchannel  |
| R              | Copper pipes-copper fins   |
| S              | Copper pipes-Tinned copper fins  |
| V              | Copper pieps-Coated aluminium fins   |
| °              | Aluminium microchannel   |
| <b>13</b>      | <b>Fans</b>  |
| J              | Inverter   |
| °              | Standard   |
| <b>14</b>      | <b>Power supply</b>  |
| °              | 400V~3 50Hz with fuses   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>   |
|                | <b>Without hydronic kit</b>  |
| 00             | Without hydronic kit   |
|                | <b>Kit with n° 1 pump</b>  |

| Field | Description                           |
|-------|---------------------------------------|
| PA    | Pump A                                |
| PB    | Pump B                                |
| PC    | Pump C                                |
| PD    | Pump D                                |
| PE    | Pump E                                |
| PF    | Pump F                                |
| PG    | Pump G                                |
| PH    | Pump H                                |
| PI    | Pump I                                |
| PJ    | Pump J (2)                            |
|       | <b>Pump n° 1 pump + stand-by pump</b> |
| DA    | Pump A + stand-by pump                |
| DB    | Pump B + stand-by pump                |
| DC    | Pump C + stand-by pump                |
| DD    | Pump D + stand-by pump                |
| DE    | Pump E + stand-by pump                |
| DF    | Pump F + stand-by pump                |
| DG    | Pump G + stand-by pump                |
| DH    | Pump H + stand-by pump                |
| DI    | Pump I + stand-by pump                |
| DJ    | Pump J + stand-by pump (2)            |
|       | <b>Kit with 2 pumps</b>               |
| TF    | Double pump F                         |
| TG    | Double pump G                         |
| TH    | Double pump H                         |
| TI    | Double pump I                         |
| TJ    | Double pump J (2)                     |

(1) Minimum water temperature of 35 °C must always be ensured at heat exchanger inlet if working with low temperatures of water produced in the primary circuit.

(2) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

### NSMI - A/E

| Size  |     | 1251  | 1601  | 1801  | 2352  | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|---|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 285,6 | 382,0 | 464,0 | 519,1 | 605,4  | 659,4  | 725,2  | 802,4  | 842,6  | 948,0  | 1008,8 | 1110,4 | 1204,3 | 1253,0 | 1342,6 |
| Input power                                 | kW  | 91,3  | 120,2 | 149,5 | 167,1 | 194,3  | 212,3  | 232,7  | 257,5  | 269,9  | 304,8  | 324,7  | 356,2  | 397,4  | 415,9  | 454,6  |
| Cooling total input current                 | A   | 155,0 | 200,0 | 245,0 | 293,0 | 337,0  | 360,0  | 393,0  | 431,0  | 443,0  | 517,0  | 547,0  | 619,0  | 665,0  | 728,0  | 761,0  |
| EER   | W/W | 3,13  | 3,18  | 3,10  | 3,11  | 3,12   | 3,11   | 3,12   | 3,12   | 3,12   | 3,11   | 3,11   | 3,12   | 3,03   | 3,01   | 2,95   |
| Water flow rate system side                 | l/h | 49130 | 65700 | 79773 | 89247 | 104092 | 113376 | 124682 | 137945 | 144852 | 162983 | 173442 | 190903 | 207040 | 215409 | 230815 |
| Pressure drop system side                   | kPa | 45    | 15    | 21    | 18    | 25     | 28     | 33     | 27     | 30     | 39     | 45     | 38     | 44     | 49     | 55     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |         | 1251   | 1601   | 1801   | 2352   | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|--|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) with standard fans (1)</b>             |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A,E W/W | 4,75   | 4,82   | 4,78   | 4,90   | 4,92   | 4,90   | 4,91   | 4,93   | 4,93   | 4,90   | 4,88   | 4,90   | 4,85   | 4,70   | 4,69   |
| Seasonal efficiency  | A,E %   | 186,8% | 189,7% | 188,0% | 193,1% | 193,9% | 193,0% | 193,3% | 194,2% | 194,3% | 192,8% | 192,2% | 192,9% | 191,0% | 185,1% | 184,7% |
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (1)</b>             |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A,E W/W | 4,95   | 5,04   | 5,00   | 5,01   | 5,03   | 5,01   | 5,02   | 5,04   | 5,04   | 5,00   | 4,99   | 5,00   | 4,96   | 4,81   | 4,80   |
| Seasonal efficiency  | A,E %   | 194,9% | 198,4% | 196,8% | 197,3% | 198,1% | 197,2% | 197,6% | 198,5% | 198,5% | 197,1% | 196,4% | 197,1% | 195,3% | 189,2% | 188,8% |
| <b>SEPR - (EN14825:2018) High temperature with standard fans (2)</b> |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | A,E W/W | 5,70   | 5,62   | 5,59   | 6,56   | 6,43   | 6,42   | 6,77   | 6,94   | 7,21   | 6,96   | 7,47   | 6,88   | 7,21   | 6,69   | 7,01   |
| <b>SEPR - (EN14825:2018) High temperature with inverter fans (2)</b> |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | A,E W/W | 5,70   | 5,62   | 5,59   | 6,56   | 6,43   | 6,42   | 6,77   | 6,94   | 7,21   | 6,96   | 7,47   | 6,88   | 7,21   | 6,69   | 7,01   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |       | 1251  | 1601  | 1801  | 2352  | 2652  | 2802  | 3202  | 3402  | 3802  | 4102  | 4402   | 4802   | 5202   | 5702   | 6102   |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Maximum current (FLA) | A,E A | 251,3 | 291,3 | 377,7 | 442,0 | 473,0 | 519,4 | 519,4 | 567,4 | 653,8 | 708,1 | 753,5  | 874,8  | 917,2  | 1002,2 | 1036,2 |
| Peak current (LRA)    | A,E A | 51,3  | 51,3  | 57,7  | 57,7  | 605,0 | 651,4 | 651,4 | 775,4 | 861,8 | 989,1 | 1059,4 | 1180,2 | 1335,2 | 1420,2 | 1532,2 |

## GENERAL TECHNICAL DATA

| Size                              |          | 1251 | 1601 | 1801 | 2352 | 2652 | 2802  | 3202  | 3402  | 3802  | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|-----------------------------------|----------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Compressor</b>                 |          |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Type                              | A,E type |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Compressor regulation             | A,E Type | I    | I    | I    | 1+I  | 1+I  | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   | 1+I   |
| Number                            | A,E no.  | 1    | 1    | 1    | 2    | 2    | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| Circuits                          | A,E no.  | 1    | 1    | 1    | 2    | 2    | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     |
| Refrigerant                       | A,E type |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Refrigerant charge (1)            | A,E kg   | 28,0 | 28,0 | 30,0 | 81,0 | 92,0 | 110,0 | 114,0 | 107,0 | 131,0 | 146,0 | 163,0 | 183,0 | 183,0 | 195,0 | 195,0 |
| <b>System side heat exchanger</b> |          |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Type                              | A,E type |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Number                            | A,E no.  | 1    | 1    | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| <b>Hydraulic connections</b>      |          |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Connections (in/out)              | A,E Type |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
| Sizes (in/out)                    | A,E Ø    | 5"   | 6"   | 6"   | 6"   | 6"   | 6"    | 6"    | 6"    | 8"    | 8"    | 8"    | 8"    | 10"   | 10"   | 10"   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

### Fans

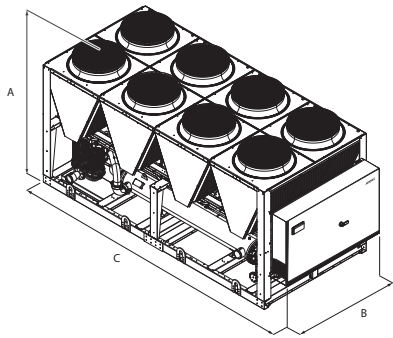
| Size           |          | 1251   | 1601   | 1801   | 2352   | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|----------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: °</b> |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>     |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type           | A,E type |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor      | A,E type |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number         | A,E no.  | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 14     | 16     | 18     | 20     | 22     | 22     | 22     | 22     |
| Air flow rate  | A,E m³/h | 128000 | 128000 | 160000 | 160000 | 192000 | 224000 | 224000 | 224000 | 256000 | 288000 | 320000 | 396000 | 396000 | 396000 | 396000 |

### Sound data

| Size   |   | 1251  | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802  | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|--|---|-------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Sound power level                                | A | dB(A) | 97,2 | 98,6 | 98,6 | 98,6 | 98,8 | 99,9 | 99,9 | 100,3 | 100,3 | 100,4 | 101,0 | 102,9 | 103,2 | 103,2 |
|  | E | dB(A) | 92,9 | 95,8 | 95,9 | 94,7 | 95,1 | 96,1 | 96,1 | 97,3  | 97,4  | 97,7  | 98,0  | 99,9  | 99,9  | 99,9  |
| Sound pressure level (10 m)                      | A | dB(A) | 64,8 | 66,2 | 66,1 | 66,1 | 66,2 | 67,1 | 67,1 | 67,5  | 67,5  | 67,4  | 67,9  | 69,7  | 69,7  | 69,9  |
|  | E | dB(A) | 60,6 | 63,4 | 63,4 | 62,1 | 62,5 | 63,3 | 63,3 | 64,6  | 64,5  | 64,7  | 64,8  | 66,7  | 66,7  | 66,7  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



| Size                        |     |    | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|-----------------------------|-----|----|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights      |     |    |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A                           | A,E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                           | A,E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                           | A,E | mm | 4760 | 4760 | 5950 | 6400 | 7140 | 8330 | 8330 | 8330 | 9520 | 10710 | 11900 | 13090 | 13090 | 13090 | 13090 |
| Size                        |     |    | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
| Integrated hydronic kit: 00 |     |    |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| Dimensions and weights      |     |    |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| Empty weight                | A   | kg | 3752 | 4162 | 4578 | 6039 | 6447 | 6896 | 6987 | 7635 | 8103 | 8872  | 9324  | 10798 | 10888 | 10918 | 10991 |
|                             | E   | kg | 4054 | 4464 | 4880 | 6642 | 7050 | 7499 | 7590 | 8239 | 8706 | 9475  | 9928  | 11637 | 11727 | 11757 | 11830 |
| Weight functioning          | A   | kg | 3832 | 4416 | 4832 | 6360 | 6768 | 7206 | 7275 | 8165 | 8632 | 9389  | 9841  | 11730 | 11819 | 11835 | 11908 |
|                             | E   | kg | 4134 | 4718 | 5134 | 6964 | 7371 | 7809 | 7878 | 8768 | 9236 | 9993  | 10445 | 12568 | 12658 | 12674 | 12747 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## NS

## Reversible air/water heat pump

Cooling capacity 251 ÷ 731 kW – Heating capacity 281 ÷ 786 kW

- High efficiency also at partial loads
- Electronic expansion valve



### DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more details refer to the technical documentation).

#### Bi-tri circuit unit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**GP\_M:** Anti-intrusion grid.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**KRS:** Electric heater for the heat exchanger

**AK:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 1251 | 1401 | 1402 | 1601 | 1602 | 1801 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | .    | .    |      | .    |      | .    |      |      |      |      |      |      |      |      |      |      |      |
| AER485P1 x no. 2 | A,E |      |      | .    |      | .    |      | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP          | A,E | .    | .    |      | .    |      | .    |      |      |      |      |      |      |      |      |      |      |      |
| AERBACP x no. 2  | A,E |      |      | .    |      | .    |      | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET           | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PRV3             | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

### Condensation control temperature

| Ver | 1251        | 1401        | 1402        | 1601        | 1602        | 1801        | 1802        | 2002        | 2202        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | DCPX69      | DCPX69      | DCPX68      | DCPX69      | DCPX68      | DCPX69      | DCPX68      | DCPX73      | DCPX73      |
| E   | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

| Ver | 2352        | 2502        | 2652        | 2802        | 3002        | 3202        | 3402        | 3602        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | DCPX73      | DCPX73      | DCPX73      | DCPX73      | DCPX73      | DCPX73      | DCPX73      | DCPX73      |
| E   | As standard | As standard | As standard | As standard | As standard | As standard | As standard | As standard |

### Anti-intrusion grid

| Ver  | 1251   | 1401   | 1402   | 1601   | 1602   | 1801   | 1802   | 2002   | 2202   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | GP300M | GP300M | GP300B | GP300M | GP300B | GP400M | GP400B | GP500B | GP500B |

| Ver  | 2352   | 2502   | 2652   | 2802   | 3002        | 3202        | 3402        | 3602        |
|------|--------|--------|--------|--------|-------------|-------------|-------------|-------------|
| A, E | GP500B | GP500B | GP500B | GP500B | GP300M+300M | GP300M+300M | GP300M+400M | GP400M+400M |

### Antivibration

| Ver | 1251 | 1401 | 1402 | 1601 | 1602 | 1801 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Integrated hydronic kit: 00**

|      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | AVX536 | AVX536 | AVX537 | AVX536 | AVX538 | AVX540 | AVX541 | AVX543 | AVX543 | AVX545 | AVX549 | AVX551 | AVX551 | AVX554 | AVX556 | AVX557 | AVX559 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

**Integrated hydronic kit: PA**

|      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | AVX536 | AVX536 | AVX537 | AVX536 | AVX538 | AVX540 | AVX541 | AVX543 | AVX543 | AVX545 | AVX550 | AVX551 | AVX551 | AVX553 | AVX553 | AVX557 | AVX559 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

**Integrated hydronic kit: PC, PE, PG, PJ**

|      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | AVX536 | AVX536 | AVX538 | AVX536 | AVX538 | AVX540 | AVX541 | AVX543 | AVX543 | AVX545 | AVX550 | AVX551 | AVX551 | AVX553 | AVX555 | AVX557 | AVX559 |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

### Heater exchangers

| Ver  | 1251  | 1401  | 1402  | 1601  | 1602  | 1801  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A, E | KRS11 | KRS11 | KRS19 | KRS11 | KRS19 | KRS11 | KRS19 | KRS19 | KRS19 | KRS19 | KRS19 | KRS19 | KRS19 | KRS14 | KRS14 | KRS14 | KRS14 |

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver  | 1251       | 1401       | 1402       | 1601       | 1602       | 1801       | 1802       | 2002       | 2202       |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A, E | RIFNSH1251 | RIFNSH1401 | RIFNSH1402 | RIFNSH1601 | RIFNSH1602 | RIFNSH1801 | RIFNSH1802 | RIFNSH2002 | RIFNSH2202 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 2352       | 2502       | 2652       | 2802       | 3002       | 3202       | 3402       | 3602       |
|------|------------|------------|------------|------------|------------|------------|------------|------------|
| A, E | RIFNSH2352 | RIFNSH2502 | RIFNSH2652 | RIFNSH2802 | RIFNSH3002 | RIFNSH3202 | RIFNSH3402 | RIFNSH3602 |

A grey background indicates the accessory must be assembled in the factory

### Acoustic kit

| Ver  | 1251   | 1401   | 1402   | 1601   | 1602   | 1801   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2     | NS   |
| 3,4,5,6 | Size<br>1251, 1401, 1402, 1601, 1602, 1801, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602 |
| 7       | Operating field  |
| X       | Electronic thermostatic expansion valve  |
| 8       | Model  |
| H       | Heat pump  |
| 9       | Heat recovery  |
| D       | With desuperheater   |
| °       | Without heat recovery  |
| 10      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| 11      | Coils  |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins  |
| V       | Copper pipes-Coated aluminium fins   |
| °       | Copper-aluminium   |
| 12      | Fans   |
| J       | Inverter   |
| °       | Standard   |
| 13      | Power supply   |
| 8       | 400V~3 50Hz with magnet circuit breakers   |
| °       | 400V~3 50Hz with fuses   |
| 14,15   | Integrated hydronic kit  |
|         | Without hydronic kit   |
| 00      | Without hydronic kit   |
|         | Kit with n° 1 pump   |
| PA      | Pump A   |
| PC      | Pump C   |
| PE      | Pump E   |
| PG      | Pump G   |
| PJ      | Pump J (1)   |

(1) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

## NS - HA

| Size   |     | 1251  | 1401  | 1402  | 1601  | 1602  | 1801  | 1802  | 2002  | 2202  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 262,7 | 281,7 | 257,7 | 309,7 | 315,6 | 365,6 | 365,6 | 384,6 | 414,5 |
| Input power                                  | kW  | 86,9  | 95,0  | 94,9  | 107,8 | 108,3 | 128,3 | 125,3 | 132,5 | 138,8 |
| Cooling total input current                  | A   | 149,0 | 164,0 | 168,0 | 185,0 | 186,0 | 215,0 | 216,0 | 227,0 | 233,0 |
| EER  | W/W | 3,02  | 2,96  | 2,72  | 2,87  | 2,91  | 2,85  | 2,92  | 2,90  | 2,99  |
| Water flow rate system side                  | l/h | 45186 | 48451 | 44327 | 53262 | 54292 | 62883 | 62883 | 66147 | 71302 |
| Pressure drop system side                    | kPa | 38    | 41    | 36    | 27    | 50    | 43    | 43    | 47    | 53    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 281,4 | 297,4 | 281,4 | 332,3 | 342,5 | 393,5 | 395,5 | 412,5 | 450,6 |
| Input power                                  | kW  | 88,2  | 94,2  | 93,2  | 104,0 | 106,8 | 126,7 | 123,7 | 133,9 | 141,3 |
| Heating total input current                  | A   | 150,0 | 163,0 | 165,0 | 180,0 | 182,0 | 212,0 | 213,0 | 229,0 | 236,0 |
| COP  | W/W | 3,19  | 3,16  | 3,02  | 3,20  | 3,21  | 3,11  | 3,20  | 3,08  | 3,19  |
| Water flow rate system side                  | l/h | 48838 | 51618 | 48838 | 57701 | 59439 | 68303 | 68651 | 71605 | 78210 |
| Pressure drop system side                    | kPa | 47    | 49    | 47    | 33    | 64    | 54    | 54    | 58    | 67    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.



| Size   |     | 2352  | 2502  | 2652  | 2802   | 3002   | 3202   | 3402   | 3602   |
|--|-----|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |        |        |        |        |        |
| Cooling capacity                             | kW  | 454,6 | 499,5 | 524,5 | 547,5  | 591,5  | 619,6  | 675,5  | 731,4  |
| Input power                                  | kW  | 158,4 | 173,5 | 186,7 | 195,9  | 202,6  | 215,4  | 235,9  | 256,4  |
| Cooling total input current                  | A   | 268,0 | 295,0 | 318,0 | 335,0  | 349,0  | 370,0  | 400,0  | 430,0  |
| EER  | W/W | 2,87  | 2,88  | 2,81  | 2,80   | 2,92   | 2,88   | 2,86   | 2,85   |
| Water flow rate system side                  | l/h | 78174 | 85906 | 90201 | 94153  | 101712 | 106523 | 116144 | 125766 |
| Pressure drop system side                    | kPa | 37    | 38    | 40    | 43     | 34     | 27     | 35     | 43     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |        |        |        |        |        |
| Heating capacity                             | kW  | 502,5 | 541,5 | 563,6 | 585,6  | 629,5  | 664,5  | 725,6  | 786,7  |
| Input power                                  | kW  | 157,9 | 171,0 | 177,1 | 185,4  | 198,0  | 207,8  | 230,4  | 253,1  |
| Heating total input current                  | A   | 267,0 | 292,0 | 303,0 | 318,0  | 342,0  | 359,0  | 391,0  | 423,0  |
| COP  | W/W | 3,18  | 3,17  | 3,18  | 3,16   | 3,18   | 3,20   | 3,15   | 3,11   |
| Water flow rate system side                  | l/h | 87247 | 94025 | 97849 | 101673 | 109320 | 115403 | 126004 | 136606 |
| Pressure drop system side                    | kPa | 49    | 47    | 49    | 53     | 41     | 33     | 43     | 54     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## NS - HE

| Size   |     | 1251  | 1401  | 1402  | 1601  | 1602  | 1801  | 1802  | 2002  | 2202  |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 250,7 | 266,7 | 242,7 | 292,7 | 301,6 | 343,6 | 349,6 | 366,6 | 394,5 |
| Input power                                  | kW  | 91,8  | 101,9 | 100,8 | 115,7 | 116,2 | 136,1 | 132,2 | 140,3 | 146,5 |
| Cooling total input current                  | A   | 161,0 | 178,0 | 181,0 | 202,0 | 202,0 | 234,0 | 233,0 | 246,0 | 254,0 |
| EER  | W/W | 2,73  | 2,62  | 2,41  | 2,53  | 2,60  | 2,52  | 2,65  | 2,61  | 2,69  |
| Water flow rate system side                  | l/h | 43125 | 45874 | 41750 | 50341 | 51887 | 59103 | 60134 | 63055 | 67865 |
| Pressure drop system side                    | kPa | 32    | 37    | 33    | 24    | 46    | 38    | 39    | 43    | 48    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 281,4 | 297,4 | 281,4 | 332,3 | 342,5 | 393,5 | 395,5 | 412,5 | 450,6 |
| Input power                                  | kW  | 88,2  | 94,2  | 93,2  | 104,0 | 106,8 | 126,7 | 123,7 | 133,9 | 141,3 |
| Heating total input current                  | A   | 150,0 | 163,0 | 165,0 | 180,0 | 182,0 | 212,0 | 213,0 | 229,0 | 236,0 |
| COP  | W/W | 3,19  | 3,16  | 3,02  | 3,20  | 3,21  | 3,11  | 3,20  | 3,08  | 3,19  |
| Water flow rate system side                  | l/h | 48838 | 51618 | 48838 | 57701 | 59439 | 68303 | 68651 | 71605 | 78210 |
| Pressure drop system side                    | kPa | 47    | 49    | 47    | 33    | 64    | 54    | 54    | 58    | 67    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

| Size   |     | 2352  | 2502  | 2652  | 2802   | 3002   | 3202   | 3402   | 3602   |
|--|-----|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |        |        |        |        |        |
| Cooling capacity                             | kW  | 435,6 | 487,6 | 506,5 | 517,5  | 559,6  | 585,6  | 636,5  | 687,5  |
| Input power                                  | kW  | 169,3 | 192,4 | 202,5 | 210,6  | 217,4  | 231,2  | 251,6  | 272,0  |
| Cooling total input current                  | A   | 293,0 | 333,0 | 349,0 | 365,0  | 380,0  | 403,0  | 436,0  | 468,0  |
| EER  | W/W | 2,57  | 2,53  | 2,50  | 2,46   | 2,57   | 2,53   | 2,53   | 2,53   |
| Water flow rate system side                  | l/h | 74910 | 83844 | 87108 | 88998  | 96214  | 100681 | 109444 | 118206 |
| Pressure drop system side                    | kPa | 34    | 35    | 37    | 39     | 30     | 24     | 31     | 38     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |        |        |        |        |        |
| Heating capacity                             | kW  | 502,5 | 541,5 | 563,6 | 585,6  | 629,5  | 664,5  | 725,6  | 786,7  |
| Input power                                  | kW  | 157,9 | 171,0 | 177,1 | 185,4  | 198,0  | 207,8  | 230,4  | 253,1  |
| Heating total input current                  | A   | 267,0 | 292,0 | 303,0 | 318,0  | 342,0  | 359,0  | 391,0  | 423,0  |
| COP  | W/W | 3,18  | 3,17  | 3,18  | 3,16   | 3,18   | 3,20   | 3,15   | 3,11   |
| Water flow rate system side                  | l/h | 87247 | 94025 | 97849 | 101673 | 109320 | 115403 | 126004 | 136606 |
| Pressure drop system side                    | kPa | 49    | 47    | 49    | 53     | 41     | 33     | 43     | 54     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Data EN 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

## ENERGY DATA

| Size  |     |     | 1251   | 1401   | 1402   | 1601   | 1602   | 1801   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|---|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1) |     |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh  | A,E | kW  | 185    | 195    | 185    | 218    | 225    | 259    | 260    | 271    | 297    | 330    | 356    | 370    | 385    | 325    | 342    | 374    | 400    |
| SCOP  | A,E | W/W | 3,33   | 3,28   | 3,23   | 3,33   | 3,33   | 3,23   | 3,33   | 3,20   | 3,30   | 3,30   | 3,30   | 3,33   | 3,30   | 3,35   | 3,40   | 3,33   | 3,28   |
| ηsh   | A,E | %   | 130.0% | 128.0% | 126.0% | 130.0% | 130.0% | 126.0% | 130.0% | 125.0% | 129.0% | 129.0% | 129.0% | 130.0% | 129.0% | 131.0% | 133.0% | 130.0% | 128.0% |
| SEER - 12/7 (EN14825:2018) with standard fans (2)   |     |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER  | A   | W/W | 3,88   | 3,81   | 3,46   | 3,76   | 3,68   | 3,71   | 3,73   | 3,70   | 3,80   | 3,72   | 3,74   | 3,66   | 3,64   | 3,81   | 3,76   | 3,73   | 3,72   |
|   | E   | W/W | 3,41   | 3,28   | 3,00   | 3,19   | 3,23   | 3,19   | 3,32   | 3,28   | 3,37   | 3,28   | 3,23   | 3,18   | 3,12   | 3,30   | 3,25   | 3,23   | 3,23   |
| Seasonal efficiency   | A   | %   | 152.1% | 149.4% | 135.2% | 147.4% | 144.2% | 145.2% | 146.0% | 145.0% | 149.0% | 145.7% | 146.6% | 143.5% | 142.5% | 149.5% | 147.5% | 146.1% | 145.8% |
|   | E   | %   | 133.4% | 128.1% | 116.8% | 124.4% | 126.2% | 124.7% | 129.7% | 128.2% | 131.8% | 128.1% | 126.3% | 124.3% | 121.7% | 129.1% | 126.9% | 126.1% | 126.2% |

(1) Efficiencies for low temperature applications (35 °C)

(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

## ELECTRIC DATA

| Size                  |     |   | 1251  | 1401  | 1402  | 1601  | 1602  | 1801  | 1802  | 2002  | 2202  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 209,0 | 242,0 | 276,0 | 258,0 | 276,0 | 316,0 | 325,0 | 352,0 | 370,0 |
| Peak current (LRA)    | A,E | A | 327,0 | 387,0 | 251,0 | 431,0 | 251,0 | 472,0 | 305,0 | 313,0 | 350,0 |
| Size                  |     |   | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  |       |
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 390,0 | 410,0 | 443,0 | 476,0 | 500,0 | 516,0 | 574,0 | 631,0 |       |
| Peak current (LRA)    | A,E | A | 365,0 | 436,0 | 461,0 | 521,0 | 534,0 | 578,0 | 612,0 | 653,0 |       |

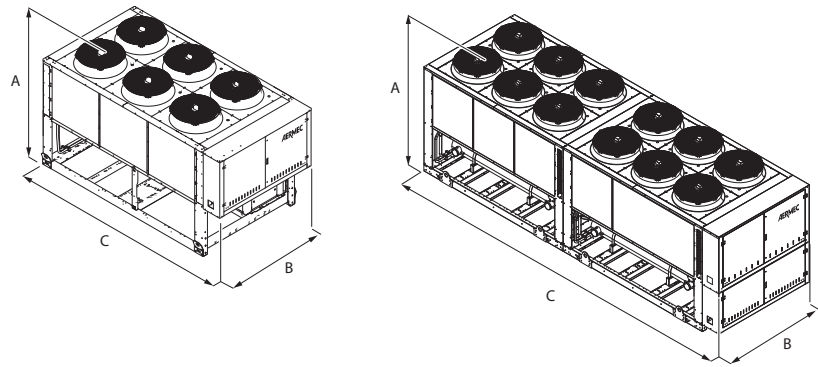
## GENERAL TECHNICAL DATA

| Size  |     |       | 1251           | 1401   | 1402   | 1601   | 1602   | 1801   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|---|-----|-------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Compressor  |     |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | A,E | type  | Screw          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Compressor regulation   | A,E | Type  | On/Off         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number  | A,E | no.   | 1              | 1      | 2      | 1      | 2      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Circuits  | A,E | no.   | 1              | 1      | 2      | 1      | 2      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Partialisation of the unit with electronic thermostatic expansion valve | A   | %     | 40-100         | 40-100 | 20-100 | 40-100 | 20-100 | 40-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 | 20-100 |
|   | E   | %     | -              | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Refrigerant   | A,E | type  | R134a          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Refrigerant load circuit 1 (1)  | A   | kg    | 90,0           | 92,0   | 43,0   | 100,0  | 57,0   | 138,0  | 57,0   | 55,0   | 80,0   | 80,0   | 85,0   | -      | 97,0   | 92,0   | -      | 110,0  | 138,0  |
|   | E   | kg    | 90,0           | 92,0   | 43,0   | 118,0  | 57,0   | 138,0  | 57,0   | 55,0   | 80,0   | 80,0   | 85,0   | -      | 97,0   | 92,0   | 118,0  | 110,0  | 138,0  |
| Refrigerant load circuit 2 (1)  | A   | kg    | -              | -      | 45,0   | -      | 57,0   | -      | 57,0   | 75,0   | 102,0  | 85,0   | 85,0   | -      | 97,0   | 100,0  | -      | 145,0  | 138,0  |
|   | E   | kg    | -              | -      | 45,0   | -      | 57,0   | -      | 57,0   | 75,0   | 102,0  | 85,0   | 85,0   | -      | 97,0   | 118,0  | 118,0  | 145,0  | 138,0  |
| Total oil charge  | A,E | kg    | 22,0           | 19,0   | 30,0   | 19,0   | 30,0   | 35,0   | 30,0   | 30,0   | 30,0   | 37,0   | 44,0   | 41,0   | 38,0   | 38,0   | 38,0   | 54,0   | 70,0   |
| System side heat exchanger  |     |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type  | A,E | type  | Shell and tube |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number  | A,E | no.   | 1              | 1      | 2      | 1      | 2      | 1      | 2      | 2      | 1      | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      |
| Minimum water flow rate   | A   | l/h   | 22593          | 24226  | 22164  | 26631  | 27146  | 31442  | 31442  | 33074  | 35651  | 39087  | 42953  | 45101  | 47077  | 50856  | 53262  | 58072  | 62883  |
|   | E   | l/h   | 21563          | 22937  | 20875  | 25171  | 25944  | 29552  | 30067  | 31528  | 33933  | 37455  | 41922  | 43554  | 44499  | 48107  | 50341  | 54722  | 59103  |
| Maximum water flow rate   | A   | l/h   | 75310          | 80752  | 73878  | 88770  | 90487  | 104805 | 104805 | 110245 | 118837 | 130290 | 143177 | 150335 | 156922 | 169520 | 177538 | 193573 | 209610 |
|   | E   | l/h   | 71875          | 76457  | 69583  | 83902  | 86478  | 98505  | 100223 | 105092 | 113108 | 124850 | 139740 | 145180 | 148330 | 160357 | 167802 | 182407 | 197010 |
| Water content   | A,E | l     | 96,0           | 101,2  | 96,0   | 98,1   | 101,2  | 132,9  | 132,9  | 132,9  | 159,8  | 159,8  | 149,9  | 220,7  | 220,7  | 199,3  | 196,2  | 231,0  | 265,8  |
| System side hydraulic connections                                       |     |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Connections (in/out)  | A,E | Type  | Grooved joints |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sizes (in/out)  | A,E | Ø     | 6"             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound data calculated in cooling mode (2)                               |     |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level   | A   | dB(A) | 93,5           | 93,5   | 94,0   | 94,5   | 95,0   | 96,0   | 96,0   | 96,5   | 96,5   | 96,5   | 97,0   | 97,0   | 97,0   | 97,0   | 97,5   | 98,3   | 99,0   |
|   | E   | dB(A) | 88,5           | 88,5   | 89,0   | 89,5   | 90,0   | 91,0   | 91,0   | 91,5   | 91,5   | 91,5   | 92,0   | 92,0   | 92,0   | 92,0   | 92,5   | 93,3   | 94,0   |
| Sound pressure level (10 m)   | A   | dB(A) | 61,3           | 61,3   | 61,8   | 62,3   | 62,8   | 63,6   | 63,6   | 64,0   | 64,0   | 64,0   | 64,5   | 64,5   | 64,5   | 64,4   | 64,9   | 65,6   | 66,2   |
|   | E   | dB(A) | 56,3           | 56,3   | 56,8   | 57,3   | 57,8   | 58,6   | 58,6   | 59,0   | 59,0   | 59,0   | 59,5   | 59,5   | 59,5   | 57,4   | 59,9   | 60,6   | 61,2   |
| Sound pressure level (1 m)  | A   | dB(A) | 73,8           | 73,8   | 74,3   | 74,8   | 75,3   | 75,8   | 75,8   | 75,9   | 75,9   | 75,9   | 76,4   | 76,4   | 76,4   | 75,8   | 76,3   | 76,8   | 77,2   |
|   | E   | dB(A) | 68,8           | 68,8   | 69,3   | 69,8   | 70,3   | 70,8   | 70,8   | 70,9   | 70,9   | 70,9   | 71,4   | 71,4   | 71,4   | 70,8   | 71,3   | 71,8   | 72,2   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



| Size                               |     |    | 1251 | 1401 | 1402 | 1601 | 1602 | 1801 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------------------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>      |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                                  | A,E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B                                  | A,E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C                                  | A,E | mm | 3780 | 3780 | 3780 | 3780 | 3780 | 4770 | 4770 | 5750 | 5750 | 5750 | 5750 | 5750 | 5750 | 7160 | 7160 | 8150 | 9140 |
| <b>Integrated hydronic kit: 00</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Dimensions and weights</b>      |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                       | A,E | kg | 3245 | 3280 | 3570 | 3435 | 3835 | 4115 | 4005 | 4385 | 4570 | 4940 | 5265 | 5470 | 5610 | 6540 | 6745 | 7425 | 8105 |
| Weight functioning                 | A,E | kg | 3340 | 3380 | 3665 | 3535 | 3935 | 4250 | 4140 | 4520 | 4730 | 5100 | 5415 | 5690 | 5830 | 6740 | 6940 | 7655 | 8370 |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## NSG

## Air-water chiller

Cooling capacity 228 ÷ 1580 kW

- **Microchannel coil**
- **High efficiency also at partial loads**
- **Night mode**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Outdoor units with high-efficiency screw compressors axial fans, micro-channel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- A** High efficiency
- E** Silenced high efficiency
- L** Standard silenced
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

**da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;** with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

#### Bi-tri circuit unit

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO<sub>5</sub>

#### Units include 1 control board for each compressor.

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced versions with the fan to be, inverter or phase-cut or with the DCPX accessory**, a silenced operation profile can be set, which is useful, for example, at night for greater acoustic comfort, but always ensures performance even at peak load hours.
- Possibility to control two units in a Master-Slave configuration (from size 1402 to 6402)

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

### ACCESSORIES COMPATIBILITY

| Model            | Ver        | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1 x no. 2 | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERSET           | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model            | Ver        | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1 x no. 2 | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AER48SP1 x no. 3 | °A,L       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U        |      |      |      |      |      |      |      | *    | *    | *    | *    |      |      |
|                  | N          |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERBACP x no. 2  | °A,E,L,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      | *    | *    |
| AERBACP x no. 3  | °A,L       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U        |      |      |      |      |      |      |      | *    | *    | *    | *    |      |      |
|                  | N          |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERNET           | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
| AERSET           | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
| MULTICHILLER-EVO | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
| PRV3             | °A,L       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U        | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N          | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |

### Condensation control temperature

| Ver     | 1402        | 1602            | 1802            | 2002            | 2202            | 2352            | 2502            | 2652        | 2802        | 3002        |
|---------|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|-------------|-------------|
| Fans: M |             |                 |                 |                 |                 |                 |                 |             |             |             |
| °       | DCPX110     | DCPX110         | DCPX110         | DCPX110         | DCPX110         | DCPX110         | DCPX110         | DCPX111     | DCPX111     | DCPX112     |
| A       | DCPX111     | DCPX111         | DCPX111         | DCPX111         | DCPX112         | DCPX112         | DCPX112         | DCPX113     | DCPX113     | DCPX113     |
| E, L, N | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | As standard     | As standard | As standard | As standard |
| U       | DCPX111     | DCPX111         | DCPX112         | DCPX112         | DCPX113         | DCPX113         | DCPX114         | DCPX114     | DCPX114     | DCPX114     |
| Ver     | 3202        | 3402            | 3602            | 3902            | 4202            | 4502            | 4802            | 5202        | 5602        | 6002        |
| Fans: M |             |                 |                 |                 |                 |                 |                 |             |             |             |
| °       | DCPX112     | DCPX112         | DCPX112         | DCPX113         | DCPX113         | DCPX114         | DCPX114         | DCPX115     | DCPX115     | DCPX115     |
| A       | DCPX113     | DCPX114         | DCPX114         | DCPX115         | DCPX115         | DCPX116         | DCPX116         | DCPX116     | DCPX117     | DCPX118     |
| E, L, N | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | As standard     | As standard | As standard | As standard |
| U       | DCPX114     | DCPX115         | DCPX115         | DCPX116         | DCPX117         | DCPX117         | DCPX118         | DCPX119     | DCPX130     | DCPX131     |
| Ver     | 6402        | 6503            | 6703            | 6903            | 7203            | 8403            | 9603            |             |             |             |
| Fans: M |             |                 |                 |                 |                 |                 |                 |             |             |             |
| °       | DCPX116     | DCPX135+DCPX113 | DCPX135+DCPX113 | DCPX125+DCPX114 | DCPX114+DCPX136 | DCPX114+DCPX136 | DCPX114+DCPX136 |             |             |             |
| A       | DCPX118     | DCPX115+DCPX136 | DCPX115+DCPX136 | DCPX116+DCPX136 | DCPX116+DCPX136 | DCPX117+DCPX136 | -               |             |             |             |
| E, N    | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | -               |             |             |             |
| L       | As standard | As standard     | As standard     | As standard     | As standard     | As standard     | As standard     |             |             |             |
| U       | DCPX132     | DCPX116+DCPX137 | DCPX117+DCPX137 | DCPX117+DCPX137 | DCPX118+DCPX137 | -               | -               |             |             |             |

The accessory cannot be fitted on the configurations indicated with -

### Antivibration

| Ver                                | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °                                  | AVX962 | AVX962 | AVX962 | AVX963 | AVX963 | AVX963 | AVX963 | AVX968 | AVX968 | AVX966 | AVX966 | AVX966 | AVX966 | AVX965 |
| A, L                               | AVX963 | AVX963 | AVX963 | AVX963 | AVX964 | AVX964 | AVX966 | AVX965 | AVX965 | AVX970 | AVX965 | AVX967 | AVX967 | AVX969 |
| E, U                               | AVX963 | AVX963 | AVX964 | AVX966 | AVX966 | AVX965 | AVX965 | AVX967 | AVX967 | AVX967 | AVX967 | AVX969 | AVX969 | AVX971 |
| N                                  | AVX964 | AVX964 | AVX987 | AVX965 | AVX965 | AVX967 | AVX967 | AVX969 | AVX969 | AVX969 | AVX969 | AVX971 | AVX961 | AVX972 |

| Ver                                | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Integrated hydronic kit: 00</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °                                  | AVX965 | AVX967 | AVX967 | AVX969 | AVX969 | AVX969 | AVX971 | AVX978 | AVX978 | AVX983 | AVX984 | AVX984 | AVX984 |
| A, L                               | AVX969 | AVX971 | AVX971 | AVX971 | AVX961 | AVX972 | AVX972 | AVX979 | AVX979 | AVX980 | AVX980 | AVX986 | AVX981 |
| E, U                               | AVX961 | AVX961 | AVX972 | AVX972 | AVX976 | AVX973 | AVX974 | AVX980 | AVX982 | AVX982 | AVX985 | -      | -      |
| N                                  | AVX972 | AVX973 | AVX974 | AVX975 | AVX977 | AVX977 | AVX977 | AVX981 | -      | -      | -      | -      | -      |

#### Power factor correction

| Ver              | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    | 3902    |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A, E, L, N, U | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

| Ver     | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6503    | 6703    | 6903    | 7203    | 8403    | 9603    |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| °, A, L | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) |
| E, U    | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | -       | -       |
| N       | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | RIF (1) | -       | -       | -       | -       | -       |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602  | 3902  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| °    | GP3V | GP3V | GP3V | GP4V | GP4V | GP4V | GP4V | GP4V | GP4V | GP5V | GP5V | GP5V | GP5V  | GP6V  |
| A    | GP4V | GP4V | GP4V | GP5V | GP5V | GP5V | GP5V | GP6V | GP6V | GP6V | GP6V | GP7V | GP7V  | GP8V  |
| E, U | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP7V | GP7V | GP7V | GP7V | GP8V | GP8V  | GP9V  |
| L    | GP4V | GP4V | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP6V | GP6V | GP7V | GP7V  | GP8V  |
| N    | GP5V | GP5V | GP6V | GP6V | GP6V | GP7V | GP7V | GP8V | GP8V | GP8V | GP8V | GP9V | GP10V | GP11V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 4202  | 4502      | 4802      | 5202      | 5602      | 6002      | 6402      | 6503       | 6703       | 6903       | 7203       | 8403       | 9603       |
|------|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| °    | GP6V  | GP7V      | GP7V      | GP8V      | GP8V      | GP8V      | GP9V      | GP9V       | GP9V       | GP10V      | GP11V      | GP11V      | GP11V      |
| A, L | GP8V  | GP9V      | GP9V      | GP9V      | GP10V     | GP11V     | GP11V     | GP4V+GP8V  | GP4V+GP8V  | GP5V+GP9V  | GP5V+GP9V  | GP5V+GP10V | GP6V+GP11V |
| E, U | GP10V | GP10V     | GP11V     | GP11V     | GP6V+GP6V | GP6V+GP7V | GP7V+GP7V | GP5V+GP9V  | GP5V+GP10V | GP5V+GP10V | GP6V+GP11V | -          | -          |
| N    | GP11V | GP6V+GP7V | GP7V+GP7V | GP7V+GP8V | GP8V+GP8V | GP8V+GP8V | GP8V+GP8V | GP6V+GP11V | -          | -          | -          | -          | -          |

A grey background indicates the accessory must be assembled in the factory

#### Heater exchangers

| Ver     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| °, A, L | KRS22 | KRS22 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |
| E, N, U | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 3202  | 3402  | 3602  | 3902  | 4202  | 4502  | 4802  | 5202        | 5602        | 6002        |
|------|-------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------------|
| °    | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS24 | KRS24       | KRS24       | KRS24       |
| A, L | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24       | KRS24       | KRS24       |
| E, U | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24       | KRS23+KRS23 | KRS23+KRS23 |
| N    | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 6402        | 6503        | 6703        | 6903        | 7203        | 8403        | 9603        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| °    | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       | KRS24       |
| A, L | KRS24       | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 |
| E, U | KRS23+KRS23 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | -           | -           |
| N    | KRS23+KRS23 | KRS23+KRS24 | -           | -           | -           | -           | -           |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description   |
|---------|---|
| 1,2,3   | <b>NSG</b>  |
| 4,5,6,7 | <b>Size</b><br>1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603 |
| 8       | <b>Operating field</b>  |
| X       | Electronic thermostatic expansion valve (1)   |
| Z       | Low temperature electronic thermostatic valve (2)   |
| 9       | <b>Model</b>  |
| °       | Cooling only  |
| 10      | <b>Heat recovery</b>  |
| D       | With desuperheater (3)  |
| T       | With total recovery (4)   |
| °       | Without heat recovery   |
| 11      | <b>Version</b>  |
| °       | Standard  |
| A       | High efficiency   |
| E       | Silenced high efficiency  |
| L       | Standard silenced   |
| N       | Silenced very high efficiency   |
| U       | Very high efficiency  |
| 12      | <b>Coils</b>  |
| O       | Coated aluminium microchannel   |
| R       | Copper pipes-copper fins  |
| S       | Copper pipes-Tinned copper fins   |
| V       | Copper pieps-Coated aluminium fins  |
| °       | Aluminium microchannel  |
| 13      | <b>Fans</b>   |
| J       | Inverter  |
| M       | Oversized   |
| 14      | <b>Power supply</b>   |
| 2       | 230V~3 50Hz with fuses (5)  |
| 4       | 230V~3 50Hz with magnet circuit breakers (5)  |
| 5       | 500V~3 50Hz with fuses (6)  |
| 8       | 400V~3 50Hz with magnet circuit breakers  |
| 9       | 500V~3 50Hz with magnet circuit breakers (6)  |
| °       | 400V~3 50Hz with fuses  |

| Field | Description                           |
|-------|---------------------------------------|
| 15,16 | <b>Integrated hydronic kit</b>        |
| 00    | Without hydronic kit                  |
|       | <b>Kit with n° 1 pump</b>             |
| PA    | Pump A                                |
| PB    | Pump B                                |
| PC    | Pump C                                |
| PD    | Pump D                                |
| PE    | Pump E                                |
| PF    | Pump F                                |
| PG    | Pump G                                |
| PH    | Pump H                                |
| PI    | Pump I                                |
| PJ    | Pump J (7)                            |
|       | <b>Pump n° 1 pump + stand-by pump</b> |
| DA    | Pump A + stand-by pump                |
| DB    | Pump B + stand-by pump                |
| DC    | Pump C + stand-by pump                |
| DD    | Pump D + stand-by pump                |
| DE    | Pump E + stand-by pump                |
| DF    | Pump F + stand-by pump                |
| DG    | Pump G + stand-by pump                |
| DH    | Pump H + stand-by pump                |
| DI    | Pump I + stand-by pump                |
| DJ    | Pump J + stand-by pump (7)            |
|       | <b>Kit with 2 pumps</b>               |
| TF    | Double pump F (8)                     |
| TG    | Double pump G (8)                     |
| TH    | Double pump H (8)                     |
| TI    | Double pump I (8)                     |
| TJ    | Double pump J (8)                     |

- (1) Water produced from 0 °C ÷ 23 °C  
(2) Water produced from 8 °C ÷ -10 °C; incompatible whit D and T  
(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.  
(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C. The units from 1402° - 1602° - 1802° with total recovery are not configurable. For all other sizes and versions it is to be evaluated at the order stage.  
(5) Only for sizes from 1402 to 2202  
(6) Only for sizes from 1402 to 3202  
(7) For all configurations including pump J please contact the factory.  
(8) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH - TI - TJ"

## PERFORMANCE SPECIFICATIONS

### NSG - °

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | kW  | 228,6 | 261,3 | 297,8 | 334,1 | 358,6 | 389,8 | 402,8 | 443,7 | 462,6 | 506,3 | 531,6 | 566,5 | 623,6  | 676,0  |
| Input power                                 | kW  | 74,3  | 85,8  | 100,4 | 108,3 | 119,9 | 129,9 | 138,2 | 151,6 | 162,6 | 167,0 | 175,7 | 193,9 | 214,9  | 228,2  |
| Cooling total input current                 | A   | 138,0 | 156,0 | 174,0 | 192,0 | 214,0 | 233,0 | 248,0 | 271,0 | 289,0 | 297,0 | 309,0 | 332,0 | 359,0  | 390,0  |
| EER   | W/W | 3,08  | 3,05  | 2,97  | 3,08  | 2,99  | 3,00  | 2,91  | 2,93  | 2,85  | 3,03  | 3,02  | 2,92  | 2,90   | 2,96   |
| Water flow rate system side                 | l/h | 39316 | 44954 | 51218 | 57461 | 61665 | 67027 | 69255 | 76286 | 79541 | 87045 | 91392 | 97398 | 107202 | 116226 |
| Pressure drop system side                   | kPa | 14    | 18    | 16    | 21    | 24    | 20    | 22    | 18    | 19    | 17    | 19    | 21    | 24     | 29     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 739,5  | 792,4  | 835,2  | 874,9  | 897,0  | 942,5  | 989,1  | 1060,2 | 1095,1 | 1215,2 | 1268,8 | 1333,1 | 1410,0 |
| Input power                                 | kW  | 251,7  | 263,0  | 281,6  | 288,8  | 302,5  | 320,8  | 329,9  | 355,3  | 375,5  | 407,7  | 419,3  | 461,7  | 512,0  |
| Cooling total input current                 | A   | 434,0  | 454,0  | 482,0  | 500,0  | 524,0  | 558,0  | 581,0  | 609,0  | 649,0  | 701,0  | 728,0  | 805,0  | 900,0  |
| EER   | W/W | 2,94   | 3,01   | 2,97   | 3,03   | 2,97   | 2,94   | 3,00   | 2,98   | 2,92   | 2,98   | 3,03   | 2,89   | 2,75   |
| Water flow rate system side                 | l/h | 127152 | 136250 | 143578 | 150403 | 154212 | 162036 | 170045 | 182263 | 188254 | 208871 | 218093 | 229141 | 242359 |
| Pressure drop system side                   | kPa | 33     | 38     | 28     | 31     | 33     | 38     | 42     | 29     | 31     | 20     | 22     | 25     | 28     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSG - L**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 227,7 | 261,7 | 298,7 | 335,0 | 373,6 | 386,8 | 415,2 | 446,3 | 476,8 | 498,0 | 546,8 | 602,0  | 645,3  | 707,0  |
| Input power                                 | kW  | 72,7  | 84,0  | 98,1  | 112,6 | 120,1 | 128,4 | 138,3 | 144,3 | 155,8 | 165,4 | 179,1 | 193,2  | 212,5  | 231,2  |
| Cooling total input current                 | A   | 131,0 | 148,0 | 165,0 | 192,0 | 208,0 | 224,0 | 242,0 | 252,0 | 270,0 | 284,0 | 303,0 | 318,0  | 342,0  | 375,0  |
| EER   | W/W | 3,13  | 3,12  | 3,04  | 2,97  | 3,11  | 3,01  | 3,00  | 3,09  | 3,06  | 3,01  | 3,05  | 3,12   | 3,04   | 3,06   |
| Water flow rate system side                 | l/h | 39167 | 45014 | 51371 | 57614 | 64237 | 66506 | 71390 | 76738 | 81966 | 85616 | 94000 | 103492 | 110929 | 121547 |
| Pressure drop system side                   | kPa | 15    | 18    | 17    | 15    | 19    | 20    | 16    | 19    | 16    | 17    | 19    | 15     | 18     | 22     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603       |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |            |
| Cooling capacity                            | kW  | 743,5  | 806,3  | 841,6  | 893,3  | 933,8  | 982,7  | 1023,0 | 1083,7 | 1120,2 | 1222,9 | 1269,4 | 1383,5 | 1517,2 (2) |
| Input power                                 | kW  | 252,4  | 266,7  | 283,5  | 297,7  | 306,0  | 315,5  | 334,5  | 357,8  | 379,1  | 402,0  | 421,5  | 465,5  | 504,7      |
| Cooling total input current                 | A   | 416,0  | 437,0  | 465,0  | 490,0  | 507,0  | 533,0  | 563,0  | 583,0  | 623,0  | 670,0  | 699,0  | 763,0  | 848,0      |
| EER   | W/W | 2,95   | 3,02   | 2,97   | 3,00   | 3,05   | 3,12   | 3,06   | 3,03   | 2,96   | 3,04   | 3,01   | 2,97   | 3,01       |
| Water flow rate system side                 | l/h | 127821 | 138615 | 144692 | 153568 | 160522 | 168943 | 175872 | 186277 | 192550 | 210223 | 218211 | 237808 | 260789     |
| Pressure drop system side                   | kPa | 24     | 31     | 33     | 24     | 26     | 31     | 33     | 22     | 24     | 31     | 33     | 26     | 32         |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Unit not Eurovent certified because it exceeds 1500 kW

**NSG - A**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 233,0 | 267,3 | 306,8 | 346,4 | 383,4 | 397,6 | 429,0 | 458,6 | 491,7 | 511,7 | 561,1 | 619,9  | 669,1  | 731,1  |
| Input power                                 | kW  | 73,5  | 83,8  | 96,7  | 109,8 | 118,4 | 126,0 | 134,9 | 142,3 | 152,7 | 160,7 | 171,9 | 187,9  | 206,4  | 224,9  |
| Cooling total input current                 | A   | 139,0 | 155,0 | 170,0 | 195,0 | 214,0 | 229,0 | 246,0 | 260,0 | 276,0 | 287,0 | 303,0 | 322,0  | 344,0  | 380,0  |
| EER   | W/W | 3,17  | 3,19  | 3,17  | 3,15  | 3,24  | 3,16  | 3,18  | 3,22  | 3,22  | 3,18  | 3,26  | 3,30   | 3,24   | 3,25   |
| Water flow rate system side                 | l/h | 40072 | 45975 | 52777 | 59582 | 65922 | 68370 | 73757 | 78851 | 84535 | 87974 | 96463 | 106561 | 115027 | 125681 |
| Pressure drop system side                   | kPa | 15    | 19    | 18    | 16    | 20    | 22    | 17    | 20    | 16    | 18    | 20    | 16     | 19     | 24     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603       |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |            |
| Cooling capacity                            | kW  | 770,4  | 833,7  | 872,2  | 923,2  | 961,9  | 1011,0 | 1053,8 | 1121,6 | 1160,9 | 1263,4 | 1313,4 | 1432,8 | 1580,6 (2) |
| Input power                                 | kW  | 243,7  | 258,6  | 273,6  | 291,5  | 301,9  | 312,6  | 330,2  | 347,1  | 365,9  | 390,3  | 408,0  | 451,1  | 495,6      |
| Cooling total input current                 | A   | 417,0  | 440,0  | 466,0  | 502,0  | 524,0  | 554,0  | 583,0  | 588,0  | 625,0  | 676,0  | 701,0  | 769,0  | 866,0      |
| EER   | W/W | 3,16   | 3,22   | 3,19   | 3,17   | 3,19   | 3,23   | 3,19   | 3,23   | 3,17   | 3,24   | 3,22   | 3,18   | 3,19       |
| Water flow rate system side                 | l/h | 132447 | 143336 | 149960 | 158709 | 165357 | 173799 | 181161 | 192795 | 199561 | 217184 | 225782 | 246285 | 271702     |
| Pressure drop system side                   | kPa | 26     | 33     | 36     | 26     | 28     | 33     | 35     | 24     | 26     | 33     | 36     | 27     | 35         |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

(2) Unit not Eurovent certified because it exceeds 1500 kW

**NSG - E**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 243,5 | 281,0 | 317,4 | 359,0 | 387,6 | 413,2 | 428,5 | 471,9 | 494,2 | 514,3 | 550,0 | 608,1  | 654,7  | 714,4  |
| Input power                                 | kW  | 73,6  | 86,3  | 96,5  | 111,1 | 122,0 | 126,7 | 133,3 | 144,0 | 153,3 | 160,2 | 172,1 | 188,9  | 204,8  | 222,5  |
| Cooling total input current                 | A   | 133,0 | 152,0 | 163,0 | 189,0 | 211,0 | 222,0 | 237,0 | 251,0 | 267,0 | 279,0 | 293,0 | 310,0  | 334,0  | 368,0  |
| EER   | W/W | 3,31  | 3,26  | 3,29  | 3,23  | 3,18  | 3,26  | 3,21  | 3,28  | 3,22  | 3,21  | 3,20  | 3,22   | 3,20   | 3,21   |
| Water flow rate system side                 | l/h | 41877 | 48309 | 54578 | 61723 | 66638 | 71045 | 73675 | 81134 | 84968 | 88414 | 94560 | 104538 | 112548 | 122817 |
| Pressure drop system side                   | kPa | 12    | 11    | 14    | 9     | 11    | 12    | 13    | 15    | 16    | 18    | 19    | 16     | 18     | 23     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                            | kW  | 764,3  | 813,2  | 877,0  | 900,7  | 944,8  | 1000,3 | 1028,9 | 1101,9 | 1151,7 | 1242,8 | 1300,9 | -    | -    |
| Input power                                 | kW  | 236,0  | 255,6  | 273,4  | 283,8  | 292,9  | 310,2  | 318,7  | 343,0  | 357,9  | 392,1  | 407,8  | -    | -    |
| Cooling total input current                 | A   | 399,0  | 428,0  | 450,0  | 475,0  | 495,0  | 519,0  | 544,0  | 572,0  | 599,0  | 656,0  | 673,0  | -    | -    |
| EER   | W/W | 3,24   | 3,18   | 3,21   | 3,17   | 3,23   | 3,22   | 3,23   | 3,21   | 3,22   | 3,17   | 3,19   | -    | -    |
| Water flow rate system side                 | l/h | 131397 | 139814 | 150755 | 154839 | 162399 | 171941 | 176857 | 189402 | 197982 | 213642 | 223617 | -    | -    |
| Pressure drop system side                   | kPa | 26     | 32     | 24     | 25     | 16     | 16     | 19     | 23     | 26     | 32     | 24     | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**NSG - U**

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 249,3 | 288,6 | 324,9 | 369,0 | 399,5 | 423,8 | 440,0 | 483,4 | 507,1 | 526,0 | 564,2 | 623,1  | 674,9  | 735,2  |
| Input power                                 | kW  | 74,1  | 85,8  | 96,9  | 110,1 | 120,0 | 126,0 | 132,1 | 143,6 | 152,2 | 157,5 | 167,5 | 185,9  | 201,2  | 218,7  |
| Cooling total input current                 | A   | 141,0 | 158,0 | 172,0 | 196,0 | 217,0 | 231,0 | 246,0 | 263,0 | 277,0 | 287,0 | 298,0 | 319,0  | 342,0  | 377,0  |
| EER   | W/W | 3,36  | 3,36  | 3,35  | 3,35  | 3,33  | 3,36  | 3,33  | 3,37  | 3,33  | 3,34  | 3,37  | 3,35   | 3,35   | 3,36   |
| Water flow rate system side                 | l/h | 42866 | 49623 | 55869 | 63446 | 68694 | 72874 | 75659 | 83113 | 87181 | 90438 | 96990 | 107116 | 116011 | 126384 |
| Pressure drop system side                   | kPa | 13    | 11    | 14    | 10    | 11    | 13    | 14    | 16    | 17    | 18    | 20    | 17     | 20     | 24     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C



| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                            | kW  | 784,5  | 837,2  | 901,8  | 927,6  | 971,1  | 1026,7 | 1054,7 | 1133,1 | 1182,5 | 1280,2 | 1339,0 | -    | -    |
| Input power                                 | kW  | 232,3  | 250,1  | 268,3  | 277,9  | 288,3  | 306,2  | 315,5  | 337,3  | 352,2  | 383,1  | 399,1  | -    | -    |
| Cooling total input current                 | A   | 411,0  | 437,0  | 461,0  | 486,0  | 509,0  | 536,0  | 564,0  | 586,0  | 617,0  | 668,0  | 689,0  | -    | -    |
| EER   | W/W | 3,38   | 3,35   | 3,36   | 3,34   | 3,37   | 3,35   | 3,34   | 3,36   | 3,36   | 3,34   | 3,36   | -    | -    |
| Water flow rate system side                 | l/h | 134866 | 143931 | 155027 | 159459 | 166915 | 176480 | 181297 | 194780 | 203262 | 220062 | 230162 | -    | -    |
| Pressure drop system side                   | kPa | 28     | 34     | 25     | 27     | 17     | 17     | 20     | 24     | 28     | 34     | 25     | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## NSG - N

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                            | kW  | 245,2 | 283,6 | 318,2 | 364,5 | 394,3 | 417,2 | 432,9 | 475,2 | 498,1 | 517,4 | 552,6 | 613,0  | 669,6  | 727,4  |
| Input power                                 | kW  | 73,4  | 84,4  | 95,3  | 107,6 | 118,7 | 124,5 | 130,7 | 141,2 | 149,3 | 156,7 | 165,7 | 182,9  | 200,4  | 216,0  |
| Cooling total input current                 | A   | 132,0 | 149,0 | 162,0 | 185,0 | 207,0 | 219,0 | 234,0 | 249,0 | 264,0 | 274,0 | 287,0 | 306,0  | 324,0  | 359,0  |
| EER   | W/W | 3,34  | 3,36  | 3,34  | 3,39  | 3,32  | 3,35  | 3,31  | 3,37  | 3,34  | 3,30  | 3,34  | 3,35   | 3,34   | 3,37   |
| Water flow rate system side                 | l/h | 42156 | 48766 | 54716 | 62663 | 67797 | 71743 | 74443 | 81707 | 85643 | 88946 | 95006 | 105378 | 115107 | 125049 |
| Pressure drop system side                   | kPa | 13    | 11    | 15    | 9     | 11    | 13    | 14    | 15    | 17    | 18    | 20    | 16     | 20     | 24     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703 | 6903 | 7203 | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |        |        |        |        |        |        |        |        |      |      |      |      |      |
| Cooling capacity                            | kW  | 766,9  | 834,2  | 880,8  | 925,4  | 961,2  | 1003,2 | 1036,3 | 1120,4 | -    | -    | -    | -    | -    |
| Input power                                 | kW  | 230,1  | 248,2  | 261,5  | 275,0  | 286,5  | 296,1  | 311,6  | 333,3  | -    | -    | -    | -    | -    |
| Cooling total input current                 | A   | 395,0  | 413,0  | 435,0  | 458,0  | 480,0  | 509,0  | 537,0  | 557,0  | -    | -    | -    | -    | -    |
| EER   | W/W | 3,33   | 3,36   | 3,37   | 3,36   | 3,35   | 3,39   | 3,33   | 3,36   | -    | -    | -    | -    | -    |
| Water flow rate system side                 | l/h | 131846 | 143411 | 151421 | 159089 | 165211 | 172435 | 178132 | 192584 | -    | -    | -    | -    | -    |
| Pressure drop system side                   | kPa | 27     | 23     | 29     | 29     | 17     | 17     | 20     | 24     | -    | -    | -    | -    | -    |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                                   |            |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|--|------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: M</b>                         |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b> |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                                   | °A,E,L,N,U | W/W | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) |
| <b>SEPR - (EN 14825: 2018) (3)</b>     |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                                   | °          | W/W | 5,32 | 5,40 | 5,30 | 5,46 | 5,46 | 5,50 | 5,52 | 5,51 | 5,51 | 5,51 | 5,54 | 5,53 | 5,51 | 5,52 |
|  | A          | W/W | 5,53 | 5,59 | 5,47 | 5,51 | 5,59 | 5,56 | 5,55 | 5,56 | 5,57 | 5,51 | 5,53 | 5,59 | 5,57 | 5,58 |
|  | E          | W/W | 5,69 | 5,72 | 5,77 | 5,64 | 5,58 | 5,71 | 5,65 | 5,72 | 5,67 | 5,65 | 5,67 | 5,64 | 5,66 | 5,68 |
|  | L          | W/W | 5,46 | 5,56 | 5,43 | 5,53 | 5,54 | 5,52 | 5,52 | 5,55 | 5,55 | 5,75 | 5,61 | 5,52 | 5,52 |      |
|  | N          | W/W | 5,75 | 5,77 | 5,89 | 5,69 | 5,58 | 5,66 | 5,62 | 5,68 | 5,61 | 5,59 | 5,63 | 5,64 | 5,64 | 5,65 |
|  | U          | W/W | 5,73 | 5,78 | 5,81 | 5,70 | 5,65 | 5,76 | 5,71 | 5,77 | 5,72 | 5,70 | 5,72 | 5,70 | 5,72 | 5,74 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

| Size                            |            |     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |  |
|---------------------------------|------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Fans: M                         |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| SEER - 12/7 (EN14825: 2018) (1) |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| SEER                            | °A,E,L,N,U | W/W | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) | -(2) |  |
| SEPR - (EN 14825: 2018) (3)     |            |     |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
| SEPR                            | °          | W/W | 5,53 | 5,52 | 5,52 | 5,52 | 5,52 | 5,51 | 5,52 | 5,53 | 5,52 | 5,52 | 5,55 | 5,52 | 5,52 |  |
|                                 | A          | W/W | 5,51 | 5,56 | 5,55 | 5,52 | 5,55 | 5,56 | 5,52 | 5,65 | 5,59 | 5,69 | 5,66 | 5,60 | 5,65 |  |
|                                 | E          | W/W | 5,69 | 5,64 | 5,69 | 5,56 | 5,56 | 5,56 | 5,69 | 5,81 | 5,86 | 5,67 | 5,72 | -    | -    |  |
|                                 | L          | W/W | 5,53 | 5,51 | 5,52 | 5,51 | 5,54 | 5,54 | 5,54 | 5,63 | 5,59 | 5,66 | 5,65 | 5,62 | 5,66 |  |
|                                 | N          | W/W | 5,61 | 5,62 | 5,64 | 5,69 | 5,57 | 5,60 | 5,56 | 5,71 | -    | -    | -    | -    | -    |  |
|                                 | U          | W/W | 5,76 | 5,71 | 5,75 | 5,64 | 5,63 | 5,63 | 5,74 | 5,86 | 5,89 | 5,73 | 5,77 | -    | -    |  |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

| Size                                   |   | 1402 | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                         |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b> |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| SEER                                   | ° | W/W  | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) |
|  | A | W/W  | 4,43  | 4,40  | 4,48  | 4,54  | 4,51  | 4,54  | 4,56  | 4,56  | 4,56  | 4,57  | 4,57  | 4,56  | 4,57  |
|  | E | W/W  | 4,46  | 4,47  | 4,55  | 4,55  | 4,55  | 4,58  | 4,57  | 4,59  | 4,57  | 4,58  | 4,58  | 4,59  | 4,57  |
|  | L | W/W  | 4,41  | 4,38  | 4,47  | 4,51  | 4,50  | 4,54  | 4,56  | 4,56  | 4,56  | 4,56  | 4,56  | 4,56  | 4,56  |
|  | N | W/W  | 4,51  | 4,48  | 4,57  | 4,55  | 4,56  | 4,60  | 4,60  | 4,61  | 4,60  | 4,61  | 4,61  | 4,60  | 4,60  |
|  | U | W/W  | 4,48  | 4,47  | 4,56  | 4,57  | 4,56  | 4,58  | 4,57  | 4,59  | 4,58  | 4,59  | 4,59  | 4,60  | 4,58  |
| <b>SEPR - (EN 14825: 2018) (3)</b>     |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| SEPR                                   | ° | W/W  | 5,32  | 5,40  | 5,30  | 5,46  | 5,46  | 5,50  | 5,52  | 5,51  | 5,51  | 5,51  | 5,54  | 5,53  | 5,51  |
|  | A | W/W  | 5,50  | 5,60  | 5,50  | 5,50  | 5,60  | 5,60  | 5,60  | 5,60  | 5,50  | 5,50  | 5,60  | 5,60  | 5,60  |
|  | E | W/W  | 5,70  | 5,70  | 5,80  | 5,60  | 5,60  | 5,70  | 5,70  | 5,70  | 5,70  | 5,70  | 5,60  | 5,70  | 5,70  |
|  | L | W/W  | 5,50  | 5,60  | 5,40  | 5,50  | 5,50  | 5,50  | 5,50  | 5,60  | 5,60  | 5,80  | 5,60  | 5,50  | 5,50  |
|  | N | W/W  | 5,80  | 5,80  | 5,90  | 5,70  | 5,60  | 5,70  | 5,60  | 5,70  | 5,60  | 5,60  | 5,60  | 5,60  | 5,70  |
|  | U | W/W  | 5,70  | 5,80  | 5,80  | 5,70  | 5,70  | 5,80  | 5,70  | 5,80  | 5,70  | 5,70  | 5,70  | 5,70  | 5,70  |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

| Size                                   |   | 4202 | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans: J</b>                         |   |      |       |       |       |       |       |       |       |       |       |       |       |       |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b> |   |      |       |       |       |       |       |       |       |       |       |       |       |       |
| SEER                                   | ° | W/W  | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) | - (2) |
|  | A | W/W  | 4,57  | 4,57  | 4,56  | 4,56  | 4,56  | 4,57  | 4,56  | 4,57  | 4,58  | 4,57  | 4,57  | 4,58  |
|  | E | W/W  | 4,58  | 4,56  | 4,59  | 4,57  | 4,59  | 4,57  | 4,58  | 4,60  | 4,61  | 4,58  | 4,60  | -     |
|  | L | W/W  | 4,56  | 4,56  | 4,55  | 4,56  | 4,56  | 4,56  | 4,55  | 4,57  | 4,56  | 4,57  | 4,57  | 4,56  |
|  | N | W/W  | 4,60  | 4,59  | 4,61  | 4,60  | 4,60  | 4,59  | 4,60  | 4,62  | -     | -     | -     | -     |
|  | U | W/W  | 4,59  | 4,57  | 4,59  | 4,57  | 4,59  | 4,58  | 4,59  | 4,61  | 4,61  | 4,58  | 4,60  | -     |
| <b>SEPR - (EN 14825: 2018) (3)</b>     |   |      |       |       |       |       |       |       |       |       |       |       |       |       |
| SEPR                                   | ° | W/W  | 5,53  | 5,52  | 5,52  | 5,52  | 5,52  | 5,51  | 5,52  | 5,53  | 5,52  | 5,52  | 5,55  | 5,52  |
|  | A | W/W  | 5,50  | 5,60  | 5,60  | 5,50  | 5,60  | 5,60  | 5,50  | 5,70  | 5,60  | 5,70  | 5,70  | 5,60  |
|  | E | W/W  | 5,70  | 5,60  | 5,70  | 5,60  | 5,60  | 5,70  | 5,80  | 5,90  | 5,70  | 5,70  | -     | -     |
|  | L | W/W  | 5,50  | 5,50  | 5,50  | 5,50  | 5,50  | 5,50  | 5,50  | 5,60  | 5,60  | 5,70  | 5,70  | 5,60  |
|  | N | W/W  | 5,60  | 5,60  | 5,60  | 5,70  | 5,60  | 5,60  | 5,70  | -     | -     | -     | -     | -     |
|  | U | W/W  | 5,80  | 5,70  | 5,80  | 5,60  | 5,60  | 5,70  | 5,90  | 5,90  | 5,70  | 5,80  | -     | -     |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)

(3) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     | 1402 | 1602  | 1802  | 2002  | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|-----------------------|-----|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |     |      |       |       |       |        |        |        |        |        |        |        |        |        |        |
| Maximum current (FLA) | °   | A    | 223,7 | 241,3 | 264,3 | 300,3  | 327,4  | 346,4  | 365,4  | 386,4  | 407,4  | 431,3  | 446,3  | 470,3  | 543,1  |
|                       | A,L | A    | 232,6 | 250,2 | 273,2 | 300,3  | 336,3  | 355,3  | 374,3  | 404,1  | 425,1  | 440,1  | 455,1  | 488,0  | 560,9  |
|                       | E,U | A    | 232,6 | 250,2 | 282,1 | 309,2  | 336,3  | 364,1  | 383,1  | 413,0  | 434,0  | 449,0  | 464,0  | 496,9  | 569,8  |
|                       | N   | A    | 241,5 | 259,1 | 290,9 | 318,0  | 345,1  | 373,0  | 392,0  | 421,9  | 442,9  | 457,9  | 472,9  | 505,8  | 593,4  |
|                       | °   | A    | 252,0 | 287,1 | 329,4 | 376,3  | 395,0  | 442,0  | 459,0  | 486,0  | 493,7  | 597,6  | 636,2  | 665,2  | 791,0  |
| Peak current (LRA)    | A,L | A    | 260,9 | 296,0 | 338,3 | 376,3  | 403,9  | 450,9  | 467,9  | 503,7  | 511,4  | 606,4  | 645,0  | 682,9  | 808,8  |
|                       | E,U | A    | 260,9 | 296,0 | 347,2 | 385,2  | 403,9  | 459,7  | 476,7  | 512,6  | 520,3  | 615,3  | 653,9  | 691,8  | 817,7  |
|                       | N   | A    | 269,8 | 304,9 | 356,0 | 394,0  | 412,7  | 468,6  | 485,6  | 521,5  | 529,2  | 624,2  | 662,8  | 700,7  | 841,3  |
| <b>Electric data</b>  |     |      |       |       |       |        |        |        |        |        |        |        |        |        |        |
| Maximum current (FLA) | °   | A    | 583,1 | 625,0 | 658,0 | 697,9  | 728,9  | 760,9  | 801,8  | 831,8  | 871,8  | 946,7  | 994,4  | 1087,4 | 1183,4 |
|                       | A,L | A    | 600,9 | 642,8 | 675,8 | 706,8  | 746,7  | 793,4  | 825,4  | 864,3  | 904,3  | 988,1  | 1021,1 | 1122,9 | 1236,7 |
|                       | E,U | A    | 618,7 | 651,7 | 699,4 | 730,4  | 770,3  | 811,2  | 852,1  | 882,1  | 930,9  | 996,9  | 1038,8 | -      | -      |
|                       | N   | A    | 633,4 | 684,2 | 726,1 | 765,9  | 805,8  | 837,8  | 869,8  | 908,7  | -      | -      | -      | -      | -      |
|                       | °   | A    | 821,3 | 894,2 | 914,2 | 1078,1 | 1097,9 | 1209,9 | 1249,8 | 993,9  | 1024,2 | 1117,1 | 1151,8 | 1346,4 | 1520,4 |
| Peak current (LRA)    | A,L | A    | 839,1 | 912,0 | 932,0 | 1087,0 | 1115,7 | 1242,4 | 1273,4 | 1026,4 | 1056,7 | 1158,5 | 1178,5 | 1381,9 | 1573,7 |
|                       | E,U | A    | 856,9 | 920,9 | 955,6 | 1110,6 | 1139,3 | 1260,2 | 1300,1 | 1044,2 | 1083,3 | 1167,3 | 1196,2 | -      | -      |
|                       | N   | A    | 871,6 | 953,4 | 982,3 | 1146,1 | 1174,8 | 1286,8 | 1317,8 | 1070,8 | -      | -      | -      | -      | -      |

## GENERAL TECHNICAL DATA

| Size              |             | 1402 | 1602    | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|-------------------|-------------|------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b> |             |      |         |      |      |      |      |      |      |      |      |      |      |      |      |
| Type              | ° A,E,L,N,U | type | Screw   |      |      |      |      |      |      |      |      |      |      |      |      |
| Number            | ° A,E,L,N,U | no.  | 2       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Circuits          | ° A,E,L,N,U | no.  | 2       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant       | ° A,E,L,N,U | type | R1234ze |      |      |      |      |      |      |      |      |      |      |      |      |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |            |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|-----------------------------------|------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Refrigerant load<br>circuit 1 (1) | °          | kg | 24,0 | 24,0 | 23,0 | 30,0 | 30,0 | 35,0 | 35,0 | 35,0 | 35,0 | 40,0 | 46,0 | 42,5 | 44,5 | 51,0 |
|                                   | A          | kg | 26,5 | 34,0 | 28,0 | 30,5 | 34,0 | 35,0 | 38,5 | 40,5 | 45,0 | 43,0 | 47,0 | 52,0 | 55,0 | 74,0 |
|                                   | E          | kg | 29,0 | 30,0 | 41,0 | 34,0 | 40,0 | 43,0 | 43,0 | 46,0 | 45,0 | 57,0 | 54,0 | 74,0 | 60,0 |      |
|                                   | L          | kg | 24,0 | 26,0 | 37,0 | 28,0 | 34,0 | 35,0 | 38,5 | 40,0 | 42,0 | 44,0 | 47,0 | 52,0 | 54,0 | 56,0 |
|                                   | N          | kg | 36,0 | 38,0 | 34,0 | 44,0 | 49,0 | 53,0 | 56,0 | 60,0 | 64,0 | 64,0 | 55,0 | 72,0 | 81,0 | 85,0 |
|                                   | U          | kg | 32,0 | 34,0 | 34,0 | 35,0 | 46,0 | 49,0 | 49,0 | 46,0 | 45,0 | 60,0 | 54,5 | 58,0 | 58,0 | 75,0 |
| Refrigerant load<br>circuit 2 (1) | °          | kg | 24,0 | 25,0 | 25,0 | 41,0 | 33,0 | 38,0 | 37,0 | 37,5 | 35,0 | 50,0 | 48,0 | 46,0 | 46,0 | 59,0 |
|                                   | A          | kg | 28,0 | 34,0 | 29,5 | 36,0 | 34,0 | 49,0 | 40,5 | 45,0 | 47,5 | 48,0 | 50,0 | 55,0 | 60,0 | 81,0 |
|                                   | E          | kg | 29,0 | 31,5 | 41,0 | 40,0 | 40,0 | 45,0 | 45,0 | 52,0 | 53,0 | 53,0 | 59,0 | 59,0 | 74,0 | 77,0 |
|                                   | L          | kg | 27,0 | 28,0 | 37,0 | 36,0 | 34,0 | 40,0 | 40,5 | 43,0 | 46,0 | 52,0 | 50,0 | 55,0 | 58,0 | 72,0 |
|                                   | N          | kg | 36,0 | 38,0 | 34,0 | 49,0 | 49,0 | 56,0 | 56,0 | 64,0 | 64,0 | 69,0 | 57,0 | 77,0 | 81,0 | 92,0 |
|                                   | U          | kg | 32,0 | 34,0 | 36,0 | 41,5 | 46,0 | 53,0 | 54,0 | 52,0 | 48,5 | 65,0 | 59,0 | 62,0 | 63,0 | 90,0 |
| Refrigerant load<br>circuit 3 (1) | °A,E,L,N,U | kg | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |      |

#### System side heat exchanger

| Type   | °A,E,L,N,U | type | Shell and tube |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|------------|------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | °A,E,L,N,U | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |            |      | 4202    | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503 | 6703 | 6903 | 7203  | 8403  | 9603  |
|-----------------------------------|------------|------|---------|-------|-------|-------|-------|-------|-------|------|------|------|-------|-------|-------|
| Compressor                        |            |      |         |       |       |       |       |       |       |      |      |      |       |       |       |
| Type                              | °A,E,L,N,U | type | Screw   |       |       |       |       |       |       |      |      |      |       |       |       |
| Number                            | °A,L       | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3     | 3     | 3     |
|                                   | E,U        | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3     | -     | -     |
|                                   | N          | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | -    | -    | -     | -     | -     |
| Circuits                          | °A,L       | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3     | 3     | 3     |
|                                   | E,U        | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3     | -     | -     |
|                                   | N          | no.  | 2       | 2     | 2     | 2     | 2     | 2     | 2     | 3    | -    | -    | -     | -     | -     |
| Refrigerant                       | °A,E,L,N,U | type | R1234ze |       |       |       |       |       |       |      |      |      |       |       |       |
| Refrigerant load<br>circuit 1 (1) | °          | kg   | 52,0    | 55,0  | 55,0  | 63,0  | 65,0  | 62,0  | 70,0  | 67,0 | 55,0 | 78,0 | 62,0  | 99,0  | 112,0 |
|                                   | A,L        | kg   | 62,0    | 67,0  | 67,0  | 70,0  | 106,0 | 82,0  | 82,0  | 74,0 | 81,0 | 85,0 | 70,0  | 106,0 | 80,0  |
|                                   | E          | kg   | 70,0    | 89,0  | 80,0  | 100,0 | 113,0 | 86,0  | 95,0  | 77,0 | 89,0 | 89,0 | 100,0 | -     | -     |
|                                   | N          | kg   | 92,0    | 99,0  | 110,0 | 114,0 | 128,0 | 128,0 | 138,0 | 85,0 | -    | -    | -     | -     | -     |
|                                   | U          | kg   | 70,0    | 89,0  | 80,0  | 85,0  | 113,0 | 86,0  | 95,0  | 77,0 | 89,0 | 89,0 | 100,0 | -     | -     |
| Refrigerant load<br>circuit 2 (1) | °          | kg   | 59,0    | 64,0  | 64,0  | 70,0  | 71,0  | 73,0  | 80,0  | 74,0 | 61,0 | 85,0 | 70,0  | 99,0  | 112,0 |
|                                   | A          | kg   | 70,0    | 78,0  | 78,0  | 82,0  | 106,0 | 99,0  | 99,0  | 81,0 | 81,0 | 92,0 | 75,0  | 106,0 | 95,0  |
|                                   | E          | kg   | 85,0    | 96,0  | 90,0  | 110,0 | 113,0 | 98,0  | 97,0  | 85,0 | 89,0 | 96,0 | 100,0 | -     | -     |
|                                   | L          | kg   | 70,0    | 79,0  | 78,0  | 82,0  | 106,0 | 99,0  | 99,0  | 81,0 | 81,0 | 92,0 | 75,0  | 106,0 | 95,0  |
|                                   | N          | kg   | 92,0    | 107,0 | 110,0 | 124,0 | 128,0 | 138,0 | 138,0 | 92,0 | -    | -    | -     | -     | -     |
| Refrigerant load<br>circuit 3 (1) | U          | kg   | 85,0    | 96,0  | 90,0  | 103,0 | 113,0 | 98,0  | 97,0  | 85,0 | 89,0 | 96,0 | 100,0 | -     | -     |
|                                   | °          | kg   | -       | -     | -     | -     | -     | -     | -     | 74,0 | 65,0 | 85,0 | 80,0  | 99,0  | 112,0 |
|                                   | A,L        | kg   | -       | -     | -     | -     | -     | -     | -     | 81,0 | 81,0 | 92,0 | 75,0  | 106,0 | 85,0  |
|                                   | E,U        | kg   | -       | -     | -     | -     | -     | -     | -     | 85,0 | 89,0 | 96,0 | 100,0 | -     | -     |
|                                   | N          | kg   | -       | -     | -     | -     | -     | -     | -     | 92,0 | -    | -    | -     | -     | -     |

#### System side heat exchanger

| Type   | °A,E,L,N,U | type | Shell and tube |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|------------|------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | °          | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|        | A,L        | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|        | E,U        | no.  | 1              | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - |
|        | N          | no.  | 1              | 2 | 2 | 2 | 2 | 2 | 2 | 2 | - | - | - | - | - | - |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## FANS DATA

| Size   | 14021602180220022202235225022652280230023202340236023902 |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------|--|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Fan    |  |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type   | °A,E,L,N,U   | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number | °  | no.  | 6     | 6     | 6     | 8     | 8     | 8     | 8     | 8     | 8     | 8     | 10    | 10    | 10    | 10    |
|        | A,L  | no.  | 8     | 8     | 8     | 8     | 10    | 10    | 10    | 10    | 12    | 12    | 12    | 14    | 14    | 16    |
|        | E,U  | no.  | 8     | 8     | 10    | 10    | 10    | 10    | 12    | 12    | 14    | 14    | 14    | 14    | 16    | 18    |
|        | N  | no.  | 10    | 10    | 12    | 12    | 12    | 12    | 14    | 14    | 16    | 16    | 16    | 16    | 18    | 20    |
| Size   | 4202450248025202560260026402650367036903720384039603     |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Fan    |  |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Type   | °A,E,L,N,U   | type | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number | °  | no.  | 12    | 14    | 14    | 16    | 16    | 16    | 16    | 18    | 18    | 18    | 20    | 22    | 22    | 22    |
|        | A,L  | no.  | 16    | 18    | 18    | 18    | 20    | 22    | 22    | 22    | 24    | 24    | 28    | 28    | 30    | 34    |
|        | E,U  | no.  | 20    | 20    | 22    | 22    | 24    | 26    | 28    | 28    | 30    | 30    | 30    | 32    | -     | -     |
|        | N  | no.  | 22    | 26    | 28    | 30    | 32    | 32    | 32    | 32    | 34    | -     | -     | -     | -     | -     |

## Oversized

| Size                    |       |       | 1402                        | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|-------------------------|-------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                 |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Increased fan           |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor               | °A,U  | type  | Asynchronous                |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                         | E,L,N | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Without Static pressure |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Air flow rate           | °     | m³/h  | 108000                      | 108000 | 108000 | 144000 | 144000 | 144000 | 144000 | 144000 | 144000 | 180000 | 180000 | 180000 | 180000 | 216000 |
|                         | A     | m³/h  | 144000                      | 144000 | 144000 | 144000 | 180000 | 180000 | 180000 | 216000 | 216000 | 216000 | 216000 | 252000 | 252000 | 288000 |
|                         | E     | m³/h  | 92000                       | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 161000 | 161000 | 161000 | 161000 | 184000 | 184000 | 207000 |
|                         | L     | m³/h  | 92000                       | 92000  | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 |
|                         | N     | m³/h  | 115000                      | 115000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 | 184000 | 184000 | 184000 | 207000 | 230000 | 253000 |
|                         | U     | m³/h  | 144000                      | 144000 | 180000 | 180000 | 180000 | 216000 | 216000 | 252000 | 252000 | 252000 | 252000 | 288000 | 288000 | 324000 |
| Sound power level       | °     | dB(A) | 98,0                        | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 99,0   | 99,0   | 100,0  | 100,0  | 101,0  |
|                         | A     | dB(A) | 98,0                        | 98,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 100,0  | 100,0  | 100,0  | 100,0  | 100,0  | 100,0  | 101,0  |
|                         | E     | dB(A) | 89,0                        | 89,0   | 90,0   | 90,0   | 90,0   | 91,0   | 91,0   | 92,0   | 92,0   | 92,0   | 92,0   | 93,0   | 93,0   | 93,0   |
|                         | L     | dB(A) | 89,0                        | 89,0   | 89,0   | 89,0   | 90,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 92,0   |
|                         | N     | dB(A) | 90,0                        | 90,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 92,0   | 92,0   | 92,0   | 92,0   | 93,0   | 93,0   | 93,0   |
|                         | U     | dB(A) | 98,0                        | 98,0   | 99,0   | 99,0   | 99,0   | 100,0  | 100,0  | 100,0  | 100,0  | 100,0  | 100,0  | 101,0  | 101,0  | 101,0  |
| Size                    |       |       | 4202                        | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |        |

| Size                    |       |       | 4202                        | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|-------------------------|-------|-------|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: M                 |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |
| Increased fan           |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor               | °A,U  | type  | Asynchronous                |        |        |        |        |        |        |        |        |        |        |        |        |
|                         | E,L,N | type  | Asynchronous with phase cut |        |        |        |        |        |        |        |        |        |        |        |        |
| Without Static pressure |       |       |                             |        |        |        |        |        |        |        |        |        |        |        |        |
| Air flow rate           | °     | m³/h  | 216000                      | 252000 | 252000 | 288000 | 288000 | 288000 | 324000 | 324000 | 324000 | 360000 | 396000 | 396000 | 396000 |
|                         | A     | m³/h  | 288000                      | 324000 | 324000 | 324000 | 360000 | 396000 | 396000 | 432000 | 432000 | 504000 | 504000 | 540000 | 612000 |
|                         | E     | m³/h  | 230000                      | 230000 | 253000 | 253000 | 276000 | 299000 | 322000 | 322000 | 345000 | 345000 | 368000 | -      | -      |
|                         | L     | m³/h  | 184000                      | 207000 | 207000 | 234000 | 260000 | 286000 | 286000 | 276000 | 276000 | 322000 | 322000 | 345000 | 442000 |
|                         | N     | m³/h  | 253000                      | 299000 | 322000 | 345000 | 368000 | 368000 | 368000 | 391000 | -      | -      | -      | -      | -      |
|                         | U     | m³/h  | 360000                      | 360000 | 396000 | 396000 | 432000 | 468000 | 504000 | 504000 | 540000 | 540000 | 576000 | -      | -      |
| Sound power level       | °     | dB(A) | 101,0                       | 101,0  | 101,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 103,0  | 103,0  | 103,0  | 103,0  |
|                         | A     | dB(A) | 101,0                       | 101,0  | 102,0  | 101,0  | 102,0  | 102,0  | 102,0  | 103,0  | 103,0  | 103,0  | 103,0  | 104,0  | 104,0  |
|                         | E     | dB(A) | 94,0                        | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 95,0   | -      | -      |
|                         | L     | dB(A) | 93,0                        | 93,0   | 93,0   | 93,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 95,0   |
|                         | N     | dB(A) | 93,0                        | 94,0   | 94,0   | 95,0   | 95,0   | 95,0   | 95,0   | 95,0   | -      | -      | -      | -      | -      |
|                         | U     | dB(A) | 102,0                       | 102,0  | 102,0  | 102,0  | 103,0  | 103,0  | 103,0  | 103,0  | 103,0  | 103,0  | 103,0  | -      | -      |

## Inverter

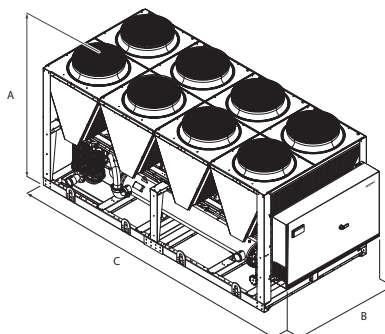
| Size                |            |       | 1402     | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---------------------|------------|-------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>      |            |       |          |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Inverter fan</b> |            |       |          |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor           | °A,E,L,N,U | type  | Inverter |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                     | °          | m³/h  | 96000    | 96000  | 96000  | 128000 | 128000 | 128000 | 128000 | 144000 | 144000 | 180000 | 180000 | 180000 | 180000 | 216000 |
| Air flow rate       | A          | m³/h  | 128000   | 128000 | 128000 | 128000 | 160000 | 160000 | 160000 | 192000 | 192000 | 192000 | 192000 | 224000 | 224000 | 256000 |
|                     | E          | m³/h  | 92000    | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 161000 | 161000 | 161000 | 161000 | 184000 | 184000 | 207000 |
|                     | L          | m³/h  | 92000    | 92000  | 92000  | 92000  | 115000 | 115000 | 115000 | 138000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 |
|                     | N          | m³/h  | 115000   | 115000 | 138000 | 138000 | 138000 | 161000 | 161000 | 184000 | 184000 | 184000 | 184000 | 207000 | 230000 | 253000 |
|                     | U          | m³/h  | 128000   | 128000 | 160000 | 160000 | 160000 | 192000 | 192000 | 224000 | 224000 | 224000 | 224000 | 256000 | 256000 | 288000 |
|                     | °          | dB(A) | 97,0     | 97,0   | 97,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 99,0   | 100,0  | 100,0  | 100,0  | 101,0  |
| Sound power level   | A          | dB(A) | 97,0     | 97,0   | 98,0   | 98,0   | 98,0   | 98,0   | 98,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 100,0  |
|                     | E          | dB(A) | 89,0     | 89,0   | 90,0   | 90,0   | 90,0   | 91,0   | 91,0   | 92,0   | 92,0   | 92,0   | 92,0   | 93,0   | 93,0   | 93,0   |
|                     | L          | dB(A) | 89,0     | 89,0   | 89,0   | 89,0   | 90,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 92,0   |
|                     | N          | dB(A) | 90,0     | 90,0   | 91,0   | 91,0   | 91,0   | 91,0   | 91,0   | 92,0   | 92,0   | 92,0   | 92,0   | 93,0   | 93,0   | 93,0   |
|                     | U          | dB(A) | 97,0     | 97,0   | 98,0   | 98,0   | 98,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 100,0  | 100,0  | 100,0  |
|                     | °          | dB(A) | 97,0     | 97,0   | 98,0   | 98,0   | 98,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 99,0   | 100,0  | 100,0  | 100,0  |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

| Size   |   |           | 4202  | 4502     | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|--|---|-----------|-------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>                                   |   |           |       |          |        |        |        |        |        |        |        |        |        |        |        |
| <b>Inverter fan</b>                              |   |           |       |          |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | ° | A,E,L,N,U | type  | Inverter |        |        |        |        |        |        |        |        |        |        |        |
| Air flow rate                                    | ° |           | m³/h  | 216000   | 252000 | 252000 | 288000 | 288000 | 288000 | 324000 | 324000 | 324000 | 360000 | 396000 | 396000 |
|  | A |           | m³/h  | 256000   | 288000 | 288000 | 324000 | 360000 | 396000 | 396000 | 384000 | 384000 | 448000 | 448000 | 612000 |
|  | E |           | m³/h  | 230000   | 230000 | 253000 | 253000 | 276000 | 299000 | 322000 | 322000 | 345000 | 345000 | 368000 | -      |
|  | L |           | m³/h  | 184000   | 207000 | 207000 | 234000 | 260000 | 286000 | 286000 | 276000 | 276000 | 322000 | 322000 | 442000 |
|  | N |           | m³/h  | 253000   | 299000 | 322000 | 345000 | 368000 | 368000 | 368000 | 391000 | -      | -      | -      | -      |
|  | U |           | m³/h  | 320000   | 320000 | 352000 | 352000 | 384000 | 416000 | 448000 | 448000 | 480000 | 480000 | 512000 | -      |
| <b>Sound data calculated in cooling mode (1)</b> |   |           |       |          |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level                                | ° |           | dB(A) | 101,0    | 101,0  | 101,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 103,0  | 103,0  | 103,0  |
|  | A |           | dB(A) | 100,0    | 100,0  | 101,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 103,0  | 104,0  |
|  | E |           | dB(A) | 94,0     | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 95,0   | -      |
|  | L |           | dB(A) | 93,0     | 93,0   | 93,0   | 93,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 94,0   | 95,0   |
|  | N |           | dB(A) | 93,0     | 94,0   | 94,0   | 95,0   | 95,0   | 95,0   | 95,0   | -      | -      | -      | -      | -      |
|  | U |           | dB(A) | 101,0    | 101,0  | 101,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | 102,0  | -      | -      |

(1) Sound power: calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure measured in free field (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |            |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402  | 3602  | 3902  |
|-------------------------------|------------|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| <b>Dimensions and weights</b> |            |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| A                             | °A,E,L,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  |
| B                             | °A,E,L,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  |
|                               | °          | mm | 3970 | 3970 | 3970 | 5160 | 5160 | 5160 | 5160 | 5160 | 5160 | 6350 | 6350 | 6350  | 6350  | 7540  |
| C                             | A,L        | mm | 5160 | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 7540 | 7540 | 7540 | 8730  | 8730  | 9920  |
|                               | E,U        | mm | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 7540 | 8730 | 8730 | 8730 | 8730 | 9920  | 9920  | 11110 |
|                               | N          | mm | 6350 | 6350 | 7540 | 7540 | 7540 | 8730 | 8730 | 9920 | 9920 | 9920 | 9920 | 11110 | 12300 | 13490 |

| Size                   |      |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|------------------------|------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights |      |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | °A,L | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|                        | E,U  | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     |
|                        | N    | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     | -     | -     | -     |
| B                      | °A,L | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|                        | E,U  | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     |
|                        | N    | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     | -     | -     | -     |
| C                      | °    | mm | 7540  | 8730  | 8730  | 9920  | 9920  | 9920  | 11110 | 11110 | 11110 | 12300 | 13490 | 13490 | 13490 |
|                        | A,L  | mm | 9920  | 11110 | 11110 | 11110 | 12300 | 13490 | 13490 | 15080 | 15080 | 17460 | 17460 | 18650 | 21030 |
|                        | E,U  | mm | 12300 | 12300 | 13490 | 13490 | 15080 | 16270 | 17460 | 17460 | 18650 | 18650 | 19840 | -     | -     |
|                        | N    | mm | 13490 | 16270 | 17460 | 18650 | 19840 | 19840 | 19840 | 21030 | -     | -     | -     | -     | -     |
|                        |      |    |       |       |       |       |       |       |       |       |       |       |       |       |       |

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

| Size                               |   |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402  | 3602  | 3902  |
|------------------------------------|---|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| <b>Integrated hydronic kit: 00</b> |   |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| <b>Single module unit</b>          |   |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| Empty weight                       | ° | kg | 4108 | 4153 | 4275 | 5137 | 5468 | 5476 | 5485 | 5680 | 5690 | 6659 | 7153 | 7163  | 7188  | 7854  |
|                                    | A | kg | 4637 | 4684 | 4806 | 5137 | 5882 | 5890 | 6085 | 6696 | 6782 | 7261 | 7806 | 8486  | 8501  | 9029  |
|                                    | E | kg | 4768 | 4800 | 5220 | 5814 | 6145 | 6755 | 6763 | 7198 | 7213 | 7707 | 7806 | 8940  | 8950  | 9719  |
|                                    | L | kg | 4637 | 4684 | 4806 | 5137 | 5882 | 5890 | 6085 | 6696 | 6782 | 7261 | 8223 | 8486  | 8501  | 9029  |
|                                    | N | kg | 5179 | 5214 | 5822 | 6415 | 6746 | 7163 | 7177 | 7649 | 7659 | 8161 | 8223 | 9630  | 10062 | 10682 |
| Weight functioning                 | U | kg | 4768 | 4800 | 5220 | 5814 | 6145 | 6755 | 6763 | 7198 | 7213 | 7707 | 8672 | 8940  | 8950  | 9719  |
|                                    | ° | kg | 4186 | 4225 | 4393 | 5256 | 5586 | 5614 | 5622 | 5953 | 5962 | 6982 | 7475 | 7485  | 7501  | 8166  |
|                                    | A | kg | 4714 | 4757 | 4925 | 5275 | 6019 | 6028 | 6357 | 6968 | 7105 | 7583 | 8098 | 9016  | 9030  | 9547  |
|                                    | E | kg | 4887 | 4937 | 5358 | 6137 | 6467 | 7077 | 7086 | 7510 | 7525 | 8019 | 8098 | 9470  | 9480  | 10237 |
|                                    | L | kg | 4714 | 4757 | 4925 | 5275 | 6019 | 6028 | 6357 | 6968 | 7105 | 7583 | 8515 | 9016  | 9030  | 9547  |
|                                    | N | kg | 5298 | 5352 | 5959 | 6738 | 7069 | 7486 | 7500 | 7961 | 7971 | 8474 | 8515 | 10160 | 10592 | 11199 |
|                                    | U | kg | 4887 | 4937 | 5358 | 6137 | 6467 | 7077 | 7086 | 7510 | 7525 | 8019 | 8964 | 9470  | 9480  | 10237 |

| Size                        |     |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|-----------------------------|-----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Integrated hydronic kit: 00 |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Single module unit          |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight                | °   | kg | 7947  | 8389  | 8704  | 9252  | 9347  | 9405  | 10170 | 11843 | 11931 | 12488 | 13081 | 13400 | 13552 |
|                             | A,L | kg | 9090  | 9829  | 9892  | 10315 | 10836 | 11441 | 11519 | -     | -     | -     | -     | -     | -     |
|                             | E,U | kg | 10203 | 10282 | 11194 | 11284 | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | N   | kg | 10748 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Weight functioning          | °   | kg | 8239  | 8681  | 9234  | 9781  | 9877  | 9922  | 10687 | 12797 | 12885 | 13398 | 13990 | 14309 | 14462 |
|                             | A,L | kg | 9608  | 10334 | 10397 | 11247 | 11767 | 12358 | 12437 | -     | -     | -     | -     | -     | -     |
|                             | E,U | kg | 10720 | 10787 | 12125 | 12215 | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | N   | kg | 11265 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Bimodule unit               |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight module 1       | °   | kg | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg | -     | -     | -     | -     | -     | -     | -     | 9029  | 9090  | 9829  | 9892  | 10836 | 11519 |
|                             | E,U | kg | -     | -     | -     | -     | 6276  | 6276  | 6741  | 9719  | 10203 | 10282 | 11194 | -     | -     |
|                             | N   | ka | -     | 6084  | 6517  | 6517  | 7126  | 7126  | 7190  | 10880 | -     | -     | -     | -     | -     |

| Size                        |     | 4202 | 4502 | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|-----------------------------|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Empty weight module 2       | °   | kg   | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg   | -    | -     | -     | -     | -     | -     | 5068  | 5068  | 5512  | 5512  | 5675  | 6265  |
|                             | E,U | kg   | -    | -     | -     | 6207  | 6671  | 6671  | 5482  | 5482  | 5512  | 5512  | -     | -     |
|                             | N   | kg   | -    | 6448  | 6448  | 7056  | 7056  | 7120  | 6014  | -     | -     | -     | -     | -     |
| Total empty weight          | °   | kg   | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg   | -    | -     | -     | -     | -     | -     | 14098 | 14159 | 15342 | 15405 | 16511 | 17784 |
|                             | E,U | kg   | -    | -     | -     | 12483 | 12948 | 13412 | 15202 | 15685 | 15795 | 16706 | -     | -     |
|                             | N   | kg   | -    | 12531 | 12965 | 13573 | 14182 | 14246 | 14310 | 16894 | -     | -     | -     | -     |
| Weight functioning module 1 | °   | kg   | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg   | -    | -     | -     | -     | -     | -     | 9547  | 9608  | 10334 | 10397 | 11767 | 12437 |
|                             | E,U | kg   | -    | -     | -     | 6589  | 6589  | 7053  | 10237 | 10720 | 10787 | 12125 | -     | -     |
|                             | N   | kg   | -    | 6342  | 6776  | 6776  | 7438  | 7438  | 7502  | 11398 | -     | -     | -     | -     |
| Weight functioning module 2 | °   | kg   | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg   | -    | -     | -     | -     | -     | -     | 5327  | 5327  | 5771  | 5771  | 5987  | 6577  |
|                             | E,U | kg   | -    | -     | -     | 6519  | 6984  | 6984  | 5741  | 5741  | 5771  | 5771  | -     | -     |
|                             | N   | kg   | -    | 6706  | 6706  | 7369  | 7369  | 7433  | 6273  | -     | -     | -     | -     | -     |
| Total weight functioning    | °   | kg   | -    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                             | A,L | kg   | -    | -     | -     | -     | -     | -     | 14874 | 14935 | 16105 | 16168 | 17755 | 19014 |
|                             | E,U | kg   | -    | -     | -     | 13108 | 13572 | 14037 | 15978 | 16461 | 16558 | 17896 | -     | -     |
|                             | N   | kg   | -    | 13049 | 13482 | 14144 | 14807 | 14871 | 14935 | 17670 | -     | -     | -     | -     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# TBA 1300-4325

## Air-water chiller

Cooling capacity 328 ÷ 1404 kW

- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge
- Available also with R513A (XP10) refrigerant



### DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

#### Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

#### CONTROL PCO<sup>5</sup>

Units include 1 control board for each circuit.

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.



## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**XLATB:** This kit allows to extend the working range of the unit from 0 °C to -10 °C ambient temperature, thanks to an additional electric heater and a special insulating material for the heat exchanger.

**GP\_T:** Anti-intrusion grid kit

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 | 4325 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E,N,U | *    | *    | *    |      | *    | *    |      | *    | *    |      |
| AER485P1 x no. 2 | A,E,N,U |      |      |      | *    |      |      | *    |      |      | *    |
| AERBACP          | A,E,N,U | *    | *    | *    |      | *    | *    |      | *    | *    |      |
| AERBACP x no. 2  | A,E,N,U |      |      |      | *    |      |      | *    |      |      | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Antivibration

| Ver   | 1300     | 1350   | 2300   | 2325   | 2350     | 3300     | 3320     | 3340     | 3350     | 4325     |
|---|----------|--------|--------|--------|----------|----------|----------|----------|----------|----------|
| Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ |          |        |        |        |          |          |          |          |          |          |
| A, E  | AVX. (1) | AVX500 | AVX588 | AVX592 | AVX589   | AVX. (1) | AVX593   | AVX. (1) | AVX. (1) | AVX. (1) |
| N, U  | AVX. (1) | AVX500 | AVX592 | AVX589 | AVX. (1) | AVX593   | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

### Kit low temperature

| Ver  | 1300   | 1350   | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | XLATB1 | XLATB3 | XLATB5 | XLATB6 | XLATB7 | XLATB6 | XLATB7 | XLATB7 | XLATB8 | XLATB8 |
| N, U | XLATB2 | XLATB5 | XLATB5 | XLATB5 | XLATB7 | XLATB6 | XLATB6 | XLATB7 | XLATB8 | XLATB8 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver  | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320  | 3340  | 3350  | 4325  |
|------|------|------|------|------|------|------|-------|-------|-------|-------|
| A, E | GP3T | GP4T | GP5T | GP6T | GP7T | GP8T | GP9T  | GP10T | GP10T | GP11T |
| N, U | GP3T | GP4T | GP6T | GP7T | GP8T | GP9T | GP10T | GP11T | GP11T | GP11T |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | TBA  |
| 4,5,6,7 | Size<br>1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350, 4325 |
| 8       | Model  |
| °       | Cooling only   |
| 9       | Heat recovery  |
| °       | Without heat recovery  |
| 10      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| N       | Silenced very high efficiency                                      |
| U       | Very high efficiency   |
| 11      | Coils  |
| I       | Copper-aluminium   |
| O       | Coated aluminium microchannel                                      |
| R       | Copper pipes-copper fins   |
| S       | Copper pipes-Tinned copper fins                                    |
| V       | Copper pipes-Coated aluminium fins                                 |
| °       | Aluminium microchannel   |
| 12      | Fans   |
| J       | Inverter   |
| 13      | Power supply   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers                         |
| 14,15   | Integrated hydronic kit  |
| 00      | Without hydronic kit   |
| PA      | Pump A   |
| PB      | Pump B   |
| PC      | Pump C   |
| PD      | Pump D   |
| PE      | Pump E   |
| PF      | Pump F   |
| PG      | Pump G   |
| PH      | Pump H   |
| PI      | Pump I   |
| PJ      | Pump J (1)   |
| DA      | Pump A + stand-by pump   |
| DB      | Pump B + stand-by pump   |
| DC      | Pump C + stand-by pump   |
| DD      | Pump D + stand-by pump   |
| DE      | Pump E + stand-by pump   |

| Field | Description  |
|-------|--|
| DF    | Pump F + stand-by pump   |
| DG    | Pump G + stand-by pump   |
| DH    | Pump H + stand-by pump   |
| DI    | Pump I + stand-by pump   |
| DJ    | Pump J + stand-by pump (1)   |
| IA    | Pump A equipped with inverter device to work at fixed speed                  |
| IB    | Pump B equipped with inverter device to work at fixed speed                  |
| IC    | Pump C equipped with inverter device to work at fixed speed                  |
| ID    | Pump D equipped with inverter device to work at fixed speed                  |
| IE    | Pump E equipped with inverter device to work at fixed speed                  |
| IF    | Pump F equipped with inverter device to work at fixed speed                  |
| IG    | Pump G equipped with inverter device to work at fixed speed                  |
| IH    | Pump H equipped with inverter device to work at fixed speed                  |
| II    | Pump I equipped with inverter device to work at fixed speed                  |
| IJ    | Pump J equipped with inverter device to work at fixed speed (1)              |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed     |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed     |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed     |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed     |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed     |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed     |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed     |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed     |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed     |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (1) |
| KF    | Doble pump F with inverter device to work at fixed speed                     |
| KG    | Doble pump G with inverter device to work at fixed speed                     |
| KH    | Doble pump H with inverter device to work at fixed speed                     |
| KI    | Doble pump I with inverter device to work at fixed speed                     |
| KJ    | Doble pump J with inverter device to work at fixed speed (1)                 |
| TF    | Double pump F  |
| TG    | Double pump G  |
| TH    | Double pump H  |
| TI    | Double pump I  |
| TJ    | Double pump J (1)  |
| 16    | Refrigerant gas  |
| G     | R513A (XP10)   |
| °     | R134a  |

(1) For all configurations including pump J please contact the factory

## PERFORMANCE SPECIFICATIONS

## TBA - (A)

| Size                                 |     | 1300  | 1350  | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|--------------------------------------|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling performance 12 °C / 7 °C (1) |     |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                     | kW  | 330,7 | 437,3 | 633,9  | 741,5  | 871,9  | 974,8  | 1087,0 | 1155,9 | 1256,9 | 1404,1 |
| Input power                          | kW  | 95,3  | 125,9 | 183,0  | 214,9  | 254,8  | 279,5  | 314,9  | 334,9  | 369,1  | 413,3  |
| Cooling total input current          | A   | 150,7 | 200,9 | 286,2  | 346,4  | 416,6  | 446,9  | 502,1  | 547,3  | 592,3  | 667,6  |
| EER                                  | W/W | 3,47  | 3,47  | 3,46   | 3,45   | 3,42   | 3,49   | 3,45   | 3,45   | 3,41   | 3,40   |
| Water flow rate system side          | l/h | 56903 | 75228 | 109011 | 127504 | 149890 | 167604 | 186876 | 198728 | 216075 | 241381 |
| Pressure drop system side            | kPa | 60    | 55    | 48     | 42     | 30     | 52     | 45     | 54     | 36     | 42     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

## TBA - (E)

| Size                                 |     | 1300  | 1350  | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|--------------------------------------|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling performance 12 °C / 7 °C (1) |     |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                     | kW  | 330,7 | 437,3 | 633,9  | 741,5  | 871,9  | 974,8  | 1087,0 | 1155,9 | 1256,9 | 1404,1 |
| Input power                          | kW  | 95,3  | 125,9 | 183,0  | 214,9  | 254,8  | 279,5  | 314,9  | 334,9  | 369,1  | 413,3  |
| Cooling total input current          | A   | 150,7 | 200,9 | 286,2  | 346,4  | 416,6  | 446,9  | 502,1  | 547,3  | 592,3  | 667,6  |
| EER                                  | W/W | 3,47  | 3,47  | 3,46   | 3,45   | 3,42   | 3,49   | 3,45   | 3,45   | 3,41   | 3,40   |
| Water flow rate system side          | l/h | 56903 | 75228 | 109011 | 127504 | 149890 | 167604 | 186876 | 198728 | 216075 | 241381 |
| Pressure drop system side            | kPa | 60    | 55    | 48     | 42     | 30     | 52     | 45     | 54     | 36     | 42     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**TBA - (U)**

| Size  |     | 1300  | 1350  | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|---|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 328,1 | 443,8 | 633,5  | 758,5  | 876,4  | 985,0  | 1088,0 | 1154,9 | 1256,9 | 1342,4 |
| Input power                                 | kW  | 92,3  | 124,4 | 178,8  | 213,2  | 245,5  | 275,4  | 306,8  | 326,3  | 358,1  | 386,6  |
| Cooling total input current                 | A   | 145,7 | 200,9 | 281,4  | 341,6  | 401,9  | 437,1  | 487,3  | 522,6  | 582,6  | 627,6  |
| EER   | W/W | 3,56  | 3,57  | 3,54   | 3,56   | 3,57   | 3,58   | 3,55   | 3,54   | 3,51   | 3,47   |
| Water flow rate system side                 | l/h | 56452 | 76308 | 108940 | 130424 | 150669 | 169356 | 187070 | 198556 | 216075 | 230760 |
| Pressure drop system side                   | kPa | 51    | 25    | 49     | 50     | 30     | 53     | 56     | 53     | 36     | 38     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**TBA - (N)**

| Size  |     | 1300  | 1350  | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|---|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 328,1 | 443,8 | 633,5  | 758,5  | 876,4  | 985,0  | 1088,0 | 1154,9 | 1256,9 | 1342,4 |
| Input power                                 | kW  | 92,3  | 124,4 | 178,8  | 213,2  | 245,5  | 275,4  | 306,8  | 326,3  | 358,1  | 386,6  |
| Cooling total input current                 | A   | 145,7 | 200,9 | 281,4  | 341,6  | 401,9  | 437,1  | 487,3  | 522,6  | 582,6  | 627,6  |
| EER   | W/W | 3,56  | 3,57  | 3,54   | 3,56   | 3,57   | 3,58   | 3,55   | 3,54   | 3,51   | 3,47   |
| Water flow rate system side                 | l/h | 56452 | 76308 | 108940 | 130424 | 150669 | 169356 | 187070 | 198556 | 216075 | 230760 |
| Pressure drop system side                   | kPa | 51    | 25    | 49     | 50     | 30     | 53     | 56     | 53     | 36     | 38     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size   |     |     | 1300   | 1350   | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|--|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (1)</b>             |     |     |        |        |        |        |        |        |        |        |        |        |
| SEER   | A,E | W/W | 5,15   | 5,23   | 5,48   | 5,25   | 5,54   | 5,54   | 5,51   | 5,49   | 5,57   | 5,35   |
|  | N,U | W/W | 5,35   | 5,41   | 5,60   | 5,48   | 5,76   | 5,80   | 5,62   | 5,71   | 5,73   | 5,62   |
| Seasonal efficiency  | A,E | %   | 203,1% | 206,0% | 216,0% | 206,8% | 218,4% | 218,4% | 217,5% | 216,5% | 219,8% | 211,0% |
|  | N,U | %   | 211,0% | 213,5% | 221,0% | 216,1% | 227,3% | 229,1% | 221,9% | 225,4% | 226,3% | 221,6% |
| <b>SEPR - (EN14825:2018) High temperature with inverter fans (2)</b> |     |     |        |        |        |        |        |        |        |        |        |        |
| SEPR   | A,E | W/W | 6,31   | 6,65   | 6,11   | 6,32   | 6,41   | 6,13   | 6,26   | 6,33   | 6,28   | 6,12   |
|  | N,U | W/W | 6,47   | 6,61   | 6,52   | 6,80   | 6,49   | 6,62   | 6,57   | 6,50   | 6,47   | 6,40   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

**ELECTRIC DATA**

| Size                  |     |   | 1300  | 1350  | 2300  | 2325  | 2350  | 3300  | 3320  | 3340  | 3350  | 4325  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 165,0 | 249,0 | 319,0 | 404,0 | 488,0 | 483,0 | 568,0 | 727,0 | 727,0 | 797,0 |
|                       | N,U | A | 165,0 | 249,0 | 329,0 | 413,0 | 498,0 | 493,0 | 577,0 | 737,0 | 737,0 | 797,0 |
| Peak current (LRA)    | A,E | A | 36,0  | 45,0  | 200,0 | 210,0 | 305,0 | 374,0 | 470,0 | 565,0 | 565,0 | 720,0 |
|                       | N,U | A | 36,0  | 45,0  | 210,0 | 305,0 | 315,0 | 384,0 | 479,0 | 575,0 | 575,0 | 720,0 |

**GENERAL TECHNICAL DATA**

| Size                              |         |      | 1300           | 1350   | 2300   | 2325   | 2350   | 3300   | 3320   | 3340   | 3350   | 4325   |
|-----------------------------------|---------|------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Compressor</b>                 |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | Centrifugal    |        |        |        |        |        |        |        |        |        |
| Compressor regulation             | A,E,N,U | type | Inverter       |        |        |        |        |        |        |        |        |        |
| Number                            | A,E,N,U | no.  | 1              | 1      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | 4      |
| Circuits                          | A,E,N,U | no.  | 1              | 1      | 1      | 2      | 1      | 1      | 2      | 1      | 1      | 2      |
| Refrigerant                       | A,E,N,U | type | R134a          |        |        |        |        |        |        |        |        |        |
| Refrigerant charge (1)            | A,E     | kg   | 81,0           | 166,0  | 152,0  | 243,0  | 285,0  | 264,0  | 306,0  | 317,0  | 387,0  | 398,0  |
|                                   | N,U     | kg   | 81,0           | 166,0  | 163,0  | 254,0  | 296,0  | 275,0  | 317,0  | 328,0  | 398,0  | 398,0  |
| <b>System side heat exchanger</b> |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | Shell and tube |        |        |        |        |        |        |        |        |        |
| Number                            | A,E,N,U | no.  | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| <b>Hydraulic connections</b>      |         |      |                |        |        |        |        |        |        |        |        |        |
| Connections (in/out)              | A,E,N,U | type | Grooved joints |        |        |        |        |        |        |        |        |        |
| Sizes (in/out)                    | A,E     | Ø    | 3"             | 4"     | 6"     | 6"     | 6"     | 6"     | 6"     | 6"     | 8"     | 8"     |
|                                   | N,U     | Ø    | 6"             | 6"     | 6"     | 6"     | 6"     | 6"     | 6"     | 6"     | 8"     | 8"     |
| <b>Fan</b>                        |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | axials         |        |        |        |        |        |        |        |        |        |
| Fan motor                         | A,E,N,U | type | Inverter       |        |        |        |        |        |        |        |        |        |
| Number                            | A,E     | no.  | 6              | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 20     | 22     |
|                                   | N,U     | no.  | 6              | 8      | 12     | 14     | 16     | 18     | 20     | 22     | 22     | 22     |
| Air flow rate                     | A,E     | m³/h | 112920         | 150560 | 188200 | 225840 | 263480 | 301120 | 338760 | 376400 | 376400 | 414040 |
|                                   | N,U     | m³/h | 112920         | 150560 | 225840 | 263480 | 301120 | 338760 | 376400 | 414040 | 414040 | 414040 |

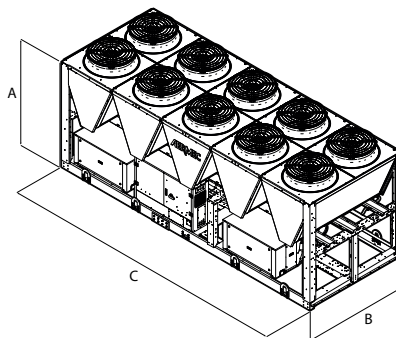
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## SOUND DATA

| Size                                      |   |       | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 | 4325 |
|---|---|-------|------|------|------|------|------|------|------|------|------|------|
| Sound data calculated in cooling mode (1) |   |       |      |      |      |      |      |      |      |      |      |      |
| Sound power level                         | A | dB(A) | 88,3 | 89,9 | 90,8 | 92,5 | 93,0 | 92,8 | 93,9 | 95,3 | 95,3 | 95,3 |
|   | E | dB(A) | 82,3 | 83,9 | 84,8 | 86,5 | 87,0 | 86,8 | 87,9 | 89,3 | 89,3 | 89,3 |
|   | N | dB(A) | 82,3 | 84,0 | 85,3 | 86,8 | 87,1 | 87,1 | 88,1 | 89,5 | 89,5 | 89,3 |
|   | U | dB(A) | 88,3 | 90,0 | 91,3 | 92,8 | 93,1 | 93,1 | 94,1 | 95,5 | 95,5 | 95,3 |
| Sound pressure level (10 m)               | A | dB(A) | 56,1 | 57,5 | 58,3 | 59,9 | 60,2 | 59,9 | 60,9 | 62,2 | 62,2 | 62,1 |
|   | E | dB(A) | 50,1 | 51,5 | 52,3 | 53,9 | 54,2 | 53,9 | 54,9 | 56,2 | 56,2 | 56,1 |
|   | N | dB(A) | 50,1 | 51,6 | 52,7 | 54,0 | 54,2 | 54,1 | 55,0 | 56,3 | 56,3 | 56,1 |
|   | U | dB(A) | 56,1 | 57,6 | 58,7 | 60,0 | 60,2 | 60,1 | 61,0 | 62,3 | 62,3 | 62,1 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size   |         |    | 1300 | 1350 | 2300 | 2325 | 2350 | 3300  | 3320  | 3340  | 3350  | 4325  |
|--|---------|----|------|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ</b> |         |    |      |      |      |      |      |       |       |       |       |       |
| Dimensions and weights   |         |    |      |      |      |      |      |       |       |       |       |       |
| A  | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  |
| B  | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  |
| C  | A,E     | mm | 3570 | 4760 | 5950 | 7140 | 8330 | 9520  | 10710 | 11900 | 11900 | 13090 |
|  | N,U     | mm | 3570 | 4760 | 7140 | 8330 | 9520 | 10710 | 11900 | 13090 | 13090 | 13090 |

| Size                               |   |    | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 | 4325  |
|------------------------------------|---|----|------|------|------|------|------|------|------|------|------|-------|
| <b>Integrated hydronic kit: 00</b> |   |    |      |      |      |      |      |      |      |      |      |       |
| Weights                            |   |    |      |      |      |      |      |      |      |      |      |       |
| Empty weight                       | A | kg | 2770 | 3480 | 4500 | 5550 | 6390 | 6760 | 7950 | 8240 | 8600 | 9700  |
|                                    | E | kg | 2850 | 3590 | 4630 | 5720 | 6580 | 6980 | 8190 | 8510 | 8870 | 10000 |
|                                    | N | kg | 2880 | 3810 | 5120 | 5950 | 7060 | 7430 | 8200 | 8950 | 9320 | 10000 |
|                                    | U | kg | 2800 | 3700 | 4950 | 5760 | 6840 | 7180 | 7920 | 8650 | 9010 | 9700  |
| Weight functioning                 | A | kg | 2840 | 3560 | 4630 | 5730 | 6650 | 6960 | 8210 | 8500 | 8940 | 9990  |
|                                    | E | kg | 2920 | 3670 | 4760 | 5900 | 6840 | 7180 | 8450 | 8770 | 9210 | 10290 |
|                                    | N | kg | 2960 | 3940 | 5250 | 6100 | 7320 | 7630 | 8410 | 9210 | 9660 | 10290 |
|                                    | U | kg | 2880 | 3830 | 5080 | 5910 | 7100 | 7380 | 8130 | 8910 | 9350 | 9990  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# TBG 1230-4310

## Air-water chiller

Cooling capacity 200 ÷ 1165 kW

- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge



### DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

#### Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)

- Low peak currents (only 6 Amps!)

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

#### HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

**da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;** with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

#### CONTROL PCO<sup>5</sup>

**Units include 1 control board for each circuit.**

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**XLATB:** This kit allows to extend the working range of the unit from 0 °C to -10 °C ambient temperature, thanks to an additional electric heater and a special insulating material for the heat exchanger.

**GP\_T:** Anti-intrusion grid kit

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E,N,U | *    | *    | *    |      | *    |      | *    | *    |      |      |
| AER485P1 x no. 2 | A,E,N,U |      |      |      | *    |      | *    |      |      | *    | *    |
| AERBACP          | A,E,N,U | *    | *    | *    |      | *    |      | *    | *    |      |      |
| AERBACP x no. 2  | A,E,N,U |      |      |      | *    |      | *    |      |      | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Antivibration

| Ver   | 1230     | 1310     | 2230   | 2270   | 2310   | 3270     | 3280     | 3310     | 4270     | 4310     |
|---|----------|----------|--------|--------|--------|----------|----------|----------|----------|----------|
| Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ |          |          |        |        |        |          |          |          |          |          |
| A, E  | AVX596   | AVX. (1) | AVX597 | AVX588 | AVX592 | AVX. (1) | AVX. (1) | AVX593   | AVX. (1) | AVX. (1) |
| N, U  | AVX. (1) | AVX500   | AVX588 | AVX592 | AVX589 | AVX. (1) | AVX593   | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

### XLATB: Kit for low temperature

| Ver        | 1230   | 1310   | 2230   | 2270   | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E, N, U | XLATB1 | XLATB3 | XLATB4 | XLATB5 | XLATB5 | XLATB6 | XLATB6 | XLATB6 | XLATB7 | XLATB7 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver  | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310  | 4270  | 4310  |
|------|------|------|------|------|------|------|------|-------|-------|-------|
| A, E | GP2T | GP3T | GP4T | GP5T | GP6T | GP7T | GP8T | GP9T  | GP10T | GP11T |
| N, U | GP3T | GP4T | GP5T | GP6T | GP7T | GP8T | GP9T | GP10T | GP11T | GP11T |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>TBG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>1230, 1310, 2230, 2270, 2310, 3270, 3280, 3310, 4270, 4310 |
| <b>8</b>       | <b>Model</b>  |
| °              | Cooling only  |
| <b>9</b>       | <b>Heat recovery</b>  |
| °              | Without heat recovery   |
| <b>10</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>11</b>      | <b>Coils</b>  |
| I              | Copper-aluminium  |
| O              | Coated aluminium microchannel   |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Aluminium microchannel  |
| <b>12</b>      | <b>Fans</b>   |
| J              | Inverter  |
| <b>13</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                |
| <b>14,15</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (1)  |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |

| Field | Description  |
|-------|--|
| DD    | Pump D + stand-by pump   |
| DE    | Pump E + stand-by pump   |
| DF    | Pump F + stand-by pump   |
| DG    | Pump G + stand-by pump   |
| DH    | Pump H + stand-by pump   |
| DI    | Pump I + stand-by pump   |
| DJ    | Pump J + stand-by pump (1)   |
| IA    | Pump A equipped with inverter device to work at fixed speed                  |
| IB    | Pump B equipped with inverter device to work at fixed speed                  |
| IC    | Pump C equipped with inverter device to work at fixed speed                  |
| ID    | Pump D equipped with inverter device to work at fixed speed                  |
| IE    | Pump E equipped with inverter device to work at fixed speed                  |
| IF    | Pump F equipped with inverter device to work at fixed speed                  |
| IG    | Pump G equipped with inverter device to work at fixed speed                  |
| IH    | Pump H equipped with inverter device to work at fixed speed                  |
| II    | Pump I equipped with inverter device to work at fixed speed                  |
| IJ    | Pump J equipped with inverter device to work at fixed speed (1)              |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed     |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed     |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed     |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed     |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed     |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed     |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed     |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed     |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed     |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (1) |
| KF    | Doble pump F with inverter device to work at fixed speed                     |
| KG    | Doble pump G with inverter device to work at fixed speed                     |
| KH    | Doble pump H with inverter device to work at fixed speed                     |
| KI    | Doble pump I with inverter device to work at fixed speed                     |
| KJ    | Doble pump J with inverter device to work at fixed speed (1)                 |
| TF    | Double pump F  |
| TG    | Double pump G  |
| TH    | Double pump H  |
| TI    | Double pump I  |
| TJ    | Double pump J (1)  |

(1) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

### TBG - (A)

| Size  |     | 1230  | 1310  | 2230  | 2270  | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|---|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 199,9 | 296,6 | 417,6 | 502,3 | 600,1  | 687,0  | 791,4  | 900,3  | 1033,3 | 1165,3 |
| Input power                                 | kW  | 57,7  | 86,1  | 121,5 | 146,6 | 174,8  | 199,1  | 231,3  | 262,2  | 305,7  | 345,1  |
| Cooling total input current                 | A   | 95,5  | 140,7 | 200,9 | 241,2 | 291,4  | 326,6  | 386,9  | 437,1  | 502,3  | 577,6  |
| EER   | W/W | 3,46  | 3,45  | 3,44  | 3,43  | 3,43   | 3,45   | 3,42   | 3,43   | 3,38   | 3,38   |
| Water flow rate system side                 | l/h | 34397 | 51028 | 71817 | 86370 | 103190 | 118120 | 136075 | 154785 | 177653 | 200332 |
| Pressure drop system side                   | kPa | 28    | 43    | 29    | 32    | 37     | 36     | 38     | 40     | 41     | 46     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

### TBG - (E)

| Size  |     | 1230  | 1310  | 2230  | 2270  | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|---|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 199,9 | 296,6 | 417,6 | 502,3 | 600,1  | 687,0  | 791,4  | 900,3  | 1033,3 | 1165,3 |
| Input power                                 | kW  | 57,7  | 86,1  | 121,5 | 146,6 | 174,8  | 199,1  | 231,3  | 262,2  | 305,7  | 345,1  |
| Cooling total input current                 | A   | 95,5  | 140,7 | 200,9 | 241,2 | 291,4  | 326,6  | 386,9  | 437,1  | 502,3  | 577,6  |
| EER   | W/W | 3,46  | 3,45  | 3,44  | 3,43  | 3,43   | 3,45   | 3,42   | 3,43   | 3,38   | 3,38   |
| Water flow rate system side                 | l/h | 34397 | 51028 | 71817 | 86370 | 103190 | 118120 | 136075 | 154785 | 177653 | 200332 |
| Pressure drop system side                   | kPa | 28    | 43    | 29    | 32    | 37     | 36     | 38     | 40     | 41     | 46     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**TBG - (U)**

| Size  |     | 1230  | 1310  | 2230  | 2270  | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|---|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 230,7 | 324,2 | 439,6 | 511,1 | 604,5  | 709,0  | 807,9  | 906,9  | 1011,3 | 1112,5 |
| Input power                                 | kW  | 65,3  | 91,2  | 124,4 | 143,9 | 170,1  | 201,3  | 230,6  | 257,3  | 290,2  | 323,2  |
| Cooling total input current                 | A   | 105,7 | 150,9 | 206,2 | 236,4 | 276,6  | 331,9  | 392,1  | 427,3  | 477,6  | 537,6  |
| EER   | W/W | 3,53  | 3,55  | 3,53  | 3,55  | 3,55   | 3,52   | 3,50   | 3,52   | 3,49   | 3,44   |
| Water flow rate system side                 | l/h | 39688 | 55753 | 75597 | 87882 | 103946 | 121900 | 138909 | 155919 | 173873 | 191260 |
| Pressure drop system side                   | kPa | 37    | 32    | 32    | 33    | 38     | 39     | 39     | 41     | 39     | 42     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**TBG - (N)**

| Size  |     | 1230  | 1310  | 2230  | 2270  | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|---|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 230,7 | 324,2 | 439,6 | 511,1 | 604,5  | 709,0  | 807,9  | 906,9  | 1011,3 | 1112,5 |
| Input power                                 | kW  | 65,3  | 91,2  | 124,4 | 143,9 | 170,1  | 201,3  | 230,6  | 257,3  | 290,2  | 323,2  |
| Cooling total input current                 | A   | 105,7 | 150,9 | 206,2 | 236,4 | 276,6  | 331,9  | 392,1  | 427,3  | 477,6  | 537,6  |
| EER   | W/W | 3,53  | 3,55  | 3,53  | 3,55  | 3,55   | 3,52   | 3,50   | 3,52   | 3,49   | 3,44   |
| Water flow rate system side                 | l/h | 39688 | 55753 | 75597 | 87882 | 103946 | 121900 | 138909 | 155919 | 173873 | 191260 |
| Pressure drop system side                   | kPa | 37    | 32    | 32    | 33    | 38     | 39     | 39     | 41     | 39     | 42     |

(1) Data EN 14511:2022; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size   |     |     | 1230   | 1310   | 2230   | 2270   | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|--|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - (EN14825:2018) 12/7 with inverter fans (1)</b>             |     |     |        |        |        |        |        |        |        |        |        |        |
| SEER   | A,E | W/W | 5,44   | 5,52   | 5,76   | 5,44   | 5,85   | 5,70   | 5,77   | 5,78   | 5,61   | 5,60   |
|  | N,U | W/W | 5,63   | 6,03   | 5,97   | 5,71   | 6,04   | 5,80   | 5,89   | 5,93   | 5,81   | 5,71   |
| Seasonal efficiency  | A,E | %   | 214,6% | 217,6% | 227,5% | 214,6% | 231,1% | 225,1% | 227,6% | 228,3% | 221,5% | 220,8% |
|  | N,U | %   | 222,3% | 238,0% | 235,9% | 225,2% | 238,7% | 229,0% | 232,5% | 234,0% | 229,2% | 225,5% |
| <b>SEPR - (EN14825:2018) High temperature with inverter fans (2)</b> |     |     |        |        |        |        |        |        |        |        |        |        |
| SEPR   | A,E | W/W | 6,34   | 5,98   | 5,99   | 6,54   | 6,35   | 6,60   | 6,05   | 6,07   | 5,98   | 5,97   |
|  | N,U | W/W | 6,47   | 6,21   | 6,18   | 6,78   | 6,56   | 6,73   | 6,20   | 6,23   | 6,17   | 6,09   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

**ELECTRIC DATA**

| Size                  |     |   | 1230  | 1310  | 2230  | 2270  | 2310  | 3270  | 3280  | 3310  | 4270  | 4310  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 115,0 | 180,0 | 229,0 | 294,0 | 359,0 | 408,0 | 528,0 | 538,0 | 587,0 | 707,0 |
|                       | N,U | A | 125,0 | 189,0 | 239,0 | 304,0 | 368,0 | 418,0 | 538,0 | 547,0 | 597,0 | 707,0 |
| Peak current (LRA)    | A,E | A | 26,0  | 36,0  | 151,0 | 220,0 | 230,0 | 180,0 | 249,0 | 424,0 | 209,0 | 608,0 |
|                       | N,U | A | 36,0  | 45,0  | 161,0 | 230,0 | 239,0 | 190,0 | 259,0 | 433,0 | 219,0 | 608,0 |

**GENERAL TECHNICAL DATA**

| Size                              |         |      | 1230           | 1310   | 2230   | 2270   | 2310   | 3270   | 3280   | 3310   | 4270   | 4310   |
|-----------------------------------|---------|------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Compressor</b>                 |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | Centrifugal    |        |        |        |        |        |        |        |        |        |
| Compressor regulation             | A,E,N,U | type | Inverter       |        |        |        |        |        |        |        |        |        |
| Number                            | A,E,N,U | no.  | 1              | 1      | 2      | 2      | 3      | 3      | 3      | 3      | 3      | 4      |
| Circuits                          | A,E,N,U | no.  | 1              | 1      | 1      | 2      | 1      | 2      | 1      | 1      | 2      | 2      |
| Refrigerant                       | A,E,N,U | type | R1234ze        |        |        |        |        |        |        |        |        |        |
| Refrigerant charge (1)            | A,E     | kg   | 71,0           | 110,0  | 142,0  | 177,0  | 188,0  | 254,0  | 265,0  | 307,0  | 318,0  | 328,0  |
|                                   | N,U     | kg   | 82,0           | 121,0  | 153,0  | 188,0  | 198,0  | 265,0  | 276,0  | 286,0  | 328,0  | 328,0  |
| <b>System side heat exchanger</b> |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | Shell and tube |        |        |        |        |        |        |        |        |        |
| Number                            | A,E,N,U | no.  | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| <b>Hydraulic connections</b>      |         |      |                |        |        |        |        |        |        |        |        |        |
| Connections (in/out)              | A,E,N,U | Type | Grooved joints |        |        |        |        |        |        |        |        |        |
| Sizes (in/out)                    | A,E,N,U | Ø    | 3"             | 4"     | 5"     | 6"     | 6"     | 6"     | 6"     | 6"     | 6"     | 6"     |
| <b>Fan</b>                        |         |      |                |        |        |        |        |        |        |        |        |        |
| Type                              | A,E,N,U | type | axials         |        |        |        |        |        |        |        |        |        |
| Fan motor                         | A,E,N,U | type | Inverter       |        |        |        |        |        |        |        |        |        |
| Number                            | A,E     | no.  | 4              | 6      | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     |
|                                   | N,U     | no.  | 6              | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     | 22     |
| Air flow rate                     | A,E     | m³/h | 75280          | 112920 | 150560 | 188200 | 225840 | 263480 | 301120 | 338760 | 376400 | 414040 |
|                                   | N,U     | m³/h | 112920         | 150560 | 188200 | 225840 | 263480 | 301120 | 338760 | 376400 | 414040 | 414040 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

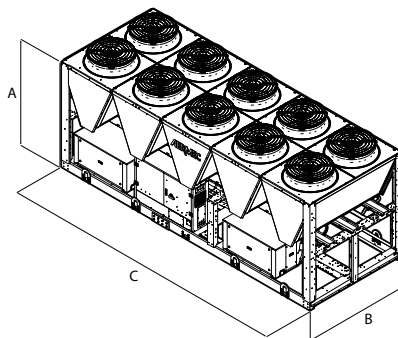


## SOUND DATA

| Size   |   | 1230  | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|--|---|-------|------|------|------|------|------|------|------|------|------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | 85,2 | 88,4 | 88,2 | 90,1 | 91,4 | 91,3 | 92,9 | 93,1 | 94,2 |
|  | E | dB(A) | 82,2 | 85,4 | 85,2 | 87,1 | 88,4 | 88,3 | 89,9 | 90,1 | 91,2 |
|  | N | dB(A) | 83,3 | 85,9 | 85,8 | 87,5 | 88,7 | 88,6 | 90,1 | 90,3 | 91,2 |
|  | U | dB(A) | 86,3 | 88,9 | 88,8 | 90,5 | 91,7 | 91,6 | 93,1 | 93,3 | 94,2 |
| Sound pressure level (10 m)                      | A | dB(A) | 53,3 | 56,5 | 55,8 | 57,6 | 58,8 | 58,5 | 60,0 | 60,1 | 61,0 |
|  | E | dB(A) | 50,3 | 53,5 | 52,8 | 54,6 | 55,8 | 55,5 | 57,0 | 57,1 | 58,0 |
|  | N | dB(A) | 51,1 | 53,5 | 53,3 | 54,9 | 55,9 | 55,7 | 57,1 | 57,2 | 58,0 |
|  | U | dB(A) | 54,1 | 56,5 | 56,3 | 57,9 | 58,9 | 58,7 | 60,1 | 60,2 | 61,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size   |         | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310  | 4270  | 4310  |
|--|---------|------|------|------|------|------|------|------|-------|-------|-------|
| <b>Integrated hydronic kit: 00</b>   |         |      |      |      |      |      |      |      |       |       |       |
| <b>Dimensions and weights</b>  |         |      |      |      |      |      |      |      |       |       |       |
| A  | A,E,N,U | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  |
| B  | A,E,N,U | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  |
| C  | A,E     | mm   | 2780 | 3970 | 5160 | 5950 | 7140 | 8330 | 9520  | 10710 | 11900 |
|  | N,U     | mm   | 3570 | 4760 | 5950 | 7140 | 8330 | 9520 | 10710 | 11900 | 13090 |
| Size   |         | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310  | 4270  | 4310  |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ</b> |         |      |      |      |      |      |      |      |       |       |       |
| <b>Dimensions and weights</b>  |         |      |      |      |      |      |      |      |       |       |       |
| A  | A,E,N,U | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  |
| B  | A,E,N,U | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  |
| C  | A,E     | mm   | 3970 | 5160 | 5160 | 5950 | 7140 | 8330 | 9520  | 10710 | 11900 |
|  | N,U     | mm   | 3570 | 4760 | 5950 | 7140 | 8330 | 9520 | 10710 | 11900 | 13090 |
| Size   |         | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310  | 4270  | 4310  |
| <b>Integrated hydronic kit: 00</b>   |         |      |      |      |      |      |      |      |       |       |       |
| <b>Weights</b>   |         |      |      |      |      |      |      |      |       |       |       |
| Empty weight   | A       | kg   | 2470 | 2980 | 4020 | 4800 | 5250 | 6490 | 6950  | 7440  | 8900  |
|  | E       | kg   | 2520 | 3060 | 4130 | 4940 | 5410 | 6680 | 7170  | 7690  | 9170  |
|  | N       | kg   | 2840 | 3590 | 4560 | 5420 | 5890 | 7150 | 7620  | 8130  | 9610  |
|  | U       | kg   | 2760 | 3480 | 4430 | 5250 | 5700 | 6930 | 7370  | 7850  | 9310  |
| Weight functioning   | A       | kg   | 2540 | 3050 | 4110 | 4930 | 5390 | 6670 | 7150  | 7650  | 9160  |
|  | E       | kg   | 2590 | 3130 | 4220 | 5070 | 5550 | 6860 | 7370  | 7900  | 9430  |
|  | N       | kg   | 2910 | 3670 | 4650 | 5550 | 6030 | 7330 | 7820  | 8340  | 9870  |
|  | U       | kg   | 2830 | 3560 | 4520 | 5380 | 5840 | 7110 | 7570  | 8060  | 9570  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## **AIR / WATER CHILLERS WITH FREE COOLING**

When the cooling of the room is requested throughout the year, even during the winter season, such as in modern communication centers or in industrial applications, it is a waste to consume energy to produce cooling capacity. To meet these needs, Aermec offers a range of chillers capable of exploiting, free of charge, the external cold air to cool the liquid with a considerable energy saving.

## AIR / WATER CHILLERS WITH FREECOOLING

|                                      |  | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|--------------------------------------|--|--------------------------------------|--------------------|--------------------|------|
| <b>Units with scroll compressors</b> |  |                                      |                    |                    |      |
| <b>NRG 0282-0754 F</b>               | Air-water chiller with free-cooling                                | -                                    | 58-190             | -                  | 622  |
| <b>NRG 0800-2400-F</b>               | Air-water chiller with free-cooling                                | -                                    | 224-717            | -                  | 627  |
| <b>NRG 0800-2400-B</b>               | Air-water chiller with free-cooling glycol free                    | -                                    | 224-717            | -                  | 634  |
| <b>NRB 0800-2406 F</b>               | Air-water chiller with free-cooling                                | -                                    | 211-680            | -                  | 641  |
| <b>NRB 0800-2406 B</b>               | Air-water chiller with free-cooling glycol free                    | -                                    | 211-680            | -                  | 649  |
| <b>NRV 0550 F</b>                    | Air-water chiller with free-cooling                                | -                                    | 99,9-105,4         | -                  | 656  |
| <b>Units with screw compressors</b>  |  |                                      |                    |                    |      |
| <b>NSM 1402-9603 F</b>               | Air-water chiller with free-cooling                                | -                                    | 306-2028           | -                  | 660  |
| <b>NSM 1402-9603 B</b>               | Air-water chiller with free-cooling glycol free                    | -                                    | 305,8-2028,1       | -                  | 673  |
| <b>NSM-HWT-1402-9603-F</b>           | Air-water chiller with free-cooling                                | -                                    | 306-2001           | -                  | 684  |
| <b>NSM-HWT-1402-9603-B</b>           | Air-water chiller with free-cooling glycol free                    | -                                    | 306-1991           | -                  | 693  |
| <b>NSMI 1251-6102 F</b>              | Air-water chiller with free-cooling and Inverter screw compressors | -                                    | 286-1280           | -                  | 702  |
| <b>TBA 1300-3350 F</b>               | Air-water chiller with free-cooling                                | -                                    | 317,2-1223,6       | -                  | 707  |
| <b>TBG 1230-4310 F</b>               | Air-water chiller with free-cooling                                | -                                    | 238-1110           | -                  | 712  |

# NRG 0282-0754 F

## Air-water chiller with free-cooling

Cooling capacity 58 ÷ 190 kW

- High efficiency also at partial loads
- Low refrigerant charge
- Compact dimensions



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas.**

Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

**A** High efficiency

**E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 48°C external air temperature. Unit can produce chilled water up to -10 °C.

For more information refer to the selection program and to the dedicated documentation.

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 (A2L) refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

### New condensing Coils

**The whole range uses copper - aluminium condensation coils with reduced diameter rows**, allowing a lower quantity of gas to be used compared to traditional coils.

### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed pumps also inverter.**

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater

acoustic comfort but always guarantees performance even at peak load times.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**GP:** Anti-intrusion grid.

**VT:** Anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0604 | 0654 | 0704 | 0754 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD              | E   | *    | *    | *    |      |      |      |      |      |      |      |      |

### Remote panel

| Model | Ver | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0604 | 0654 | 0704 | 0754 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A   |      |      |      |      | *    | *    | *    | *    | *    | *    | *    |
|       | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver  | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0604 | 0654 | 0704 | 0754 |
|--|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00, I3, I4, P3, P4</b> |      |      |      |      |      |      |      |      |      |      |      |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 |
| E  | VT17 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 |
| <b>Integrated hydronic kit: 03, 04, K3, K4</b>     |      |      |      |      |      |      |      |      |      |      |      |
| A  | -    | -    | -    | -    | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 |
| E  | VT13 | VT13 | VT13 | VT13 | VT11 | VT11 | VT11 | VT11 | VT22 | VT22 | VT22 |

### Anti-intrusion grid

| Ver | 0282 | 0302 | 0332 | 0352 | 0502        | 0552        | 0554        | 0604        | 0654        | 0704        | 0754        |
|-----|------|------|------|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |
| E   | GP4  | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) | GP2 x 3 (1) |

(1) x \_ indicates the quantity to buy

The accessory cannot be fitted on the configurations indicated with -

### Device for peak current reduction

| Ver | 0282        | 0302        | 0332        | 0352        | 0502        | 0552        | 0554      | 0604      | 0654      | 0704      | 0754      |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|
| A   | -           | -           | -           | -           | DRENRG502FC | DRENRG552FC | DRENRG554 | DRENRG604 | DRENRG654 | DRENRG704 | DRENRG754 |
| E   | DRENRG282FC | DRENRG302FC | DRENRG332FC | DRENRG352FC | DRENRG502FC | DRENRG552FC | DRENRG554 | DRENRG604 | DRENRG654 | DRENRG704 | DRENRG754 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver | 0282        | 0302        | 0332        | 0352        | 0502        | 0552        | 0554      | 0604      | 0654      | 0704      | 0754      |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|
| A   | -           | -           | -           | -           | RIFNRG502FC | RIFNRG552FC | RIFNRG554 | RIFNRG604 | RIFNRG654 | RIFNRG704 | RIFNRG754 |
| E   | RIFNRG282FC | RIFNRG302FC | RIFNRG332FC | RIFNRG352FC | RIFNRG502FC | RIFNRG552FC | RIFNRG554 | RIFNRG604 | RIFNRG654 | RIFNRG704 | RIFNRG754 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

## Double safety valves

| Ver  | 0282   | 0302   | 0332   | 0352   | 0502   | 0552   | 0554   | 0604   | 0654   | 0704   | 0754   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 | T6NRG2 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0282, 0302, 0332, 0352, 0502, 0552, 0554, 0604, 0654, 0704, 0754 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| Z              | Low temperature electronic thermostatic valve                                   |
| <b>9</b>       | <b>Model</b>  |
| F              | Free-cooling  |
| S              | Free-cooling with special 3-way valve   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency (1)  |
| <b>12</b>      | <b>Coils / free-cooling coils</b>   |
| R              | Copper-copper/Copper-copper   |
| S              | Copper-Tinned copper / Copper -Tinned copper                                    |
| V              | Copper-painted aluminium / Copper-painted aluminium                             |
| °              | Copper-aluminium / Copper-aluminium   |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter (2)  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers                                     |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with storage tank and pump/s</b>   |
| 03             | Storage tank with high head pump  |
| 04             | Storage tank with high head pump + stand-by pump                                |
|                | <b>Kit with pump/s</b>  |
| P3             | Single pump high head   |
| P4             | Pump high head + stand-by pump  |
|                | <b>Kit with inverter pump/s to fixed speed</b>                                  |
| I3             | Single high head pump + fixed speed inverter                                    |
| I4             | Single high head pump with fixed speed inverter + stand-by pump                 |
|                | <b>Kit with storage tank and inverter pump/s to fixed speed</b>                 |
| K3             | Single high head pump + storage tank + fixed speed inverter                     |
| K4             | Storage tank and low head pump with fixed speed inverter + stand-by pump        |

(1) The size 0282-0302-0332-0352 only available in low noise versions.

(2) As standard in sizes from 0282 to 0352

## PERFORMANCE SPECIFICATIONS

### NRG - A

| Size  |     | 0282 | 0302 | 0332 | 0352 | 0502  | 0552  | 0554  | 0604  | 0654  | 0704  | 0754  |
|---|-----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance chiller operation (1)</b>  |     |      |      |      |      |       |       |       |       |       |       |       |
| Cooling capacity                                  | kW  | -    | -    | -    | -    | 100,8 | 111,4 | 116,9 | 134,7 | 148,5 | 168,3 | 190,0 |
| Input power                                       | kW  | -    | -    | -    | -    | 31,5  | 35,1  | 38,4  | 43,2  | 49,0  | 58,5  | 67,0  |
| Cooling total input current                       | A   | -    | -    | -    | -    | 60,0  | 63,0  | 63,0  | 83,0  | 94,0  | 114,0 | 123,0 |
| EER   | W/W | -    | -    | -    | -    | 3,20  | 3,18  | 3,05  | 3,12  | 3,03  | 2,88  | 2,84  |
| Water flow rate system side                       | l/h | -    | -    | -    | -    | 17316 | 19137 | 20081 | 23139 | 25509 | 28916 | 32647 |
| Pressure drop system side                         | kPa | -    | -    | -    | -    | 43    | 52    | 44    | 60    | 72    | 84    | 85    |
| <b>Cooling performances with free-cooling (2)</b> |     |      |      |      |      |       |       |       |       |       |       |       |
| Cooling capacity                                  | kW  | -    | -    | -    | -    | 73,2  | 75,6  | 76,6  | 89,6  | 92,2  | 95,1  | 97,5  |
| Input power                                       | kW  | -    | -    | -    | -    | 3,7   | 3,7   | 3,8   | 5,6   | 5,6   | 5,6   | 5,6   |
| Free cooling total input current                  | A   | -    | -    | -    | -    | 7,0   | 6,6   | 6,3   | 11,0  | 11,0  | 11,0  | 10,0  |
| EER   | W/W | -    | -    | -    | -    | 19,94 | 20,59 | 20,14 | 16,15 | 16,62 | 17,14 | 17,56 |
| Water flow rate system side                       | l/h | -    | -    | -    | -    | 17316 | 19137 | 20081 | 23139 | 25509 | 28916 | 32647 |
| Pressure drop system side                         | kPa | -    | -    | -    | -    | 63    | 76    | 71    | 65    | 78    | 90    | 93    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

### NRG - E

| Size  |     | 0282  | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0604  | 0654  | 0704  | 0754  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                                  | kW  | 58,5  | 64,5  | 71,8  | 81,3  | 98,0  | 108,0 | 112,6 | 131,2 | 144,0 | 162,0 | 181,4 |
| Input power                                       | kW  | 18,7  | 22,1  | 24,7  | 30,4  | 32,0  | 36,0  | 39,7  | 44,1  | 50,1  | 60,7  | 70,5  |
| Cooling total input current                       | A   | 33,0  | 44,0  | 50,0  | 62,0  | 58,0  | 62,0  | 63,0  | 80,0  | 91,0  | 113,0 | 123,0 |
| EER   | W/W | 3,13  | 2,92  | 2,91  | 2,67  | 3,06  | 3,00  | 2,83  | 2,98  | 2,87  | 2,67  | 2,57  |
| Water flow rate system side                       | l/h | 10057 | 11082 | 12338 | 13965 | 16843 | 18547 | 19341 | 22540 | 24736 | 27830 | 31164 |
| Pressure drop system side                         | kPa | 20    | 24    | 29    | 28    | 40    | 49    | 41    | 57    | 68    | 78    | 77    |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                                  | kW  | 39,2  | 44,0  | 48,8  | 51,0  | 73,2  | 75,6  | 76,6  | 89,6  | 92,2  | 95,1  | 97,5  |
| Input power                                       | kW  | 0,8   | 0,8   | 1,1   | 1,1   | 3,7   | 3,7   | 3,8   | 5,6   | 5,6   | 5,6   | 5,6   |
| Free cooling total input current                  | A   | 1,5   | 1,7   | 2,2   | 2,2   | 6,6   | 6,3   | 6,1   | 10,0  | 10,0  | 10,0  | 9,7   |
| EER   | W/W | 46,65 | 52,31 | 45,70 | 47,80 | 19,94 | 20,59 | 20,14 | 16,15 | 16,62 | 17,14 | 17,56 |
| Water flow rate system side                       | l/h | 10057 | 11082 | 12338 | 13965 | 16843 | 18547 | 19341 | 22540 | 24736 | 27830 | 31164 |
| Pressure drop system side                         | kPa | 35    | 31    | 40    | 41    | 59    | 71    | 66    | 61    | 74    | 84    | 85    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

## ENERGY DATA BY TYPE OF FAN

| Size   |   | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0604 | 0654 | 0704 | 0754 |
|--|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>SEPR - (EN14825:2018) High temperature with standard fans (1)</b> |   |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W  | -    | -    | -    | 6,43 | 6,30 | 7,50 | 7,56 | 7,17 | 6,57 | 6,34 |
|  | E | W/W  | 7,11 | 6,66 | 6,65 | 6,21 | 6,34 | 6,14 | 7,16 | 7,24 | 7,02 | 6,39 |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |   | 0282 | 0302  | 0332  | 0352  | 0502  | 0552  | 0554  | 0604  | 0654  | 0704  | 0754  |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |      |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A    | -     | -     | -     | 73,5  | 79,1  | 80,5  | 100,1 | 111,4 | 132,7 | 144,0 |
|                       | E | A    | 42,3  | 50,7  | 58,0  | 68,7  | 73,5  | 79,1  | 80,5  | 100,1 | 111,4 | 132,7 |
| Peak current (LRA)    | A | A    | -     | -     | -     | 276,8 | 282,5 | 200,8 | 224,2 | 226,7 | 287,7 | 353,0 |
|                       | E | A    | 162,7 | 174,8 | 173,3 | 223,7 | 276,8 | 282,5 | 200,8 | 224,2 | 226,7 | 287,7 |

■ Data calculated without hydronic kit and accessories.

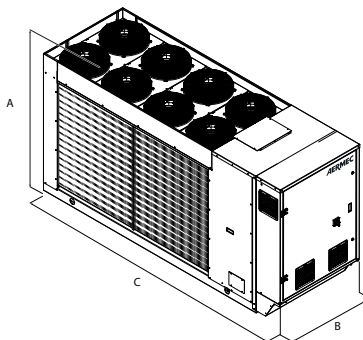


## GENERAL TECHNICAL DATA

| Size                                      |     |       | 0282  | 0302  | 0332  | 0352  | 0502  | 0552         | 0554  | 0604  | 0654  | 0704  | 0754  |
|---|-----|-------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|-------|
| Compressor                                |     |       |       |       |       |       |       |              |       |       |       |       |       |
| Type                                      | A,E | type  |       |       |       |       |       | Scroll       |       |       |       |       |       |
| Compressor regulation                     | A,E | Type  |       |       |       |       |       | On/Off       |       |       |       |       |       |
| Number                                    | A,E | no.   | 2     | 2     | 2     | 2     | 2     | 2            | 4     | 4     | 4     | 4     | 4     |
| Circuits                                  | A,E | no.   | 2     | 2     | 2     | 2     | 2     | 2            | 2     | 2     | 2     | 2     | 2     |
| Refrigerant                               | A,E | type  | R32   |       |       |       |       |              |       |       |       |       |       |
| System side heat exchanger                |     |       |       |       |       |       |       |              |       |       |       |       |       |
| Type                                      | A,E | type  |       |       |       |       |       | Brazed plate |       |       |       |       |       |
| Number                                    | A,E | no.   | 1     | 1     | 1     | 1     | 1     | 1            | 1     | 1     | 1     | 1     | 1     |
| System side hydraulic connections         |     |       |       |       |       |       |       |              |       |       |       |       |       |
| Sizes (in/out)                            | A,E | Ø     |       |       |       |       |       | 2"1/2        |       |       |       |       |       |
| Fan                                       |     |       |       |       |       |       |       |              |       |       |       |       |       |
| Type                                      | A,E | type  |       |       |       |       |       | Axial        |       |       |       |       |       |
| Number                                    | A   | no.   | -     | -     | -     | -     | 2     | 2            | 2     | 3     | 3     | 3     | 3     |
|   | E   | no.   | 6     | 6     | 8     | 8     | 2     | 2            | 2     | 3     | 3     | 3     | 3     |
| Air flow rate                             | A   | m³/h  | -     | -     | -     | -     | 36079 | 36079        | 36079 | 54481 | 54481 | 54481 | 54481 |
|   | E   | m³/h  | 23294 | 22734 | 26915 | 26915 | 27483 | 27483        | 27483 | 41449 | 41449 | 41449 | 41449 |
| Sound data calculated in cooling mode (1) |     |       |       |       |       |       |       |              |       |       |       |       |       |
| Sound power level                         | A   | dB(A) | -     | -     | -     | -     | 85,1  | 85,6         | 84,2  | 86,4  | 86,4  | 86,4  | 86,4  |
|   | E   | dB(A) | 73,0  | 73,9  | 74,3  | 74,5  | 81,3  | 82,1         | 76,1  | 77,5  | 77,5  | 77,5  | 77,5  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |   |    | 0282 | 0302 | 0332 | 0352 | 0502 | 0552 | 0554 | 0604 | 0654 | 0704 | 0754 |
|-------------------------------|---|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |   |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | A | mm | -    | -    | -    | -    | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 |
|                               | E | mm | 1658 | 1658 | 1658 | 1658 | 1907 | 1907 | 1907 | 1900 | 1900 | 1900 | 1900 |
| B                             | A | mm | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
|                               | E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| C                             | A | mm | -    | -    | -    | -    | 3567 | 3567 | 3567 | 4467 | 4467 | 4467 | 4467 |
|                               | E | mm | 3317 | 3317 | 3317 | 3317 | 3567 | 3567 | 3567 | 4467 | 4467 | 4467 | 4467 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRG-0800-2400-F

## Air-water chiller with free-cooling

Cooling capacity 224 ÷ 717 kW

- **Microchannel coil**
- **Night mode**
- **High efficiency also at partial loads**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas axial fan, microchannel batteries and plate exchangers.**

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 49 °C external air temperature. Unit can produce chilled water up to -10,0 °C.

For more information refer to the selection program and to the dedicated documentation.

#### Refrigerant HFC R32

**Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).**

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.

**It is available in different configurations with storage tank or with fixed pumps also inverter.**

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

## CONFIGURATOR

| Field   | Description   |
|---------|---|
| 1,2,3   | NRG   |
| 4,5,6,7 | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400 |
| 8       | <b>Operating field</b>  |
| X       | Electronic thermostatic expansion valve (1)                                     |
| Z       | Low temperature electronic thermostatic valve (2)                               |
| 9       | <b>Model</b>  |
| F       | Free-cooling  |
| 10      | <b>Heat recovery</b>  |
| D       | With desuperheater (3)  |
| °       | Without heat recovery   |
| 11      | <b>Version</b>  |
| A       | High efficiency   |
| E       | Silenced high efficiency  |
| N       | Silenced very high efficiency   |
| U       | Very high efficiency  |
| 12      | <b>Coils / free-cooling coils</b>   |
| I       | Copper-aluminium / Copper-aluminium   |
| O       | Painted aluminium microchannel / Copper painted aluminium                       |
| R       | Copper-copper/Copper-copper   |
| S       | Copper-Tinned copper / Copper -Tinned copper                                    |
| V       | Copper-painted aluminium / Copper-painted aluminium                             |
| °       | Aluminium microchannel / Copper - aluminium                                     |
| 13      | <b>Fans</b>   |
| J       | Inverter  |
| M       | Oversized with DCPX   |
| 14      | <b>Power supply</b>   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers                                      |
| 15,16   | <b>Integrated hydronic kit</b>  |
| 00      | Without hydronic kit  |
|         | <b>Kit with n° 1 pump</b>   |
| PA      | Pump A  |
| PB      | Pump B  |
| PC      | Pump C  |
| PD      | Pump D  |
| PE      | Pump E  |
| PF      | Pump F  |
| PG      | Pump G  |
| PH      | Pump H  |
| PI      | Pump I  |
|         | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA      | Pump A + stand-by pump  |
| DB      | Pump B + stand-by pump  |
| DC      | Pump C + stand-by pump  |
| DD      | Pump D + stand-by pump  |
| DE      | Pump E + stand-by pump  |
| DF      | Pump F + stand-by pump  |
| DG      | Pump G + stand-by pump  |
| DH      | Pump H + stand-by pump  |
| DI      | Pump I + stand-by pump  |
|         | <b>Kit with storage tank and n° 1 pump</b>                                      |
| AA      | Storage tank and pump A (4)   |
| AB      | Storage tank and pump B (4)   |
| AC      | Storage tank and pump C (4)   |
| AD      | Storage tank and pump D (4)   |
| AE      | Storage tank and pump E (4)   |
| AF      | Storage tank and pump F (4)   |
| AG      | Storage tank and pump G (4)   |
| AH      | Storage tank and pump H (4)   |
| AI      | Storage tank and pump I (4)   |
|         | <b>Kit with storage tank and n° 1 pump + stand-by pump</b>                      |
| BA      | Storage tank with pump A + stand-by pump (4)                                    |

| Field | Description   |
|-------|---|
| BB    | Storage tank with pump B + stand-by pump (4)                                    |
| BC    | Storage tank with pump C + stand-by pump (4)                                    |
| BD    | Storage tank with pump D + stand-by pump (4)                                    |
| BE    | Storage tank with pump E + stand-by pump (4)                                    |
| BF    | Storage tank with pump F + stand-by pump (4)                                    |
| BG    | Storage tank with pump G + stand-by pump (4)                                    |
| BH    | Storage tank with pump H + stand-by pump (4)                                    |
| BI    | Storage tank with pump I + stand-by pump (4)                                    |
|       | <b>Kit with n° 1 inverter pump to fixed speed</b>                               |
| IA    | Pump A equipped with inverter device to work at fixed speed                     |
| IB    | Pump B equipped with inverter device to work at fixed speed                     |
| IC    | Pump C equipped with inverter device to work at fixed speed                     |
| ID    | Pump D equipped with inverter device to work at fixed speed                     |
| IE    | Pump E equipped with inverter device to work at fixed speed                     |
| IF    | Pump F equipped with inverter device to work at fixed speed                     |
| IG    | Pump G equipped with inverter device to work at fixed speed                     |
| IH    | Pump H equipped with inverter device to work at fixed speed                     |
| II    | Pump I equipped with inverter device to work at fixed speed                     |
|       | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>               |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed        |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed        |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed        |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed        |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed        |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed        |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed        |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed        |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed        |
|       | <b>Kit with storage tank and n° 1 inverter pump to fixed speed</b>              |
| CA    | Buffer tank + pump A, equipped with inverter to work at fixed speed (4)         |
| CB    | Buffer tank + pump B, equipped with inverter to work at fixed speed (4)         |
| CC    | Buffer tank + pump C, equipped with inverter to work at fixed speed (4)         |
| CD    | Buffer tank + pump D, equipped with inverter to work at fixed speed (4)         |
| EC    | Buffer tank + pump E, equipped with inverter to work at fixed speed (4)         |
| CF    | Buffer tank + pump F, equipped with inverter to work at fixed speed (4)         |
| CG    | Buffer tank + pump G, equipped with inverter to work at fixed speed (4)         |
| CH    | Buffer tank + pump H, equipped with inverter to work at fixed speed (4)         |
| CI    | Buffer tank + pump I, equipped with inverter to work at fixed speed (4)         |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump to fixed speed</b>       |
| KA    | Buffer tank+pump A+stand-by pump, both with inverter to work at fixed speed (4) |
| KB    | Buffer tank+pump B+stand-by pump, both with inverter to work at fixed speed (4) |
| KC    | Buffer tank+pump C+stand-by pump, both with inverter to work at fixed speed (4) |
| KD    | Buffer tank+pump D+stand-by pump, both with inverter to work at fixed speed (4) |
| KE    | Buffer tank+pump E+stand-by pump, both with inverter to work at fixed speed (4) |
| KF    | Buffer tank+pump F+stand-by pump, both with inverter to work at fixed speed (4) |
| KG    | Buffer tank+pump G+stand-by pump, both with inverter to work at fixed speed (4) |
| KH    | Buffer tank+pump H+stand-by pump, both with inverter to work at fixed speed (4) |
| KI    | Buffer tank+pump I+stand-by pump, both with inverter to work at fixed speed (4) |

(1) Water produced from 4 °C ÷ 20 °C

(2) Water produced from 8 °C ÷ -10 °C

(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program. Desuperheater is not compatible with the hydronic kit with storage tank (AA-AI, BA-BI, CA-CI e KA-KI) on the unit 1400-2400°, 1100-1800 E/U, 0800-1600N.

(4) Additional module needed to contain the hydronic kit with "accumulation" option in sizes: 0800 A - 0900 A

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1800    | 2000    | 2200    | 2400    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1277 | AVX1277 | AVX1278 | AVX1278 | AVX1278 | AVX1282 | AVX1282 | AVX1287 | AVX1287 | AVX1289 | AVX1289 |
| E, U   | AVX1278 | AVX1278 | AVX1278 | AVX1282 | AVX1282 | AVX1286 | AVX1286 | AVX1289 | AVX1294 | AVX1294 | AVX1296 |
| N  | AVX1282 | AVX1282 | AVX1282 | AVX1286 | AVX1286 | AVX1286 | AVX1289 | AVX1294 | AVX1296 | AVX1296 | AVX1299 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, BA, BB, BC, BD, BE, BF, BG, BH, BI, CA, CB, CC, CD, CE, CF, CG, CH, CI, KA, KB, KC, KD, KE, KF, KG, KH, KI</b> |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1281 | AVX1281 | AVX1281 | AVX1281 | AVX1281 | AVX1284 | AVX1284 | AVX1293 | AVX1293 | AVX1290 | AVX1290 |
| E, U   | AVX1281 | AVX1281 | AVX1281 | AVX1284 | AVX1284 | AVX1288 | AVX1288 | AVX1290 | AVX1295 | AVX1295 | AVX1298 |
| N  | AVX1284 | AVX1284 | AVX1284 | AVX1288 | AVX1288 | AVX1288 | AVX1290 | AVX1295 | AVX1298 | AVX1298 | AVX1300 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI</b> |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1277 | AVX1277 | AVX1279 | AVX1279 | AVX1279 | AVX1283 | AVX1283 | AVX1292 | AVX1292 | AVX1289 | AVX1289 |
| E, U   | AVX1279 | AVX1279 | AVX1279 | AVX1282 | AVX1282 | AVX1286 | AVX1286 | AVX1289 | AVX1294 | AVX1294 | AVX1297 |
| N  | AVX1282 | AVX1282 | AVX1282 | AVX1286 | AVX1286 | AVX1286 | AVX1289 | AVX1294 | AVX1297 | AVX1297 | AVX1299 |

### Device for peak current reduction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------------|------------|------------|------------|------------|------------|------------|
| A, E, N, U | DRENRG0800 | DRENRG0900 | DRENRG1000 | DRENRG1100 | DRENRG1200 | DRENRG1400 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600       | 1800       | 2000       | 2200       | 2400       |
|------------|------------|------------|------------|------------|------------|
| A, E, N, U | DRENRG1600 | DRENRG1800 | DRENRG2000 | DRENRG2200 | DRENRG2400 |

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------------|------------|------------|------------|------------|------------|------------|
| A, E, N, U | RIFNRG0800 | RIFNRG0900 | RIFNRG1000 | RIFNRG1100 | RIFNRG1200 | RIFNRG1400 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600       | 1800       | 2000       | 2200       | 2400       |
|------------|------------|------------|------------|------------|------------|
| A, E, N, U | RIFNRG1600 | RIFNRG1800 | RIFNRG2000 | RIFNRG2200 | RIFNRG2400 |

A grey background indicates the accessory must be assembled in the factory

### Double safety valves

| Ver        | 0800     | 0900     | 1000     | 1100     | 1200     | 1400     | 1600     | 1800     | 2000     | 2200     | 2400     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS2 | T6NRGLS3 | T6NRGLS3 | T6NRGLS3 |

A grey background indicates the accessory must be assembled in the factory

## Anti-intrusion grid

| Ver  | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800 | 2000 | 2200 | 2400 |
|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| A    | GP2VN | GP2VN | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5G | GP5G | GP6G | GP6G |
| E, U | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5GM | GP5GM | GP6G | GP7G | GP7G | GP8G |
| N    | GP4GM | GP4GM | GP4GM | GP5GM | GP5GM | GP5GM | GP6G  | GP7G | GP8G | GP8G | GP9G |

A grey background indicates the accessory must be assembled in the factory

## PERFORMANCE SPECIFICATIONS

### NRG - A

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 223,9 | 245,3 | 284,1 | 324,7 | 368,2 | 419,0 | 462,1 | 535,9 | 599,5  | 654,7  | 692,5  |
| Input power                                       | kW  | 73,0  | 82,9  | 91,3  | 106,0 | 122,2 | 134,8 | 152,7 | 172,3 | 197,6  | 212,9  | 230,2  |
| Cooling total input current                       | A   | 129,0 | 146,0 | 160,0 | 184,0 | 209,0 | 229,0 | 254,0 | 293,0 | 337,0  | 356,0  | 381,0  |
| EER   | W/W | 3,07  | 2,96  | 3,11  | 3,06  | 3,01  | 3,11  | 3,03  | 3,11  | 3,03   | 3,07   | 3,01   |
| Water flow rate system side                       | l/h | 38467 | 42143 | 48813 | 55779 | 63264 | 71985 | 79391 | 92073 | 103007 | 112479 | 118984 |
| Pressure drop system side                         | kPa | 60    | 72    | 83    | 101   | 115   | 80    | 77    | 98    | 113    | 88     | 76     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 136,0 | 137,7 | 198,2 | 202,9 | 206,4 | 269,0 | 273,1 | 337,6 | 343,1  | 406,3  | 409,7  |
| Input power                                       | kW  | 7,5   | 7,5   | 11,2  | 11,2  | 11,2  | 15,0  | 15,0  | 18,7  | 18,7   | 22,4   | 22,4   |
| Free cooling total input current                  | A   | 13,0  | 13,0  | 20,0  | 20,0  | 19,0  | 25,0  | 25,0  | 32,0  | 32,0   | 38,0   | 37,0   |
| EER   | W/W | 18,20 | 18,42 | 17,67 | 18,09 | 18,40 | 17,99 | 18,27 | 18,06 | 18,36  | 18,11  | 18,26  |
| Water flow rate system side                       | l/h | 38467 | 42143 | 48813 | 55779 | 63264 | 71985 | 79391 | 92073 | 103007 | 112479 | 118984 |
| Pressure drop system side                         | kPa | 109   | 129   | 123   | 152   | 178   | 124   | 138   | 157   | 187    | 143    | 137    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

### NRG - E

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 226,2 | 251,9 | 274,9 | 324,9 | 370,2 | 416,7 | 456,6 | 531,6 | 606,0  | 638,0  | 691,8  |
| Input power                                       | kW  | 72,4  | 82,1  | 92,0  | 106,0 | 123,9 | 136,5 | 153,7 | 175,2 | 197,7  | 215,9  | 227,8  |
| Cooling total input current                       | A   | 122,0 | 139,0 | 156,0 | 176,0 | 201,0 | 220,0 | 245,0 | 284,0 | 319,0  | 346,0  | 363,0  |
| EER   | W/W | 3,12  | 3,07  | 2,99  | 3,06  | 2,99  | 3,05  | 2,97  | 3,03  | 3,07   | 2,95   | 3,04   |
| Water flow rate system side                       | l/h | 38872 | 43273 | 47230 | 55828 | 63599 | 71601 | 78444 | 91335 | 104110 | 109612 | 118851 |
| Pressure drop system side                         | kPa | 62    | 65    | 74    | 103   | 72    | 65    | 76    | 92    | 116    | 66     | 72     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 158,4 | 161,9 | 164,2 | 214,5 | 219,3 | 269,7 | 273,4 | 326,8 | 379,6  | 383,0  | 434,0  |
| Input power                                       | kW  | 7,9   | 7,9   | 7,9   | 10,6  | 10,6  | 13,2  | 13,2  | 15,8  | 18,5   | 18,5   | 21,1   |
| Free cooling total input current                  | A   | 13,0  | 13,0  | 13,0  | 18,0  | 17,0  | 21,0  | 21,0  | 26,0  | 30,0   | 30,0   | 34,0   |
| EER   | W/W | 20,02 | 20,46 | 20,75 | 20,33 | 20,78 | 20,45 | 20,73 | 20,65 | 20,56  | 20,74  | 20,57  |
| Water flow rate system side                       | l/h | 38872 | 43273 | 47230 | 55828 | 63599 | 71601 | 78444 | 91335 | 104110 | 109612 | 118851 |
| Pressure drop system side                         | kPa | 89    | 97    | 112   | 149   | 129   | 103   | 121   | 141   | 170    | 109    | 115    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

### NRG - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 233,1 | 260,7 | 285,8 | 336,2 | 385,1 | 431,6 | 474,7 | 552,3 | 627,9  | 664,0  | 717,7  |
| Input power                                       | kW  | 72,7  | 81,3  | 90,2  | 105,2 | 121,2 | 135,0 | 151,0 | 173,5 | 195,9  | 212,0  | 225,5  |
| Cooling total input current                       | A   | 129,0 | 145,0 | 160,0 | 183,0 | 206,0 | 228,0 | 250,0 | 291,0 | 330,0  | 353,0  | 374,0  |
| EER   | W/W | 3,21  | 3,20  | 3,17  | 3,19  | 3,18  | 3,20  | 3,14  | 3,18  | 3,21   | 3,13   | 3,18   |
| Water flow rate system side                       | l/h | 40049 | 44784 | 49102 | 57760 | 66170 | 74152 | 81560 | 94895 | 107889 | 114087 | 123303 |
| Pressure drop system side                         | kPa | 68    | 72    | 83    | 111   | 78    | 69    | 82    | 99    | 125    | 72     | 78     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 188,5 | 194,2 | 198,5 | 256,7 | 265,2 | 323,5 | 330,2 | 393,9 | 456,3  | 462,7  | 522,1  |
| Input power                                       | kW  | 11,2  | 11,2  | 11,2  | 15,0  | 15,0  | 18,7  | 18,7  | 22,4  | 26,2   | 26,2   | 29,9   |
| Free cooling total input current                  | A   | 20,0  | 20,0  | 20,0  | 26,0  | 25,0  | 32,0  | 31,0  | 38,0  | 44,0   | 44,0   | 50,0   |
| EER   | W/W | 16,81 | 17,32 | 17,70 | 17,17 | 17,74 | 17,31 | 17,66 | 17,56 | 17,44  | 17,68  | 17,46  |
| Water flow rate system side                       | l/h | 40049 | 44784 | 49102 | 57760 | 66170 | 74152 | 81560 | 94895 | 107889 | 114087 | 123303 |
| Pressure drop system side                         | kPa | 95    | 104   | 121   | 159   | 139   | 110   | 130   | 152   | 182    | 118    | 123    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

## NRG - N

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 232,6 | 258,9 | 286,6 | 334,6 | 383,1 | 422,5 | 473,7 | 546,9 | 617,8  | 658,1  | 707,5  |
| Input power                                       | kW  | 71,7  | 81,1  | 90,4  | 104,8 | 120,5 | 134,5 | 150,6 | 174,0 | 195,5  | 210,5  | 225,7  |
| Cooling total input current                       | A   | 121,0 | 136,0 | 152,0 | 173,0 | 195,0 | 221,0 | 238,0 | 277,0 | 314,0  | 338,0  | 357,0  |
| EER   | W/W | 3,24  | 3,19  | 3,17  | 3,19  | 3,18  | 3,14  | 3,14  | 3,14  | 3,16   | 3,13   | 3,14   |
| Water flow rate system side                       | l/h | 39959 | 44482 | 49239 | 57495 | 65813 | 72590 | 81381 | 93965 | 106146 | 113074 | 121557 |
| Pressure drop system side                         | kPa | 69    | 73    | 85    | 109   | 77    | 62    | 77    | 96    | 121    | 69     | 75     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                  | kW  | 195,9 | 202,9 | 208,3 | 255,5 | 264,7 | 270,1 | 319,5 | 371,9 | 423,9  | 429,3  | 478,8  |
| Input power                                       | kW  | 10,6  | 10,6  | 10,6  | 13,2  | 13,2  | 13,2  | 15,8  | 18,5  | 21,1   | 21,1   | 23,7   |
| Free cooling total input current                  | A   | 18,0  | 18,0  | 18,0  | 22,0  | 21,0  | 22,0  | 25,0  | 29,0  | 34,0   | 34,0   | 38,0   |
| EER   | W/W | 18,57 | 19,23 | 19,74 | 19,37 | 20,07 | 20,48 | 20,19 | 20,14 | 20,09  | 20,34  | 20,17  |
| Water flow rate system side                       | l/h | 39959 | 44482 | 49239 | 57495 | 65813 | 72590 | 81381 | 93965 | 106146 | 113074 | 121557 |
| Pressure drop system side                         | kPa | 94    | 104   | 121   | 150   | 128   | 101   | 117   | 141   | 171    | 108    | 114    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                               |   | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J</b>                     |   |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN 14825: 2018) (1)</b> |   |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | A | W/W  | 6,63 | 6,37 | 6,71 | 6,69 | 6,93 | 6,95 | 7,05 | 6,79 | 7,02 | 6,87 |
|                                    | E | W/W  | 7,12 | 6,91 | 6,90 | 6,94 | 6,79 | 7,41 | 7,34 | 7,19 | 7,28 | 7,30 |
|                                    | N | W/W  | 7,61 | 7,39 | 7,29 | 7,29 | 7,22 | 7,63 | 7,68 | 7,53 | 7,43 | 7,56 |
|                                    | U | W/W  | 7,27 | 7,12 | 7,02 | 7,09 | 6,96 | 7,33 | 7,39 | 7,27 | 7,14 | 7,34 |

(1) Calculation performed with FIXED water flow rate.

| Size                               |   | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: M</b>                     |   |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN 14825: 2018) (1)</b> |   |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | A | W/W  | 6,39 | 6,16 | 6,50 | 6,53 | 6,33 | 6,89 | 6,86 | 6,96 | 6,69 | 6,86 |
|                                    | E | W/W  | 6,86 | 6,69 | 6,71 | 6,78 | 6,61 | 7,18 | 7,14 | 7,02 | 6,95 | 7,05 |
|                                    | N | W/W  | 7,38 | 7,16 | 7,09 | 7,12 | 7,04 | 7,39 | 7,47 | 7,30 | 7,18 | 7,33 |
|                                    | U | W/W  | 7,05 | 6,91 | 6,80 | 6,93 | 6,80 | 7,30 | 7,30 | 7,17 | 7,04 | 7,18 |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     | 0800 | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  | 2400  |
|-----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |      |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A   | A    | 158,2 | 176,5 | 200,6 | 228,5 | 256,4 | 290,1 | 317,9 | 369,5 | 415,3 | 449,0 |
|                       | E,U | A    | 164,0 | 182,3 | 200,6 | 234,3 | 262,2 | 295,9 | 323,7 | 375,3 | 426,9 | 454,8 |
|                       | N   | A    | 169,8 | 188,1 | 206,4 | 240,1 | 268,0 | 295,9 | 329,5 | 381,1 | 432,7 | 460,6 |
| Peak current (LRA)    | A   | A    | 361,6 | 417,7 | 436,0 | 685,0 | 718,7 | 746,6 | 774,4 | 826,1 | 871,9 | 899,7 |
|                       | E   | A    | 361,6 | 417,7 | 441,8 | 690,8 | 718,7 | 752,4 | 780,2 | 831,9 | 877,7 | 911,3 |
|                       | N   | A    | 350,0 | 406,1 | 424,4 | 673,4 | 701,3 | 729,2 | 757,0 | 802,9 | 848,7 | 876,5 |
|                       | U   | A    | 367,4 | 423,5 | 441,8 | 696,6 | 724,5 | 758,2 | 786,0 | 837,7 | 889,3 | 917,1 |

## GENERAL TECHNICAL DATA

| Size                                       |         |      | 0800                    | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|--|---------|------|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Compressor                                 |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Scroll                  |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                      | A,E,N,U | Type | Asynchronous            |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 4                       | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits                                   | A,E,N,U | no.  | 2                       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                | A,E,N,U | type | R32                     |      |      |      |      |      |      |      |      |      |      |
| Potential global heating                   | A,E,N,U | GWP  | 675kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |
| System side heat exchanger                 |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Brazed plate            |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 1                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hydraulic connections without hydronic kit |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A       | Ø    | 3"                      | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
|  | E,N,U   | Ø    | 3"                      | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
| Hydraulic connections with hydronic kit    |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A       | Ø    | 3"                      | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
|  | E,N,U   | Ø    | 3"                      | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

## SOUND DATA

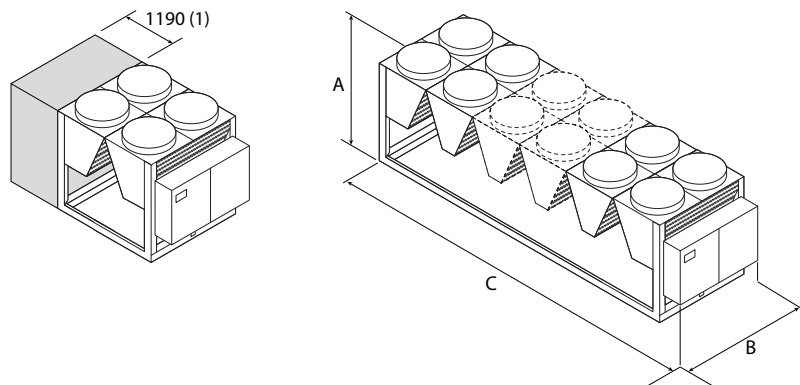
| Size   |   |       | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J, M</b>                                |   |       |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | 90,5 | 90,5 | 90,5 | 90,8 | 91,1 | 92,1 | 92,3 | 93,1 | 93,4 | 94,2 | 94,3 |
|  | E | dB(A) | 84,4 | 84,5 | 84,5 | 85,8 | 86,5 | 87,6 | 88,1 | 88,6 | 89,0 | 89,7 | 90,2 |
|  | N | dB(A) | 85,3 | 85,4 | 85,4 | 86,9 | 87,6 | 88,1 | 89,0 | 89,4 | 89,8 | 90,5 | 91,0 |
|  | U | dB(A) | 90,8 | 90,8 | 90,8 | 92,2 | 92,5 | 93,5 | 93,6 | 94,3 | 94,9 | 95,0 | 95,6 |
| Sound pressure level (10 m)                      | A | dB(A) | 58,4 | 58,4 | 58,2 | 58,6 | 58,9 | 59,7 | 59,9 | 60,5 | 60,9 | 61,5 | 61,7 |
|  | E | dB(A) | 52,2 | 52,2 | 52,3 | 53,4 | 54,1 | 55,1 | 55,6 | 55,9 | 56,2 | 56,9 | 57,3 |
|  | N | dB(A) | 52,9 | 53,0 | 53,0 | 54,4 | 55,0 | 55,6 | 56,3 | 56,6 | 56,9 | 57,6 | 58,0 |
|  | U | dB(A) | 58,5 | 58,5 | 58,5 | 59,8 | 60,1 | 60,9 | 61,1 | 61,7 | 62,1 | 62,2 | 62,7 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size              |         |                   | 0800  | 0900  | 1000  | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   |
|-------------------|---------|-------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J, M</b> |         |                   |       |       |       |        |        |        |        |        |        |        |        |
| <b>Fan</b>        |         |                   |       |       |       |        |        |        |        |        |        |        |        |
| Type              | A,E,N,U | type              | Axial |       |       |        |        |        |        |        |        |        |        |
| Number            | A       | no.               | 4     | 4     | 6     | 6      | 6      | 8      | 8      | 10     | 10     | 12     | 12     |
|                   | E,U     | no.               | 6     | 6     | 6     | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     |
|                   | N       | no.               | 8     | 8     | 8     | 10     | 10     | 10     | 12     | 14     | 16     | 16     | 18     |
| Air flow rate     | A       | m <sup>3</sup> /h | 57976 | 57976 | 86965 | 86965  | 86965  | 115954 | 115953 | 144941 | 144941 | 173929 | 173929 |
|                   | E       | m <sup>3</sup> /h | 63933 | 63933 | 63933 | 85244  | 85244  | 106555 | 106555 | 127866 | 149177 | 149177 | 170487 |
|                   | N       | m <sup>3</sup> /h | 85244 | 85244 | 85244 | 106555 | 106555 | 106555 | 127866 | 149177 | 170488 | 170488 | 191798 |
|                   | U       | m <sup>3</sup> /h | 86963 | 86963 | 86963 | 115959 | 115959 | 144934 | 144934 | 173932 | 202921 | 202921 | 231902 |

## DIMENSIONS



Key:

1 Additional module needed to contain the hydronic kit with "accumulation" option in sizes: 0800 A- 0900 A

| Size   |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
|--|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI</b> |         |    |      |      |      |      |      |      |      |      |      |      |       |
| <b>Dimensions and weights</b>  |         |    |      |      |      |      |      |      |      |      |      |      |       |
| A  | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  |
| B  | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  |
| C  | A       | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540  |
|  | E,U     | mm | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9650  |
|  | N       | mm | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 8730 | 9650 | 9650 | 11110 |
| Size   |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, BA, BB, BC, BD, BE, BF, BG, BH, BI, CA, CB, CC, CD, CE, CF, CG, CH, CI, KA, KB, KC, KD, KE, KF, KG, KH, KI</b>     |         |    |      |      |      |      |      |      |      |      |      |      |       |
| <b>Dimensions and weights</b>  |         |    |      |      |      |      |      |      |      |      |      |      |       |
| A  | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  |
| B  | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  |
| C  | A       | mm | 3970 | 3970 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540  |
|  | E,U     | mm | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9650  |
|  | N       | mm | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 8730 | 9650 | 9650 | 11110 |
| Size   |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
| <b>Integrated hydronic kit: 00</b>   |         |    |      |      |      |      |      |      |      |      |      |      |       |
| <b>Weights</b>   |         |    |      |      |      |      |      |      |      |      |      |      |       |
| Empty weight   | A       | kg | 2545 | 2550 | 3090 | 3245 | 3390 | 4135 | 4345 | 5080 | 5295 | 6000 | 6095  |
|  | E,U     | kg | 3095 | 3110 | 3115 | 3890 | 4130 | 4755 | 4895 | 5630 | 6390 | 6580 | 7270  |
|  | N       | kg | 3720 | 3730 | 3735 | 4425 | 4680 | 4815 | 5440 | 6225 | 7000 | 7190 | 7825  |
| Weight functioning   | A       | kg | 2690 | 2695 | 3235 | 3390 | 3540 | 4360 | 4590 | 5355 | 5580 | 6360 | 6460  |
|  | E,U     | kg | 3230 | 3250 | 3260 | 4085 | 4370 | 5020 | 5165 | 5955 | 6755 | 6985 | 7720  |
|  | N       | kg | 3905 | 3920 | 3925 | 4645 | 4945 | 5090 | 5755 | 6585 | 7405 | 7635 | 8315  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRG-0800-2400-B

## Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 224 ÷ 717 kW

- Microchannel coil
- Night mode
- High efficiency also at partial loads



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

**These are outdoor units with streamlined scroll compressors used with R32 gas axial fan, microchannel batteries and plate exchangers.**

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 49 °C external air temperature. Unit can produce chilled water up to -10,0 °C.

For more information refer to the selection program and to the dedicated documentation.

#### Refrigerant HFC R32

**Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).**

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

■ *The leak detector is supplied as per standard.*

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

#### Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Option integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

— **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| Z              | Low temperature electronic thermostatic valve                                   |
| <b>9</b>       | <b>Model</b>  |
| B              | Free-cooling glycol free  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (1)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils / free-cooling coils</b>   |
| I              | Copper-aluminium / Copper-aluminium   |
| O              | Painted aluminium microchannel / Copper painted aluminium                       |
| R              | Copper-copper/Copper-copper   |
| S              | Copper-Tinned copper / Copper -Tinned copper                                    |
| V              | Copper-painted aluminium / Copper-painted aluminium                             |
| °              | Alluminium microchannel / Copper - aluminium                                    |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| M              | Oversized with DCPX   |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                      |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

acoustic comfort but always guarantees performance even at peak load times.

| Field | Description  |
|-------|--|
| PF    | Pump F   |
| PG    | Pump G   |
| PH    | Pump H   |
| PI    | Pump I   |
|       | <b>Pump n° 1 pump + stand-by pump</b>                                    |
| DA    | Pump A + stand-by pump   |
| DB    | Pump B + stand-by pump   |
| DC    | Pump C + stand-by pump   |
| DD    | Pump D + stand-by pump   |
| DE    | Pump E + stand-by pump   |
| DF    | Pump F + stand-by pump   |
| DG    | Pump G + stand-by pump   |
| DH    | Pump H + stand-by pump   |
| DI    | Pump I + stand-by pump   |
|       | <b>Kit with n° 1 inverter pump to fixed speed</b>                        |
| IA    | Pump A equipped with inverter device to work at fixed speed              |
| IB    | Pump B equipped with inverter device to work at fixed speed              |
| IC    | Pump C equipped with inverter device to work at fixed speed              |
| ID    | Pump D equipped with inverter device to work at fixed speed              |
| IE    | Pump E equipped with inverter device to work at fixed speed              |
| IF    | Pump F equipped with inverter device to work at fixed speed              |
| IG    | Pump G equipped with inverter device to work at fixed speed              |
| IH    | Pump H equipped with inverter device to work at fixed speed              |
| II    | Pump I equipped with inverter device to work at fixed speed              |
|       | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>        |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed |

(1) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program. For further information please contact the head office.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1800    | 2000    | 2200    | 2400    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1277 | AVX1277 | AVX1301 | AVX1301 | AVX1301 | AVX1303 | AVX1303 | AVX1308 | AVX1308 | AVX1307 | AVX1307 |
| E, U   | AVX1301 | AVX1301 | AVX1301 | AVX1302 | AVX1303 | AVX1304 | AVX1304 | AVX1307 | AVX1310 | AVX1310 | AVX1311 |
| N  | AVX1302 | AVX1302 | AVX1302 | AVX1304 | AVX1304 | AVX1304 | AVX1307 | AVX1310 | AVX1311 | AVX1311 | AVX1313 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI</b> |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1285 | AVX1285 | AVX1301 | AVX1301 | AVX1306 | AVX1303 | AVX1303 | AVX1309 | AVX1309 | AVX1307 | AVX1307 |
| E, U   | AVX1301 | AVX1301 | AVX1301 | AVX1303 | AVX1303 | AVX1304 | AVX1304 | AVX1307 | AVX1310 | AVX1310 | AVX1312 |
| N  | AVX1302 | AVX1302 | AVX1302 | AVX1305 | AVX1304 | AVX1304 | AVX1307 | AVX1310 | AVX1312 | AVX1312 | AVX1313 |

### Device for peak current reduction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------------|------------|------------|------------|------------|------------|------------|
| A, E, N, U | DRENRG0800 | DRENRG0900 | DRENRG1000 | DRENRG1100 | DRENRG1200 | DRENRG1400 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600       | 1800       | 2000       | 2200       | 2400       |
|------------|------------|------------|------------|------------|------------|
| A, E, N, U | DRENRG1600 | DRENRG1800 | DRENRG2000 | DRENRG2200 | DRENRG2400 |

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver        | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------------|------------|------------|------------|------------|------------|------------|
| A, E, N, U | RIFNRG0800 | RIFNRG0900 | RIFNRG1000 | RIFNRG1100 | RIFNRG1200 | RIFNRG1400 |

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600       | 1800       | 2000       | 2200       | 2400       |
|------------|------------|------------|------------|------------|------------|
| A, E, N, U | RIFNRG1600 | RIFNRG1800 | RIFNRG2000 | RIFNRG2200 | RIFNRG2400 |

A grey background indicates the accessory must be assembled in the factory

### Double safety valves

| Ver        | 0800     | 0900     | 1000     | 1100     | 1200     | 1400     | 1600     | 1800     | 2000     | 2200     | 2400     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS1 | T6NRGLS2 | T6NRGLS3 | T6NRGLS3 | T6NRGLS3 |

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver  | 0800   | 0900   | 1000  | 1100  | 1200  | 1400  | 1600  | 1800 | 2000 | 2200 | 2400 |
|--|--------|--------|-------|-------|-------|-------|-------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b>   |        |        |       |       |       |       |       |      |      |      |      |
| A  | GP2VN  | GP2VN  | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5G | GP5G | GP6G | GP6G |
| E, U   | GP3G   | GP3G   | GP3G  | GP4GM | GP4GM | GP5GM | GP5GM | GP6G | GP7G | GP7G | GP8G |
| N  | GP4GM  | GP4GM  | GP4GM | GP5GM | GP5GM | GP5GM | GP6G  | GP7G | GP8G | GP8G | GP9G |
| <b>Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI</b> |        |        |       |       |       |       |       |      |      |      |      |
| A  | GP2VNA | GP2VNA | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP5G | GP5G | GP6G | GP6G |
| E, U   | GP3G   | GP3G   | GP3G  | GP4GM | GP4GM | GP5GM | GP5GM | GP6G | GP7G | GP7G | GP8G |
| N  | GP4GM  | GP4GM  | GP4GM | GP5GM | GP5GM | GP5GM | GP6G  | GP7G | GP8G | GP8G | GP9G |

A grey background indicates the accessory must be assembled in the factory

## PERFORMANCE SPECIFICATIONS

### NRG - A

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 223,9 | 245,3 | 284,1 | 324,7 | 368,2 | 419,0 | 462,1 | 535,9 | 599,5  | 654,7  | 692,5  |
| Input power   | kW  | 73,0  | 82,9  | 91,3  | 106,0 | 122,2 | 134,8 | 152,7 | 172,3 | 197,6  | 212,9  | 230,2  |
| Cooling total input current                                   | A   | 129,0 | 146,0 | 160,0 | 184,0 | 209,0 | 229,0 | 254,0 | 293,0 | 337,0  | 356,0  | 381,0  |
| EER   | W/W | 3,07  | 2,96  | 3,11  | 3,06  | 3,01  | 3,11  | 3,03  | 3,11  | 3,03   | 3,07   | 3,01   |
| Water flow rate system side                                   | l/h | 38467 | 42143 | 48813 | 55779 | 63264 | 71985 | 79391 | 92073 | 103007 | 112479 | 118984 |
| Pressure drop system side                                     | kPa | 70    | 85    | 99    | 111   | 116   | 92    | 88    | 107   | 125    | 115    | 105    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 122,1 | 122,1 | 178,1 | 179,1 | 179,8 | 241,5 | 241,5 | 302,6 | 302,5  | 368,7  | 368,6  |
| Input power   | kW  | 9,9   | 9,9   | 14,4  | 14,4  | 14,5  | 19,3  | 19,3  | 24,5  | 24,4   | 32,3   | 32,3   |
| Free cooling total input current                              | A   | 18,0  | 17,0  | 25,0  | 25,0  | 25,0  | 33,0  | 32,0  | 42,0  | 42,0   | 54,0   | 54,0   |
| EER   | W/W | 12,32 | 12,32 | 12,36 | 12,41 | 12,44 | 12,54 | 12,54 | 12,37 | 12,37  | 11,40  | 11,40  |
| Water flow rate system side                                   | l/h | 38467 | 42143 | 48813 | 55779 | 63264 | 71985 | 79391 | 92073 | 103007 | 112479 | 118984 |
| Pressure drop system side                                     | kPa | 70    | 85    | 99    | 111   | 116   | 92    | 88    | 107   | 125    | 115    | 105    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

### NRG - E

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 226,2 | 251,9 | 274,9 | 324,9 | 370,2 | 416,7 | 456,6 | 531,6 | 606,0  | 638,0  | 691,8  |
| Input power   | kW  | 72,4  | 82,1  | 92,0  | 106,0 | 123,9 | 136,5 | 153,7 | 175,2 | 197,7  | 215,9  | 227,8  |
| Cooling total input current                                   | A   | 122,0 | 139,0 | 156,0 | 176,0 | 201,0 | 220,0 | 245,0 | 284,0 | 319,0  | 346,0  | 363,0  |
| EER   | W/W | 3,12  | 3,07  | 2,99  | 3,06  | 2,99  | 3,05  | 2,97  | 3,03  | 3,07   | 2,95   | 3,04   |
| Water flow rate system side                                   | l/h | 38872 | 43273 | 47230 | 55828 | 63599 | 71601 | 78444 | 91335 | 104110 | 109612 | 118851 |
| Pressure drop system side                                     | kPa | 73    | 78    | 90    | 98    | 88    | 73    | 87    | 100   | 127    | 90     | 101    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 146,6 | 146,6 | 146,6 | 194,7 | 194,8 | 246,0 | 246,0 | 301,6 | 343,8  | 345,9  | 393,2  |
| Input power   | kW  | 11,1  | 11,1  | 11,1  | 14,8  | 14,8  | 18,9  | 18,9  | 25,6  | 29,3   | 29,7   | 32,5   |
| Free cooling total input current                              | A   | 19,0  | 19,0  | 19,0  | 25,0  | 24,0  | 31,0  | 30,0  | 41,0  | 47,0   | 48,0   | 52,0   |
| EER   | W/W | 13,20 | 13,20 | 13,20 | 13,18 | 13,18 | 13,00 | 13,00 | 11,79 | 11,73  | 11,64  | 12,12  |
| Water flow rate system side                                   | l/h | 38872 | 43273 | 47230 | 55828 | 63599 | 71601 | 78444 | 91335 | 104110 | 109612 | 118851 |
| Pressure drop system side                                     | kPa | 73    | 78    | 90    | 98    | 88    | 73    | 87    | 100   | 127    | 90     | 101    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

### NRG - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 233,1 | 260,7 | 285,8 | 336,2 | 385,1 | 431,6 | 474,7 | 552,3 | 627,9  | 664,0  | 717,7  |
| Input power   | kW  | 72,7  | 81,3  | 90,2  | 105,2 | 121,2 | 135,0 | 151,0 | 173,5 | 195,9  | 212,0  | 225,5  |
| Cooling total input current                                   | A   | 129,0 | 145,0 | 160,0 | 183,0 | 206,0 | 228,0 | 250,0 | 291,0 | 330,0  | 353,0  | 374,0  |
| EER   | W/W | 3,21  | 3,20  | 3,17  | 3,19  | 3,18  | 3,20  | 3,14  | 3,18  | 3,21   | 3,13   | 3,18   |
| Water flow rate system side                                   | l/h | 40049 | 44784 | 49102 | 57760 | 66170 | 74152 | 81560 | 94895 | 107889 | 114087 | 123303 |
| Pressure drop system side                                     | kPa | 77    | 84    | 97    | 105   | 96    | 78    | 94    | 107   | 136    | 98     | 109    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 178,1 | 178,1 | 178,1 | 235,6 | 235,8 | 301,9 | 301,8 | 364,5 | 420,7  | 427,1  | 481,5  |
| Input power   | kW  | 14,4  | 14,4  | 14,4  | 19,2  | 19,2  | 24,4  | 24,4  | 32,2  | 37,0   | 37,4   | 41,3   |
| Free cooling total input current                              | A   | 26,0  | 26,0  | 26,0  | 33,0  | 33,0  | 41,0  | 40,0  | 54,0  | 62,0   | 62,0   | 68,0   |
| EER   | W/W | 12,36 | 12,36 | 12,36 | 12,28 | 12,29 | 12,36 | 12,36 | 11,33 | 11,37  | 11,41  | 11,67  |
| Water flow rate system side                                   | l/h | 40049 | 44784 | 49102 | 57760 | 66170 | 74152 | 81560 | 94895 | 107889 | 114087 | 123303 |
| Pressure drop system side                                     | kPa | 77    | 84    | 97    | 105   | 96    | 78    | 94    | 107   | 136    | 98     | 109    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

## NRG - N

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance chiller operation (1)</b> |     |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                                 | kW  | 232,6 | 258,9 | 286,6 | 334,6 | 383,1 | 422,5 | 473,7 | 546,9 | 617,8  | 658,1  | 707,5  |
| Input power                                      | kW  | 71,7  | 81,1  | 90,4  | 104,8 | 120,5 | 134,5 | 150,6 | 174,0 | 195,5  | 210,5  | 225,7  |
| Cooling total input current                      | A   | 121,0 | 136,0 | 152,0 | 173,0 | 195,0 | 221,0 | 238,0 | 277,0 | 314,0  | 338,0  | 357,0  |
| EER  | W/W | 3,24  | 3,19  | 3,17  | 3,19  | 3,18  | 3,14  | 3,14  | 3,14  | 3,16   | 3,13   | 3,14   |
| Water flow rate system side                      | l/h | 39959 | 44482 | 49239 | 57495 | 65813 | 72590 | 81381 | 93965 | 106146 | 113074 | 121557 |
| Pressure drop system side                        | kPa | 77    | 84    | 97    | 104   | 95    | 82    | 88    | 105   | 132    | 95     | 105    |

### Cooling performances with free-cooling glycol-free (2)

|                                  |     |       |       |       |       |       |       |       |       |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| Cooling capacity                 | kW  | 193,3 | 193,3 | 193,3 | 241,1 | 241,3 | 245,3 | 301,4 | 343,8 | 390,1  | 393,2  | 439,7  |
| Input power                      | kW  | 14,7  | 14,7  | 14,7  | 18,5  | 18,5  | 18,8  | 25,6  | 29,3  | 32,0   | 32,5   | 35,2   |
| Free cooling total input current | A   | 25,0  | 25,0  | 25,0  | 30,0  | 30,0  | 31,0  | 40,0  | 47,0  | 51,0   | 52,0   | 56,0   |
| EER                              | W/W | 13,14 | 13,14 | 13,14 | 13,03 | 13,03 | 13,03 | 11,80 | 11,73 | 12,18  | 12,12  | 12,51  |
| Water flow rate system side      | l/h | 39959 | 44482 | 49239 | 57495 | 65813 | 72590 | 81381 | 93965 | 106146 | 113074 | 121557 |
| Pressure drop system side        | kPa | 77    | 84    | 97    | 104   | 95    | 82    | 88    | 105   | 132    | 95     | 105    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

## ENERGY INDICES (REG. 2016/2281 EU)

| Size                               |   | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J</b>                     |   |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN 14825: 2018) (1)</b> |   |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | A | W/W  | 6,11 | 5,92 | 6,30 | 6,21 | 6,11 | 6,51 | 6,56 | 6,49 | 6,43 | 6,41 |
|                                    | E | W/W  | 6,39 | 6,28 | 6,20 | 6,22 | 6,10 | 6,56 | 6,54 | 6,35 | 6,30 | 6,31 |
|                                    | N | W/W  | 6,64 | 6,46 | 6,47 | 6,44 | 6,34 | 6,77 | 6,72 | 6,56 | 6,44 | 6,54 |
|                                    | U | W/W  | 6,55 | 6,45 | 6,41 | 6,44 | 6,33 | 6,75 | 6,70 | 6,61 | 6,51 | 6,52 |

(1) Calculation performed with FIXED water flow rate.

| Size                               |   | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|------------------------------------|---|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: M</b>                     |   |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN 14825: 2018) (1)</b> |   |      |      |      |      |      |      |      |      |      |      |      |
| SEPR                               | A | W/W  | 5,90 | 5,74 | 6,12 | 6,07 | 5,96 | 6,48 | 6,48 | 6,41 | 6,34 | 6,27 |
|                                    | E | W/W  | 6,17 | 6,09 | 6,04 | 6,09 | 5,95 | 6,37 | 6,38 | 6,17 | 6,10 | 6,13 |
|                                    | N | W/W  | 6,42 | 6,27 | 6,31 | 6,30 | 6,19 | 6,58 | 6,55 | 6,38 | 6,24 | 6,36 |
|                                    | U | W/W  | 6,34 | 6,27 | 6,22 | 6,30 | 6,19 | 6,72 | 6,63 | 6,53 | 6,43 | 6,39 |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     | 0800 | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  | 2400  |
|-----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |      |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A   | A    | 158,2 | 176,5 | 200,6 | 228,5 | 256,4 | 290,1 | 317,9 | 369,5 | 415,3 | 449,0 |
|                       | E,U | A    | 164,0 | 182,3 | 200,6 | 234,3 | 262,2 | 295,9 | 323,7 | 375,3 | 426,9 | 454,8 |
|                       | N   | A    | 169,8 | 188,1 | 206,4 | 240,1 | 268,0 | 295,9 | 329,5 | 381,1 | 432,7 | 460,6 |
| Peak current (LRA)    | A   | A    | 361,6 | 417,7 | 436,0 | 685,0 | 718,7 | 746,6 | 774,4 | 826,1 | 871,9 | 899,7 |
|                       | E   | A    | 361,6 | 417,7 | 441,8 | 690,8 | 718,7 | 752,4 | 780,2 | 831,9 | 877,7 | 911,3 |
|                       | N   | A    | 350,0 | 406,1 | 424,4 | 673,4 | 701,3 | 729,2 | 757,0 | 802,9 | 848,7 | 876,5 |
|                       | U   | A    | 367,4 | 423,5 | 441,8 | 696,6 | 724,5 | 758,2 | 786,0 | 837,7 | 889,3 | 917,1 |

## GENERAL TECHNICAL DATA

| Size                                       |         |      | 0800                    | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|--|---------|------|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Compressor                                 |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Scroll                  |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                      | A,E,N,U | Type | Asynchronous            |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 4                       | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits                                   | A,E,N,U | no.  | 2                       | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                | A,E,N,U | type | R32                     |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)             | A       | kg   | 11,3                    | 10,9 | 11,0 | 15,0 | 15,8 | 18,0 | 21,0 | 20,6 | 24,0 | 24,4 | 26,3 |
|  | E,U     | kg   | 15,4                    | 15,0 | 16,1 | 19,5 | 19,9 | 24,0 | 23,3 | 25,9 | 28,1 | 33,8 | 30,8 |
|  | N       | kg   | 16,0                    | 16,0 | 17,3 | 24,2 | 26,3 | 26,3 | 30,8 | 30,0 | 37,5 | 34,1 | 34,1 |
| Refrigerant load circuit 2 (1)             | A       | kg   | 11,3                    | 10,9 | 11,0 | 15,0 | 15,8 | 20,5 | 22,5 | 20,6 | 24,0 | 24,4 | 26,3 |
|  | E,U     | kg   | 15,4                    | 15,0 | 16,1 | 20,5 | 19,9 | 25,5 | 23,3 | 25,9 | 28,1 | 33,8 | 30,8 |
|  | N       | kg   | 16,0                    | 16,0 | 18,8 | 25,4 | 26,3 | 26,3 | 30,8 | 30,0 | 37,5 | 34,1 | 34,1 |
| Potential global heating                   | A,E,N,U | GWP  | 675kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |
| System side heat exchanger                 |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Brazed plate            |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 1                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hydraulic connections without hydronic kit |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A       | Ø    | 3"                      | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
|  | E,N,U   | Ø    | 3"                      | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
| Hydraulic connections with hydronic kit    |         |      |                         |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A       | Ø    | 3"                      | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |
|  | E,N,U   | Ø    | 3"                      | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.**

## SOUND DATA

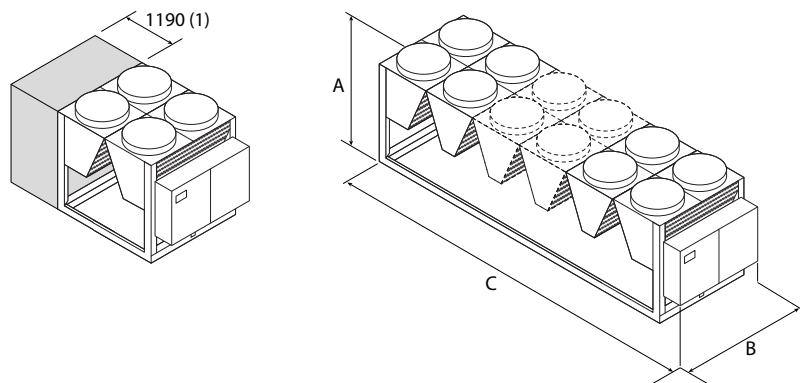
| Size   |   |       | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Fans: J, M</b>                                |   |       |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | 90,5 | 90,5 | 90,5 | 90,8 | 91,1 | 92,1 | 92,3 | 93,1 | 93,4 | 94,2 | 94,3 |
|  | E | dB(A) | 84,4 | 84,5 | 84,5 | 85,8 | 86,5 | 87,6 | 88,1 | 88,6 | 89,0 | 89,7 | 90,2 |
|  | N | dB(A) | 85,3 | 85,4 | 85,4 | 86,9 | 87,6 | 88,1 | 89,0 | 89,4 | 89,8 | 90,5 | 91,0 |
|  | U | dB(A) | 90,8 | 90,8 | 90,8 | 92,2 | 92,5 | 93,5 | 93,6 | 94,3 | 94,9 | 95,0 | 95,6 |
| Sound pressure level (10 m)                      | A | dB(A) | 58,4 | 58,4 | 58,2 | 58,6 | 58,9 | 59,7 | 59,9 | 60,5 | 60,9 | 61,5 | 61,7 |
|  | E | dB(A) | 52,2 | 52,2 | 52,3 | 53,4 | 54,1 | 55,1 | 55,6 | 55,9 | 56,2 | 56,9 | 57,3 |
|  | N | dB(A) | 52,9 | 53,0 | 53,0 | 54,4 | 55,0 | 55,6 | 56,3 | 56,6 | 56,9 | 57,6 | 58,0 |
|  | U | dB(A) | 58,5 | 58,5 | 58,5 | 59,8 | 60,1 | 60,9 | 61,1 | 61,7 | 62,1 | 62,2 | 62,7 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size          |         |      | 0800  | 0900  | 1000  | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   |
|---------------|---------|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Fans: J, M    |         |      |       |       |       |        |        |        |        |        |        |        |        |
| Fan           |         |      |       |       |       |        |        |        |        |        |        |        |        |
| Type          | A,E,N,U | type | Axial |       |       |        |        |        |        |        |        |        |        |
| Number        | A       | no.  | 4     | 4     | 6     | 6      | 6      | 8      | 8      | 10     | 10     | 12     | 12     |
|               | E,U     | no.  | 6     | 6     | 6     | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     |
|               | N       | no.  | 8     | 8     | 8     | 10     | 10     | 10     | 12     | 14     | 16     | 16     | 18     |
| Air flow rate | A       | m³/h | 57976 | 57976 | 86965 | 86965  | 86965  | 115954 | 115953 | 144941 | 144941 | 173929 | 173929 |
|               | E       | m³/h | 63933 | 63933 | 63933 | 85244  | 85244  | 106555 | 106555 | 127866 | 149177 | 149177 | 170487 |
|               | N       | m³/h | 85244 | 85244 | 85244 | 106555 | 106555 | 106555 | 127866 | 149177 | 170488 | 170488 | 191798 |
|               | U       | m³/h | 86963 | 86963 | 86963 | 115959 | 115959 | 144934 | 144934 | 173932 | 202921 | 202921 | 231902 |

## DIMENSIONS



Key:

1 Additional module needed to contain the hydronic kit with "pumps" option in sizes: 0800 A- 0900 A

| Size  |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
|---|---------|----|------|------|------|------|------|------|------|------|------|------|-------|
| Integrated hydronic kit: 00   |         |    |      |      |      |      |      |      |      |      |      |      |       |
| Dimensions and weights  |         |    |      |      |      |      |      |      |      |      |      |      |       |
| A   | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  |
| B   | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  |
| C   | A       | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540  |
|   | E,U     | mm | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9650  |
|   | N       | mm | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 8730 | 9650 | 9650 | 11110 |
| Size  |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
| Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI |         |    |      |      |      |      |      |      |      |      |      |      |       |
| Dimensions and weights  |         |    |      |      |      |      |      |      |      |      |      |      |       |
| A   | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  |
| B   | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  |
| C   | A       | mm | 3970 | 3970 | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 7540  |
|   | E,U     | mm | 3970 | 3970 | 3970 | 5160 | 5160 | 6350 | 6350 | 7540 | 8730 | 8730 | 9650  |
|   | N       | mm | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7540 | 8730 | 9650 | 9650 | 11110 |
| Size  |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400  |
| Integrated hydronic kit: 00   |         |    |      |      |      |      |      |      |      |      |      |      |       |
| Weights   |         |    |      |      |      |      |      |      |      |      |      |      |       |
| Empty weight  | A       | kg | 2690 | 2695 | 3250 | 3425 | 3570 | 4395 | 4605 | 5400 | 5620 | 6355 | 6445  |
|   | E,U     | kg | 3250 | 3265 | 3275 | 4095 | 4340 | 5035 | 5180 | 5985 | 6760 | 6945 | 7660  |
|   | N       | kg | 3880 | 3900 | 3905 | 4655 | 4915 | 5045 | 5760 | 6595 | 7380 | 7565 | 8185  |
| Weight functioning  | A       | kg | 2895 | 2900 | 3460 | 3655 | 3805 | 4765 | 4990 | 5840 | 6070 | 6900 | 6995  |
|   | E,U     | kg | 3460 | 3475 | 3485 | 4385 | 4695 | 5445 | 5590 | 6480 | 7290 | 7530 | 8300  |
|   | N       | kg | 4135 | 4160 | 4165 | 4975 | 5290 | 5430 | 6220 | 7125 | 7955 | 8200 | 8855  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRB 0800-2406 F

## Air-water chiller with free-cooling

Cooling capacity 211 ÷ 680 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model).

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50 °C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

- A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

#### Electronic expansion valve

The units from size 1805 to 2406 have an electronic expansion valve as standard.

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system. The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.



## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | NRB  |
| 4,5,6,7 | Size<br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| 8       | Operating field  |
| X       | Electronic thermostatic expansion valve (1)                              |
| Y       | Low temperature mechanic thermostatic valve                              |
| Z       | Low temperature electronic thermostatic valve                            |
| °       | Standard mechanic thermostatic valve (2)                                 |
| 9       | Model  |
| F       | Free-cooling   |
| P       | Free-cooling plus (3)  |
| 10      | Heat recovery  |
| D       | With desuperheater (4)   |
| °       | Without heat recovery  |
| 11      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| N       | Silenced very high efficiency  |
| U       | Very high efficiency   |
| 12      | Coils / free-cooling coils   |
| I       | Copper-aluminium / Copper-aluminium                                      |
| O       | Painted aluminium microchannel / Copper painted aluminium                |
| R       | Copper-copper/Copper-copper  |
| S       | Copper-Tinned copper / Copper -Tinned copper                             |
| V       | Copper-painted aluminium / Copper-painted aluminium                      |
| °       | Aluminium microchannel / Copper - aluminium                              |
| 13      | Fans   |
| J       | Inverter   |
| °       | Standard   |
| 14      | Power supply   |
| °       | 400 V/3/50 Hz with magnet circuit breakers                               |
| 15,16   | Integrated hydronic kit  |
|         | Without hydronic kit   |
| 00      | Without hydronic kit   |
|         | Kit with n° 1 pump   |
| PA      | Pump A   |
| PB      | Pump B   |
| PC      | Pump C   |
| PD      | Pump D   |
| PE      | Pump E   |
| PF      | Pump F   |

| Field | Description  |
|-------|--|
| PG    | Pump G   |
| PH    | Pump H   |
| PI    | Pump I   |
| PJ    | Pump J (5)   |
|       | <b>Pump n° 1 pump + stand-by pump</b>                      |
| DA    | Pump A + stand-by pump                                     |
| DB    | Pump B + stand-by pump                                     |
| DC    | Pump C + stand-by pump                                     |
| DD    | Pump D + stand-by pump                                     |
| DE    | Pump E + stand-by pump                                     |
| DF    | Pump F + stand-by pump                                     |
| DG    | Pump G + stand-by pump                                     |
| DH    | Pump H + stand-by pump                                     |
| DI    | Pump I + stand-by pump                                     |
| DJ    | Pump J + stand-by pump (5)                                 |
|       | <b>Kit with storage tank and n° 1 pump</b>                 |
| AA    | Storage tank and pump A                                    |
| AB    | Storage tank and pump B                                    |
| AC    | Storage tank and pump C                                    |
| AD    | Storage tank and pump D                                    |
| AE    | Storage tank and pump E                                    |
| AF    | Storage tank and pump F                                    |
| AG    | Storage tank and pump G                                    |
| AH    | Storage tank and pump H                                    |
| AI    | Storage tank and pump I                                    |
| AJ    | Storage tank and pump J (5)                                |
|       | <b>Kit with storage tank and n° 1 pump + stand-by pump</b> |
| BA    | Storage tank with pump A + stand-by pump                   |
| BB    | Storage tank with pump B + stand-by pump                   |
| BC    | Storage tank with pump C + stand-by pump                   |
| BD    | Storage tank with pump D + stand-by pump                   |
| BE    | Storage tank with pump E + stand-by pump                   |
| BF    | Storage tank with pump F + stand-by pump                   |
| BG    | Storage tank with pump G + stand-by pump                   |
| BH    | Storage tank with pump H + stand-by pump                   |
| BI    | Storage tank with pump I + stand-by pump                   |
| BJ    | Storage tank with pump J + stand-by pump (5)               |

(1) Electronic thermostatic as standard from size 1805÷2406.

(2) Water produced from 4 °C ÷ 18 °C

(3) Free cooling Plus models "P" are compatible only with "°" and "0" coils.

(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(5) For all configurations including pump J please contact the factory.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1              | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|---------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

|  | Ver     | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    | 1600    | 1805    | 2006    | 2206    | 2406    |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Integrated hydronic kit: 00</b>   |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1066 | AVX1066 | AVX1068 | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 |
| E, U   | AVX1070 | AVX1070 | AVX1070 | AVX1072 | AVX1072 | AVX1072 | AVX1074 | AVX1052 | AVX1052 | AVX1052 | AVX1054 | AVX1054 |
| N  | AVX1072 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 | AVX1054 | AVX1054 | AVX1054 | AVX1057 | AVX1057 |
| <b>Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, BA, BB, BC, BD</b> |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1068 | AVX1068 | AVX1069 | AVX1069 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 |
| E, U   | AVX1071 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1053 | AVX1053 | AVX1053 | AVX1056 | AVX1056 |
| N  | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 | AVX1056 | AVX1056 | AVX1056 | AVX1051 | AVX1051 |
| <b>Integrated hydronic kit: AH, AI, BE, BF, BG</b>                         |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1068 | AVX1068 | AVX1069 | AVX1069 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 |
| E, U   | AVX1069 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1053 | AVX1053 | AVX1053 | AVX1056 | AVX1056 |
| N  | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 | AVX1056 | AVX1056 | AVX1056 | AVX1051 | AVX1051 |
| <b>Integrated hydronic kit: BH, BI</b>                                     |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1069 | AVX1069 | AVX1069 | AVX1069 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 |
| E, U   | AVX1069 | AVX1069 | AVX1069 | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1053 | AVX1053 | AVX1053 | AVX1056 | AVX1056 |
| N  | AVX1073 | AVX1073 | AVX1073 | AVX1075 | AVX1075 | AVX1075 | AVX1053 | AVX1078 | AVX1056 | AVX1056 | AVX1051 | AVX1051 |
| <b>Integrated hydronic kit: DA, DB, DC, DD, PA, PB, PC, PD, PE, PF, PG</b> |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1066 | AVX1066 | AVX1068 | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 |
| E, U   | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1072 | AVX1074 | AVX1052 | AVX1052 | AVX1052 | AVX1054 | AVX1054 |
| N  | AVX1072 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 | AVX1054 | AVX1054 | AVX1054 | AVX1050 | AVX1050 |
| <b>Integrated hydronic kit: DE, DF, DG, PH, PI</b>                         |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1066 | AVX1066 | AVX1068 | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 |
| E, U   | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1072 | AVX1076 | AVX1052 | AVX1052 | AVX1052 | AVX1054 | AVX1054 |
| N  | AVX1072 | AVX1072 | AVX1072 | AVX1074 | AVX1074 | AVX1074 | AVX1052 | AVX1055 | AVX1054 | AVX1054 | AVX1050 | AVX1050 |
| <b>Integrated hydronic kit: DH, DI</b>                                     |         |         |         |         |         |         |         |         |         |         |         |         |
| A  | AVX1067 | AVX1067 | AVX1068 | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1079 | AVX1079 | AVX1076 | AVX1052 |
| E, U   | AVX1068 | AVX1068 | AVX1068 | AVX1072 | AVX1072 | AVX1072 | AVX1076 | AVX1052 | AVX1052 | AVX1052 | AVX1055 | AVX1055 |
| N  | AVX1072 | AVX1072 | AVX1072 | AVX1076 | AVX1076 | AVX1076 | AVX1052 | AVX1077 | AVX1055 | AVX1055 | AVX1050 | AVX1050 |

### Device for peak current reduction

| Ver        | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A, E, N, U | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver        | 1600           | 1805           | 2006           | 2206           | 2406           |
|------------|----------------|----------------|----------------|----------------|----------------|
| A, E, N, U | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| A    | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| E, U | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |
| N    | RIFNRB0801 | RIFNRB0901 | RIFNRB1001 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 1600       | 1805       | 2006       | 2206       | 2406       |
|---------|------------|------------|------------|------------|------------|
| A       | RIFNRB1601 | RIFNRB1805 | RIFNRB2006 | RIFNRB2206 | RIFNRB2416 |
| E, N, U | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

### Double safety valves

| Ver     | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    |
|---------|---------|---------|---------|---------|---------|---------|
| A       | T6NRB13 | T6NRB13 | T6NRB14 | T6NRB14 | T6NRB15 | T6NRB15 |
| E, N, U | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB14 | T6NRB15 | T6NRB15 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600    | 1805    | 2006    | 2206    | 2406    |
|------|---------|---------|---------|---------|---------|
| A    | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB15 | T6NRB16 |
| E, U | T6NRB15 | T6NRB17 | T6NRB16 | T6NRB19 | T6NRB19 |
| N    | T6NRB18 | T6NRB19 | T6NRB19 | T6NRB20 | T6NRB20 |

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver  | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600  | 1805 | 2006 | 2206 | 2406 |
|------|--------|--------|--------|--------|--------|--------|-------|------|------|------|------|
| A    | GP2VN  | GP2VN  | GP3VNF | GP3VNF | GP3VNF | GP3VNF | GP4VN | GP4G | GP5G | GP5G | GP6V |
| E, U | GP3VNF | GP3VNF | GP3VNF | GP4VN  | GP4VN  | GP4VN  | GP5VN | GP6V | GP6V | GP7V | GP7V |
| N    | GP4VN  | GP4VN  | GP4VN  | GP5VN  | GP5VN  | GP5VN  | GP6V  | GP7V | GP7V | GP8V | GP8V |

A grey background indicates the accessory must be assembled in the factory

**Units 0800A and 0900A with the optional "storage tank" are 3970 mm long and must have the GP2VNA grids installed.**

## PERFORMANCE SPECIFICATIONS

### NRB - A

| Size | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 211,8 | 234,3 | 273,4 | 307,1 | 335,9 | 373,3 | 432,0 | 474,2 | 542,2 | 584,4  | 655,6  |
| Input power                 | kW  | 76,0  | 88,0  | 93,9  | 108,9 | 124,8 | 145,6 | 157,1 | 185,1 | 201,0 | 229,4  | 243,7  |
| Cooling total input current | A   | 133,7 | 152,1 | 165,5 | 189,4 | 215,1 | 248,2 | 269,7 | 316,3 | 347,4 | 394,4  | 423,3  |
| EER                         | W/W | 2,79  | 2,66  | 2,91  | 2,82  | 2,69  | 2,56  | 2,75  | 2,56  | 2,70  | 2,55   | 2,69   |
| Water flow rate system side | l/h | 36397 | 40249 | 46968 | 52762 | 57713 | 64138 | 74217 | 81471 | 93153 | 100403 | 112635 |
| Pressure drop system side   | kPa | 49    | 50    | 68    | 76    | 91    | 99    | 64    | 68    | 88    | 96     | 122    |

##### Cooling performances with free-cooling (2)

|                                  |     |       |       |       |       |       |       |       |       |       |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity                 | kW  | 139,8 | 142,0 | 203,2 | 208,4 | 211,6 | 214,7 | 280,5 | 284,4 | 350,8 | 354,8  | 421,5  |
| Input power                      | kW  | 7,5   | 7,5   | 11,2  | 11,2  | 11,2  | 11,2  | 15,0  | 15,0  | 18,7  | 18,7   | 22,5   |
| Free cooling total input current | A   | 13,2  | 13,0  | 19,8  | 19,6  | 19,4  | 19,2  | 25,7  | 25,6  | 32,4  | 32,2   | 39,1   |
| EER                              | W/W | 18,64 | 18,94 | 18,07 | 18,53 | 18,81 | 19,09 | 18,71 | 18,97 | 18,72 | 18,93  | 18,74  |
| Water flow rate system side      | l/h | 36397 | 40249 | 46968 | 52762 | 57713 | 64138 | 74217 | 81471 | 93153 | 100403 | 112635 |
| Pressure drop system side        | kPa | 88    | 97    | 101   | 117   | 139   | 158   | 112   | 125   | 144   | 161    | 188    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: P

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |       |       |       |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Cooling capacity            | kW  | 210,3 | 232,4 | 271,9 | 305,1 | 333,3 | 369,6 | 428,9 | 469,8 | 538,2 | 579,2 | 650,8  |
| Input power                 | kW  | 76,8  | 89,2  | 94,8  | 110,0 | 126,2 | 147,6 | 158,7 | 187,5 | 203,2 | 232,3 | 246,6  |
| Cooling total input current | A   | 134,8 | 153,7 | 166,7 | 190,9 | 217,2 | 251,0 | 272,1 | 319,8 | 350,6 | 398,7 | 427,3  |
| EER                         | W/W | 2,74  | 2,61  | 2,87  | 2,77  | 2,64  | 2,50  | 2,70  | 2,51  | 2,65  | 2,49  | 2,64   |
| Water flow rate system side | l/h | 36136 | 39921 | 46723 | 52411 | 57266 | 63506 | 73697 | 80717 | 92472 | 99510 | 111819 |
| Pressure drop system side   | kPa | 48    | 49    | 67    | 75    | 89    | 97    | 63    | 66    | 87    | 95    | 120    |

##### Cooling performances with free-cooling (2)

|                                  |     |       |       |       |       |       |       |       |       |       |       |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Cooling capacity                 | kW  | 149,8 | 152,0 | 217,8 | 223,3 | 226,6 | 229,5 | 300,5 | 304,3 | 375,9 | 379,8 | 451,6  |
| Input power                      | kW  | 7,6   | 7,6   | 11,4  | 11,4  | 11,4  | 11,4  | 15,2  | 15,2  | 19,0  | 19,0  | 22,8   |
| Free cooling total input current | A   | 13,4  | 13,1  | 20,1  | 19,8  | 19,7  | 19,4  | 26,1  | 26,0  | 32,8  | 32,7  | 39,6   |
| EER                              | W/W | 19,66 | 19,95 | 19,06 | 19,55 | 19,83 | 20,09 | 19,73 | 19,98 | 19,74 | 19,94 | 19,76  |
| Water flow rate system side      | l/h | 36136 | 39921 | 46723 | 52411 | 57266 | 63506 | 73697 | 80717 | 92472 | 99510 | 111819 |
| Pressure drop system side        | kPa | 86    | 95    | 100   | 116   | 137   | 155   | 110   | 123   | 142   | 158   | 185    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

### NRB - E

| Size | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 220,6 | 242,6 | 265,3 | 310,3 | 344,7 | 379,2 | 438,5 | 498,2 | 546,9 | 610,1  | 652,9  |
| Input power                 | kW  | 73,4  | 84,2  | 95,7  | 106,6 | 122,4 | 142,0 | 155,3 | 174,8 | 199,2 | 219,5  | 244,7  |
| Cooling total input current | A   | 125,5 | 142,4 | 160,1 | 179,2 | 204,6 | 235,8 | 257,7 | 291,8 | 333,0 | 368,2  | 410,5  |
| EER                         | W/W | 3,00  | 2,88  | 2,77  | 2,91  | 2,82  | 2,67  | 2,82  | 2,85  | 2,75  | 2,78   | 2,67   |
| Water flow rate system side | l/h | 37902 | 41688 | 45573 | 53310 | 59226 | 65155 | 75344 | 85588 | 93960 | 104827 | 112169 |
| Pressure drop system side   | kPa | 44    | 53    | 57    | 82    | 90    | 109   | 58    | 75    | 85    | 89     | 102    |

##### Cooling performances with free-cooling (2)

|                                  |     |       |       |       |       |       |       |       |       |       |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity                 | kW  | 164,6 | 168,5 | 171,5 | 222,5 | 227,6 | 231,2 | 285,4 | 338,9 | 344,8 | 399,2  | 403,7  |
| Input power                      | kW  | 7,9   | 7,9   | 7,9   | 10,5  | 10,5  | 10,5  | 13,1  | 15,8  | 15,8  | 18,4   | 18,4   |
| Free cooling total input current | A   | 13,5  | 13,3  | 13,2  | 17,6  | 17,6  | 17,4  | 21,8  | 26,3  | 26,3  | 30,8   | 30,8   |
| EER                              | W/W | 20,90 | 21,39 | 21,78 | 21,18 | 21,67 | 22,02 | 21,74 | 21,51 | 21,89 | 21,72  | 21,97  |
| Water flow rate system side      | l/h | 37902 | 41688 | 45573 | 53310 | 59226 | 65155 | 75344 | 85588 | 93960 | 104827 | 112169 |
| Pressure drop system side        | kPa | 67    | 80    | 88    | 120   | 136   | 165   | 95    | 114   | 132   | 139    | 159    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Model: P</b>                                   |     |       |       |       |       |       |       |       |       |       |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 219,4 | 241,1 | 263,2 | 308,4 | 342,1 | 375,8 | 435,2 | 494,7 | 542,4 | 605,4  | 647,1  |
| Input power                                       | kW  | 74,1  | 85,1  | 96,8  | 107,7 | 123,7 | 143,8 | 157,0 | 176,7 | 201,6 | 222,1  | 247,8  |
| Cooling total input current                       | A   | 126,4 | 143,5 | 161,5 | 180,6 | 206,5 | 238,4 | 260,0 | 294,4 | 336,3 | 371,8  | 415,0  |
| EER   | W/W | 2,96  | 2,83  | 2,72  | 2,86  | 2,76  | 2,61  | 2,77  | 2,80  | 2,69  | 2,73   | 2,61   |
| Water flow rate system side                       | l/h | 37695 | 41419 | 45215 | 52979 | 58785 | 64562 | 74775 | 84990 | 93195 | 104013 | 111187 |
| Pressure drop system side                         | kPa | 44    | 53    | 56    | 81    | 89    | 107   | 57    | 74    | 84    | 88     | 100    |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 175,0 | 179,4 | 182,7 | 236,7 | 242,4 | 246,2 | 304,0 | 360,9 | 367,2 | 425,1  | 429,9  |
| Input power                                       | kW  | 8,0   | 8,0   | 8,0   | 10,7  | 10,7  | 10,7  | 13,3  | 16,0  | 16,0  | 18,6   | 18,6   |
| Free cooling total input current                  | A   | 13,6  | 13,5  | 13,3  | 17,9  | 17,8  | 17,7  | 22,1  | 26,6  | 26,7  | 31,2   | 31,2   |
| EER   | W/W | 21,90 | 22,45 | 22,86 | 22,22 | 22,76 | 23,11 | 22,83 | 22,58 | 22,98 | 22,80  | 23,06  |
| Water flow rate system side                       | l/h | 37695 | 41419 | 45215 | 52979 | 58785 | 64562 | 74775 | 84990 | 93195 | 104013 | 111187 |
| Pressure drop system side                         | kPa | 66    | 79    | 87    | 118   | 134   | 162   | 94    | 113   | 130   | 137    | 156    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

#### NRB - U

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Model: F</b>                                   |     |       |       |       |       |       |       |       |       |       |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 227,3 | 250,9 | 275,8 | 320,4 | 357,9 | 396,3 | 455,4 | 515,9 | 569,2 | 633,7  | 680,9  |
| Input power                                       | kW  | 73,7  | 83,6  | 94,1  | 106,4 | 120,6 | 138,5 | 153,5 | 173,2 | 195,2 | 215,9  | 238,4  |
| Cooling total input current                       | A   | 133,2 | 149,2 | 165,7 | 188,7 | 211,5 | 240,0 | 266,7 | 303,5 | 341,3 | 379,5  | 417,9  |
| EER   | W/W | 3,08  | 3,00  | 2,93  | 3,01  | 2,97  | 2,86  | 2,97  | 2,98  | 2,92  | 2,94   | 2,86   |
| Water flow rate system side                       | l/h | 39046 | 43104 | 47382 | 55045 | 61497 | 68087 | 78245 | 88642 | 97793 | 108881 | 116982 |
| Pressure drop system side                         | kPa | 47    | 57    | 61    | 88    | 97    | 120   | 62    | 81    | 92    | 96     | 111    |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 192,7 | 198,6 | 203,6 | 261,5 | 269,7 | 276,0 | 338,6 | 400,3 | 410,2 | 473,3  | 481,2  |
| Input power                                       | kW  | 11,2  | 11,2  | 11,2  | 15,0  | 15,0  | 15,0  | 18,7  | 22,5  | 22,5  | 26,2   | 26,2   |
| Free cooling total input current                  | A   | 20,3  | 20,1  | 19,8  | 26,6  | 26,3  | 26,0  | 32,6  | 39,4  | 39,3  | 46,1   | 46,0   |
| EER   | W/W | 17,13 | 17,66 | 18,11 | 17,44 | 17,99 | 18,41 | 18,07 | 17,80 | 18,24 | 18,04  | 18,34  |
| Water flow rate system side                       | l/h | 39046 | 43104 | 47382 | 55045 | 61497 | 68087 | 78245 | 88642 | 97793 | 108881 | 116982 |
| Pressure drop system side                         | kPa | 71    | 86    | 95    | 128   | 147   | 179   | 103   | 122   | 143   | 150    | 173    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206   | 2406   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Model: P</b>                                   |     |       |       |       |       |       |       |       |       |       |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 226,2 | 249,6 | 274,2 | 318,8 | 356,0 | 393,8 | 452,9 | 513,3 | 565,9 | 630,2  | 676,8  |
| Input power                                       | kW  | 74,4  | 84,4  | 95,0  | 107,4 | 121,8 | 139,9 | 154,8 | 174,8 | 197,2 | 218,0  | 240,9  |
| Cooling total input current                       | A   | 134,1 | 150,2 | 166,9 | 189,9 | 213,2 | 242,0 | 268,6 | 305,7 | 344,0 | 382,4  | 421,4  |
| EER   | W/W | 3,04  | 2,96  | 2,89  | 2,97  | 2,92  | 2,82  | 2,93  | 2,94  | 2,87  | 2,89   | 2,81   |
| Water flow rate system side                       | l/h | 38871 | 42893 | 47115 | 54781 | 61158 | 67658 | 77819 | 88186 | 97229 | 108280 | 116278 |
| Pressure drop system side                         | kPa | 46    | 57    | 60    | 87    | 96    | 118   | 62    | 80    | 91    | 95     | 110    |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                                  | kW  | 205,9 | 212,7 | 218,2 | 279,8 | 289,0 | 295,9 | 362,9 | 428,9 | 439,8 | 507,3  | 515,9  |
| Input power                                       | kW  | 11,4  | 11,4  | 11,4  | 15,2  | 15,2  | 15,2  | 19,0  | 22,8  | 22,8  | 26,7   | 26,7   |
| Free cooling total input current                  | A   | 20,6  | 20,3  | 20,1  | 26,9  | 26,7  | 26,4  | 33,0  | 40,0  | 39,9  | 46,8   | 46,6   |
| EER   | W/W | 18,02 | 18,62 | 19,10 | 18,37 | 18,97 | 19,42 | 19,06 | 18,77 | 19,25 | 19,03  | 19,35  |
| Water flow rate system side                       | l/h | 38871 | 42893 | 47115 | 54781 | 61158 | 67658 | 77819 | 88186 | 97229 | 108280 | 116278 |
| Pressure drop system side                         | kPa | 70    | 85    | 94    | 126   | 145   | 177   | 102   | 121   | 141   | 148    | 171    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

**NRB - N**

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: F**
**Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 228,3 | 252,4 | 278,0 | 320,3 | 358,3 | 397,2 | 454,4 | 510,9 | 563,3 | 628,5  | 675,3  |
| Input power                 | kW  | 72,5  | 82,2  | 92,3  | 104,6 | 118,7 | 136,3 | 151,0 | 171,5 | 194,0 | 213,5  | 236,4  |
| Cooling total input current | A   | 124,4 | 140,1 | 156,3 | 176,6 | 199,3 | 227,4 | 251,4 | 286,8 | 325,4 | 359,5  | 398,6  |
| EER                         | W/W | 3,15  | 3,07  | 3,01  | 3,06  | 3,02  | 2,91  | 3,01  | 2,98  | 2,90  | 2,94   | 2,86   |
| Water flow rate system side | l/h | 39222 | 43370 | 47761 | 55033 | 61559 | 68239 | 78074 | 87785 | 96785 | 107983 | 116017 |
| Pressure drop system side   | kPa | 50    | 61    | 66    | 88    | 98    | 120   | 63    | 79    | 90    | 94     | 109    |

**Cooling performances with free-cooling (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity                 | kW  | 202,3 | 209,6 | 216,0 | 263,3 | 272,4 | 279,7 | 331,7 | 383,3 | 392,7 | 446,3  | 453,4  |
| Input power                      | kW  | 10,5  | 10,5  | 10,5  | 13,1  | 13,1  | 13,1  | 15,8  | 18,4  | 18,4  | 21,0   | 21,0   |
| Free cooling total input current | A   | 18,0  | 17,9  | 17,8  | 22,2  | 22,0  | 21,9  | 26,2  | 30,7  | 30,8  | 35,4   | 35,4   |
| EER                              | W/W | 19,26 | 19,96 | 20,57 | 20,06 | 20,75 | 21,30 | 21,06 | 20,85 | 21,37 | 21,25  | 21,59  |
| Water flow rate system side      | l/h | 39222 | 43370 | 47761 | 55033 | 61559 | 68239 | 78074 | 87785 | 96785 | 107983 | 116017 |
| Pressure drop system side        | kPa | 71    | 86    | 96    | 121   | 139   | 171   | 95    | 115   | 133   | 143    | 164    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: P**
**Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 227,4 | 251,4 | 276,7 | 318,8 | 356,3 | 394,6 | 451,9 | 508,1 | 559,8 | 624,6  | 670,7  |
| Input power                 | kW  | 73,1  | 82,8  | 93,1  | 105,5 | 119,8 | 137,7 | 152,4 | 173,0 | 195,9 | 215,7  | 239,0  |
| Cooling total input current | A   | 125,1 | 140,9 | 157,2 | 177,7 | 200,7 | 229,3 | 253,2 | 289,0 | 328,0 | 362,5  | 402,2  |
| EER                         | W/W | 3,11  | 3,03  | 2,97  | 3,02  | 2,98  | 2,87  | 2,97  | 2,94  | 2,86  | 2,90   | 2,81   |
| Water flow rate system side | l/h | 39073 | 43187 | 47536 | 54768 | 61222 | 67801 | 77644 | 87290 | 96173 | 107317 | 115226 |
| Pressure drop system side   | kPa | 50    | 60    | 65    | 87    | 97    | 119   | 62    | 78    | 89    | 93     | 108    |

**Cooling performances with free-cooling (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity                 | kW  | 213,1 | 221,8 | 229,3 | 278,7 | 289,4 | 297,7 | 352,9 | 407,4 | 418,1 | 475,0  | 482,9  |
| Input power                      | kW  | 10,7  | 10,7  | 10,7  | 13,3  | 13,3  | 13,3  | 16,0  | 18,6  | 18,6  | 21,3   | 21,3   |
| Free cooling total input current | A   | 18,2  | 18,1  | 18,0  | 22,4  | 22,3  | 22,2  | 26,6  | 31,1  | 31,2  | 35,8   | 35,8   |
| EER                              | W/W | 20,00 | 20,82 | 21,53 | 20,93 | 21,73 | 22,36 | 22,08 | 21,85 | 22,43 | 22,30  | 22,66  |
| Water flow rate system side      | l/h | 39073 | 43187 | 47536 | 54768 | 61222 | 67801 | 77644 | 87290 | 96173 | 107317 | 115226 |
| Pressure drop system side        | kPa | 70    | 86    | 96    | 120   | 138   | 169   | 94    | 114   | 132   | 141    | 162    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: F**
**SEPR - (EN14825: 2018) High temperature with standard fans (1)**

|      |   |     |      |      |      |      |      |      |      |      |      |      |      |
|------|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A | W/W | 6,24 | 5,77 | 6,03 | 6,11 | 5,82 | 5,27 | 6,09 | 5,55 | 5,79 | 5,55 | 5,70 |
|      | E | W/W | 6,98 | 6,31 | 6,11 | 6,34 | 6,16 | 5,51 | 6,28 | 6,19 | 5,81 | 5,90 | 5,73 |
|      | N | W/W | 7,33 | 7,13 | 6,84 | 6,84 | 6,70 | 6,12 | 6,70 | 6,57 | 6,21 | 6,29 | 6,07 |
|      | U | W/W | 7,10 | 6,80 | 6,54 | 6,66 | 6,52 | 5,99 | 6,66 | 6,57 | 6,30 | 6,31 | 6,16 |

**SEPR - (EN14825: 2018) High temperature with inverter fans (1)**

|      |   |     |      |      |      |      |      |      |      |      |      |      |      |
|------|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A | W/W | 6,24 | 5,77 | 6,03 | 6,11 | 5,82 | 5,27 | 6,09 | 5,55 | 5,79 | 5,55 | 5,70 |
|      | E | W/W | 6,98 | 6,31 | 6,11 | 6,34 | 6,16 | 5,51 | 6,28 | 6,19 | 5,81 | 5,90 | 5,73 |
|      | N | W/W | 7,33 | 7,13 | 6,84 | 6,84 | 6,70 | 6,12 | 6,70 | 6,57 | 6,21 | 6,29 | 6,07 |
|      | U | W/W | 7,10 | 6,80 | 6,54 | 6,66 | 6,52 | 5,99 | 6,66 | 6,57 | 6,30 | 6,31 | 6,16 |

(1) Calculation performed with FIXED water flow rate.

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: P**
**SEPR - (EN14825: 2018) High temperature with standard fans (1)**

|      |   |     |      |      |      |      |      |      |      |      |      |      |      |
|------|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A | W/W | 6,09 | 5,62 | 5,91 | 5,97 | 5,68 | 5,13 | 5,95 | 5,51 | 5,65 | 5,51 | 5,57 |
|      | E | W/W | 6,82 | 6,16 | 5,95 | 6,20 | 6,01 | 5,37 | 6,13 | 6,04 | 5,66 | 5,76 | 5,59 |
|      | N | W/W | 7,22 | 6,98 | 6,71 | 6,69 | 6,54 | 5,98 | 6,55 | 6,42 | 6,07 | 6,14 | 5,92 |
|      | U | W/W | 6,98 | 6,64 | 6,39 | 6,51 | 6,39 | 5,86 | 6,51 | 6,42 | 6,16 | 6,17 | 6,03 |

**SEPR - (EN14825: 2018) High temperature with inverter fans (1)**

|      |   |     |      |      |      |      |      |      |      |      |      |      |      |
|------|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A | W/W | 6,09 | 5,62 | 5,91 | 5,97 | 5,68 | 5,13 | 5,95 | 5,51 | 5,65 | 5,51 | 5,57 |
|      | E | W/W | 6,82 | 6,16 | 5,95 | 6,20 | 6,01 | 5,37 | 6,13 | 6,04 | 5,66 | 5,76 | 5,59 |
|      | N | W/W | 7,22 | 6,98 | 6,71 | 6,69 | 6,54 | 5,98 | 6,55 | 6,42 | 6,07 | 6,14 | 5,92 |
|      | U | W/W | 6,98 | 6,64 | 6,39 | 6,51 | 6,39 | 5,86 | 6,51 | 6,42 | 6,16 | 6,17 | 6,03 |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A   | A | 190,4 | 206,8 | 242,5 | 271,9 | 301,2 | 330,2 | 378,6 | 423,4 | 487,6 | 516,6 | 570,9 |
|                       | E,U | A | 209,8 | 226,2 | 242,5 | 291,3 | 320,6 | 349,6 | 398,0 | 468,1 | 512,9 | 561,3 | 590,3 |
|                       | N   | A | 229,2 | 245,6 | 261,9 | 310,7 | 340,0 | 369,0 | 423,3 | 487,5 | 532,3 | 580,7 | 609,7 |
| Peak current (LRA)    | A   | A | 379,0 | 434,2 | 469,9 | 522,6 | 551,9 | 664,4 | 712,8 | 757,6 | 821,8 | 850,8 | 905,1 |
|                       | E,U | A | 398,4 | 453,6 | 469,9 | 542,0 | 571,3 | 683,8 | 732,2 | 802,3 | 847,1 | 895,5 | 924,5 |
|                       | N   | A | 417,8 | 473,0 | 489,3 | 561,4 | 590,7 | 703,2 | 757,5 | 821,7 | 866,5 | 914,9 | 943,9 |

## GENERAL TECHNICAL DATA

| Size                                       |         |      | 0800                     | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|---------|------|--------------------------|------|------|------|------|------|------|------|------|------|------|
| Compressor                                 |         |      |                          |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Scroll                   |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                      | A,E,N,U | Type | On-Off                   |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 4                        | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits                                   | A,E,N,U | no.  | 2                        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                | A,E,N,U | type | R410A                    |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)             | A       | kg   | 14,5                     | 15,0 | 20,0 | 22,0 | 21,5 | 21,5 | 25,0 | 25,0 | 31,0 | 31,0 | 44,0 |
|  | E,U     | kg   | 20,5                     | 20,0 | 21,5 | 26,0 | 26,0 | 26,0 | 30,0 | 36,0 | 36,0 | 56,5 | 56,0 |
|  | N       | kg   | 26,0                     | 26,5 | 26,5 | 29,0 | 28,0 | 35,0 | 42,0 | 44,0 | 43,0 | 62,0 | 62,0 |
| Refrigerant load circuit 2 (1)             | A       | kg   | 14,5                     | 15,0 | 20,0 | 22,0 | 23,5 | 21,5 | 27,0 | 30,0 | 38,0 | 34,0 | 44,0 |
|  | E,U     | kg   | 20,5                     | 20,0 | 21,5 | 27,0 | 27,0 | 27,0 | 32,0 | 39,0 | 40,0 | 56,5 | 56,0 |
|  | N       | kg   | 26,0                     | 26,5 | 26,5 | 30,0 | 31,0 | 35,0 | 42,0 | 47,0 | 47,0 | 62,0 | 62,0 |
| Potential global heating                   | A,E,N,U | GWP  | 2088kgCO <sub>2</sub> eq |      |      |      |      |      |      |      |      |      |      |
| System side heat exchanger                 |         |      |                          |      |      |      |      |      |      |      |      |      |      |
| Type                                       | A,E,N,U | type | Brazed plate             |      |      |      |      |      |      |      |      |      |      |
| Number                                     | A,E,N,U | no.  | 1                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hydraulic connections                      |         |      |                          |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints           |      |      |      |      |      |      |      |      |      |      |
| Hydraulic connections without hydronic kit |         |      |                          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A,E,N,U | Ø    | 3"                       | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Hydraulic connections with hydronic kit    |         |      |                          |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)                             | A,E,N,U | Ø    | 3"                       | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.**

## SOUND DATA

| Size   |   |       | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | 88,0 | 88,1 | 90,3 | 90,2 | 90,2 | 90,2 | 91,7 | 92,2 | 93,9 | 94,4 | 95,8 |
|  | E | dB(A) | 85,0 | 85,1 | 85,1 | 86,5 | 86,5 | 86,5 | 87,7 | 89,2 | 89,7 | 91,0 | 91,5 |
|  | N | dB(A) | 86,5 | 86,6 | 86,6 | 87,7 | 87,7 | 87,7 | 88,7 | 90,0 | 90,5 | 91,7 | 92,2 |
|  | U | dB(A) | 90,2 | 90,3 | 90,3 | 91,7 | 91,7 | 91,7 | 92,9 | 94,4 | 94,9 | 96,2 | 96,7 |
| Sound pressure level (10 m)                      | A | dB(A) | 55,9 | 56,0 | 58,0 | 57,9 | 57,9 | 57,9 | 59,3 | 59,8 | 61,3 | 61,8 | 63,2 |
|  | E | dB(A) | 52,7 | 52,8 | 52,8 | 54,2 | 54,2 | 54,2 | 55,2 | 56,5 | 57,0 | 58,2 | 58,7 |
|  | N | dB(A) | 54,2 | 54,3 | 54,3 | 55,2 | 55,2 | 55,2 | 56,0 | 57,2 | 57,7 | 58,8 | 59,3 |
|  | U | dB(A) | 57,9 | 58,0 | 58,0 | 59,3 | 59,3 | 59,3 | 60,4 | 61,7 | 62,2 | 63,4 | 63,9 |

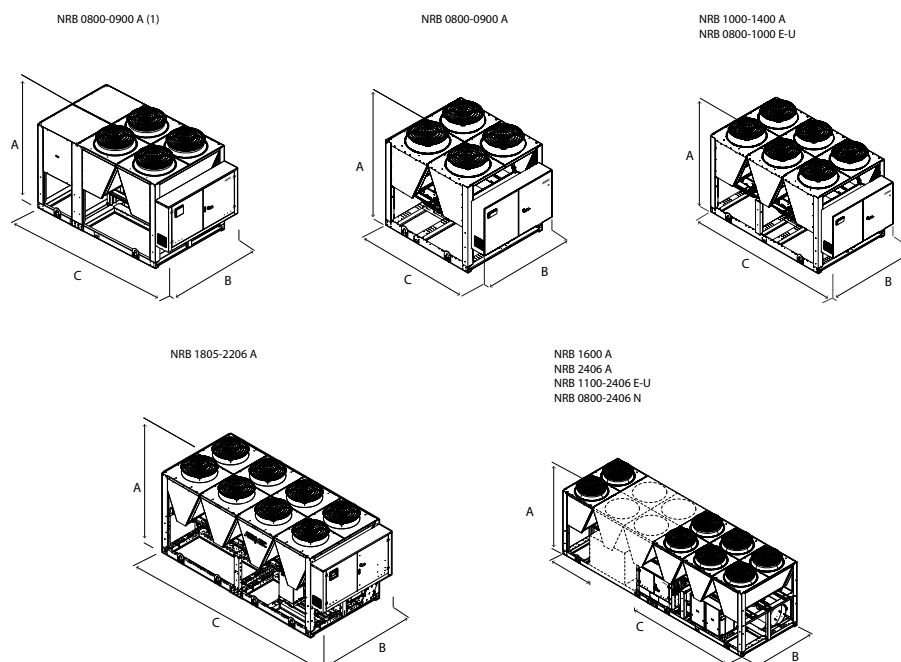
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size            |         |                   | 0800   | 0900  | 1000  | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|-----------------|---------|-------------------|--------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: F</b> |         |                   |        |       |       |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |       |       |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | axials |       |       |        |        |        |        |        |        |        |        |
| Number          | A       | no.               | 4      | 4     | 6     | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|                 | E,U     | no.               | 6      | 6     | 6     | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|                 | N       | no.               | 8      | 8     | 8     | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| Air flow rate   | A       | m <sup>3</sup> /h | 57600  | 57600 | 86400 | 86400  | 86400  | 86400  | 115200 | 115200 | 144000 | 144000 | 172800 |
|                 | E       | m <sup>3</sup> /h | 64800  | 64800 | 64800 | 86400  | 86400  | 86400  | 108000 | 129600 | 129600 | 151200 | 151200 |
|                 | N       | m <sup>3</sup> /h | 86400  | 86400 | 86400 | 108000 | 108000 | 108000 | 129600 | 151200 | 151200 | 172800 | 172800 |
|                 | U       | m <sup>3</sup> /h | 86400  | 86400 | 86400 | 115200 | 115200 | 115200 | 144000 | 172800 | 172800 | 201600 | 201600 |
| Size            |         |                   | 0800   | 0900  | 1000  | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
| <b>Model: P</b> |         |                   |        |       |       |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |       |       |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | axials |       |       |        |        |        |        |        |        |        |        |

| Size          |     |                   | 0800  | 0900  | 1000  | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|---------------|-----|-------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Number        | A   | no.               | 4     | 4     | 6     | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     |
|               | E,U | no.               | 6     | 6     | 6     | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
|               | N   | no.               | 8     | 8     | 8     | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
| Air flow rate | A   | m <sup>3</sup> /h | 54800 | 54800 | 82200 | 82200  | 82200  | 82200  | 109600 | 109600 | 137000 | 137000 | 164400 |
|               | E   | m <sup>3</sup> /h | 61800 | 61800 | 61800 | 82400  | 82400  | 82400  | 103000 | 123600 | 123600 | 144200 | 144200 |
|               | N   | m <sup>3</sup> /h | 82400 | 82400 | 82400 | 103000 | 103000 | 103000 | 123600 | 144200 | 144200 | 164800 | 164800 |
|               | U   | m <sup>3</sup> /h | 82200 | 82200 | 82200 | 109600 | 109600 | 109600 | 137000 | 164400 | 164400 | 191800 | 191800 |

## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:  
NRB 0800A, 0900A

| Size                          |         |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|---------|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |         |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B                             | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C                             | A       | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 5160 | 6350 | 6350 | 7140 |
|                               | E,U     | mm | 3970 | 3970 | 3970 | 4760 | 4760 | 4760 | 5950 | 7140 | 7140 | 8330 | 8330 |
|                               | N       | mm | 4760 | 4760 | 4760 | 5950 | 5950 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |

■ Units 0800A and 0900A with the optional "storage tank" are 3970 mm long.

| Size                               |     |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Integrated hydronic kit: 00</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Free-cooling</b>                |     |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                       | A   | kg | 2570 | 2620 | 3260 | 3330 | 3370 | 3420 | 4080 | 4290 | 5020 | 5100 | 5670 |
|                                    | E,U | kg | 3080 | 3130 | 3290 | 3990 | 4060 | 4080 | 4660 | 5350 | 5570 | 6330 | 6390 |
|                                    | N   | kg | 3760 | 3800 | 3960 | 4530 | 4610 | 4630 | 5160 | 5940 | 6160 | 6870 | 6930 |
| <b>Free-cooling plus</b>           |     |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                       | A   | kg | 2630 | 2680 | 3350 | 3420 | 3460 | 3510 | 4200 | 4410 | 5170 | 5250 | 5850 |
|                                    | E,U | kg | 3170 | 3220 | 3380 | 4110 | 4180 | 4200 | 4810 | 5530 | 5750 | 6540 | 6600 |
|                                    | N   | kg | 3880 | 3920 | 4080 | 4680 | 4760 | 4780 | 5340 | 6150 | 6370 | 7110 | 7170 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRB 0800-2406 B

## Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 211 ÷ 680 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model).

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documents or the selection program Magellano.

#### Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

- *If a higher output is needed in free cooling, there is also the "G" free cooling plus model with boosted water coil.*

### Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

### Electronic expansion valve

**The units from size 1805 to 2406 have an electronic expansion valve as standard.**

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.



## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS platforms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERLINK          | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1              | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|                  | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | Ver | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | A,E | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
|       | N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### Antivibration

| Ver  | 0800     | 0900     | 1000     | 1100     | 1200     | 1400     | 1600     | 1805     | 2006     | 2206     | 2406     |
|--|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ</b> |          |          |          |          |          |          |          |          |          |          |          |
| A, E   | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | -        | -        | -        | -        | -        |
| N, U   | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

### Device for peak current reduction

| Ver        | 0800           | 0900           | 1000           | 1100           | 1200           | 1400           |
|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| A, E, N, U | DRENRB0800 (1) | DRENRB0900 (1) | DRENRB1000 (1) | DRENRB1100 (1) | DRENRB1200 (1) | DRENRB1400 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600           | 1805           | 2006           | 2206           | 2406           |
|------|----------------|----------------|----------------|----------------|----------------|
| N, U | DRENRB1600 (1) | DRENRB1805 (1) | DRENRB2006 (1) | DRENRB2206 (1) | DRENRB2406 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       |
|------|------------|------------|------------|------------|------------|------------|
| A    | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1100 | RIFNRB1200 | RIFNRB1400 |
| E, U | RIFNRB0800 | RIFNRB0900 | RIFNRB1000 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |
| N    | RIFNRB0801 | RIFNRB0901 | RIFNRB1001 | RIFNRB1101 | RIFNRB1201 | RIFNRB1401 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1600       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| N, U | RIFNRB1601 | RIFNRB1815 | RIFNRB2016 | RIFNRB2216 | RIFNRB2416 |

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600  | 1805 | 2006 | 2206 | 2406 |
|-----|--------|--------|--------|--------|--------|--------|-------|------|------|------|------|
| A   | GP2VN  | GP2VN  | GP3VNF | GP3VNF | GP3VNF | GP3VNF | -     | -    | -    | -    | -    |
| E   | GP3VNF | GP3VNF | GP3VNF | GP4VN  | GP4VN  | GP4VN  | -     | -    | -    | -    | -    |
| N   | GP4VN  | GP4VN  | GP4VN  | GP5VN  | GP5VN  | GP5VN  | GP6V  | GP7V | GP7V | GP8V | GP8V |
| U   | GP3VNF | GP3VNF | GP3VNF | GP4VN  | GP4VN  | GP4VN  | GP5VN | GP6V | GP6V | GP7V | GP7V |

A grey background indicates the accessory must be assembled in the factory

### CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRB</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| Y              | Low temperature mechanic thermostatic valve                                     |
| Z              | Low temperature electronic thermostatic valve                                   |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>Model</b>  |
| B              | Free-cooling glycol free  |
| G              | Free-cooling glycol free plus (1)   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (2)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils / free-cooling coils</b>   |
| I              | Copper-aluminium / Copper-aluminium   |
| O              | Painted aluminium microchannel / Copper painted aluminium                       |
| R              | Copper-copper/Copper-copper   |
| S              | Copper-Tinned copper / Copper -Tinned copper                                    |
| V              | Copper-painted aluminium / Copper-painted aluminium                             |
| °              | Aluminium microchannel / Copper - aluminium                                     |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V~3 50Hz with magnet circuit breakers  |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (3)  |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |
| DE             | Pump E + stand-by pump  |
| DF             | Pump F + stand-by pump  |
| DG             | Pump G + stand-by pump  |
| DH             | Pump H + stand-by pump  |
| DI             | Pump I + stand-by pump  |
| DJ             | Pump J + stand-by pump (3)  |

(1) The Free cooling Plus "G" models are only compatible with "O" and "I" coils.

(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.

(3) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

### NRB - A

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600 | 1805 | 2006 | 2206 | 2406 |
|---|-----|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Model: B</b>   |     |       |       |       |       |       |       |      |      |      |      |      |
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 211,8 | 234,3 | 273,4 | 307,1 | 335,9 | 373,3 | -    | -    | -    | -    | -    |
| Input power   | kW  | 76,0  | 88,0  | 93,9  | 108,9 | 124,8 | 145,6 | -    | -    | -    | -    | -    |
| Cooling total input current                                   | A   | 133,7 | 152,1 | 165,5 | 189,4 | 215,1 | 248,2 | -    | -    | -    | -    | -    |
| EER   | W/W | 2,79  | 2,66  | 2,91  | 2,82  | 2,69  | 2,56  | -    | -    | -    | -    | -    |
| Water flow rate system side                                   | l/h | 36397 | 40249 | 46968 | 52762 | 57713 | 64138 | -    | -    | -    | -    | -    |
| Pressure drop system side                                     | kPa | 53    | 58    | 66    | 74    | 88    | 100   | -    | -    | -    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 116,3 | 118,3 | 160,6 | 167,3 | 170,9 | 175,9 | -    | -    | -    | -    | -    |
| Input power   | kW  | 9,8   | 9,8   | 14,3  | 14,3  | 14,4  | 14,4  | -    | -    | -    | -    | -    |
| Free cooling total input current                              | A   | 17,3  | 17,0  | 25,3  | 25,0  | 24,8  | 24,5  | -    | -    | -    | -    | -    |
| EER   | W/W | 11,84 | 12,04 | 11,21 | 11,66 | 11,89 | 12,22 | -    | -    | -    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600 | 1805 | 2006 | 2206 | 2406 |
|---|-----|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Model: G</b>   |     |       |       |       |       |       |       |      |      |      |      |      |
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 210,3 | 232,4 | 271,9 | 305,1 | 333,3 | 369,6 | -    | -    | -    | -    | -    |
| Input power   | kW  | 76,8  | 89,2  | 94,8  | 110,0 | 126,2 | 147,6 | -    | -    | -    | -    | -    |
| Cooling total input current                                   | A   | 134,8 | 153,7 | 166,7 | 190,9 | 217,2 | 251,0 | -    | -    | -    | -    | -    |
| EER   | W/W | 2,74  | 2,61  | 2,87  | 2,77  | 2,64  | 2,50  | -    | -    | -    | -    | -    |
| Water flow rate system side                                   | l/h | 36136 | 39921 | 46723 | 52411 | 57266 | 63506 | -    | -    | -    | -    | -    |
| Pressure drop system side                                     | kPa | 53    | 57    | 65    | 73    | 87    | 98    | -    | -    | -    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 121,7 | 123,8 | 166,9 | 174,2 | 178,1 | 183,6 | -    | -    | -    | -    | -    |
| Input power   | kW  | 9,9   | 9,9   | 14,5  | 14,5  | 14,6  | 14,6  | -    | -    | -    | -    | -    |
| Free cooling total input current                              | A   | 17,4  | 17,1  | 25,5  | 25,2  | 25,0  | 24,8  | -    | -    | -    | -    | -    |
| EER   | W/W | 12,24 | 12,45 | 11,51 | 11,99 | 12,24 | 12,60 | -    | -    | -    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

### NRB - E

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600 | 1805 | 2006 | 2206 | 2406 |
|---|-----|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Model: B</b>   |     |       |       |       |       |       |       |      |      |      |      |      |
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 220,6 | 242,6 | 265,3 | 310,3 | 344,7 | 379,2 | -    | -    | -    | -    | -    |
| Input power   | kW  | 73,4  | 84,2  | 95,7  | 106,6 | 122,4 | 142,0 | -    | -    | -    | -    | -    |
| Cooling total input current                                   | A   | 125,5 | 142,4 | 160,1 | 179,2 | 204,6 | 235,8 | -    | -    | -    | -    | -    |
| EER   | W/W | 3,00  | 2,88  | 2,77  | 2,91  | 2,82  | 2,67  | -    | -    | -    | -    | -    |
| Water flow rate system side                                   | l/h | 37902 | 41688 | 45573 | 53310 | 59226 | 65155 | -    | -    | -    | -    | -    |
| Pressure drop system side                                     | kPa | 48    | 53    | 61    | 68    | 84    | 102   | -    | -    | -    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 134,9 | 137,3 | 139,4 | 182,1 | 186,7 | 189,4 | -    | -    | -    | -    | -    |
| Input power   | kW  | 11,0  | 11,0  | 11,0  | 14,6  | 14,6  | 14,6  | -    | -    | -    | -    | -    |
| Free cooling total input current                              | A   | 18,7  | 18,5  | 18,3  | 24,5  | 24,4  | 24,3  | -    | -    | -    | -    | -    |
| EER   | W/W | 12,31 | 12,53 | 12,72 | 12,50 | 12,78 | 12,97 | -    | -    | -    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size  |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600 | 1805 | 2006 | 2206 | 2406 |
|---|-----|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| <b>Model: G</b>   |     |       |       |       |       |       |       |      |      |      |      |      |
| <b>Cooling performance chiller operation (1)</b>              |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 219,4 | 241,1 | 263,2 | 308,4 | 342,1 | 375,8 | -    | -    | -    | -    | -    |
| Input power   | kW  | 74,1  | 85,1  | 96,8  | 107,7 | 123,7 | 143,8 | -    | -    | -    | -    | -    |
| Cooling total input current                                   | A   | 126,4 | 143,5 | 161,5 | 180,6 | 206,5 | 238,4 | -    | -    | -    | -    | -    |
| EER   | W/W | 2,96  | 2,83  | 2,72  | 2,86  | 2,76  | 2,61  | -    | -    | -    | -    | -    |
| Water flow rate system side                                   | l/h | 37695 | 41419 | 45215 | 52979 | 58785 | 64562 | -    | -    | -    | -    | -    |
| Pressure drop system side                                     | kPa | 47    | 52    | 61    | 67    | 83    | 100   | -    | -    | -    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free (2)</b> |     |       |       |       |       |       |       |      |      |      |      |      |
| Cooling capacity  | kW  | 140,0 | 142,6 | 144,8 | 189,1 | 194,0 | 196,9 | -    | -    | -    | -    | -    |
| Input power   | kW  | 11,1  | 11,1  | 11,1  | 14,7  | 14,8  | 14,8  | -    | -    | -    | -    | -    |
| Free cooling total input current                              | A   | 18,9  | 18,7  | 18,5  | 24,7  | 24,6  | 24,5  | -    | -    | -    | -    | -    |
| EER   | W/W | 12,64 | 12,88 | 13,08 | 12,85 | 13,14 | 13,34 | -    | -    | -    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NRB - U**

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 227,3 | 250,9 | 275,8 | 320,4 | 357,9 | 396,3 | 455,4 | 515,9 | 569,2 | 633,7  | 680,9  |
| Input power                 | kW  | 73,7  | 83,6  | 94,1  | 106,4 | 120,6 | 138,5 | 153,5 | 173,2 | 195,2 | 215,9  | 238,4  |
| Cooling total input current | A   | 133,2 | 149,2 | 165,7 | 188,7 | 211,5 | 240,0 | 266,7 | 303,5 | 341,3 | 379,5  | 417,9  |
| EER                         | W/W | 3,08  | 3,00  | 2,93  | 3,01  | 2,97  | 2,86  | 2,97  | 2,98  | 2,92  | 2,94   | 2,86   |
| Water flow rate system side | l/h | 39046 | 43104 | 47382 | 55045 | 61497 | 68087 | 78245 | 88642 | 97793 | 108881 | 116982 |
| Pressure drop system side   | kPa | 51    | 56    | 66    | 72    | 90    | 111   | 75    | 92    | 112   | 133    | 126    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 154,8 | 158,0 | 160,8 | 209,0 | 215,3 | 219,0 | 275,7 | 335,8 | 350,8 | 397,2 | 401,3 |
| Input power                      | kW  | 14,3  | 14,3  | 14,3  | 19,1  | 19,1  | 19,1  | 24,1  | 31,6  | 32,0  | 36,8  | 36,8  |
| Free cooling total input current | A   | 25,9  | 25,6  | 25,2  | 33,8  | 33,5  | 33,1  | 41,8  | 55,3  | 56,0  | 64,6  | 64,4  |
| EER                              | W/W | 10,80 | 11,03 | 11,22 | 10,97 | 11,27 | 11,47 | 11,45 | 10,64 | 10,95 | 10,81 | 10,92 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 226,2 | 249,6 | 274,2 | 318,8 | 356,0 | 393,8 | 452,9 | 513,3 | 565,9 | 630,2  | 676,8  |
| Input power                 | kW  | 74,4  | 84,4  | 95,0  | 107,4 | 121,8 | 139,9 | 154,8 | 174,8 | 197,2 | 218,0  | 240,9  |
| Cooling total input current | A   | 134,1 | 150,2 | 166,9 | 189,9 | 213,2 | 242,0 | 268,6 | 305,7 | 344,0 | 382,4  | 421,4  |
| EER                         | W/W | 3,04  | 2,96  | 2,89  | 2,97  | 2,92  | 2,82  | 2,93  | 2,94  | 2,87  | 2,89   | 2,81   |
| Water flow rate system side | l/h | 38871 | 42893 | 47115 | 54781 | 61158 | 67658 | 77819 | 88186 | 97229 | 108280 | 116278 |
| Pressure drop system side   | kPa | 50    | 56    | 66    | 72    | 89    | 109   | 74    | 91    | 111   | 132    | 125    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 160,6 | 164,1 | 167,1 | 216,9 | 223,8 | 227,8 | 287,0 | 350,1 | 367,2 | 414,5 | 419,0 |
| Input power                      | kW  | 14,5  | 14,5  | 14,5  | 19,3  | 19,3  | 19,3  | 24,4  | 31,9  | 32,4  | 37,2  | 37,2  |
| Free cooling total input current | A   | 26,2  | 25,8  | 25,5  | 34,1  | 33,8  | 33,5  | 42,3  | 55,8  | 56,5  | 65,2  | 65,0  |
| EER                              | W/W | 11,07 | 11,31 | 11,52 | 11,24 | 11,57 | 11,78 | 11,77 | 10,97 | 11,33 | 11,15 | 11,27 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NRB - N**

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 228,3 | 252,4 | 278,0 | 320,3 | 358,3 | 397,2 | 454,4 | 510,9 | 563,3 | 628,5  | 675,3  |
| Input power                 | kW  | 72,5  | 82,2  | 92,3  | 104,6 | 118,7 | 136,3 | 151,0 | 171,5 | 194,0 | 213,5  | 236,4  |
| Cooling total input current | A   | 124,4 | 140,1 | 156,3 | 176,6 | 199,3 | 227,4 | 251,4 | 286,8 | 325,4 | 359,5  | 398,6  |
| EER                         | W/W | 3,15  | 3,07  | 3,01  | 3,06  | 3,02  | 2,91  | 3,01  | 2,98  | 2,90  | 2,94   | 2,86   |
| Water flow rate system side | l/h | 39222 | 43370 | 47761 | 55033 | 61559 | 68239 | 78074 | 87785 | 96785 | 107983 | 116017 |
| Pressure drop system side   | kPa | 46    | 50    | 60    | 72    | 91    | 103   | 71    | 90    | 110   | 131    | 124    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 168,7 | 172,6 | 176,0 | 212,0 | 218,8 | 228,0 | 284,9 | 321,4 | 337,3 | 375,3 | 379,1 |
| Input power                      | kW  | 14,5  | 14,5  | 14,5  | 18,1  | 18,2  | 18,2  | 24,8  | 28,3  | 28,9  | 31,6  | 31,6  |
| Free cooling total input current | A   | 25,0  | 24,8  | 24,6  | 30,6  | 30,5  | 30,4  | 41,3  | 47,3  | 48,5  | 53,2  | 53,3  |
| EER                              | W/W | 11,60 | 11,86 | 12,10 | 11,70 | 12,03 | 12,51 | 11,48 | 11,37 | 11,67 | 11,88 | 12,00 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Cooling capacity            | kW  | 227,4 | 251,4 | 276,7 | 318,8 | 356,3 | 394,6 | 451,9 | 508,1 | 559,8 | 624,6  | 670,7  |
| Input power                 | kW  | 73,1  | 82,8  | 93,1  | 105,5 | 119,8 | 137,7 | 152,4 | 173,0 | 195,9 | 215,7  | 239,0  |
| Cooling total input current | A   | 125,1 | 140,9 | 157,2 | 177,7 | 200,7 | 229,3 | 253,2 | 289,0 | 328,0 | 362,5  | 402,2  |
| EER                         | W/W | 3,11  | 3,03  | 2,97  | 3,02  | 2,98  | 2,87  | 2,97  | 2,94  | 2,86  | 2,90   | 2,81   |
| Water flow rate system side | l/h | 39073 | 43187 | 47536 | 54768 | 61222 | 67801 | 77644 | 87290 | 96173 | 107317 | 115226 |
| Pressure drop system side   | kPa | 46    | 50    | 59    | 72    | 90    | 101   | 71    | 89    | 108   | 130    | 123    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 174,6 | 178,8 | 182,6 | 219,5 | 226,9 | 236,7 | 296,4 | 333,9 | 351,1 | 390,3 | 394,4 |
| Input power                      | kW  | 14,7  | 14,7  | 14,7  | 18,3  | 18,4  | 18,4  | 25,0  | 28,5  | 29,2  | 31,9  | 31,9  |
| Free cooling total input current | A   | 25,2  | 25,0  | 24,8  | 30,8  | 30,8  | 30,7  | 41,6  | 47,6  | 48,8  | 53,6  | 53,7  |
| EER                              | W/W | 11,88 | 12,17 | 12,42 | 12,00 | 12,35 | 12,86 | 11,84 | 11,71 | 12,04 | 12,23 | 12,36 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

## ENERGY DATA

| Size   |   |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|---|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: B</b>  |   |     |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825:2018) High temperature with standard fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 5,61 | 5,25 | 5,27 | 5,43 | 5,25 | 5,05 | -    | -    | -    | -    | -    |
|  | E | W/W | 6,07 | 5,58 | 5,44 | 5,59 | 5,50 | 5,13 | -    | -    | -    | -    | -    |
|  | N | W/W | 6,38 | 6,09 | 5,91 | 5,92 | 5,78 | 5,41 | 5,67 | 5,51 | 5,56 | 5,58 | 5,53 |
|  | U | W/W | 6,22 | 5,87 | 5,69 | 5,84 | 5,71 | 5,56 | 5,73 | 5,52 | 5,60 | 5,58 | 5,53 |

(1) Calculation performed with FIXED water flow rate.

| Size   |     |     | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: G</b>  |     |     |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825:2018) High temperature with standard fans (1)</b> |     |     |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A   | W/W | 5,82 | 5,37 | 5,48 | 5,60 | 5,37 | 4,87 | -    | -    | -    | -    | -    |
|  | E   | W/W | 6,42 | 5,83 | 5,62 | 5,85 | 5,69 | 5,10 | -    | -    | -    | -    | -    |
|  | N,U | W/W | 6,96 | 6,54 | 6,28 | 6,28 | 6,08 | 5,63 | 6,13 | 5,90 | 5,77 | 5,73 | 5,58 |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |   |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A | 190,4 | 206,8 | 242,5 | 271,9 | 301,2 | 330,2 | -     | -     | -     | -     | -     |
|                       | E | A | 209,8 | 226,2 | 242,5 | 291,3 | 320,6 | 349,6 | -     | -     | -     | -     | -     |
|                       | N | A | 229,2 | 245,6 | 261,9 | 310,7 | 340,0 | 369,0 | 423,3 | 487,5 | 532,3 | 580,7 | 609,7 |
|                       | U | A | 209,8 | 226,2 | 242,5 | 291,3 | 320,6 | 349,6 | 398,0 | 468,1 | 512,9 | 561,3 | 590,3 |
| Peak current (LRA)    | A | A | 379,0 | 434,2 | 469,9 | 522,6 | 551,9 | 664,4 | -     | -     | -     | -     | -     |
|                       | E | A | 398,4 | 453,6 | 469,9 | 542,0 | 571,3 | 683,8 | -     | -     | -     | -     | -     |
|                       | N | A | 417,8 | 473,0 | 489,3 | 561,4 | 590,7 | 703,2 | 757,5 | 821,7 | 866,5 | 914,9 | 943,9 |
|                       | U | A | 398,4 | 453,6 | 469,9 | 542,0 | 571,3 | 683,8 | 732,2 | 802,3 | 847,1 | 895,5 | 924,5 |

## GENERAL TECHNICAL DATA

| Size                                       |         |      | 0800           | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805  | 2006  | 2206  | 2406  |
|--|---------|------|----------------|------|------|------|------|------|------|-------|-------|-------|-------|
| Compressor                                 |         |      |                |      |      |      |      |      |      |       |       |       |       |
| Type                                       | A,E,N,U | type | Scroll         |      |      |      |      |      |      |       |       |       |       |
| Compressor regulation                      | A,E,N,U | Type | On-Off         |      |      |      |      |      |      |       |       |       |       |
| Number                                     | A,E,N,U | no.  | 4              | 4    | 4    | 4    | 4    | 4    | 4    | 5     | 6     | 6     | 6     |
| Circuits                                   | A,E,N,U | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     | 2     |
| Refrigerant                                | A,E,N,U | type | R410A          |      |      |      |      |      |      |       |       |       |       |
| Refrigerant charge (1)                     | A       | kg   | 32,0           | 32,0 | 48,0 | 48,0 | 48,0 | 48,0 | 64,0 | 64,0  | 80,0  | 80,0  | 96,0  |
|  | E,U     | kg   | 48,0           | 48,0 | 48,0 | 64,0 | 64,0 | 64,0 | 80,0 | 96,0  | 96,0  | 112,0 | 112,0 |
|  | N       | kg   | 64,0           | 64,0 | 64,0 | 80,0 | 80,0 | 80,0 | 96,0 | 112,0 | 112,0 | 128,0 | 128,0 |
| Hydraulic connections                      |         |      |                |      |      |      |      |      |      |       |       |       |       |
| Connections (in/out)                       | A,E,N,U | Type | Grooved joints |      |      |      |      |      |      |       |       |       |       |
| Hydraulic connections without hydronic kit |         |      |                |      |      |      |      |      |      |       |       |       |       |
| Sizes (in/out)                             | A,E,N,U | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"    | 4"    | 4"    | 4"    |
| Hydraulic connections with hydronic kit    |         |      |                |      |      |      |      |      |      |       |       |       |       |
| Sizes (in/out)                             | A,E,N,U | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 3"   | 4"   | 4"    | 4"    | 4"    | 4"    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.**

## SOUND DATA

| Size   |   |       | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | 88,0 | 88,1 | 90,3 | 90,2 | 90,2 | 90,2 | -    | -    | -    | -    | -    |
|  | E | dB(A) | 85,0 | 85,1 | 85,1 | 86,5 | 86,5 | 86,5 | -    | -    | -    | -    | -    |
|  | N | dB(A) | 86,5 | 86,6 | 86,6 | 87,7 | 87,7 | 87,7 | 88,7 | 90,0 | 90,5 | 91,7 | 92,2 |
|  | U | dB(A) | 90,2 | 90,3 | 90,3 | 91,7 | 91,7 | 91,7 | 92,9 | 94,4 | 94,9 | 96,2 | 96,7 |
| Sound pressure level (10 m)                      | A | dB(A) | 55,9 | 56,0 | 58,0 | 57,9 | 57,9 | 57,9 | -    | -    | -    | -    | -    |
|  | E | dB(A) | 52,9 | 53,0 | 52,8 | 54,3 | 54,3 | 54,3 | -    | -    | -    | -    | -    |
|  | N | dB(A) | 54,4 | 54,5 | 54,4 | 55,4 | 55,4 | 55,4 | 56,3 | 57,6 | 58,0 | 59,2 | 59,6 |
|  | U | dB(A) | 58,0 | 58,1 | 58,0 | 59,4 | 59,4 | 59,4 | 60,5 | 62,0 | 62,4 | 63,7 | 64,0 |

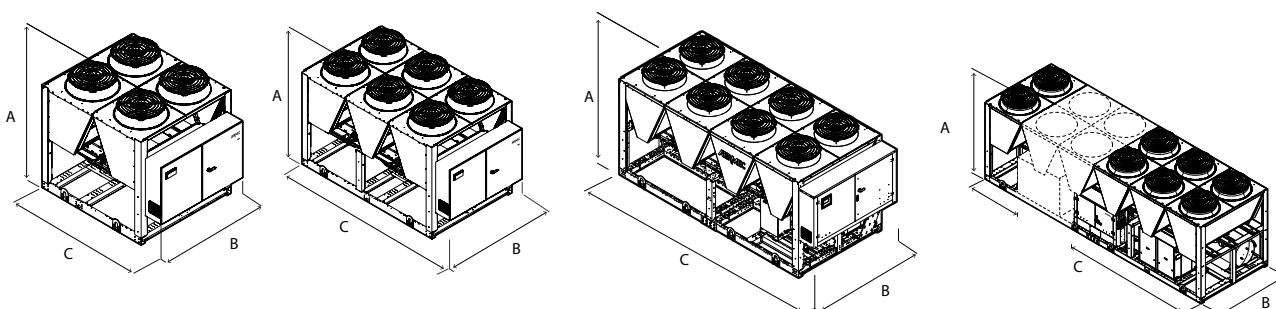
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size            |     |                   | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
|-----------------|-----|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: B</b> |     |                   |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |     |                   |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E | type              | axials | axials | axials | axials | axials | axials | -      | -      | -      | -      | -      |
|                 | N,U | type              |        |        |        |        |        |        | axials |        |        |        |        |
| Number          | A   | no.               | 4      | 4      | 6      | 6      | 6      | 6      | -      | -      | -      | -      | -      |
|                 | E   | no.               | 6      | 6      | 6      | 8      | 8      | 8      | -      | -      | -      | -      | -      |
|                 | N   | no.               | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
|                 | U   | no.               | 6      | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
| Air flow rate   | A   | m <sup>3</sup> /h | 57600  | 57600  | 86400  | 86400  | 86400  | 86400  | -      | -      | -      | -      | -      |
|                 | E   | m <sup>3</sup> /h | 64800  | 64800  | 64800  | 86400  | 86400  | 86400  | -      | -      | -      | -      | -      |
|                 | N   | m <sup>3</sup> /h | 86400  | 86400  | 86400  | 108000 | 108000 | 108000 | 129600 | 151200 | 151200 | 172800 | 172800 |
|                 | U   | m <sup>3</sup> /h | 86400  | 86400  | 86400  | 115200 | 115200 | 115200 | 144000 | 172800 | 172800 | 201600 | 201600 |
| Size            |     |                   | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1805   | 2006   | 2206   | 2406   |
| <b>Model: G</b> |     |                   |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |     |                   |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E | type              | axials | axials | axials | axials | axials | axials | -      | -      | -      | -      | -      |
|                 | N,U | type              |        |        |        |        |        |        | axials |        |        |        |        |
| Number          | A   | no.               | 4      | 4      | 6      | 6      | 6      | 6      | -      | -      | -      | -      | -      |
|                 | E   | no.               | 6      | 6      | 6      | 8      | 8      | 8      | -      | -      | -      | -      | -      |
|                 | N   | no.               | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 14     | 14     | 16     | 16     |
|                 | U   | no.               | 6      | 6      | 6      | 8      | 8      | 8      | 10     | 12     | 12     | 14     | 14     |
| Air flow rate   | A   | m <sup>3</sup> /h | 57600  | 57600  | 86400  | 86400  | 86400  | 86400  | -      | -      | -      | -      | -      |
|                 | E   | m <sup>3</sup> /h | 64800  | 64800  | 64800  | 86400  | 86400  | 86400  | -      | -      | -      | -      | -      |
|                 | N   | m <sup>3</sup> /h | 86400  | 86400  | 86400  | 108000 | 108000 | 108000 | 129600 | 151200 | 151200 | 172800 | 172800 |
|                 | U   | m <sup>3</sup> /h | 86400  | 86400  | 86400  | 115200 | 115200 | 115200 | 144000 | 172800 | 172800 | 201600 | 201600 |

## DIMENSIONS

NRB 0800-0900 A

NRB 1000-1400 A  
NRB 0800-1000 E-UNRB 1100-1400 E-U  
NRB 0800-1000 NNRB 1100-2406 N  
NRB 1600-2406 U

| Size                          |     |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | A,E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | -    | -    | -    | -    | -    |
|                               | N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B                             | A,E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | -    | -    | -    | -    | -    |
|                               | N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C                             | A   | mm | 2780 | 2780 | 3970 | 3970 | 3970 | 3970 | -    | -    | -    | -    | -    |
|                               | E   | mm | 3970 | 3970 | 3970 | 4760 | 4760 | 4760 | -    | -    | -    | -    | -    |
|                               | N   | mm | 4760 | 4760 | 4760 | 5950 | 5950 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
|                               | U   | mm | 3970 | 3970 | 3970 | 4760 | 4760 | 4760 | 5950 | 7140 | 7140 | 8330 | 8330 |

■ For the weights please contact the factory.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NRV 0550 F

## Air-water chiller with free-cooling

Cooling capacity 99,9 ÷ 105,4 kW



- Easy and quick to install compact
- Reliability and modularity
- Microchannel coils



### DESCRIPTION

NRV is comprised of independent 99.9 kW modules, that can be connected together up to a power of 900 kW. Each individual module is an outdoor chiller for the production of chilled water.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to 4 °C.

Maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

#### Modularity

It is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum.

The combination of the various chillers allows all the strengths of the individual module to be maintained.

Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

**Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.**

#### Microchannel coils

Microchannel heat exchanger that guarantees higher thermal exchange yield. Circuit that optimises the liquid distribution in the coil, which is arranged with V beam geometry with open angle.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

### Components

**Already equipped with a water filter, differential pressure switch and butterfly check valves**, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.

In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

### CONTROL PCO<sub>2</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERLINK:** Aerlink is a WiFi gateway with an RS485 serial port that allows a wide range of Aermec products (heat pumps/chillers/system controllers) equipped with this interface to connect easily and securely to a Wi-Fi network. It works both as an access point (AP access point) and as a client (WiFi Station), it can be connected to a single generator or system centraliser, allowing anyone to easily integrate them into any network. Thanks to the AerApp and AerPlants apps, which can be used on Android and iOS plat-

forms, the remote management of the air conditioning systems developed by Aermec becomes intuitive and simple.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**GPNYB\_BACK:** kit with 1 anti-intrusion grid for the short side of the unit.

**GPNYB\_SIDE:** kit with 2 anti-intrusion grids for the long side of the unit.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0550 |
|------------------|-----|------|
| AER48SP1         | A,E | •    |
| AERBACP          | A,E | •    |
| AERLINK          | A,E | •    |
| FB1              | A,E | •    |
| GPNYB_BACK       | A,E | •    |
| GPNYB_SIDE       | A,E | •    |
| MULTICHILLER-EVO | A,E | •    |
| PGD1             | A,E | •    |

### DRE: electronic device for peak current reduction

| Ver  | 0550    |
|------|---------|
| A, E | DRE (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

### KNYB: Pair of caps with grooved joints assembled on the unit manifold

| Ver  | 0550 |
|------|------|
| A, E | KNYB |

A grey background indicates the accessory must be assembled in the factory

### KREC: kit to remote the electric power supply input to the back

| Ver  | 0550 |
|------|------|
| A, E | KREC |

A grey background indicates the accessory must be assembled in the factory

### RIF: Power factor correction

| Ver  | 0550    |
|------|---------|
| A, E | RIF (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description                              |
|----------------|--|
| <b>1,2,3</b>   | <b>NRV</b>                               |
| <b>4,5,6,7</b> | <b>Size</b><br>0550                      |
| <b>8</b>       | <b>Operating field</b>                   |
| X              | Electronic thermostatic expansion valve  |
| °              | Standard mechanic thermostatic valve (1) |
| <b>9</b>       | <b>Model</b>                             |
| F              | Free-cooling                             |
| <b>10</b>      | <b>Heat recovery</b>                     |
| D              | With desuperheater                       |
| °              | Without heat recovery                    |
| <b>11</b>      | <b>Version</b>                           |
| A              | High efficiency                          |
| E              | Silenced high efficiency                 |

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**KNYB:** Pair of caps with grooved joints assembled on the unit manifold.

**KREC:** Accessory kit to remote the electric power supply input to the back

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## COMPATIBILITY WITH VMF SYSTEM

**For more information about VMF system, refer to the dedicated documentation.**

| Field        | Description   |
|--------------|---|
| <b>12</b>    | <b>Coils / free-cooling coils</b>                         |
| 0            | Painted aluminium microchannel / Copper painted aluminium |
| R            | Copper-copper/Copper-copper                               |
| S            | Copper-Tinned copper / Copper -Tinned copper              |
| V            | Copper-painted aluminium / Copper-painted aluminium       |
| °            | Aluminium microchannel / Copper - aluminium               |
| <b>13</b>    | <b>Fans</b>   |
| J            | Inverter  |
| °            | Standard  |
| <b>14</b>    | <b>Power supply</b>                                       |
| °            | 400V ~ 3 50Hz with magnet circuit breakers                |
| <b>15,16</b> | <b>Integrated hydronic kit</b>                            |
| 00           | Without hydronic kit                                      |

(1) Water produced up to +4 °C



## PERFORMANCE SPECIFICATIONS

### NRV - FA/FE

| Size  |     |     | 0550  |
|---|-----|-----|-------|
| <b>Cooling performance chiller operation (1)</b>  |     |     |       |
| Cooling capacity                                  | A   | kW  | 105,4 |
|   | E   | kW  | 99,9  |
| Input power                                       | A   | kW  | 36,6  |
|   | E   | kW  | 38,2  |
| Cooling total input current                       | A,E | A   | 65,0  |
| EER   | A   | W/W | 2,88  |
|   | E   | W/W | 2,61  |
| Water flow rate system side                       | A   | l/h | 18104 |
|   | E   | l/h | 17164 |
| Pressure drop system side                         | A   | kPa | 31    |
|   | E   | kPa | 27    |
| <b>Cooling performances with free-cooling (2)</b> |     |     |       |
| Cooling capacity                                  | A   | kW  | 69,3  |
|   | E   | kW  | 57,7  |
| Input power                                       | A   | kW  | 3,7   |
|   | E   | kW  | 2,6   |
| Free cooling total input current                  | A   | A   | 6,7   |
|   | E   | A   | 4,5   |
| EER   | A   | W/W | 18,48 |
|   | E   | W/W | 21,98 |
| Water flow rate system side                       | A   | l/h | 18104 |
|   | E   | l/h | 17164 |
| Pressure drop system side                         | A   | kPa | 73    |
|   | E   | kPa | 66    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / ° °C ; Aria esterna 2 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size  |   |     | 0550   |
|---|---|-----|--------|
| <b>SEER - 23/18 (EN14825: 2018) with standard fans (1)</b>            |   |     |        |
| Seasonal efficiency   | A | %   | 184.2% |
|   | E | %   | 181.3% |
| SEER  | A | W/W | 4,68   |
|   | E | W/W | 4,61   |
| <b>SEER - 23/18 (EN14825: 2018) with inverter fans</b>                |   |     |        |
| Seasonal efficiency   | A | %   | 191.5% |
|   | E | %   | 189.2% |
| SEER  | A | W/W | 4,86   |
|   | E | W/W | 4,81   |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (1)</b> |   |     |        |
| SEPR  | A | W/W | 5,94   |
|   | E | W/W | 5,60   |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (1)</b> |   |     |        |
| SEPR  | A | W/W | 5,94   |
|   | E | W/W | 5,60   |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

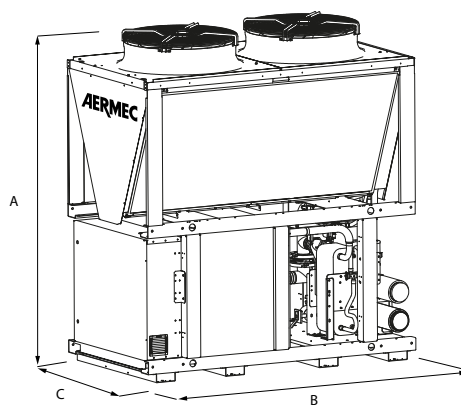
| Size                  |     |   | 0550  |
|-----------------------|-----|---|-------|
| <b>Electric data</b>  |     |   |       |
| Maximum current (FLA) | A,E | A | 95,6  |
| Peak current (LRA)    | A,E | A | 280,6 |

## GENERAL TECHNICAL DATA

| Size   |     |                   | 0550                        |
|--|-----|-------------------|-----------------------------|
| <b>Compressor</b>                                |     |                   |                             |
| Type   | A,E | type              | Scroll                      |
| Number   | A,E | no.               | 2                           |
| Circuits   | A,E | no.               | 1                           |
| Refrigerant                                      | A,E | type              | R410A                       |
| <b>System side heat exchanger</b>                |     |                   |                             |
| Type   | A,E | type              | Brazed plate                |
| Number   | A,E | no.               | 1                           |
| <b>System side hydraulic connections</b>         |     |                   |                             |
| Connections (in/out)                             | A,E | Type              | Grooved joints              |
| Sizes (in/out)                                   | A,E | Ø                 | 6"                          |
| <b>Fan</b>                                       |     |                   |                             |
| Type   | A,E | type              | axials                      |
| Fan motor  | A,E | type              | Asynchronous with phase cut |
| Number   | A,E | no.               | 2                           |
| Air flow rate                                    | A   | m <sup>3</sup> /h | 28600                       |
|  | E   | m <sup>3</sup> /h | 22000                       |
| <b>Sound data calculated in cooling mode (1)</b> |     |                   |                             |
| Sound power level                                | A   | dB(A)             | 86,9                        |
|  | E   | dB(A)             | 81,8                        |
| Sound pressure level (10 m)                      | A   | dB(A)             | 55,0                        |
|  | E   | dB(A)             | 49,9                        |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |     |    | 0550 |
|-------------------------------|-----|----|------|
| <b>Dimensions and weights</b> |     |    |      |
| A                             | A,E | mm | 2480 |
| B                             | A,E | mm | 2200 |
| C                             | A,E | mm | 1190 |
| Empty weight                  | A,E | kg | 1389 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

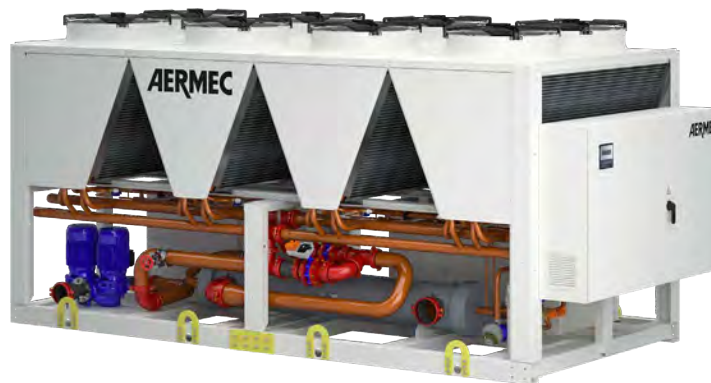
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NSM 1402-9603 F

## Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2028 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50 °C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

- A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

### Electronic expansion valve

**Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.**

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### Integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

### CONTROL

**Units include 1 control board for each compressor.**

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.
- Possibility to control two units in a Master-Slave configuration (from size 1402 to 6402)

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

### ACCESSORIES COMPATIBILITY

| Model            | Ver     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model            | Ver     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AER485P1 x no. 3 | A       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U     |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | N       |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERBACP x no. 2  | A,E,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AERBACP x no. 3  | A       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U     |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | N       |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERNET           | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
| MULTICHILLER-EVO | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |
| PRV3             | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |

### Antivibration - NSM free - cooling

| Ver                         | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Integrated hydronic kit: 00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                           | AVX929 | AVX929 | AVX929 | AVX932 | AVX933 | AVX933 | AVX933 | AVX934 | AVX937 | AVX937 | AVX937 | AVX938 | AVX938 | AVX942 |
| E, U                        | AVX929 | AVX929 | AVX930 | AVX933 | AVX933 | AVX934 | AVX934 | AVX935 | AVX935 | AVX935 | AVX935 | AVX939 | AVX939 | AVX940 |
| N                           | AVX930 | AVX930 | AVX931 | AVX931 | AVX934 | AVX935 | AVX935 | AVX936 | AVX936 | AVX936 | AVX936 | AVX940 | AVX941 | AVX943 |
|                             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Ver                         | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |        |
| Integrated hydronic kit: 00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                           | AVX942 | AVX944 | AVX944 | AVX944 | AVX945 | AVX947 | AVX947 | AVX953 | AVX953 | AVX957 | AVX954 | AVX956 | AVX955 |        |
| E, U                        | AVX941 | AVX945 | AVX947 | AVX947 | AVX950 | AVX952 | AVX948 | AVX954 | AVX956 | AVX956 | AVX958 | -      | -      |        |
| N                           | AVX943 | AVX946 | AVX948 | AVX949 | AVX951 | AVX951 | AVX951 | AVX955 | -      | -      | -      | -      | -      |        |

### Anti-intrusion grid

| Ver  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602  | 3902  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| A    | GP4V | GP4V | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP6V | GP6V | GP7V | GP7V  | GP8V  |
| E, U | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP7V | GP7V | GP7V | GP7V | GP8V | GP8V  | GP9V  |
| N    | GP5V | GP5V | GP6V | GP6V | GP6V | GP7V | GP7V | GP8V | GP8V | GP8V | GP8V | GP9V | GP10V | GP11V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 4202  | 4502      | 4802      | 5202      | 5602      | 6002      | 6402      | 6503       | 6703       | 6903       | 7203       | 8403       | 9603       |
|------|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| A    | GP8V  | GP9V      | GP9V      | GP9V      | -         | GP11V     | GP11V     | GP4V+GP8V  | GP4V+GP8V  | GP9V       | GP5V+GP9V  | GP5V+GP10V | GP6V+GP11V |
| E, U | GP10V | GP10V     | GP11V     | GP11V     | GP6V+GP6V | GP6V+GP7V | GP7V+GP7V | GP5V+GP9V  | GP5V+GP10V | GP5V+GP10V | GP6V+GP11V | -          | -          |
| N    | GP11V | GP6V+GP7V | GP7V+GP7V | GP7V+GP8V | GP8V+GP8V | GP8V+GP8V | GP8V      | GP6V+GP11V | -          | -          | -          | -          | -          |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

### Heater exchangers

| Ver     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A       | KRS22 | KRS22 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 |
| E, N, U | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 4202  | 4502  | 4802  | 5202  | 5602        | 6002        | 6402        | 6503        | 6703        | 6903        | 7203        | 8403        | 9603        |
|------|-------|-------|-------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A    | KRS24 | KRS24 | KRS23 | KRS23 | KRS24       | KRS24       | KRS24       | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 |
| E, U | KRS24 | KRS24 | KRS23 | KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | -           | -           |

| Ver | 4202  | 4502        | 4802        | 5202        | 5602        | 6002        | 6402        | 6503        | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------|------|------|------|------|
| N   | KRS24 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | -    | -    | -    | -    | -    |

A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802C |
| E   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| N   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802C | RIFNSM2002Q | RIFNSM2202C | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| U   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002C | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002        | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A, E, U | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| N       | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver | 5602        | 6002        | 6402        | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----|-------------|-------------|-------------|------|------|------|------|------|------|
| A   | RIFNSM5602C | RIFNSM6002C | RIFNSM6402C | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | NSM  |
| 4,5,6,7 | Size<br>1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603 |
| 8       | Operating field  |
| X       | Electronic thermostatic expansion valve (1)  |
| Y       | Low temperature mechanic thermostatic valve (2)  |
| Z       | Low temperature electronic thermostatic valve (2)  |
| °       | Standard mechanic thermostatic valve (3)   |
| 9       | Model  |
| F       | Free-cooling   |
| P       | Free-cooling plus (4)  |
| 10      | Heat recovery  |
| D       | With desuperheater   |
| °       | Without heat recovery  |
| 11      | Version  |
| A       | High efficiency  |
| E       | Silenced high efficiency   |
| N       | Silenced very high efficiency  |
| U       | Very high efficiency   |
| 12      | Coils / free-cooling coils   |
| I       | Copper-aluminium / Copper-aluminium  |
| O       | Painted aluminium microchannel / Copper painted aluminium  |
| R       | Copper-copper/Copper-copper  |
| S       | Copper-Tinned copper / Copper -Tinned copper   |
| V       | Copper-painted aluminium / Copper-painted aluminium  |
| °       | Aluminium microchannel / Copper - aluminium  |
| 13      | Fans   |
| J       | Inverter   |
| °       | Standard   |
| 14      | Power supply   |
| 2       | 230V ~ 3 50Hz with fuses (5)   |
| 4       | 230V ~ 3 50Hz with magnet circuit breakers (5)   |

| Field | Description                                |
|-------|--|
| 8     | 400V ~ 3 50Hz with magnet circuit breakers |
| °     | 400V ~ 3 50Hz with fuses                   |
| 15,16 | Integrated hydronic kit                    |
| 00    | Without hydronic kit                       |
| PA    | Pump A                                     |
| PB    | Pump B                                     |
| PC    | Pump C                                     |
| PD    | Pump D                                     |
| PE    | Pump E                                     |
| PF    | Pump F                                     |
| PG    | Pump G                                     |
| PH    | Pump H                                     |
| PI    | Pump I                                     |
| PJ    | Pump J (6)                                 |
| DA    | Pump A + stand-by pump                     |
| DB    | Pump B + stand-by pump                     |
| DC    | Pump C + stand-by pump                     |
| DD    | Pump D + stand-by pump                     |
| DE    | Pump E + stand-by pump                     |
| DF    | Pump F + stand-by pump                     |
| DG    | Pump G + stand-by pump                     |
| DH    | Pump H + stand-by pump                     |
| DI    | Pump I + stand-by pump                     |
| DJ    | Pump J + stand-by pump (6)                 |
| TF    | Double pump F (7)                          |
| TG    | Double pump G (7)                          |
| TH    | Double pump H (7)                          |
| TI    | Double pump I (7)                          |
| TJ    | Double pump J (7)                          |

(1) Water produced from 4 °C ÷ 18 °C

(2) Water produced from 4 °C ÷ -6 °C

(3) Water produced from 4 °C ÷ 15 °C

(4) The Free-Cooling Plus "P" models are only compatible with "om" ed "0"

(5) available only for size from 1402 to 2202

(6) For all configurations including pump J please contact the factory.

(7) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH - TI - TJ"

## PERFORMANCE SPECIFICATIONS

### NSM - A

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 306,5 | 350,2 | 396,8 | 450,5 | 505,3 | 522,5 | 556,5 | 600,8  | 649,8  | 678,4  | 726,3  | 813,3  | 872,8  | 954,1  |
| Input power                 | kW  | 102,8 | 117,6 | 136,7 | 158,3 | 168,9 | 180,5 | 194,5 | 203,0  | 220,4  | 235,0  | 252,8  | 269,7  | 295,6  | 317,9  |
| Cooling total input current | A   | 182,3 | 206,2 | 230,6 | 268,0 | 291,3 | 311,4 | 335,2 | 351,3  | 378,4  | 400,0  | 426,5  | 450,9  | 486,5  | 530,4  |
| EER                         | W/W | 2,98  | 2,98  | 2,90  | 2,85  | 2,99  | 2,90  | 2,86  | 2,96   | 2,95   | 2,89   | 2,87   | 3,02   | 2,95   | 3,00   |
| Water flow rate system side | l/h | 52654 | 60163 | 68174 | 77407 | 86812 | 89765 | 95621 | 103224 | 111642 | 116561 | 124785 | 139737 | 149958 | 163932 |
| Pressure drop system side   | kPa | 45    | 59    | 54    | 36    | 45    | 48    | 54    | 63     | 67     | 73     | 65     | 43     | 50     | 61     |

##### Cooling performances with free-cooling (2)

|                                  |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 347,7 | 362,0 | 373,1 | 381,9 | 468,1 | 471,2 | 476,5  | 560,7  | 569,1  | 573,2  | 578,8  | 671,5  | 677,9  | 770,2  |
| Input power                      | kW  | 15,0  | 15,0  | 15,0  | 15,0  | 18,7  | 18,7  | 18,7   | 22,5   | 22,5   | 22,5   | 22,5   | 26,2   | 26,2   | 30,0   |
| Free cooling total input current | A   | 30,4  | 30,4  | 30,4  | 30,4  | 38,0  | 38,0  | 38,0   | 45,6   | 45,6   | 45,6   | 45,6   | 53,2   | 53,2   | 60,8   |
| EER                              | W/W | 23,18 | 24,14 | 24,88 | 25,47 | 24,97 | 25,14 | 25,42  | 24,93  | 25,30  | 25,48  | 25,73  | 25,59  | 25,83  | 25,68  |
| Water flow rate system side      | l/h | 60230 | 68250 | 77490 | 86910 | 89860 | 95730 | 103340 | 111770 | 116690 | 124920 | 139890 | 150120 | 164110 | 171460 |
| Pressure drop system side        | kPa | 66    | 86    | 85    | 76    | 78    | 84    | 95     | 98     | 107    | 116    | 113    | 87     | 99     | 107    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: P

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 305,8 | 349,3 | 395,0 | 447,3 | 502,1 | 519,1 | 552,6 | 597,2  | 645,4  | 674,3  | 721,9  | 807,8  | 865,0  | 946,8  |
| Input power                 | kW  | 103,7 | 118,8 | 138,1 | 160,2 | 170,8 | 182,6 | 197,0 | 205,3  | 223,1  | 238,4  | 257,1  | 273,3  | 299,3  | 321,8  |
| Cooling total input current | A   | 182,3 | 206,2 | 230,6 | 268,0 | 291,3 | 311,4 | 335,2 | 351,3  | 378,4  | 400,0  | 426,5  | 450,9  | 486,5  | 530,4  |
| EER                         | W/W | 2,95  | 2,94  | 2,86  | 2,79  | 2,94  | 2,84  | 2,81  | 2,91   | 2,89   | 2,83   | 2,81   | 2,96   | 2,89   | 2,94   |
| Water flow rate system side | l/h | 52546 | 60019 | 67864 | 76853 | 86266 | 89180 | 94948 | 102598 | 110891 | 115859 | 124023 | 138789 | 148609 | 162675 |
| Pressure drop system side   | kPa | 45    | 59    | 54    | 36    | 45    | 48    | 54    | 63     | 67     | 73     | 65     | 43     | 50     | 61     |

##### Cooling performances with free-cooling (2)

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 371,8 | 388,1 | 400,1 | 409,1 | 501,9 | 505,2 | 510,5 | 601,2  | 610,0  | 614,2  | 619,7  | 719,2  | 725,2  | 824,6  |
| Input power                      | kW  | 15,2  | 15,2  | 15,2  | 15,2  | 19,0  | 19,0  | 19,0  | 22,9   | 22,9   | 22,9   | 22,9   | 26,7   | 26,7   | 30,5   |
| Free cooling total input current | A   | 30,7  | 30,7  | 30,7  | 30,7  | 38,4  | 38,4  | 38,4  | 46,1   | 46,1   | 46,1   | 46,1   | 53,7   | 53,7   | 61,4   |
| EER                              | W/W | 24,41 | 25,48 | 26,27 | 26,86 | 26,36 | 26,53 | 26,81 | 26,31  | 26,69  | 26,88  | 27,12  | 26,98  | 27,20  | 27,07  |
| Water flow rate system side      | l/h | 52710 | 60230 | 68250 | 77490 | 86910 | 89860 | 95730 | 103340 | 111770 | 116690 | 124920 | 139890 | 150120 | 164110 |
| Pressure drop system side        | kPa | 66    | 86    | 86    | 76    | 79    | 84    | 95    | 98     | 107    | 117    | 114    | 87     | 100    | 108    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

### NSM - A

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation (1)

|                             |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 996,8  | 1082,3 | 1128,3 | 1167,3 | 1222,8 | 1304,9 | 1346,7 | 1459,2 | 1501,9 | 1659,0 | 1705,0 | 1838,1 | 2028,1 |
| Input power                 | kW  | 346,1  | 365,7  | 391,9  | 422,5  | 438,9  | 452,7  | 472,4  | 492,1  | 520,2  | 557,2  | 583,3  | 659,0  | 704,1  |
| Cooling total input current | A   | 581,4  | 614,0  | 654,6  | 703,8  | 733,3  | 761,1  | 795,9  | 821,1  | 872,1  | 945,1  | 985,8  | 1100,0 | 1197,7 |
| EER                         | W/W | 2,88   | 2,96   | 2,88   | 2,76   | 2,79   | 2,88   | 2,85   | 2,97   | 2,89   | 2,98   | 2,92   | 2,79   | 2,88   |
| Water flow rate system side | l/h | 171269 | 185947 | 193855 | 200561 | 210092 | 224201 | 231379 | 250713 | 258050 | 285029 | 292937 | 315803 | 348457 |
| Pressure drop system side   | kPa | 66     | 81     | 88     | 75     | 82     | 96     | 102    | 61     | 66     | 81     | 88     | 82     | 102    |

##### Cooling performances with free-cooling (2)

|                                  |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 774,7  | 867,5  | 872,2  | 875,9  | 966,0  | 1058,3 | 1062,8 | 1158,4 | 1162,7 | 1346,7 | 1351,7 | 1449,5 | 1636,8 |
| Input power                      | kW  | 30,0   | 33,7   | 33,7   | 33,7   | 37,5   | 41,2   | 41,2   | 45,0   | 45,0   | 52,5   | 52,5   | 56,2   | 63,7   |
| Free cooling total input current | A   | 60,8   | 68,4   | 68,4   | 68,4   | 76,0   | 83,6   | 83,6   | 91,2   | 91,2   | 106,4  | 106,4  | 114,0  | 129,2  |
| EER                              | W/W | 25,83  | 25,71  | 25,85  | 25,96  | 25,77  | 25,66  | 25,77  | 25,75  | 25,85  | 25,66  | 25,75  | 25,78  | 25,68  |
| Water flow rate system side      | l/h | 186150 | 194070 | 200780 | 210330 | 224450 | 231640 | 250990 | 258340 | 285350 | 293260 | 316150 | 348840 | 348457 |
| Pressure drop system side        | kPa | 117    | 130    | 141    | 131    | 134    | 145    | 154    | 107    | 117    | 130    | 141    | 134    | 154    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b>                                   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 988,7  | 1074,2 | 1119,1 | 1156,4 | 1212,7 | 1295,2 | 1336,2 | 1447,7 | 1489,6 | 1646,9 | 1691,9 | 1822,8 | 2013,1 |
| Input power                                       | kW  | 350,6  | 370,3  | 397,1  | 428,3  | 444,3  | 458,0  | 478,2  | 498,2  | 527,1  | 564,0  | 590,8  | 667,0  | 712,4  |
| Cooling total input current                       | A   | 581,4  | 614,0  | 654,6  | 703,8  | 733,3  | 761,1  | 795,9  | 821,1  | 872,1  | 945,1  | 985,8  | 1100,0 | 1197,7 |
| EER   | W/W | 2,82   | 2,90   | 2,82   | 2,70   | 2,73   | 2,83   | 2,79   | 2,91   | 2,83   | 2,92   | 2,86   | 2,73   | 2,83   |
| Water flow rate system side                       | l/h | 169873 | 184553 | 192278 | 198678 | 208362 | 222522 | 229577 | 248739 | 255936 | 282961 | 290686 | 313186 | 345875 |
| Pressure drop system side                         | kPa | 66     | 81     | 88     | 75     | 82     | 96     | 102    | 61     | 66     | 81     | 88     | 82     | 102    |
| <b>Cooling performances with free-cooling (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 828,9  | 928,7  | 933,1  | 936,5  | 1033,8 | 1133,1 | 1137,4 | 1239,8 | 1243,9 | 1442,0 | 1446,8 | 1551,1 | 1752,4 |
| Input power                                       | kW  | 30,5   | 34,3   | 34,3   | 34,3   | 38,1   | 41,9   | 41,9   | 45,7   | 45,7   | 53,3   | 53,3   | 57,1   | 64,7   |
| Free cooling total input current                  | A   | 61,4   | 69,1   | 69,1   | 69,1   | 76,8   | 84,5   | 84,5   | 92,1   | 92,1   | 107,5  | 107,5  | 115,2  | 130,5  |
| EER   | W/W | 27,21  | 27,09  | 27,22  | 27,32  | 27,15  | 27,05  | 27,15  | 27,13  | 27,22  | 27,04  | 27,13  | 27,15  | 27,07  |
| Water flow rate system side                       | l/h | 171460 | 186150 | 194070 | 200780 | 210330 | 224450 | 231640 | 250990 | 258340 | 285350 | 293260 | 316150 | 348840 |
| Pressure drop system side                         | kPa | 117    | 130    | 141    | 131    | 134    | 146    | 155    | 108    | 117    | 130    | 141    | 134    | 155    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

#### NSM - E

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: F</b>                                   |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 319,8 | 365,8 | 417,7 | 473,0 | 509,1 | 549,8 | 568,8 | 618,6  | 646,3  | 675,1  | 715,5  | 796,7  | 851,7  | 929,6  |
| Input power                                       | kW  | 105,5 | 123,3 | 137,5 | 159,4 | 178,3 | 183,3 | 195,5 | 205,2  | 220,4  | 235,9  | 253,5  | 270,8  | 297,1  | 320,1  |
| Cooling total input current                       | A   | 177,3 | 205,7 | 223,1 | 261,0 | 294,5 | 304,8 | 325,9 | 341,6  | 365,4  | 388,5  | 414,7  | 437,5  | 474,1  | 516,8  |
| EER   | W/W | 3,03  | 2,97  | 3,04  | 2,97  | 2,85  | 3,00  | 2,91  | 3,01   | 2,93   | 2,86   | 2,82   | 2,94   | 2,87   | 2,90   |
| Water flow rate system side                       | l/h | 54946 | 62848 | 71763 | 81260 | 87462 | 94455 | 97732 | 106280 | 111041 | 115993 | 122937 | 136886 | 146332 | 159723 |
| Pressure drop system side                         | kPa | 33    | 37    | 32    | 37    | 43    | 50    | 54    | 53     | 58     | 64     | 64     | 43     | 49     | 60     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 308,8 | 317,5 | 389,9 | 399,1 | 403,2 | 476,4 | 479,1 | 552,1  | 556,5  | 560,4  | 564,7  | 643,3  | 648,3  | 727,0  |
| Input power                                       | kW  | 11,0  | 11,0  | 13,7  | 13,7  | 13,7  | 16,5  | 16,5  | 19,2   | 19,2   | 19,2   | 19,2   | 22,0   | 22,0   | 24,7   |
| Free cooling total input current                  | A   | 15,9  | 15,9  | 19,9  | 19,9  | 19,9  | 23,9  | 23,9  | 27,9   | 27,9   | 27,9   | 27,9   | 31,8   | 31,8   | 35,8   |
| EER   | W/W | 28,07 | 28,87 | 28,36 | 29,03 | 29,33 | 28,88 | 29,04 | 28,69  | 28,91  | 29,11  | 29,34  | 29,25  | 29,47  | 29,38  |
| Water flow rate system side                       | l/h | 55010 | 62920 | 71840 | 81350 | 87560 | 94560 | 97840 | 106400 | 111160 | 116120 | 123070 | 137040 | 146490 | 159900 |
| Pressure drop system side                         | kPa | 56    | 67    | 56    | 68    | 78    | 80    | 85    | 82     | 90     | 98     | 102    | 77     | 88     | 97     |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b>                                   |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 316,7 | 363,1 | 414,5 | 469,5 | 504,1 | 545,4 | 564,0 | 613,8  | 640,8  | 669,8  | 710,9  | 790,6  | 843,5  | 921,3  |
| Input power                                       | kW  | 106,6 | 124,7 | 138,6 | 161,1 | 181,0 | 185,4 | 197,8 | 207,6  | 223,1  | 239,2  | 257,8  | 274,6  | 301,1  | 324,4  |
| Cooling total input current                       | A   | 177,3 | 205,7 | 223,1 | 261,0 | 294,5 | 304,8 | 325,9 | 341,6  | 365,4  | 388,5  | 414,7  | 437,5  | 474,1  | 516,8  |
| EER   | W/W | 2,97  | 2,91  | 2,99  | 2,91  | 2,79  | 2,94  | 2,85  | 2,96   | 2,87   | 2,80   | 2,76   | 2,88   | 2,80   | 2,84   |
| Water flow rate system side                       | l/h | 54406 | 62391 | 71215 | 80666 | 86616 | 93710 | 96909 | 105464 | 110105 | 115087 | 122135 | 135840 | 144915 | 158291 |
| Pressure drop system side                         | kPa | 33    | 37    | 32    | 37    | 43    | 50    | 54    | 54     | 59     | 64     | 65     | 43     | 49     | 60     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 328,8 | 338,7 | 415,7 | 425,8 | 429,8 | 508,2 | 511,0 | 589,0  | 593,7  | 597,7  | 602,1  | 686,0  | 690,6  | 774,8  |
| Input power                                       | kW  | 11,2  | 11,2  | 13,9  | 13,9  | 13,9  | 16,7  | 16,7  | 19,5   | 19,5   | 19,5   | 19,5   | 22,3   | 22,3   | 25,1   |
| Free cooling total input current                  | A   | 16,1  | 16,1  | 20,1  | 20,1  | 20,1  | 24,1  | 24,1  | 28,1   | 28,1   | 28,1   | 28,1   | 32,2   | 32,2   | 36,2   |
| EER   | W/W | 29,48 | 30,36 | 29,81 | 30,53 | 30,82 | 30,37 | 30,54 | 30,17  | 30,41  | 30,62  | 30,84  | 30,75  | 30,95  | 30,87  |
| Water flow rate system side                       | l/h | 55010 | 62920 | 71840 | 81350 | 87560 | 94560 | 97840 | 106400 | 111160 | 116120 | 123070 | 137040 | 146490 | 159900 |
| Pressure drop system side                         | kPa | 57    | 62    | 57    | 68    | 78    | 80    | 86    | 83     | 90     | 98     | 103    | 77     | 88     | 98     |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

**NSM - E**

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 995,2  | 1051,6 | 1137,0 | 1159,2 | 1217,3 | 1279,4 | 1341,6 | 1434,0 | 1499,6 | 1598,6 | 1684,0 | - | - |
| Input power                 | kW  | 339,9  | 370,0  | 389,4  | 418,0  | 436,6  | 448,9  | 461,2  | 491,1  | 510,9  | 568,9  | 588,3  | - | - |
| Cooling total input current | A   | 554,8  | 601,5  | 631,6  | 677,8  | 708,4  | 731,9  | 755,4  | 803,9  | 832,3  | 923,9  | 945,4  | - | - |
| EER                         | W/W | 2,93   | 2,84   | 2,92   | 2,77   | 2,79   | 2,85   | 2,91   | 2,92   | 2,93   | 2,81   | 2,86   | - | - |
| Water flow rate system side | l/h | 170980 | 180685 | 195353 | 199172 | 209139 | 219823 | 230507 | 246385 | 257643 | 274665 | 289333 | - | - |
| Pressure drop system side   | kPa | 68     | 79     | 73     | 76     | 67     | 72     | 82     | 60     | 68     | 79     | 73     | - | - |

**Cooling performances with free-cooling (2)**

|                                  |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 804,0  | 809,4  | 888,6  | 890,5  | 967,2  | 1043,7 | 1119,7 | 1129,8 | 1206,8 | 1215,8 | 1295,1 | - | - |
| Input power                      | kW  | 27,5   | 27,5   | 30,2   | 30,2   | 33,0   | 35,7   | 38,5   | 38,5   | 41,2   | 41,2   | 44,0   | - | - |
| Free cooling total input current | A   | 39,8   | 39,8   | 43,8   | 43,8   | 47,8   | 51,7   | 55,7   | 55,7   | 59,7   | 59,7   | 63,7   | - | - |
| EER                              | W/W | 29,24  | 29,44  | 29,38  | 29,44  | 29,31  | 29,20  | 29,09  | 29,35  | 29,26  | 29,48  | 29,44  | - | - |
| Water flow rate system side      | l/h | 171170 | 180890 | 195570 | 199390 | 209370 | 220070 | 230760 | 246660 | 257930 | 274970 | 289650 | - | - |
| Pressure drop system side        | kPa | 104    | 119    | 113    | 117    | 107    | 110    | 119    | 97     | 104    | 119    | 113    | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 987,5  | 1041,9 | 1127,1 | 1148,0 | 1206,7 | 1269,3 | 1332,0 | 1421,7 | 1487,9 | 1583,2 | 1668,4 | - | - |
| Input power                 | kW  | 344,2  | 375,3  | 394,8  | 424,0  | 442,2  | 454,4  | 466,6  | 497,6  | 517,4  | 577,4  | 596,8  | - | - |
| Cooling total input current | A   | 554,8  | 601,5  | 631,6  | 677,8  | 708,4  | 731,9  | 755,4  | 803,9  | 832,3  | 923,9  | 945,4  | - | - |
| EER                         | W/W | 2,87   | 2,78   | 2,86   | 2,71   | 2,73   | 2,79   | 2,85   | 2,86   | 2,88   | 2,74   | 2,80   | - | - |
| Water flow rate system side | l/h | 169667 | 179011 | 193652 | 197235 | 207320 | 218083 | 228845 | 244269 | 255645 | 272005 | 286645 | - | - |
| Pressure drop system side   | kPa | 69     | 80     | 74     | 76     | 68     | 72     | 82     | 60     | 69     | 80     | 74     | - | - |

**Cooling performances with free-cooling (2)**

|                                  |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 857,5  | 862,4  | 947,1  | 948,8  | 1031,1 | 1113,1 | 1194,5 | 1204,3 | 1286,9 | 1295,0 | 1379,9 | - | - |
| Input power                      | kW  | 27,9   | 27,9   | 30,7   | 30,7   | 33,5   | 36,3   | 39,0   | 39,0   | 41,8   | 41,8   | 44,6   | - | - |
| Free cooling total input current | A   | 40,2   | 40,2   | 44,2   | 44,2   | 48,2   | 52,3   | 56,3   | 56,3   | 60,3   | 60,3   | 64,3   | - | - |
| EER                              | W/W | 30,74  | 30,92  | 30,87  | 30,92  | 30,81  | 30,70  | 30,59  | 30,84  | 30,76  | 30,95  | 30,92  | - | - |
| Water flow rate system side      | l/h | 171170 | 180890 | 195570 | 199390 | 209370 | 220070 | 230760 | 246660 | 257930 | 274970 | 289650 | - | - |
| Pressure drop system side        | kPa | 105    | 119    | 113    | 117    | 107    | 111    | 120    | 98     | 105    | 119    | 113    | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

**NSM - U**

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 328,1 | 378,5 | 429,3 | 491,9 | 531,3 | 568,6 | 589,0  | 638,0  | 667,8  | 695,1  | 735,8  | 824,8  | 891,0  | 967,9  |
| Input power                 | kW  | 105,3 | 121,3 | 136,2 | 155,8 | 172,9 | 180,0 | 191,0  | 202,4  | 216,1  | 228,4  | 242,4  | 263,0  | 288,2  | 311,5  |
| Cooling total input current | A   | 185,8 | 211,5 | 232,0 | 266,3 | 297,1 | 312,9 | 332,3  | 352,6  | 374,2  | 392,3  | 413,0  | 442,7  | 477,2  | 522,6  |
| EER                         | W/W | 3,12  | 3,12  | 3,15  | 3,16  | 3,07  | 3,16  | 3,08   | 3,15   | 3,09   | 3,04   | 3,04   | 3,14   | 3,09   | 3,11   |
| Water flow rate system side | l/h | 56372 | 65027 | 73755 | 84508 | 91287 | 97691 | 101204 | 109611 | 114731 | 119418 | 126414 | 141715 | 153088 | 166304 |
| Pressure drop system side   | kPa | 35    | 39    | 34    | 40    | 46    | 53    | 57     | 57     | 62     | 68     | 68     | 46     | 53     | 65     |

**Cooling performances with free-cooling (2)**

|                                  |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 356,2 | 369,9 | 451,2 | 466,4 | 473,4 | 555,1 | 559,4  | 641,6  | 648,6  | 654,2  | 661,5  | 753,3  | 763,5  | 854,0  |
| Input power                      | kW  | 15,0  | 15,0  | 18,7  | 18,7  | 18,7  | 22,5  | 22,5   | 26,2   | 26,2   | 26,2   | 26,2   | 30,0   | 30,0   | 33,7   |
| Free cooling total input current | A   | 30,4  | 30,4  | 38,0  | 38,0  | 38,0  | 45,6  | 45,6   | 53,2   | 53,2   | 53,2   | 53,2   | 60,8   | 60,8   | 68,4   |
| EER                              | W/W | 23,76 | 24,67 | 24,07 | 24,88 | 25,26 | 24,68 | 24,87  | 24,45  | 24,71  | 24,93  | 25,21  | 25,12  | 25,46  | 25,31  |
| Water flow rate system side      | l/h | 56430 | 65100 | 73840 | 84600 | 91390 | 97800 | 101320 | 109730 | 114860 | 119550 | 126550 | 141870 | 153260 | 166490 |
| Pressure drop system side        | kPa | 59    | 71    | 60    | 73    | 85    | 85    | 92     | 88     | 96     | 104    | 108    | 82     | 96     | 105    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C



| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b>                                   |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 326,9 | 376,7 | 427,6 | 488,8 | 527,6 | 565,4 | 585,6  | 634,6  | 664,0  | 691,7  | 732,5  | 820,3  | 884,7  | 961,8  |
| Input power                                       | kW  | 106,3 | 122,5 | 137,6 | 157,4 | 174,8 | 181,8 | 193,0  | 204,4  | 218,3  | 231,1  | 245,7  | 266,0  | 291,3  | 314,8  |
| Cooling total input current                       | A   | 185,8 | 211,5 | 232,0 | 266,3 | 297,1 | 312,9 | 332,3  | 352,6  | 374,2  | 392,3  | 413,0  | 442,7  | 477,2  | 522,6  |
| EER   | W/W | 3,08  | 3,07  | 3,11  | 3,10  | 3,02  | 3,11  | 3,03   | 3,10   | 3,04   | 2,99   | 2,98   | 3,08   | 3,04   | 3,06   |
| Water flow rate system side                       | l/h | 56168 | 64715 | 73458 | 83974 | 90642 | 97138 | 100613 | 109029 | 114089 | 118834 | 125850 | 140933 | 152002 | 165249 |
| Pressure drop system side                         | kPa | 35    | 40    | 34    | 40    | 47    | 54    | 58     | 57     | 63     | 68     | 69     | 46     | 54     | 65     |
| <b>Cooling performances with free-cooling (2)</b> |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | kW  | 381,5 | 396,7 | 483,5 | 500,0 | 507,4 | 595,1 | 599,9  | 687,8  | 695,4  | 701,6  | 709,4  | 807,7  | 818,0  | 915,4  |
| Input power                                       | kW  | 15,2  | 15,2  | 19,0  | 19,0  | 19,0  | 22,9  | 22,9   | 26,7   | 26,7   | 26,7   | 26,7   | 30,5   | 30,5   | 34,3   |
| Free cooling total input current                  | A   | 30,7  | 30,7  | 38,4  | 38,4  | 38,4  | 46,1  | 46,1   | 53,7   | 53,7   | 53,7   | 53,7   | 61,4   | 61,4   | 69,1   |
| EER   | W/W | 25,04 | 26,04 | 25,39 | 26,26 | 26,65 | 26,05 | 26,25  | 25,80  | 26,09  | 26,32  | 26,61  | 26,51  | 26,85  | 26,71  |
| Water flow rate system side                       | l/h | 56430 | 65100 | 73840 | 84600 | 91390 | 97800 | 101320 | 109730 | 114860 | 119550 | 126550 | 141870 | 153260 | 166490 |
| Pressure drop system side                         | kPa | 60    | 72    | 60    | 74    | 85    | 86    | 92     | 88     | 96     | 104    | 109    | 83     | 96     | 106    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

#### NSM - U

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Model: F</b>                                   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| <b>Cooling performance chiller operation (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                                  | kW  | 1031,1 | 1095,0 | 1181,2 | 1208,8 | 1265,8 | 1326,2 | 1386,6 | 1491,1 | 1554,3 | 1666,6 | 1752,7 | -    | -    |
| Input power                                       | kW  | 332,0  | 358,4  | 379,0  | 405,3  | 426,4  | 440,0  | 453,5  | 478,4  | 498,9  | 549,8  | 570,4  | -    | -    |
| Cooling total input current                       | A   | 564,1  | 604,8  | 638,6  | 681,5  | 718,3  | 746,0  | 773,7  | 811,6  | 846,2  | 926,2  | 954,2  | -    | -    |
| EER   | W/W | 3,11   | 3,06   | 3,12   | 2,98   | 2,97   | 3,01   | 3,06   | 3,12   | 3,12   | 3,03   | 3,07   | -    | -    |
| Water flow rate system side                       | l/h | 177155 | 188137 | 202935 | 207692 | 217477 | 227858 | 238239 | 256194 | 267046 | 286336 | 301135 | -    | -    |
| Pressure drop system side                         | kPa | 74     | 86     | 79     | 83     | 73     | 77     | 87     | 64     | 74     | 86     | 79     | -    | -    |
| <b>Cooling performances with free-cooling (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                                  | kW  | 941,7  | 951,8  | 1043,5 | 1047,6 | 1134,8 | 1221,6 | 1307,8 | 1326,2 | 1413,8 | 1431,0 | 1522,9 | -    | -    |
| Input power                                       | kW  | 37,5   | 37,5   | 41,2   | 41,2   | 45,0   | 48,7   | 52,5   | 52,5   | 56,2   | 56,2   | 60,0   | -    | -    |
| Free cooling total input current                  | A   | 76,0   | 76,0   | 83,6   | 83,6   | 91,2   | 98,8   | 106,4  | 106,4  | 114,0  | 114,0  | 121,6  | -    | -    |
| EER   | W/W | 25,12  | 25,39  | 25,30  | 25,40  | 25,22  | 25,07  | 24,92  | 25,27  | 25,14  | 25,45  | 25,39  | -    | -    |
| Water flow rate system side                       | l/h | 177350 | 188350 | 203160 | 207920 | 217720 | 228110 | 238500 | 256480 | 267340 | 286650 | 301470 | -    | -    |
| Pressure drop system side                         | kPa | 112    | 129    | 122    | 127    | 115    | 119    | 128    | 105    | 112    | 129    | 122    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

| Size                                       |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403 | 9603 |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| Model: P                                   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling performance chiller operation (1)  |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                           | kW  | 1025,3 | 1088,1 | 1174,0 | 1200,9 | 1257,9 | 1318,5 | 1379,2 | 1482,0 | 1545,4 | 1655,7 | 1741,6 | -    | -    |
| Input power                                | kW  | 335,5  | 362,4  | 383,1  | 409,7  | 430,7  | 444,3  | 457,9  | 483,4  | 504,1  | 556,1  | 576,8  | -    | -    |
| Cooling total input current                | A   | 564,1  | 604,8  | 638,6  | 681,5  | 718,3  | 746,0  | 773,7  | 811,6  | 846,2  | 926,2  | 954,2  | -    | -    |
| EER  | W/W | 3,06   | 3,00   | 3,06   | 2,93   | 2,92   | 2,97   | 3,01   | 3,07   | 3,07   | 2,98   | 3,02   | -    | -    |
| Water flow rate system side                | l/h | 176150 | 186945 | 201699 | 206322 | 216119 | 226541 | 236963 | 254617 | 265517 | 284475 | 299229 | -    | -    |
| Pressure drop system side                  | kPa | 74     | 86     | 79     | 83     | 73     | 78     | 88     | 65     | 74     | 86     | 80     | -    | -    |
| Cooling performances with free-cooling (2) |     |        |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity                           | kW  | 1009,7 | 1020,0 | 1118,5 | 1122,6 | 1216,5 | 1309,9 | 1402,4 | 1421,6 | 1515,9 | 1533,4 | 1632,1 | -    | -    |
| Input power                                | kW  | 38,1   | 38,1   | 41,9   | 41,9   | 45,7   | 49,5   | 53,3   | 53,3   | 57,1   | 57,1   | 60,9   | -    | -    |
| Free cooling total input current           | A   | 76,8   | 76,8   | 84,5   | 84,5   | 92,1   | 99,8   | 107,5  | 107,5  | 115,2  | 115,2  | 122,8  | -    | -    |
| EER  | W/W | 26,51  | 26,78  | 26,70  | 26,80  | 26,62  | 26,46  | 26,30  | 26,66  | 26,54  | 26,84  | 26,78  | -    | -    |
| Water flow rate system side                | l/h | 177350 | 188350 | 203160 | 207920 | 217720 | 228110 | 238500 | 256480 | 267340 | 286650 | 301470 | -    | -    |
| Pressure drop system side                  | kPa | 113    | 129    | 122    | 128    | 116    | 119    | 128    | 106    | 113    | 130    | 123    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

**NSM - N**

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 326,0 | 376,5 | 424,5 | 486,3 | 525,3 | 559,6 | 579,7 | 626,1  | 655,1  | 682,6  | 723,4  | 811,7  | 888,8  | 960,7  |
| Input power                 | kW  | 103,6 | 119,3 | 134,4 | 153,8 | 170,9 | 178,3 | 189,4 | 200,8  | 214,8  | 227,9  | 242,9  | 263,8  | 283,0  | 307,1  |
| Cooling total input current | A   | 174,8 | 199,9 | 218,4 | 252,6 | 283,3 | 297,4 | 316,9 | 335,2  | 357,1  | 376,5  | 398,7  | 426,6  | 452,0  | 496,6  |
| EER                         | W/W | 3,15  | 3,16  | 3,16  | 3,16  | 3,07  | 3,14  | 3,06  | 3,12   | 3,05   | 3,00   | 2,98   | 3,08   | 3,14   | 3,13   |
| Water flow rate system side | l/h | 56017 | 64687 | 72926 | 83554 | 90260 | 96150 | 99597 | 107568 | 112546 | 117285 | 124287 | 139460 | 152703 | 165051 |
| Pressure drop system side   | kPa | 34    | 39    | 33    | 39    | 45    | 52    | 55    | 55     | 60     | 65     | 66     | 44     | 53     | 64     |

**Cooling performances with free-cooling (2)**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 365,1 | 381,0 | 449,3 | 465,6 | 473,2 | 541,5 | 545,8 | 615,7  | 622,3  | 627,8  | 634,7  | 713,7  | 791,0  | 867,2  |
| Input power                      | kW  | 13,7  | 13,7  | 16,5  | 16,5  | 16,5  | 19,2  | 19,2  | 22,0   | 22,0   | 22,0   | 22,0   | 24,7   | 27,5   | 30,2   |
| Free cooling total input current | A   | 19,9  | 19,9  | 23,9  | 23,9  | 23,9  | 27,9  | 27,9  | 31,8   | 31,8   | 31,8   | 31,8   | 35,8   | 39,8   | 43,8   |
| EER                              | W/W | 26,56 | 27,71 | 27,24 | 28,22 | 28,69 | 28,13 | 28,36 | 27,99  | 28,29  | 28,54  | 28,86  | 28,84  | 28,77  | 28,67  |
| Water flow rate system side      | l/h | 56080 | 64760 | 73010 | 83650 | 90360 | 96260 | 99710 | 107690 | 112670 | 117420 | 124420 | 139610 | 152870 | 165230 |
| Pressure drop system side        | kPa | 51    | 61    | 51    | 63    | 73    | 76    | 82    | 79     | 87     | 94     | 98     | 74     | 83     | 93     |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 325,1 | 375,2 | 422,9 | 483,6 | 522,0 | 556,8 | 576,7 | 623,1  | 651,8  | 679,6  | 720,3  | 807,0  | 882,8  | 955,1  |
| Input power                 | kW  | 104,5 | 120,4 | 135,6 | 155,5 | 172,9 | 180,2 | 191,5 | 202,9  | 217,2  | 230,8  | 246,4  | 267,1  | 286,2  | 310,3  |
| Cooling total input current | A   | 174,8 | 199,9 | 218,4 | 252,6 | 283,3 | 297,4 | 316,9 | 335,2  | 357,1  | 376,5  | 398,7  | 426,6  | 452,0  | 496,6  |
| EER                         | W/W | 3,11  | 3,12  | 3,12  | 3,11  | 3,02  | 3,09  | 3,01  | 3,07   | 3,00   | 2,94   | 2,92   | 3,02   | 3,09   | 3,08   |
| Water flow rate system side | l/h | 55859 | 64457 | 72661 | 83082 | 89692 | 95662 | 99076 | 107055 | 111979 | 116764 | 123749 | 138653 | 151682 | 164102 |
| Pressure drop system side   | kPa | 35    | 39    | 33    | 39    | 46    | 52    | 56    | 55     | 61     | 66     | 67     | 45     | 54     | 64     |

**Cooling performances with free-cooling (2)**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 387,5 | 406,1 | 478,1 | 496,6 | 505,0 | 577,5 | 582,4 | 656,5  | 663,9  | 670,1  | 677,6  | 761,7  | 844,0  | 925,5  |
| Input power                      | kW  | 13,9  | 13,9  | 16,7  | 16,7  | 16,7  | 19,5  | 19,5  | 22,3   | 22,3   | 22,3   | 22,3   | 25,1   | 27,9   | 30,7   |
| Free cooling total input current | A   | 20,1  | 20,1  | 24,1  | 24,1  | 24,1  | 28,1  | 28,1  | 32,2   | 32,2   | 32,2   | 32,2   | 36,2   | 40,2   | 44,2   |
| EER                              | W/W | 27,79 | 29,12 | 28,57 | 29,68 | 30,18 | 29,58 | 29,83 | 29,42  | 29,75  | 30,03  | 30,37  | 30,35  | 30,26  | 30,16  |
| Water flow rate system side      | l/h | 56080 | 64760 | 73010 | 83650 | 90360 | 96260 | 99710 | 107690 | 112670 | 117420 | 124420 | 139610 | 152870 | 165230 |
| Pressure drop system side        | kPa | 52    | 62    | 52    | 64    | 74    | 77    | 82    | 80     | 87     | 94     | 99     | 75     | 83     | 94     |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

**NSM - N**

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|---|
| Cooling capacity            | kW  | 1004,9 | 1098,6 | 1161,7 | 1218,0 | 1274,5 | 1318,1 | 1361,6 | 1478,4 | - | - | - | - | - |
| Input power                 | kW  | 332,9  | 349,5  | 369,2  | 392,7  | 416,2  | 433,5  | 450,9  | 472,0  | - | - | - | - | - |
| Cooling total input current | A   | 544,1  | 569,7  | 600,1  | 638,5  | 677,0  | 708,3  | 739,7  | 770,6  | - | - | - | - | - |
| EER                         | W/W | 3,02   | 3,14   | 3,15   | 3,10   | 3,06   | 3,04   | 3,02   | 3,13   | - | - | - | - | - |
| Water flow rate system side | l/h | 172652 | 188754 | 199587 | 209274 | 218966 | 226457 | 233947 | 254013 | - | - | - | - | - |
| Pressure drop system side   | kPa | 70     | 71     | 84     | 88     | 74     | 78     | 85     | 64     | - | - | - | - | - |

**Cooling performances with free-cooling (2)**

|                                  |     |        |        |        |        |        |        |        |        |   |   |   |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|---|
| Cooling capacity                 | kW  | 874,3  | 1018,1 | 1092,1 | 1164,5 | 1236,6 | 1246,2 | 1254,9 | 1339,1 | - | - | - | - | - |
| Input power                      | kW  | 30,2   | 35,7   | 38,5   | 41,2   | 44,0   | 44,0   | 44,0   | 46,7   | - | - | - | - | - |
| Free cooling total input current | A   | 43,8   | 51,7   | 55,7   | 59,7   | 63,7   | 63,7   | 63,7   | 67,7   | - | - | - | - | - |
| EER                              | W/W | 28,91  | 28,48  | 28,37  | 28,24  | 28,11  | 28,33  | 28,52  | 28,65  | - | - | - | - | - |
| Water flow rate system side      | l/h | 172840 | 188960 | 199810 | 209510 | 219210 | 226710 | 234210 | 254300 | - | - | - | - | - |
| Pressure drop system side        | kPa | 102    | 100    | 114    | 117    | 103    | 109    | 118    | 93     | - | - | - | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size  |     | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703 | 6903 | 7203 | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Model: P</b>                                   |     |        |        |        |        |        |        |        |        |      |      |      |      |      |
| <b>Cooling performance chiller operation (1)</b>  |     |        |        |        |        |        |        |        |        |      |      |      |      |      |
| Cooling capacity                                  | kW  | 998,8  | 1092,7 | 1155,6 | 1211,7 | 1267,7 | 1310,9 | 1354,2 | 1470,0 | -    | -    | -    | -    | -    |
| Input power                                       | kW  | 336,7  | 353,2  | 373,0  | 396,5  | 420,0  | 437,6  | 455,3  | 476,9  | -    | -    | -    | -    | -    |
| Cooling total input current                       | A   | 544,1  | 569,7  | 600,1  | 638,5  | 677,0  | 708,3  | 739,7  | 770,6  | -    | -    | -    | -    | -    |
| EER   | W/W | 2,97   | 3,09   | 3,10   | 3,06   | 3,02   | 3,00   | 2,97   | 3,08   | -    | -    | -    | -    | -    |
| Water flow rate system side                       | l/h | 171604 | 187733 | 198553 | 208183 | 217806 | 225235 | 232663 | 252555 | -    | -    | -    | -    | -    |
| Pressure drop system side                         | kPa | 70     | 71     | 85     | 89     | 75     | 78     | 85     | 64     | -    | -    | -    | -    | -    |
| <b>Cooling performances with free-cooling (2)</b> |     |        |        |        |        |        |        |        |        |      |      |      |      |      |
| Cooling capacity                                  | kW  | 933,0  | 1086,4 | 1165,3 | 1242,2 | 1318,7 | 1329,5 | 1339,1 | 1429,1 | -    | -    | -    | -    | -    |
| Input power                                       | kW  | 30,7   | 36,3   | 39,0   | 41,8   | 44,6   | 44,6   | 44,6   | 47,4   | -    | -    | -    | -    | -    |
| Free cooling total input current                  | A   | 44,2   | 52,3   | 56,3   | 60,3   | 64,3   | 64,3   | 64,3   | 68,3   | -    | -    | -    | -    | -    |
| EER   | W/W | 30,41  | 29,96  | 29,84  | 29,69  | 29,55  | 29,79  | 30,01  | 30,14  | -    | -    | -    | -    | -    |
| Water flow rate system side                       | l/h | 172840 | 188960 | 199810 | 209510 | 219210 | 226710 | 234210 | 254300 | -    | -    | -    | -    | -    |
| Pressure drop system side                         | kPa | 102    | 101    | 114    | 118    | 104    | 109    | 118    | 94     | -    | -    | -    | -    | -    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |   |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|--|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Model: F   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN14825: 2018) High temperature with standard fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 7,41 | 7,05 | 6,65 | 6,29 | 6,78 | 6,52 | 6,34 | 6,73 | 6,56 | 6,31 | 6,10 | 6,55 | 6,32 | 6,50 |
|  | E | W/W | 7,22 | 6,77 | 7,10 | 6,65 | 6,30 | 6,89 | 6,59 | 6,81 | 6,69 | 6,42 | 6,09 | 6,28 | 6,23 | 6,44 |
|  | N | W/W | 7,68 | 7,36 | 7,56 | 7,20 | 6,78 | 7,10 | 6,94 | 7,15 | 6,90 | 6,67 | 6,45 | 6,78 | 6,94 | 6,93 |
|  | U | W/W | 7,50 | 7,13 | 7,47 | 7,13 | 6,79 | 7,22 | 6,97 | 7,28 | 7,03 | 6,82 | 6,62 | 6,97 | 6,75 | 6,86 |
| SEPR - (EN14825: 2018) High temperature with inverter fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 7,41 | 7,05 | 6,65 | 6,29 | 6,78 | 6,52 | 6,34 | 6,73 | 6,56 | 6,31 | 6,10 | 6,55 | 6,32 | 6,50 |
|  | E | W/W | 7,22 | 6,77 | 7,10 | 6,65 | 6,30 | 6,89 | 6,59 | 6,81 | 6,69 | 6,42 | 6,09 | 6,28 | 6,23 | 6,44 |
|  | N | W/W | 7,68 | 7,36 | 7,56 | 7,20 | 6,78 | 7,10 | 6,94 | 7,15 | 6,90 | 6,67 | 6,45 | 6,78 | 6,94 | 6,93 |
|  | U | W/W | 7,50 | 7,13 | 7,47 | 7,13 | 6,79 | 7,22 | 6,97 | 7,28 | 7,03 | 6,82 | 6,62 | 6,97 | 6,75 | 6,86 |

(1) Calculation performed with FIXED water flow rate.

| Size  |   |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|---|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: P</b>   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 7,38 | 7,12 | 6,67 | 6,25 | 6,79 | 6,49 | 6,27 | 6,71 | 6,49 | 6,23 | 5,99 | 6,51 | 6,26 | 6,44 |
|   | E | W/W | 7,25 | 6,73 | 7,15 | 6,60 | 6,20 | 6,83 | 6,51 | 6,84 | 6,61 | 6,31 | 5,99 | 6,46 | 6,22 | 6,34 |
|   | N | W/W | 7,71 | 7,39 | 7,62 | 7,22 | 6,83 | 7,18 | 6,91 | 7,16 | 6,88 | 6,63 | 6,39 | 6,75 | 6,90 | 6,88 |
|   | U | W/W | 7,57 | 7,17 | 7,56 | 7,16 | 6,77 | 7,23 | 6,97 | 7,30 | 7,02 | 6,78 | 6,56 | 6,97 | 6,71 | 6,81 |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 7,38 | 7,12 | 6,67 | 6,25 | 6,79 | 6,49 | 6,27 | 6,71 | 6,49 | 6,23 | 5,99 | 6,51 | 6,26 | 6,44 |
|   | E | W/W | 7,25 | 6,73 | 7,15 | 6,60 | 6,20 | 6,83 | 6,51 | 6,84 | 6,61 | 6,31 | 5,99 | 6,46 | 6,22 | 6,34 |
|   | N | W/W | 7,71 | 7,39 | 7,62 | 7,22 | 6,83 | 7,18 | 6,91 | 7,16 | 6,88 | 6,63 | 6,39 | 6,75 | 6,90 | 6,88 |
|   | U | W/W | 7,57 | 7,17 | 7,56 | 7,16 | 6,77 | 7,23 | 6,97 | 7,30 | 7,02 | 6,78 | 6,56 | 6,97 | 6,71 | 6,81 |

(1) Calculation performed with FIXED water flow rate.

| Size   |   |     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|--|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Model: F   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN14825: 2018) High temperature with standard fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 6,18 | 6,40 | 6,17 | 5,87 | 6,04 | 6,24 | 6,13 | 6,61 | 6,38 | 6,69 | 6,52 | 6,18 | 6,44 |
|  | E | W/W | 6,52 | 6,28 | 6,63 | 5,98 | 6,02 | 6,19 | 6,49 | 6,72 | 6,84 | 6,22 | 6,46 | -    | -    |
|  | N | W/W | 6,65 | 6,88 | 7,12 | 7,03 | 6,96 | 6,74 | 6,72 | 7,28 | -    | -    | -    | -    | -    |
|  | U | W/W | 6,92 | 6,60 | 7,04 | 6,52 | 6,54 | 6,68 | 6,83 | 7,17 | 7,22 | 6,87 | 7,00 | -    | -    |
| SEPR - (EN14825: 2018) High temperature with inverter fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 6,18 | 6,40 | 6,17 | 5,87 | 6,04 | 6,24 | 6,13 | 6,61 | 6,38 | 6,69 | 6,52 | 6,18 | 6,44 |
|  | E | W/W | 6,52 | 6,28 | 6,63 | 5,98 | 6,02 | 6,19 | 6,49 | 6,72 | 6,84 | 6,22 | 6,46 | -    | -    |
|  | N | W/W | 6,65 | 6,88 | 7,12 | 7,03 | 6,96 | 6,74 | 6,72 | 7,28 | -    | -    | -    | -    | -    |
|  | U | W/W | 6,92 | 6,60 | 7,04 | 6,52 | 6,54 | 6,68 | 6,83 | 7,17 | 7,22 | 6,87 | 7,00 | -    | -    |

(1) Calculation performed with FIXED water flow rate.

| Size  |   |     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|---|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: P</b>   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,09 | 6,31 | 6,06 | 5,76 | 5,95 | 6,14 | 6,01 | 6,57 | 6,32 | 6,64 | 6,44 | 6,13 | 6,37 |
|   | E | W/W | 6,43 | 6,15 | 6,50 | 5,86 | 5,94 | 6,11 | 6,40 | 6,66 | 6,78 | 6,12 | 6,37 | -    | -    |
|   | N | W/W | 6,59 | 7,00 | 7,07 | 6,99 | 6,94 | 6,81 | 6,68 | 7,25 | -    | -    | -    | -    | -    |
|   | U | W/W | 6,89 | 6,70 | 6,99 | 6,45 | 6,50 | 6,66 | 6,80 | 7,15 | 7,19 | 6,83 | 6,96 | -    | -    |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,09 | 6,31 | 6,06 | 5,76 | 5,95 | 6,14 | 6,01 | 6,57 | 6,32 | 6,64 | 6,44 | 6,13 | 6,37 |
|   | E | W/W | 6,43 | 6,15 | 6,50 | 5,86 | 5,94 | 6,11 | 6,40 | 6,66 | 6,78 | 6,12 | 6,37 | -    | -    |
|   | N | W/W | 6,59 | 7,00 | 7,07 | 6,99 | 6,94 | 6,81 | 6,68 | 7,25 | -    | -    | -    | -    | -    |
|   | U | W/W | 6,89 | 6,70 | 6,99 | 6,45 | 6,50 | 6,66 | 6,80 | 7,15 | 7,19 | 6,83 | 6,96 | -    | -    |

(1) Calculation performed with FIXED water flow rate.

**ELECTRIC DATA**

| Size                  |     |   | 1402  | 1602  | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902  |
|-----------------------|-----|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| Electric data         |     |   |       |       |        |        |        |        |        |        |        |        |        |        |        |       |
| Maximum current (FLA) | A   | A | 243,9 | 271,9 | 299,1  | 332,5  | 374,4  | 395,7  | 417,0  | 450,2  | 474,9  | 474,9  | 474,9  | 531,4  | 579,4  | 635,9 |
|                       | E,U | A | 243,9 | 271,9 | 307,6  | 341,0  | 374,4  | 404,2  | 425,5  | 458,7  | 483,4  | 483,4  | 483,4  | 539,9  | 587,9  | 644,4 |
|                       | N   | A | 252,4 | 280,4 | 316,1  | 349,5  | 382,9  | 412,7  | 434,0  | 467,2  | 491,9  | 491,9  | 491,9  | 548,4  | 604,9  | 667,2 |
| Peak current (LRA)    | A   | A | 265,5 | 307,3 | 350,2  | 388,2  | 419,8  | 466,8  | 484,0  | 519,5  | 529,4  | 529,4  | 529,4  | 661,9  | 701,8  | 831,3 |
|                       | E,U | A | 265,5 | 307,3 | 358,7  | 396,7  | 419,8  | 475,3  | 492,5  | 528,0  | 537,9  | 537,9  | 537,9  | 670,4  | 710,3  | 839,8 |
|                       | N   | A | 274,0 | 315,8 | 367,2  | 405,2  | 428,3  | 483,8  | 501,0  | 536,5  | 546,4  | 546,4  | 546,4  | 678,9  | 727,3  | 862,6 |
| Size                  |     |   | 4202  | 4502  | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |       |
| Electric data         |     |   |       |       |        |        |        |        |        |        |        |        |        |        |        |       |
| Maximum current (FLA) | A   | A | 683,9 | 731,4 | 770,4  | 813,4  | 864,9  | 913,2  | 947,2  | 980,7  | 1028,7 | 1123,7 | 1162,7 | 1300,2 | 1419,2 |       |
|                       | E,U | A | 700,9 | 739,9 | 793,2  | 836,2  | 887,7  | 930,2  | 972,7  | 997,7  | 1054,2 | 1132,2 | 1179,7 | -      | -      |       |
|                       | N   | A | 715,2 | 771,2 | 818,7  | 870,2  | 921,7  | 955,7  | 989,7  | 1023,2 | -      | -      | -      | -      | -      |       |
| Peak current (LRA)    | A   | A | 858,2 | 930,7 | 953,4  | 1108,4 | 1163,9 | 1290,2 | 1287,2 | 1069,4 | 1096,3 | 1200,0 | 1222,7 | 1480,2 | 1603,2 |       |
|                       | E,U | A | 875,2 | 939,2 | 976,2  | 1131,2 | 1186,7 | 1307,2 | 1312,7 | 1086,4 | 1121,8 | 1208,5 | 1239,7 | -      | -      |       |
|                       | N   | A | 889,5 | 970,5 | 1001,7 | 1165,2 | 1220,7 | 1332,7 | 1329,7 | 1111,9 | -      | -      | -      | -      | -      |       |

**GENERAL TECHNICAL DATA**

| Size                              |         |      | 1402           | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|-----------------------------------|---------|------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b>                 |         |      |                |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type                              | A,E,N,U | type | Screw          |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation             | A,E,N,U | Type | On-Off         |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number                            | A,E,N,U | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Circuits                          | A,E,N,U | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                       | A,E,N,U | type | R134a          |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)    | A       | kg   | 31,0           | 31,0 | 28,0 | 31,0 | 38,0 | 36,0 | 38,0 | 43,0 | 44,0 | 44,0 | 50,0 | 58,0 | 55,0 | 61,0 |
|                                   | E       | kg   | 28,0           | 30,0 | 45,0 | 39,0 | 38,0 | 46,0 | 46,0 | 54,0 | 54,0 | 54,0 | 59,0 | 66,0 | 61,0 | 65,0 |
|                                   | N       | kg   | 39,0           | 39,0 | 46,0 | 34,0 | 46,0 | 54,0 | 54,0 | 61,0 | 61,0 | 61,0 | 66,0 | 66,0 | 76,0 | 84,0 |
|                                   | U       | kg   | 31,0           | 30,0 | 35,0 | 34,0 | 32,0 | 46,0 | 46,0 | 54,0 | 54,0 | 54,0 | 59,0 | 66,0 | 61,0 | 65,0 |
| Refrigerant load circuit 2 (1)    | A       | kg   | 31,0           | 31,0 | 28,0 | 31,0 | 42,0 | 36,0 | 40,0 | 45,0 | 48,0 | 52,0 | 55,0 | 60,0 | 60,0 | 61,0 |
|                                   | E       | kg   | 30,0           | 30,0 | 45,0 | 39,0 | 42,0 | 46,0 | 46,0 | 54,0 | 54,0 | 59,0 | 59,0 | 61,0 | 61,0 | 77,0 |
|                                   | N       | kg   | 39,0           | 39,0 | 46,0 | 42,0 | 50,0 | 54,0 | 54,0 | 61,0 | 61,0 | 66,0 | 66,0 | 76,0 | 76,0 | 84,0 |
|                                   | U       | kg   | 31,0           | 30,0 | 35,0 | 42,0 | 32,0 | 46,0 | 46,0 | 54,0 | 54,0 | 59,0 | 59,0 | 61,0 | 61,0 | 77,0 |
| <b>System side heat exchanger</b> |         |      |                |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type                              | A,E,N,U | type | Shell and tube |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number                            | A,E,N,U | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |         |      | 4202           | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----------------------------------|---------|------|----------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| <b>Compressor</b>                 |         |      |                |       |       |       |       |       |       |      |      |      |      |      |      |
| Type                              | A,E,N,U | type | Screw          |       |       |       |       |       |       |      |      |      |      |      |      |
| Compressor regulation             | A,E,N,U | Type | On-Off         |       |       |       |       |       |       |      |      |      |      |      |      |
| Number                            | A       | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3    | 3    | 3    |
|                                   | E,U     | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3    | -    | -    |
|                                   | N       | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | -    | -    | -    | -    | -    |
| Circuits                          | A       | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3    | 3    | 3    |
|                                   | E,U     | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | 3    | 3    | 3    | -    | -    |
|                                   | N       | no.  | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 3    | -    | -    | -    | -    | -    |
| Refrigerant                       | A,E,N,U | type | R134a          |       |       |       |       |       |       |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)    | A       | kg   | 64,0           | 70,0  | 68,0  | 69,0  | 76,0  | 84,0  | 84,0  | 61,0 | 61,0 | 72,0 | 69,0 | 78,0 | 84,0 |
|                                   | E,U     | kg   | 76,0           | 75,0  | 84,0  | 76,0  | 91,0  | 91,0  | 106,0 | 65,0 | 76,0 | 76,0 | 84,0 | -    | -    |
|                                   | N       | kg   | 84,0           | 91,0  | 106,0 | 106,0 | 121,0 | 121,0 | 121,0 | 84,0 | -    | -    | -    | -    | -    |
| Refrigerant load circuit 2 (1)    | A       | kg   | 74,0           | 80,0  | 83,0  | 69,0  | 76,0  | 84,0  | 84,0  | 61,0 | 61,0 | 79,0 | 69,0 | 87,0 | 84,0 |
|                                   | E,U     | kg   | 76,0           | 85,0  | 84,0  | 91,0  | 91,0  | 106,0 | 106,0 | 70,0 | 76,0 | 76,0 | 84,0 | -    | -    |
|                                   | N       | kg   | 84,0           | 106,0 | 106,0 | 121,0 | 121,0 | 121,0 | 121,0 | 84,0 | -    | -    | -    | -    | -    |
| Refrigerant load circuit 3 (1)    | A       | kg   | -              | -     | -     | -     | -     | -     | -     | 61,0 | 61,0 | 73,0 | 76,0 | 75,0 | 91,0 |
|                                   | E,U     | kg   | -              | -     | -     | -     | -     | -     | -     | 70,0 | 76,0 | 76,0 | 76,0 | -    | -    |
|                                   | N       | kg   | -              | -     | -     | -     | -     | -     | -     | 91,0 | -    | -    | -    | -    | -    |
| <b>System side heat exchanger</b> |         |      |                |       |       |       |       |       |       |      |      |      |      |      |      |
| Type                              | A,E,N,U | type | Shell and tube |       |       |       |       |       |       |      |      |      |      |      |      |
| Number                            | A       | no.  | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 2    | 2    | 2    | 2    | 2    | 2    |
|                                   | E,U     | no.  | 1              | 1     | 1     | 1     | 2     | 2     | 2     | 2    | 2    | 2    | 2    | -    | -    |
|                                   | N       | no.  | 1              | 2     | 2     | 2     | 2     | 2     | 2     | 2    | -    | -    | -    | -    | -    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Integrated hydronic kit: 00

##### Hydraulic connections

|                      |         |      |                |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------|---------|------|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Connections (in/out) | A,E,N,U | Type | Grooved joints |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Size (in)            | A       | Ø    | 5"             | 5" | 5" | 5" | 5" | 5" | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
|                      | E,U     | Ø    | 5"             | 5" | 5" | 5" | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
|                      | N       | Ø    | 5"             | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| Size (out)           | A       | Ø    | 5"             | 5" | 5" | 5" | 5" | 5" | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
|                      | E,U     | Ø    | 5"             | 5" | 5" | 5" | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
|                      | N       | Ø    | 5"             | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" | 6" |

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Integrated hydronic kit: 00

##### Hydraulic connections

|                      |         |      |                |    |    |    |    |    |    |   |   |   |   |   |   |   |
|----------------------|---------|------|----------------|----|----|----|----|----|----|---|---|---|---|---|---|---|
| Connections (in/out) | A,E,N,U | Type | Grooved joints |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Size (in)            | A       | Ø    | 6"             | 6" | 6" | 6" | 6" | 6" | 6" | - | - | - | - | - | - | - |
|                      | E,U     | Ø    | 6"             | 6" | 6" | 6" | -  | -  | -  | - | - | - | - | - | - | - |
|                      | N       | Ø    | 6"             | -  | -  | -  | -  | -  | -  | - | - | - | - | - | - | - |
| Size (out)           | A       | Ø    | 6"             | 6" | 6" | 8" | 8" | 8" | 8" | - | - | - | - | - | - | - |
|                      | E,U     | Ø    | 6"             | 6" | 8" | 8" | -  | -  | -  | - | - | - | - | - | - | - |
|                      | N       | Ø    | 6"             | -  | -  | -  | -  | -  | -  | - | - | - | - | - | - | - |

##### Module 1

|            |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Size (in)  | A   | Ø | - | -  | -  | -  | -  | -  | -  | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
|            | E,U | Ø | - | -  | -  | -  | 6" | 6" | 6" | 6" | 6" | 6" | 6" | -  | -  | -  |
|            | N   | Ø | - | 6" | 6" | 6" | 6" | 6" | 6" | 6" | -  | -  | -  | -  | -  | -  |
| Size (out) | A   | Ø | - | -  | -  | -  | -  | -  | -  | 6" | 6" | 6" | 6" | 8" | 8" | 8" |
|            | E,U | Ø | - | -  | -  | -  | 6" | 6" | 6" | 6" | 6" | 6" | 8" | -  | -  | -  |
|            | N   | Ø | - | 6" | 6" | 6" | 6" | 6" | 6" | 6" | -  | -  | -  | -  | -  | -  |

##### Module 2

|            |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Size (in)  | A   | Ø | - | -  | -  | -  | -  | -  | -  | 5" | 5" | 5" | 5" | 5" | 5" | 6" |
|            | E,U | Ø | - | -  | -  | -  | 6" | 6" | 6" | 5" | 5" | 5" | 5" | -  | -  | -  |
|            | N   | Ø | - | 6" | 6" | 6" | 6" | 6" | 6" | 6" | -  | -  | -  | -  | -  | -  |
| Size (out) | A   | Ø | - | -  | -  | -  | -  | -  | -  | 5" | 5" | 5" | 5" | 5" | 5" | 6" |
|            | E,U | Ø | - | -  | -  | -  | 6" | 6" | 6" | 5" | 5" | 5" | 5" | -  | -  | -  |
|            | N   | Ø | - | 6" | 6" | 6" | 6" | 6" | 6" | 6" | -  | -  | -  | -  | -  | -  |

## SOUND DATA

| Size   |   | 1402  | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|--|---|-------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |       |       |       |       |       |       |
| Sound power level                                | A | dB(A) | 98,0 | 98,0 | 98,0 | 98,0 | 99,0 | 99,0 | 99,0 | 99,7  | 99,7  | 99,7  | 99,7  | 100,4 | 101,1 |
|  | E | dB(A) | 91,0 | 91,0 | 91,7 | 91,9 | 92,1 | 92,6 | 92,5 | 93,0  | 93,0  | 93,0  | 93,7  | 93,9  | 94,6  |
|  | N | dB(A) | 91,7 | 91,7 | 92,3 | 92,5 | 92,6 | 93,1 | 93,0 | 93,5  | 93,5  | 93,5  | 94,1  | 94,6  | 95,2  |
|  | U | dB(A) | 98,0 | 98,0 | 98,9 | 99,0 | 99,0 | 99,7 | 99,7 | 100,4 | 100,4 | 100,4 | 100,9 | 101,0 | 101,5 |
| Sound pressure level (10 m)                      | A | dB(A) | 65,6 | 65,6 | 65,6 | 65,6 | 66,4 | 66,4 | 66,4 | 67,1  | 67,1  | 67,1  | 67,6  | 67,7  | 68,2  |
|  | E | dB(A) | 58,6 | 58,6 | 59,2 | 59,4 | 59,5 | 59,9 | 59,9 | 60,3  | 60,3  | 60,3  | 60,8  | 61,0  | 61,6  |
|  | N | dB(A) | 59,2 | 59,2 | 59,7 | 59,9 | 60,0 | 60,3 | 60,3 | 60,6  | 60,6  | 60,6  | 61,1  | 61,5  | 62,0  |
|  | U | dB(A) | 65,6 | 65,6 | 66,4 | 66,4 | 66,4 | 67,1 | 67,1 | 67,6  | 67,6  | 67,6  | 68,1  | 68,1  | 68,5  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |   | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                                | A | dB(A) | 101,1 | 101,6 | 101,6 | 101,6 | 102,1 | 102,5 | 102,5 | 102,7 | 102,8 | 103,4 | 103,4 | 103,7 |
|  | E | dB(A) | 95,2  | 95,2  | 95,4  | 95,6  | 96,0  | 96,2  | 96,4  | 96,0  | 96,5  | 96,4  | 96,6  | -     |
|  | N | dB(A) | 95,5  | 96,0  | 96,2  | 96,6  | 96,9  | 96,9  | 96,9  | 96,7  | -     | -     | -     | -     |
|  | U | dB(A) | 102,0 | 102,0 | 102,4 | 102,4 | 102,8 | 103,1 | 103,4 | 103,4 | 103,7 | 103,7 | 103,9 | -     |
| Sound pressure level (10 m)                      | A | dB(A) | 68,2  | 68,6  | 68,6  | 68,6  | 69,0  | 69,2  | 69,4  | 69,4  | 69,8  | 69,8  | 70,0  | 70,4  |
|  | E | dB(A) | 62,1  | 62,0  | 62,2  | 62,3  | 62,7  | 62,8  | 62,9  | 62,5  | 62,8  | 62,8  | 62,8  | -     |
|  | N | dB(A) | 62,3  | 62,5  | 62,6  | 62,9  | 63,1  | 63,1  | 63,1  | 62,8  | -     | -     | -     | -     |
|  | U | dB(A) | 68,9  | 68,9  | 69,1  | 69,2  | 69,5  | 69,7  | 69,9  | 69,8  | 70,0  | 70,0  | 70,2  | -     |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

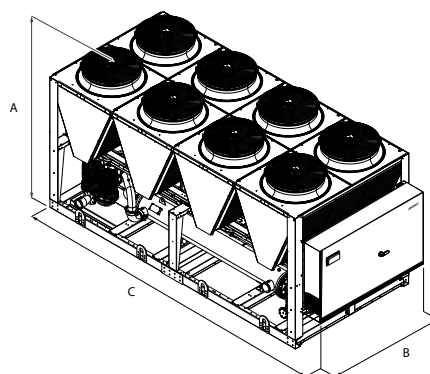
| Size            |         | 1402              | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|-----------------|---------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: F</b> |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | Axial  |        |        |        |        |        |        |        |        |        |        |        |        |
| Number          | A       | no.               | 8      | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 12     | 14     | 14     | 16     |
|                 | E,U     | no.               | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 14     | 14     | 14     | 16     | 16     | 18     |
|                 | N       | no.               | 10     | 10     | 12     | 12     | 12     | 14     | 14     | 16     | 16     | 16     | 18     | 20     | 22     |
| Air flow rate   | A       | m <sup>3</sup> /h | 116000 | 116000 | 116000 | 116000 | 145000 | 145000 | 145000 | 174000 | 174000 | 174000 | 203000 | 203000 | 232000 |
|                 | E       | m <sup>3</sup> /h | 89600  | 89600  | 112000 | 112000 | 112000 | 134400 | 134400 | 156800 | 156800 | 156800 | 179200 | 179200 | 201600 |
|                 | N       | m <sup>3</sup> /h | 112000 | 112000 | 134400 | 134400 | 134400 | 156800 | 156800 | 179200 | 179200 | 179200 | 201600 | 224000 | 246400 |
|                 | U       | m <sup>3</sup> /h | 116000 | 116000 | 145000 | 145000 | 145000 | 174000 | 174000 | 203000 | 203000 | 203000 | 232000 | 232000 | 261000 |

| Size            |         | 4202              | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|-----------------|---------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b> |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | Axial  |        |        |        |        |        |        |        |        |        |        |        |
| Number          | A       | no.               | 8      | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 12     | 14     | 14     |
|                 | E,U     | no.               | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 14     | 14     | 14     | 16     | 16     |
|                 | N       | no.               | 10     | 10     | 12     | 12     | 12     | 14     | 14     | 16     | 16     | 16     | 18     | 20     |
| Air flow rate   | A       | m <sup>3</sup> /h | 109600 | 109600 | 109600 | 109600 | 137000 | 137000 | 137000 | 164400 | 164400 | 164400 | 191800 | 191800 |
|                 | E       | m <sup>3</sup> /h | 85600  | 85600  | 107000 | 107000 | 107000 | 128400 | 128400 | 149800 | 149800 | 149800 | 171200 | 171200 |
|                 | N       | m <sup>3</sup> /h | 107000 | 107000 | 128400 | 128400 | 128400 | 149800 | 149800 | 171200 | 171200 | 171200 | 192600 | 214000 |
|                 | U       | m <sup>3</sup> /h | 109600 | 109600 | 137000 | 137000 | 137000 | 164400 | 164400 | 191800 | 191800 | 191800 | 219200 | 219200 |

| Size            |         | 4202              | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|-----------------|---------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: F</b> |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | Axial  |        |        |        |        |        |        |        |        |        |        |        |
| Number          | A       | no.               | 16     | 18     | 18     | 18     | 20     | 22     | 22     | 24     | 24     | 28     | 28     | 30     |
|                 | E,U     | no.               | 20     | 20     | 22     | 22     | 24     | 26     | 28     | 28     | 30     | 30     | 32     | -      |
|                 | N       | no.               | 22     | 26     | 28     | 30     | 32     | 32     | 32     | 34     | -      | -      | -      | -      |
| Air flow rate   | A       | m <sup>3</sup> /h | 232000 | 261000 | 261000 | 261000 | 290000 | 319000 | 319000 | 348000 | 348000 | 406000 | 406000 | 435000 |
|                 | E       | m <sup>3</sup> /h | 224000 | 224000 | 246400 | 246400 | 268800 | 291200 | 313600 | 313600 | 336000 | 336000 | 358400 | -      |
|                 | N       | m <sup>3</sup> /h | 246400 | 291200 | 313600 | 313600 | 358400 | 358400 | 380800 | 380800 | -      | -      | -      | -      |
|                 | U       | m <sup>3</sup> /h | 290000 | 290000 | 319000 | 319000 | 348000 | 377000 | 406000 | 406000 | 435000 | 435000 | 464000 | -      |

| Size            |         | 4202              | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|-----------------|---------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b> |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>      |         |                   |        |        |        |        |        |        |        |        |        |        |        |        |
| Type            | A,E,N,U | type              | Axial  |        |        |        |        |        |        |        |        |        |        |        |
| Number          | A       | no.               | 16     | 18     | 18     | 18     | 20     | 22     | 22     | 24     | 24     | 28     | 28     | 30     |
|                 | E,U     | no.               | 20     | 20     | 22     | 22     | 24     | 26     | 28     | 28     | 30     | 30     | 32     | -      |
|                 | N       | no.               | 22     | 26     | 28     | 30     | 32     | 32     | 32     | 34     | -      | -      | -      | -      |
| Air flow rate   | A       | m <sup>3</sup> /h | 219200 | 246600 | 246600 | 246600 | 274000 | 301400 | 301400 | 328800 | 328800 | 383600 | 383600 | 411000 |
|                 | E       | m <sup>3</sup> /h | 214000 | 214000 | 235400 | 235400 | 256800 | 278200 | 299600 | 299600 | 321000 | 321000 | 342400 | -      |
|                 | N       | m <sup>3</sup> /h | 235400 | 278200 | 299600 | 321000 | 342400 | 342400 | 363800 | 363800 | -      | -      | -      | -      |
|                 | U       | m <sup>3</sup> /h | 274000 | 274000 | 301400 | 301400 | 328800 | 356200 | 383600 | 383600 | 411000 | 411000 | 438400 | -      |

## DIMENSIONS



| Size                          |         |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402  | 3602  | 3902  |
|-------------------------------|---------|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| <b>Dimensions and weights</b> |         |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| A                             | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  |
| B                             | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  |
| C                             | A       | mm | 5160 | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7140 | 7140 | 7140 | 7140 | 8330  | 8330  | 9520  |
|                               | E,U     | mm | 5160 | 5160 | 6350 | 6350 | 6350 | 7140 | 7140 | 8330 | 8330 | 8330 | 8330 | 9520  | 9520  | 10710 |
|                               | N       | mm | 6350 | 6350 | 7140 | 7140 | 7140 | 8330 | 8330 | 9520 | 9520 | 9520 | 9520 | 10710 | 11900 | 13090 |

| Size                   |     |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|------------------------|-----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | A   | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|                        | E,U | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     |
|                        | N   | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     | -     | -     | -     |
| B                      | A   | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|                        | E,U | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     |
|                        | N   | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     | -     | -     | -     |
| C                      | A   | mm | 9520  | 10710 | 10710 | 10710 | 11900 | 13090 | 13090 | 14280 | 14280 | 16660 | 16660 | 17850 | 20230 |
|                        | E,U | mm | 11900 | 11900 | 13090 | 13090 | 14280 | 15470 | 16660 | 16660 | 17850 | 17850 | 19040 | -     | -     |
|                        | N   | mm | 13090 | 15470 | 16660 | 17850 | 19040 | 19040 | 19040 | 20230 | -     | -     | -     | -     | -     |

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

| Size                      |     |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602  | 3902  |
|---------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| <b>Model: F</b>           |     |    |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| <b>Single module unit</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| Empty weight              | A   | kg | 4695 | 4730 | 4870 | 5200 | 6065 | 6080 | 6285 | 6950 | 7145 | 7200 | 7300 | 8500 | 8975  | 9590  |
|                           | E,U | kg | 4855 | 4875 | 5435 | 6025 | 6380 | 7025 | 7045 | 7625 | 7715 | 7785 | 7880 | 9145 | 9605  | 10475 |
|                           | N   | kg | 5370 | 5390 | 6065 | 6655 | 7010 | 7560 | 7585 | 8175 | 8265 | 8340 | 8430 | 9930 | 10905 | 11630 |

| Size                  |     |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |
|-----------------------|-----|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Model: F              |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Single module unit    |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight          | A   | kg | 9655  | 10475 | 10525 | 10945 | 11580 | 12265 | 12305 | -     | -     | -     | -     | -     | -     |
|                       | E,U | kg | 11070 | 11130 | 12135 | 12260 | -     | -     | -     | -     | -     | -     | -     | -     | -     |
|                       | N   | kg | 11700 | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Bimodule unit         |     |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Empty weight module 1 | A   | kg | -     | -     | -     | -     | -     | -     | -     | 9590  | 9655  | 10475 | 10525 | 11580 | 12305 |
|                       | E,U | kg | -     | -     | -     | -     | 6630  | 6630  | 7170  | 10475 | 11070 | 11130 | 12135 | -     | -     |
|                       | N   | kg | -     | 6210  | 6995  | 6995  | 7730  | 7730  | 7775  | 11630 | -     | -     | -     | -     | -     |
| Empty weight module 2 | A   | kg | -     | -     | -     | -     | -     | -     | -     | 5225  | 5225  | 5765  | 5765  | 5930  | 6590  |
|                       | E,U | kg | -     | -     | -     | -     | 6630  | 7170  | 7170  | 5755  | 5755  | 5810  | 5820  | -     | -     |
|                       | N   | ka | -     | 6995  | 6995  | 7730  | 7730  | 7775  | 7775  | 6455  | -     | -     | -     | -     | -     |

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

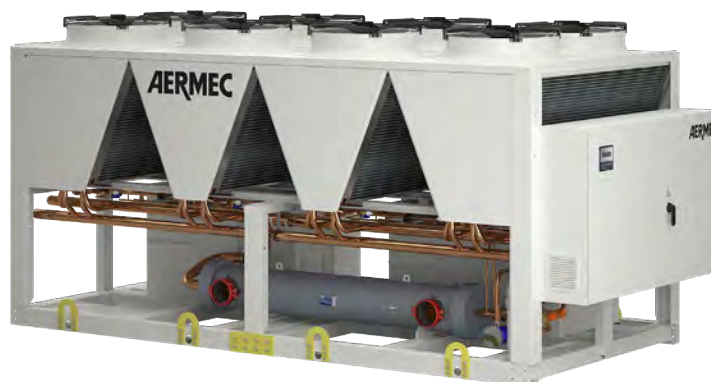
# NSM 1402-9603 B

## Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 305,8 ÷ 2028,1 kW



- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Operation at full load up to 50 °C external air temperature depending on the size and version. For more information refer to the dedicated documentations or the selection program Magellano.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

#### Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

#### Electronic expansion valve

**Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.**

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### CONTROL

**Units include 1 control board for each compressor.**

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.
- Possibility to control two units in a Master-Slave configuration (from size 1402 to 6402)

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save



a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP \_:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

**AK:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

**KDI:** Double thickness evaporator insulation. Provides stand-still protection down to -20°C. Must be ordered in conjunction with options KRS.

## ACCESSORIES COMPATIBILITY

| Model            | Ver     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model            | Ver     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x no. 2 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AER485P1 x no. 3 | A       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U     |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | N       |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERBACP x no. 2  | A,E,N,U | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |      |      |
| AERBACP x no. 3  | A       |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E,U     |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | N       |      |      |      |      |      |      |      | *    |      |      |      |      |      |
| AERNET           | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3             | A       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E,U     | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | N       | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Antivibration

| Ver  | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A    | AVX929 | AVX929 | AVX929 | AVX932 | AVX933 | AVX933 | AVX933 | AVX934 | AVX937 | AVX937 | AVX937 | AVX938 | AVX938 | AVX942 |
| E, U | AVX929 | AVX929 | AVX930 | AVX933 | AVX933 | AVX934 | AVX934 | AVX935 | AVX935 | AVX935 | AVX935 | AVX939 | AVX939 | AVX940 |
| N    | AVX930 | AVX930 | AVX931 | AVX931 | AVX931 | AVX934 | AVX935 | AVX936 | AVX936 | AVX936 | AVX936 | AVX940 | AVX941 | AVX943 |

| Ver  | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A    | AVX942 | AVX944 | AVX944 | AVX944 | AVX945 | AVX947 | AVX947 | AVX953 | AVX953 | AVX957 | AVX954 | AVX956 | AVX955 |
| E, U | AVX941 | AVX945 | AVX947 | AVX947 | AVX950 | AVX952 | AVX948 | AVX954 | AVX956 | AVX956 | AVX958 | -      | -      |
| N    | AVX943 | AVX946 | AVX948 | AVX949 | AVX951 | AVX951 | AVX951 | AVX955 | -      | -      | -      | -      | -      |

The accessory cannot be fitted on the configurations indicated with -

### Power factor correction

| Ver | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802C |
| E   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| N   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802C | RIFNSM2002Q | RIFNSM2202C | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| U   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002C | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002        | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A, E, U | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| N       | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver | 5602        | 6002        | 6402        | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----|-------------|-------------|-------------|------|------|------|------|------|------|
| A   | RIFNSM5602C | RIFNSM6002C | RIFNSM6402C | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602  | 3902  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| A    | GP4V | GP4V | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP6V | GP6V | GP7V | GP7V  | GP8V  |
| E, U | GP4V | GP4V | GP5V | GP5V | GP5V | GP6V | GP6V | GP7V | GP7V | GP7V | GP7V | GP8V | GP8V  | GP9V  |
| N    | GP5V | GP5V | GP6V | GP6V | GP6V | GP7V | GP7V | GP8V | GP8V | GP8V | GP8V | GP9V | GP10V | GP11V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 4202  | 4502      | 4802      | 5202      | 5602      | 6002      | 6402      | 6503       | 6703       | 6903       | 7203       | 8403       | 9603       |
|------|-------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| A    | GP8V  | GP9V      | GP9V      | GP9V      | GP10V     | GP11V     | GP11V     | GP4V+GP8V  | GP4V+GP8V  | GP5V+GP9V  | GP5V+GP9V  | GP5V+GP10V | GP6V+GP11V |
| E, U | GP10V | GP10V     | GP11V     | GP11V     | GP6V+GP6V | GP6V+GP7V | GP7V+GP7V | GP5V+GP9V  | GP5V+GP10V | GP5V+GP10V | GP6V+GP11V | -          | -          |
| N    | GP11V | GP6V+GP7V | GP7V+GP7V | GP7V+GP8V | GP8V+GP8V | GP8V+GP8V | GP8V+GP8V | GP6V+GP11V | -          | -          | -          | -          | -          |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

#### Heater exchangers

| Ver     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A       | KRS22 | KRS22 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |
| E, N, U | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002  | 3202  | 3402  | 3602  | 3902  | 4202  | 4502        | 4802        | 5202        |
|---------|-------|-------|-------|-------|-------|-------|-------------|-------------|-------------|
| A, E, U | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24       | KRS24       | KRS24       |
| N       | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 5602        | 6002        | 6402        | 6503        | 6703        | 6903        | 7203        | 8403        | 9603        |
|------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A    | KRS24       | KRS24       | KRS24       | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 |
| E, U | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | KRS23+KRS24 | -           | -           |
| N    | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS23 | KRS23+KRS24 | -           | -           | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

#### Acoustic kit

| Ver  | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| E, N | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

| Ver  | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| E, N | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

#### Double thickness evaporator insulation

| Ver        | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    | 3902    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) |

(1) Contact us.

A grey background indicates the accessory must be assembled in the factory

| Ver        | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6503    | 6703    | 6903    | 7203    | 8403    | 9603    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) | KDI (1) |

(1) Contact us.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NSM</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Y              | Low temperature mechanic thermostatic valve (2)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| °              | Standard mechanic thermostatic valve (3)  |
| <b>9</b>       | <b>Model</b>  |
| B              | Free-cooling glycol free  |
| G              | Free-cooling glycol free plus (4)   |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | Desuperheater   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |

| Field        | Description   |
|--------------|---|
| <b>12</b>    | <b>Coils / free-cooling coils</b>                         |
| 0            | Painted aluminium microchannel / Copper painted aluminium |
| R            | Copper-copper/Copper-copper                               |
| S            | Copper-Tinned copper / Copper-Tinned copper               |
| V            | Copper-painted aluminium / Copper-painted aluminium       |
| °            | Aluminium microchannel / Copper - aluminium               |
| <b>13</b>    | <b>Fans</b>   |
| J            | Inverter  |
| °            | Standard  |
| <b>14</b>    | <b>Power supply</b>                                       |
| 2            | 230V ~ 3 50Hz with fuses (5)                              |
| 4            | 230V ~ 3 50Hz with magnet circuit breakers (5)            |
| 8            | 400V ~ 3 50Hz with magnet circuit breakers                |
| °            | 400V ~ 3 50Hz with fuses                                  |
| <b>15,16</b> | <b>Integrated hydronic kit</b>                            |
| 00           | Without hydronic kit                                      |

(1) Water produced up to +4 °C

(2) Water produced from +4 °C ÷ -6 °C

(3) Water produced up to +4 °C.

(4) The Free cooling Plus "G" models are only compatible with "nom" and "0" coils.

(5) Available only for size from 1402 to 2202

## PERFORMANCE SPECIFICATIONS

### NSM - A

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: B

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 306,5 | 350,2 | 396,8 | 450,5 | 505,3 | 522,5 | 556,5 | 600,8  | 649,8  | 678,4  | 726,3  | 813,3  | 872,8  | 954,1  |
| Input power                 | kW  | 102,8 | 117,6 | 136,7 | 158,3 | 168,9 | 180,5 | 194,5 | 203,0  | 220,4  | 235,0  | 252,8  | 269,7  | 295,6  | 317,9  |
| Cooling total input current | A   | 182,0 | 206,0 | 231,0 | 268,0 | 291,0 | 311,0 | 335,0 | 351,0  | 378,0  | 400,0  | 427,0  | 451,0  | 487,0  | 530,0  |
| EER                         | W/W | 2,98  | 2,98  | 2,90  | 2,85  | 2,99  | 2,90  | 2,86  | 2,96   | 2,95   | 2,89   | 2,87   | 3,02   | 2,95   | 3,00   |
| Water flow rate system side | l/h | 52653 | 60163 | 68174 | 77407 | 86812 | 89765 | 95621 | 103224 | 111642 | 116561 | 124785 | 139737 | 149957 | 163932 |
| Pressure drop system side   | kPa | 73    | 94    | 100   | 72    | 90    | 96    | 108   | 107    | 117    | 100    | 94     | 81     | 93     | 112    |

##### Cooling performances with free-cooling glycol-free (2)

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 201,2 | 207,2 | 212,6 | 221,0 | 271,8 | 273,9 | 277,4 | 334,0 | 337,2 | 352,7 | 355,8 | 414,1 | 417,7 | 460,7 |
| Input power                      | kW  | 18,5  | 18,5  | 18,5  | 18,5  | 24,6  | 24,6  | 24,6  | 32,7  | 32,7  | 32,9  | 32,9  | 38,1  | 38,1  | 42,0  |
| Free cooling total input current | A   | 33,0  | 32,0  | 31,0  | 31,0  | 42,0  | 42,0  | 42,0  | 57,0  | 56,0  | 56,0  | 56,0  | 64,0  | 63,0  | 70,0  |
| EER                              | W/W | 10,87 | 11,19 | 11,48 | 11,92 | 11,06 | 11,14 | 11,28 | 10,20 | 10,30 | 10,71 | 10,81 | 10,86 | 10,95 | 10,97 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: G

##### Cooling performance chiller operation (1)

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 305,8 | 349,3 | 395,0 | 447,3 | 502,1 | 519,1 | 552,6 | 597,2  | 645,4  | 674,3  | 721,9  | 807,8  | 865,0  | 946,8  |
| Input power                 | kW  | 103,7 | 118,8 | 138,1 | 160,2 | 170,8 | 182,6 | 197,0 | 205,3  | 223,1  | 238,4  | 257,1  | 273,3  | 299,3  | 321,8  |
| Cooling total input current | A   | 184,0 | 208,0 | 233,0 | 271,0 | 294,0 | 315,0 | 339,0 | 355,0  | 382,0  | 405,0  | 433,0  | 456,0  | 492,0  | 536,0  |
| EER                         | W/W | 2,95  | 2,94  | 2,86  | 2,79  | 2,94  | 2,84  | 2,81  | 2,91   | 2,89   | 2,83   | 2,81   | 2,96   | 2,89   | 2,94   |
| Water flow rate system side | l/h | 52546 | 60019 | 67864 | 76853 | 86266 | 89180 | 94948 | 102598 | 110891 | 115859 | 124023 | 138789 | 148609 | 162675 |
| Pressure drop system side   | kPa | 48    | 64    | 74    | 62    | 78    | 84    | 95    | 70     | 74     | 81     | 74     | 86     | 98     | 68     |

##### Cooling performances with free-cooling glycol-free (2)

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 213,5 | 220,0 | 226,6 | 237,8 | 288,8 | 291,7 | 294,5 | 353,1 | 360,2 | 374,3 | 378,1 | 439,1 | 443,5 | 495,5 |
| Input power                      | kW  | 18,3  | 18,3  | 18,3  | 18,3  | 24,2  | 24,2  | 24,2  | 32,1  | 32,1  | 32,3  | 32,3  | 37,4  | 37,4  | 41,3  |
| Free cooling total input current | A   | 32,0  | 32,0  | 31,0  | 31,0  | 42,0  | 42,0  | 42,0  | 55,0  | 55,0  | 55,0  | 54,0  | 62,0  | 61,0  | 69,0  |
| EER                              | W/W | 11,68 | 12,03 | 12,39 | 12,99 | 11,92 | 12,04 | 12,16 | 11,00 | 11,22 | 11,59 | 11,71 | 11,74 | 11,86 | 12,00 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

### NSM - A

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: B

##### Cooling performance chiller operation (1)

|                             |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 996,8  | 1082,3 | 1128,3 | 1167,3 | 1222,8 | 1304,9 | 1346,7 | 1459,2 | 1501,9 | 1659,0 | 1705,0 | 1838,1 | 2028,1 |
| Input power                 | kW  | 346,1  | 365,7  | 391,9  | 422,5  | 438,9  | 452,7  | 472,4  | 492,1  | 520,2  | 557,2  | 583,3  | 659,0  | 704,1  |
| Cooling total input current | A   | 581,0  | 614,0  | 655,0  | 704,0  | 733,0  | 761,0  | 796,0  | 821,0  | 872,0  | 945,0  | 986,0  | 1100,0 | 1198,0 |
| EER                         | W/W | 2,88   | 2,96   | 2,88   | 2,76   | 2,79   | 2,88   | 2,85   | 2,97   | 2,89   | 2,98   | 2,92   | 2,79   | 2,88   |
| Water flow rate system side | l/h | 171269 | 185947 | 193855 | 200561 | 210092 | 224201 | 231379 | 250713 | 258050 | 285029 | 292937 | 315803 | 348457 |
| Pressure drop system side   | kPa | 122    | 132    | 143    | 116    | 109    | 125    | 133    | 112    | 127    | 132    | 143    | 108    | 135    |

##### Cooling performances with free-cooling glycol-free (2)

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 464,4 | 522,4 | 524,0 | 526,5 | 571,2 | 612,5 | 614,9 | 684,4 | 688,1 | 798,8 | 801,4 | 867,6 | 965,2 |
| Input power                      | kW  | 42,0  | 46,2  | 46,2  | 46,2  | 50,1  | 53,8  | 53,9  | 60,5  | 60,5  | 70,7  | 70,8  | 78,9  | 86,8  |
| Free cooling total input current | A   | 71,0  | 77,0  | 77,0  | 77,0  | 84,0  | 91,0  | 91,0  | 101,0 | 101,0 | 120,0 | 120,0 | 132,0 | 148,0 |
| EER                              | W/W | 11,06 | 11,32 | 11,35 | 11,41 | 11,41 | 11,38 | 11,41 | 11,31 | 11,37 | 11,29 | 11,32 | 10,99 | 11,12 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: G

##### Cooling performance chiller operation (1)

|                             |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 988,7  | 1074,2 | 1119,1 | 1156,4 | 1212,7 | 1295,2 | 1336,2 | 1447,7 | 1489,6 | 1646,9 | 1691,9 | 1822,8 | 2013,1 |
| Input power                 | kW  | 350,6  | 370,3  | 397,1  | 428,3  | 444,3  | 458,0  | 478,2  | 498,2  | 527,1  | 564,0  | 590,8  | 667,1  | 712,4  |
| Cooling total input current | A   | 588,0  | 621,0  | 663,0  | 713,0  | 741,0  | 769,0  | 805,0  | 830,0  | 882,0  | 956,0  | 998,0  | 1112,0 | 1211,0 |
| EER                         | W/W | 2,82   | 2,90   | 2,82   | 2,70   | 2,73   | 2,83   | 2,79   | 2,91   | 2,83   | 2,92   | 2,86   | 2,73   | 2,83   |
| Water flow rate system side | l/h | 169873 | 184553 | 192278 | 198678 | 208362 | 222522 | 229577 | 248739 | 255937 | 282961 | 290686 | 313186 | 345875 |
| Pressure drop system side   | kPa | 74     | 91     | 98     | 86     | 95     | 109    | 116    | 84     | 84     | 110    | 110    | 101    | 116    |

##### Cooling performances with free-cooling glycol-free (2)

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Cooling capacity                 | kW  | 500,3 | 559,0 | 564,4 | 569,9 | 610,4 | 656,1 | 662,5 | 737,9 | 742,7 | 856,4 | 861,8 | 926,6 | 1037,6 |
| Input power                      | kW  | 41,3  | 45,5  | 45,5  | 45,5  | 49,3  | 53,1  | 53,1  | 59,6  | 59,6  | 69,7  | 69,7  | 77,6  | 85,4   |
| Free cooling total input current | A   | 69,0  | 76,0  | 76,0  | 76,0  | 82,0  | 89,0  | 89,0  | 99,0  | 100,0 | 118,0 | 118,0 | 129,0 | 145,0  |
| EER                              | W/W | 12,12 | 12,30 | 12,42 | 12,54 | 12,38 | 12,36 | 12,48 | 12,38 | 12,46 | 12,29 | 12,37 | 11,95 | 12,15  |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - E**

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 319,8 | 365,8 | 417,7 | 473,0 | 509,1 | 549,8 | 568,8 | 618,6  | 646,3  | 675,1  | 715,5  | 796,7  | 851,7  | 929,6  |
| Input power                 | kW  | 105,5 | 123,3 | 137,5 | 159,4 | 178,3 | 183,3 | 195,5 | 205,2  | 220,4  | 235,9  | 253,5  | 270,8  | 297,1  | 320,1  |
| Cooling total input current | A   | 177,0 | 206,0 | 223,0 | 261,0 | 295,0 | 305,0 | 326,0 | 342,0  | 365,0  | 389,0  | 415,0  | 438,0  | 474,0  | 517,0  |
| EER                         | W/W | 3,03  | 2,97  | 3,04  | 2,97  | 2,85  | 3,00  | 2,91  | 3,01   | 2,93   | 2,86   | 2,82   | 2,94   | 2,87   | 2,90   |
| Water flow rate system side | l/h | 54946 | 62848 | 71763 | 81260 | 87462 | 94455 | 97732 | 106280 | 111042 | 115993 | 122937 | 136886 | 146332 | 159723 |
| Pressure drop system side   | kPa | 62    | 76    | 84    | 78    | 90    | 88    | 94    | 100    | 109    | 91     | 94     | 80     | 92     | 110    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 186,6 | 192,0 | 231,5 | 241,7 | 246,1 | 294,5 | 297,3 | 334,0 | 337,2 | 351,6 | 354,9 | 403,7 | 407,3 | 448,1 |
| Input power                      | kW  | 15,5  | 15,5  | 19,5  | 19,6  | 19,6  | 26,8  | 26,8  | 30,6  | 30,6  | 31,0  | 31,0  | 34,0  | 34,0  | 36,8  |
| Free cooling total input current | A   | 26,0  | 26,0  | 32,0  | 32,0  | 32,0  | 44,0  | 45,0  | 51,0  | 51,0  | 51,0  | 51,0  | 55,0  | 54,0  | 59,0  |
| EER                              | W/W | 12,01 | 12,36 | 11,89 | 12,34 | 12,57 | 11,01 | 11,11 | 10,92 | 11,03 | 11,35 | 11,45 | 11,88 | 11,98 | 12,18 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 316,7 | 363,1 | 414,5 | 469,5 | 504,1 | 545,4 | 564,0 | 613,8  | 640,8  | 669,8  | 710,9  | 790,6  | 843,5  | 921,3  |
| Input power                 | kW  | 106,6 | 124,7 | 138,6 | 161,1 | 181,0 | 185,4 | 197,8 | 207,6  | 223,1  | 239,2  | 257,8  | 274,6  | 301,1  | 324,4  |
| Cooling total input current | A   | 179,0 | 208,0 | 225,0 | 263,0 | 298,0 | 308,0 | 329,0 | 345,0  | 369,0  | 393,0  | 421,0  | 443,0  | 480,0  | 523,0  |
| EER                         | W/W | 2,97  | 2,91  | 2,99  | 2,91  | 2,79  | 2,94  | 2,85  | 2,96   | 2,87   | 2,80   | 2,76   | 2,88   | 2,80   | 2,84   |
| Water flow rate system side | l/h | 54406 | 62391 | 71215 | 80666 | 86616 | 93710 | 96910 | 105465 | 110105 | 115087 | 122135 | 135840 | 144915 | 158291 |
| Pressure drop system side   | kPa | 36    | 42    | 54    | 66    | 76    | 54    | 58    | 59     | 65     | 71     | 73     | 47     | 54     | 66     |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 197,2 | 203,1 | 242,3 | 255,6 | 258,0 | 307,4 | 310,5 | 349,3 | 352,8 | 266,5 | 373,6 | 421,8 | 425,7 | 470,1 |
| Input power                      | kW  | 15,2  | 15,2  | 19,1  | 19,2  | 19,2  | 26,1  | 26,1  | 29,9  | 29,9  | 30,3  | 30,3  | 33,3  | 33,3  | 36,1  |
| Free cooling total input current | A   | 26,0  | 25,0  | 31,0  | 31,0  | 32,0  | 43,0  | 44,0  | 50,0  | 50,0  | 50,0  | 49,0  | 54,0  | 53,0  | 58,0  |
| EER                              | W/W | 12,94 | 13,32 | 12,67 | 13,29 | 13,42 | 11,76 | 11,88 | 11,68 | 11,79 | 12,11 | 12,35 | 12,68 | 12,80 | 13,02 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - E**

| Size |  | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 995,2  | 1051,6 | 1137,0 | 1159,2 | 1217,3 | 1279,4 | 1341,6 | 1434,0 | 1499,6 | 1598,6 | 1684,0 | - | - |
| Input power                 | kW  | 339,9  | 370,0  | 389,4  | 418,0  | 436,6  | 448,9  | 461,2  | 491,1  | 510,9  | 568,9  | 588,3  | - | - |
| Cooling total input current | A   | 555,0  | 601,0  | 632,0  | 678,0  | 708,0  | 732,0  | 755,0  | 804,0  | 832,0  | 924,0  | 945,0  | - | - |
| EER                         | W/W | 2,93   | 2,84   | 2,92   | 2,77   | 2,79   | 2,85   | 2,91   | 2,92   | 2,93   | 2,81   | 2,86   | - | - |
| Water flow rate system side | l/h | 170980 | 180685 | 195353 | 199172 | 209139 | 219823 | 230507 | 246385 | 257643 | 274665 | 289333 | - | - |
| Pressure drop system side   | kPa | 125    | 128    | 130    | 135    | 84     | 115    | 112    | 110    | 121    | 121    | 130    | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 495,6 | 509,3 | 549,8 | 551,2 | 600,1 | 640,5 | 682,5 | 692,0 | 739,5 | 761,7 | 802,2 | - | - |
| Input power                      | kW  | 44,0  | 44,2  | 46,9  | 47,0  | 53,5  | 57,3  | 61,5  | 56,4  | 63,5  | 65,6  | 68,4  | - | - |
| Free cooling total input current | A   | 72,0  | 72,0  | 76,0  | 76,0  | 87,0  | 93,0  | 100,0 | 92,0  | 104,0 | 107,0 | 110,0 | - | - |
| EER                              | W/W | 11,27 | 11,54 | 11,72 | 11,73 | 11,22 | 11,17 | 11,14 | 12,27 | 11,64 | 11,60 | 11,72 | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 987,5  | 1041,9 | 1127,1 | 1148,0 | 1206,7 | 1269,3 | 1332,0 | 1421,7 | 1487,9 | 1583,2 | 1668,4 | - | - |
| Input power                 | kW  | 344,2  | 375,3  | 394,8  | 424,0  | 442,2  | 454,4  | 466,6  | 497,6  | 517,4  | 577,4  | 596,9  | - | - |
| Cooling total input current | A   | 561,0  | 609,0  | 640,0  | 687,0  | 717,0  | 740,0  | 763,0  | 814,0  | 842,0  | 937,0  | 957,0  | - | - |
| EER                         | W/W | 2,87   | 2,78   | 2,86   | 2,71   | 2,73   | 2,79   | 2,85   | 2,86   | 2,88   | 2,74   | 2,80   | - | - |
| Water flow rate system side | l/h | 169667 | 179011 | 193651 | 197235 | 207320 | 218083 | 228846 | 244269 | 255645 | 272005 | 286645 | - | - |
| Pressure drop system side   | kPa | 76     | 87     | 83     | 86     | 58     | 70     | 70     | 86     | 86     | 100    | 100    | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 523,4 | 531,6 | 576,1 | 581,5 | 627,1 | 669,8 | 712,5 | 728,1 | 781,4 | 795,8 | 840,2 | - | - |
| Input power                      | kW  | 43,0  | 43,1  | 46,0  | 46,0  | 52,3  | 56,1  | 59,8  | 55,3  | 62,2  | 64,2  | 67,0  | - | - |
| Free cooling total input current | A   | 70,0  | 70,0  | 74,0  | 74,0  | 85,0  | 91,0  | 98,0  | 91,0  | 101,0 | 104,0 | 107,0 | - | - |
| EER                              | W/W | 12,17 | 12,32 | 12,53 | 12,65 | 11,99 | 11,95 | 11,91 | 13,16 | 12,55 | 12,40 | 12,54 | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - U**

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 328,1 | 378,5 | 429,3 | 491,9 | 531,3 | 568,6 | 589,0  | 638,0  | 667,8  | 695,1  | 735,8  | 824,8  | 891,0  | 967,9  |
| Input power                 | kW  | 105,3 | 121,3 | 136,2 | 155,8 | 172,9 | 180,0 | 191,0  | 202,4  | 216,1  | 228,4  | 242,4  | 263,0  | 288,2  | 311,5  |
| Cooling total input current | A   | 186,0 | 212,0 | 232,0 | 266,0 | 297,0 | 313,0 | 332,0  | 353,0  | 374,0  | 392,0  | 413,0  | 443,0  | 477,0  | 523,0  |
| EER                         | W/W | 3,12  | 3,12  | 3,15  | 3,16  | 3,07  | 3,16  | 3,08   | 3,15   | 3,09   | 3,04   | 3,04   | 3,14   | 3,09   | 3,11   |
| Water flow rate system side | l/h | 56372 | 65027 | 73755 | 84508 | 91287 | 97691 | 101204 | 109611 | 114731 | 119419 | 126414 | 141715 | 153088 | 166304 |
| Pressure drop system side   | kPa | 66    | 81    | 88    | 83    | 96    | 93    | 99     | 106    | 88     | 95     | 87     | 85     | 99     | 117    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 207,3 | 213,5 | 254,5 | 275,3 | 278,0 | 330,7 | 333,2 | 373,6 | 391,6 | 395,4 | 406,8 | 452,9 | 456,9 | 499,3 |
| Input power                      | kW  | 19,5  | 19,5  | 24,5  | 26,5  | 26,5  | 32,7  | 32,8  | 37,6  | 38,0  | 38,0  | 38,1  | 42,0  | 42,0  | 45,8  |
| Free cooling total input current | A   | 34,0  | 34,0  | 42,0  | 45,0  | 46,0  | 57,0  | 57,0  | 65,0  | 66,0  | 65,0  | 65,0  | 71,0  | 70,0  | 77,0  |
| EER                              | W/W | 10,62 | 10,94 | 10,40 | 10,40 | 10,49 | 10,10 | 10,17 | 9,94  | 10,31 | 10,41 | 10,67 | 10,79 | 10,88 | 10,90 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 326,9 | 376,7 | 427,6 | 488,8 | 527,6 | 565,4 | 585,6  | 634,6  | 664,0  | 691,7  | 732,5  | 820,3  | 884,7  | 961,8  |
| Input power                 | kW  | 106,3 | 122,5 | 137,6 | 157,4 | 174,8 | 181,8 | 193,0  | 204,4  | 218,3  | 231,1  | 245,7  | 266,0  | 291,3  | 314,8  |
| Cooling total input current | A   | 187,0 | 213,0 | 234,0 | 269,0 | 300,0 | 316,0 | 335,0  | 356,0  | 377,0  | 396,0  | 418,0  | 447,0  | 482,0  | 528,0  |
| EER                         | W/W | 3,08  | 3,07  | 3,11  | 3,10  | 3,02  | 3,11  | 3,03   | 3,10   | 3,04   | 2,99   | 2,98   | 3,08   | 3,04   | 3,06   |
| Water flow rate system side | l/h | 56168 | 64715 | 73458 | 83974 | 90643 | 97138 | 100613 | 109029 | 114089 | 118834 | 125850 | 140933 | 152003 | 165249 |
| Pressure drop system side   | kPa | 39    | 45    | 58    | 72    | 84    | 59    | 63     | 64     | 70     | 76     | 78     | 51     | 59     | 72     |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 219,8 | 228,8 | 272,7 | 291,1 | 297,0 | 349,6 | 353,1 | 394,9 | 414,0 | 418,2 | 430,6 | 479,9 | 489,3 | 530,2 |
| Input power                      | kW  | 19,2  | 19,2  | 24,1  | 26,0  | 26,0  | 32,1  | 32,1  | 36,9  | 37,3  | 37,3  | 37,4  | 41,3  | 41,3  | 45,1  |
| Free cooling total input current | A   | 34,0  | 33,0  | 41,0  | 44,0  | 45,0  | 56,0  | 56,0  | 64,0  | 64,0  | 64,0  | 64,0  | 69,0  | 68,0  | 75,0  |
| EER                              | W/W | 11,43 | 11,90 | 11,30 | 11,20 | 11,42 | 10,89 | 11,00 | 10,71 | 11,11 | 11,22 | 11,51 | 11,63 | 11,86 | 11,77 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - U**

| Size |  | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 1031,1 | 1095,0 | 1181,2 | 1208,8 | 1265,8 | 1326,2 | 1386,6 | 1491,1 | 1554,3 | 1666,6 | 1752,7 | - | - |
| Input power                 | kW  | 332,0  | 358,4  | 379,0  | 405,3  | 426,4  | 440,0  | 453,5  | 478,4  | 498,9  | 549,8  | 570,4  | - | - |
| Cooling total input current | A   | 564,0  | 605,0  | 639,0  | 682,0  | 718,0  | 746,0  | 774,0  | 812,0  | 846,0  | 926,0  | 954,0  | - | - |
| EER                         | W/W | 3,11   | 3,06   | 3,12   | 2,98   | 2,97   | 3,01   | 3,06   | 3,12   | 3,12   | 3,03   | 3,07   | - | - |
| Water flow rate system side | l/h | 177155 | 188137 | 202935 | 207692 | 217477 | 227858 | 238239 | 256194 | 267046 | 286336 | 301135 | - | - |
| Pressure drop system side   | kPa | 119    | 137    | 138    | 145    | 104    | 124    | 113    | 117    | 119    | 137    | 138    | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 565,8 | 570,9 | 615,3 | 617,2 | 681,2 | 721,6 | 762,0 | 777,2 | 843,7 | 865,6 | 910,0 | - | - |
| Input power                      | kW  | 54,1  | 54,1  | 57,9  | 58,0  | 67,5  | 71,3  | 75,2  | 72,3  | 80,6  | 83,9  | 87,7  | - | - |
| Free cooling total input current | A   | 92,0  | 91,0  | 98,0  | 97,0  | 114,0 | 121,0 | 128,0 | 123,0 | 137,0 | 141,0 | 147,0 | - | - |
| EER                              | W/W | 10,46 | 10,55 | 10,62 | 10,65 | 10,10 | 10,12 | 10,14 | 10,75 | 10,47 | 10,32 | 10,38 | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size |  | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 1025,3 | 1088,1 | 1174,0 | 1200,9 | 1257,9 | 1318,5 | 1379,2 | 1482,0 | 1545,4 | 1655,7 | 1741,6 | - | - |
| Input power                 | kW  | 335,5  | 362,4  | 383,1  | 409,7  | 430,7  | 444,3  | 457,9  | 483,4  | 504,1  | 556,1  | 576,8  | - | - |
| Cooling total input current | A   | 569,0  | 611,0  | 645,0  | 688,0  | 725,0  | 752,0  | 780,0  | 819,0  | 854,0  | 936,0  | 963,0  | - | - |
| EER                         | W/W | 3,06   | 3,00   | 3,06   | 2,93   | 2,92   | 2,97   | 3,01   | 3,07   | 3,07   | 2,98   | 3,02   | - | - |
| Water flow rate system side | l/h | 176150 | 186945 | 201699 | 206322 | 216119 | 226541 | 236963 | 254617 | 265517 | 284475 | 299229 | - | - |
| Pressure drop system side   | kPa | 81     | 94     | 90     | 94     | 63     | 70     | 75     | 85     | 92     | 103    | 113    | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 600,3 | 606,3 | 654,1 | 660,5 | 720,3 | 764,2 | 808,1 | 827,1 | 897,3 | 920,4 | 968,2 | - | - |
| Input power                      | kW  | 53,1  | 53,1  | 57,0  | 57,0  | 66,1  | 69,9  | 73,8  | 71,0  | 79,1  | 82,2  | 86,0  | - | - |
| Free cooling total input current | A   | 90,0  | 90,0  | 96,0  | 96,0  | 111,0 | 118,0 | 126,0 | 120,0 | 134,0 | 138,0 | 144,0 | - | - |
| EER                              | W/W | 11,30 | 11,41 | 11,48 | 11,60 | 10,90 | 10,93 | 10,95 | 11,64 | 11,34 | 11,20 | 11,25 | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / \* °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - N**

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 326,0 | 376,5 | 424,5 | 486,3 | 525,3 | 559,6 | 579,7 | 626,1  | 655,1  | 682,6  | 723,4  | 811,7  | 888,8  | 960,7  |
| Input power                 | kW  | 103,6 | 119,3 | 134,4 | 153,8 | 170,9 | 178,3 | 189,4 | 200,8  | 214,8  | 227,9  | 242,9  | 263,8  | 283,0  | 307,1  |
| Cooling total input current | A   | 175,0 | 200,0 | 218,0 | 253,0 | 283,0 | 297,0 | 317,0 | 335,0  | 357,0  | 376,0  | 399,0  | 427,0  | 452,0  | 497,0  |
| EER                         | W/W | 3,15  | 3,16  | 3,16  | 3,16  | 3,07  | 3,14  | 3,06  | 3,12   | 3,05   | 3,00   | 2,98   | 3,08   | 3,14   | 3,13   |
| Water flow rate system side | l/h | 56017 | 64687 | 72926 | 83554 | 90260 | 96150 | 99597 | 107568 | 112546 | 117285 | 124287 | 139460 | 152704 | 165051 |
| Pressure drop system side   | kPa | 54    | 65    | 67    | 83    | 96    | 92    | 98    | 79     | 86     | 93     | 86     | 84     | 100    | 106    |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 220,8 | 232,6 | 273,9 | 282,2 | 286,3 | 327,6 | 330,8 | 378,1 | 381,7 | 385,4 | 396,5 | 442,9 | 482,6 | 528,7 |
| Input power                      | kW  | 18,3  | 19,6  | 26,5  | 26,5  | 27,4  | 30,6  | 30,6  | 33,8  | 33,8  | 33,8  | 34,0  | 40,8  | 43,6  | 46,5  |
| Free cooling total input current | A   | 31,0  | 33,0  | 43,0  | 44,0  | 45,0  | 51,0  | 51,0  | 56,0  | 56,0  | 56,0  | 56,0  | 66,0  | 70,0  | 75,0  |
| EER                              | W/W | 12,04 | 11,88 | 10,32 | 10,63 | 10,44 | 10,71 | 10,82 | 11,17 | 11,28 | 11,39 | 11,66 | 10,86 | 11,07 | 11,37 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 325,1 | 375,2 | 422,9 | 483,6 | 522,0 | 556,8 | 576,7 | 623,1  | 651,8  | 679,6  | 720,3  | 807,0  | 882,8  | 955,1  |
| Input power                 | kW  | 104,5 | 120,4 | 135,6 | 155,5 | 172,9 | 180,2 | 191,5 | 202,9  | 217,2  | 230,8  | 246,4  | 267,1  | 286,2  | 310,3  |
| Cooling total input current | A   | 176,0 | 201,0 | 220,0 | 255,0 | 286,0 | 300,0 | 320,0 | 338,0  | 360,0  | 381,0  | 404,0  | 431,0  | 457,0  | 501,0  |
| EER                         | W/W | 3,11  | 3,12  | 3,12  | 3,11  | 3,02  | 3,09  | 3,01  | 3,07   | 3,00   | 2,94   | 2,92   | 3,02   | 3,09   | 3,08   |
| Water flow rate system side | l/h | 55859 | 64457 | 72661 | 83082 | 89692 | 95662 | 99076 | 107055 | 111979 | 116764 | 123748 | 138653 | 151682 | 164102 |
| Pressure drop system side   | kPa | 39    | 46    | 36    | 44    | 51    | 58    | 62    | 40     | 43     | 47     | 46     | 50     | 60     | 72     |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 230,8 | 243,4 | 284,6 | 294,0 | 301,4 | 342,3 | 345,8 | 395,2 | 403,2 | 407,2 | 414,7 | 463,0 | 509,0 | 554,0 |
| Input power                      | kW  | 18,0  | 19,2  | 25,6  | 25,9  | 26,7  | 29,9  | 29,9  | 33,1  | 33,1  | 33,1  | 33,3  | 39,8  | 42,6  | 45,6  |
| Free cooling total input current | A   | 30,0  | 32,0  | 42,0  | 43,0  | 44,0  | 50,0  | 50,0  | 55,0  | 55,0  | 55,0  | 55,0  | 64,0  | 68,0  | 74,0  |
| EER                              | W/W | 12,79 | 12,66 | 10,98 | 11,34 | 11,27 | 11,44 | 11,56 | 11,93 | 12,17 | 12,29 | 12,46 | 11,62 | 11,94 | 12,15 |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

**NSM - N**

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|---|
| Cooling capacity            | kW  | 1004,9 | 1098,6 | 1161,7 | 1218,0 | 1274,5 | 1318,1 | 1361,7 | 1478,4 | - | - | - | - | - |
| Input power                 | kW  | 332,9  | 349,5  | 369,2  | 392,7  | 416,2  | 433,5  | 450,9  | 472,0  | - | - | - | - | - |
| Cooling total input current | A   | 544,0  | 570,0  | 600,0  | 639,0  | 677,0  | 708,0  | 740,0  | 771,0  | - | - | - | - | - |
| EER                         | W/W | 3,02   | 3,14   | 3,15   | 3,10   | 3,06   | 3,04   | 3,02   | 3,13   | - | - | - | - | - |
| Water flow rate system side | l/h | 172652 | 188754 | 199587 | 209274 | 218966 | 226456 | 233947 | 254013 | - | - | - | - | - |
| Pressure drop system side   | kPa | 116    | 112    | 104    | 109    | 72     | 78     | 81     | 105    | - | - | - | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |   |   |   |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---|---|
| Cooling capacity                 | kW  | 533,7 | 625,3 | 661,6 | 712,1 | 756,1 | 767,1 | 770,8 | 815,0 | - | - | - | - | - |
| Input power                      | kW  | 46,5  | 57,3  | 61,2  | 64,4  | 67,7  | 67,7  | 67,7  | 73,9  | - | - | - | - | - |
| Free cooling total input current | A   | 76,0  | 93,0  | 99,0  | 105,0 | 110,0 | 111,0 | 111,0 | 121,0 | - | - | - | - | - |
| EER                              | W/W | 11,47 | 10,91 | 10,82 | 11,05 | 11,17 | 11,34 | 11,39 | 11,03 | - | - | - | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

| Size | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation (1)**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|---|
| Cooling capacity            | kW  | 998,8  | 1092,7 | 1155,6 | 1211,7 | 1267,7 | 1310,9 | 1354,2 | 1470,0 | - | - | - | - | - |
| Input power                 | kW  | 336,7  | 353,2  | 373,0  | 396,5  | 420,0  | 437,6  | 455,3  | 476,9  | - | - | - | - | - |
| Cooling total input current | A   | 550,0  | 575,0  | 606,0  | 644,0  | 682,0  | 714,0  | 746,0  | 778,0  | - | - | - | - | - |
| EER                         | W/W | 2,97   | 3,09   | 3,10   | 3,06   | 3,02   | 3,00   | 2,97   | 3,08   | - | - | - | - | - |
| Water flow rate system side | l/h | 171604 | 187733 | 198553 | 208183 | 217806 | 225235 | 232663 | 252555 | - | - | - | - | - |
| Pressure drop system side   | kPa | 79     | 67     | 76     | 76     | 41     | 44     | 47     | 72     | - | - | - | - | - |

**Cooling performances with free-cooling glycol-free (2)**

|                                  |     |       |       |       |       |       |       |       |       |   |   |   |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---|---|
| Cooling capacity                 | kW  | 559,3 | 653,2 | 691,6 | 748,6 | 798,5 | 804,6 | 806,4 | 852,3 | - | - | - | - | - |
| Input power                      | kW  | 45,6  | 56,1  | 59,8  | 63,1  | 66,3  | 66,2  | 66,3  | 72,3  | - | - | - | - | - |
| Free cooling total input current | A   | 74,0  | 91,0  | 97,0  | 102,0 | 108,0 | 108,0 | 109,0 | 118,0 | - | - | - | - | - |
| EER                              | W/W | 12,27 | 11,65 | 11,56 | 11,87 | 12,05 | 12,15 | 12,17 | 11,79 | - | - | - | - | - |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) System side water heat exchanger 12 °C / °C; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

## ENERGY INDICES (REG. 2016/2281 EU)

| Size  |   |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|---|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: B</b>   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,16 | 5,97 | 5,71 | 5,54 | 5,80 | 5,60 | 5,52 | 5,67 | 5,57 | 5,55 | 5,52 | 5,72 | 5,57 | 5,66 |
|   | E | W/W | 6,18 | 5,87 | 6,03 | 5,79 | 5,54 | 5,86 | 5,65 | 5,80 | 5,67 | 5,56 | 5,51 | 5,72 | 5,57 | 5,64 |
|   | N | W/W | 6,43 | 6,20 | 6,09 | 5,96 | 5,71 | 5,94 | 5,78 | 6,01 | 5,85 | 5,70 | 5,61 | 5,76 | 5,86 | 5,88 |
|   | U | W/W | 6,20 | 6,02 | 6,11 | 6,09 | 5,85 | 6,00 | 5,84 | 5,96 | 5,92 | 5,78 | 5,71 | 5,96 | 5,82 | 5,86 |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,16 | 5,97 | 5,71 | 5,54 | 5,80 | 5,60 | 5,52 | 5,67 | 5,57 | 5,55 | 5,52 | 5,72 | 5,57 | 5,66 |
|   | E | W/W | 6,18 | 5,87 | 6,03 | 5,79 | 5,54 | 5,86 | 5,65 | 5,80 | 5,67 | 5,56 | 5,51 | 5,72 | 5,57 | 5,64 |
|   | N | W/W | 6,43 | 6,20 | 6,09 | 5,96 | 5,71 | 5,94 | 5,78 | 6,01 | 5,85 | 5,70 | 5,61 | 5,76 | 5,86 | 5,88 |
|   | U | W/W | 6,20 | 6,02 | 6,11 | 6,09 | 5,85 | 6,00 | 5,84 | 5,96 | 5,92 | 5,78 | 5,71 | 5,96 | 5,82 | 5,86 |

(1) Calculation performed with FIXED water flow rate.

| Size  |   |     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 | 3902 |
|---|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Model: G</b>   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>SEPR - (EN14825: 2018) High temperature with standard fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,24 | 6,04 | 5,75 | 5,52 | 5,79 | 5,58 | 5,51 | 5,71 | 5,62 | 5,53 | 5,51 | 5,64 | 5,54 | 5,71 |
|   | E | W/W | 6,21 | 5,91 | 6,07 | 5,76 | 5,51 | 5,87 | 5,66 | 5,84 | 5,71 | 5,53 | 5,51 | 5,71 | 5,56 | 5,66 |
|   | N | W/W | 6,46 | 6,23 | 6,14 | 6,02 | 5,77 | 5,99 | 5,82 | 6,08 | 5,93 | 5,77 | 5,64 | 5,78 | 5,91 | 5,91 |
|   | U | W/W | 6,27 | 6,11 | 6,19 | 6,07 | 5,83 | 6,05 | 5,89 | 6,04 | 5,93 | 5,78 | 5,68 | 6,01 | 5,88 | 5,92 |
| <b>SEPR - (EN14825: 2018) High temperature with inverter fans (1)</b> |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR  | A | W/W | 6,24 | 6,04 | 5,75 | 5,52 | 5,79 | 5,58 | 5,51 | 5,71 | 5,62 | 5,53 | 5,51 | 5,64 | 5,54 | 5,71 |
|   | E | W/W | 6,21 | 5,91 | 6,07 | 5,76 | 5,51 | 5,87 | 5,66 | 5,84 | 5,71 | 5,53 | 5,51 | 5,71 | 5,56 | 5,66 |
|   | N | W/W | 6,46 | 6,23 | 6,14 | 6,02 | 5,77 | 5,99 | 5,82 | 6,08 | 5,93 | 5,77 | 5,64 | 5,78 | 5,91 | 5,91 |
|   | U | W/W | 6,27 | 6,11 | 6,19 | 6,07 | 5,83 | 6,05 | 5,89 | 6,04 | 5,93 | 5,78 | 5,68 | 6,01 | 5,88 | 5,92 |

(1) Calculation performed with FIXED water flow rate.

| Size   |   |     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|--|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Model: B   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN14825: 2018) High temperature with standard fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 5,52 | 5,60 | 5,53 | 5,53 | 5,52 | 5,52 | 5,51 | 5,73 | 5,60 | 5,77 | 5,64 | 5,52 | 5,58 |
|  | E | W/W | 5,61 | 5,52 | 5,59 | 5,54 | 5,52 | 5,51 | 5,60 | 5,83 | 5,85 | 5,55 | 5,61 | -    | -    |
|  | N | W/W | 5,69 | 5,85 | 5,82 | 5,93 | 5,94 | 5,87 | 5,81 | 6,05 | -    | -    | -    | -    | -    |
|  | U | W/W | 5,86 | 5,72 | 5,81 | 5,66 | 5,62 | 5,63 | 5,77 | 6,04 | 6,05 | 5,78 | 5,85 | -    | -    |
| SEPR - (EN14825: 2018) High temperature with inverter fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 5,52 | 5,60 | 5,53 | 5,53 | 5,52 | 5,52 | 5,51 | 5,73 | 5,60 | 5,77 | 5,64 | 5,52 | 5,58 |
|  | E | W/W | 5,61 | 5,52 | 5,59 | 5,54 | 5,52 | 5,51 | 5,60 | 5,83 | 5,85 | 5,55 | 5,61 | -    | -    |
|  | N | W/W | 5,69 | 5,85 | 5,82 | 5,93 | 5,94 | 5,87 | 5,81 | 6,05 | -    | -    | -    | -    | -    |
|  | U | W/W | 5,86 | 5,72 | 5,81 | 5,66 | 5,62 | 5,63 | 5,77 | 6,04 | 6,05 | 5,78 | 5,85 | -    | -    |

(1) Calculation performed with FIXED water flow rate.

| Size   |   |     | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|--|---|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Model: G   |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR - (EN14825: 2018) High temperature with standard fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 5,57 | 5,64 | 5,57 | 5,53 | 5,51 | 5,50 | 5,51 | 5,75 | 5,64 | 5,77 | 5,66 | 5,51 | 5,58 |
|  | E | W/W | 5,65 | 5,52 | 5,61 | 5,55 | 5,49 | 5,53 | 5,62 | 5,81 | 5,87 | 5,51 | 5,58 | -    | -    |
|  | N | W/W | 5,72 | 5,90 | 5,84 | 5,97 | 5,99 | 5,91 | 5,84 | 6,08 | -    | -    | -    | -    | -    |
|  | U | W/W | 5,91 | 5,76 | 5,87 | 5,73 | 5,67 | 5,71 | 5,82 | 6,09 | 6,09 | 5,81 | 5,87 | -    | -    |
| SEPR - (EN14825: 2018) High temperature with inverter fans (1) |   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEPR   | A | W/W | 5,57 | 5,64 | 5,57 | 5,53 | 5,51 | 5,50 | 5,51 | 5,75 | 5,64 | 5,77 | 5,66 | 5,51 | 5,58 |
|  | E | W/W | 5,65 | 5,52 | 5,61 | 5,55 | 5,49 | 5,53 | 5,62 | 5,81 | 5,87 | 5,51 | 5,58 | -    | -    |
|  | N | W/W | 5,72 | 5,90 | 5,84 | 5,97 | 5,99 | 5,91 | 5,84 | 6,08 | -    | -    | -    | -    | -    |
|  | U | W/W | 5,91 | 5,76 | 5,87 | 5,73 | 5,67 | 5,71 | 5,82 | 6,09 | 6,09 | 5,81 | 5,87 | -    | -    |

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A   | A | 243,9 | 271,9 | 299,1 | 332,5 | 374,4 | 395,7 | 417,0 | 450,2 | 474,9 | 474,9 | 474,9 | 531,4 | 579,4 | 635,9 |
|                       | E,U | A | 243,9 | 271,9 | 307,6 | 341,0 | 374,4 | 404,2 | 425,5 | 458,7 | 483,4 | 483,4 | 483,4 | 539,9 | 587,9 | 644,4 |
|                       | N   | A | 252,4 | 280,4 | 316,1 | 349,5 | 382,9 | 412,7 | 434,0 | 467,2 | 491,9 | 491,9 | 491,9 | 548,4 | 604,9 | 667,2 |
| Peak current (LRA)    | A   | A | 265,5 | 307,3 | 350,2 | 388,2 | 419,8 | 466,8 | 484,0 | 519,5 | 529,4 | 529,4 | 529,4 | 661,9 | 701,8 | 831,3 |
|                       | E,U | A | 265,5 | 307,3 | 358,7 | 396,7 | 419,8 | 475,3 | 492,5 | 528,0 | 537,9 | 537,9 | 537,9 | 670,4 | 710,3 | 839,8 |
|                       | N   | A | 274,0 | 315,8 | 367,2 | 405,2 | 428,3 | 483,8 | 501,0 | 536,5 | 546,4 | 546,4 | 546,4 | 678,9 | 727,3 | 862,6 |

| Size                  |     |   | 4202  | 4502  | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|-----------------------|-----|---|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |     |   |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Maximum current (FLA) | A   | A | 683,9 | 731,4 | 770,4  | 813,4  | 864,9  | 913,2  | 947,2  | 980,7  | 1028,7 | 1123,7 | 1162,7 | 1300,2 | 1419,2 |
|                       | E,U | A | 700,9 | 739,9 | 793,2  | 836,2  | 887,7  | 930,2  | 972,7  | 997,7  | 1054,2 | 1132,2 | 1179,7 | -      | -      |
|                       | N   | A | 715,2 | 771,2 | 818,7  | 870,2  | 921,7  | 955,7  | 989,7  | 1023,2 | -      | -      | -      | -      | -      |
| Peak current (LRA)    | A   | A | 858,2 | 930,7 | 953,4  | 1108,4 | 1163,9 | 1290,2 | 1287,2 | 1069,4 | 1096,3 | 1200,0 | 1222,7 | 1480,2 | 1603,2 |
|                       | E,U | A | 875,2 | 939,2 | 976,2  | 1131,2 | 1186,7 | 1307,2 | 1312,7 | 1086,4 | 1121,8 | 1208,5 | 1239,7 | -      | -      |
|                       | N   | A | 889,5 | 970,5 | 1001,7 | 1165,2 | 1220,7 | 1332,7 | 1329,7 | 1111,9 | -      | -      | -      | -      | -      |

## GENERAL TECHNICAL DATA

| Size                                      |         |       | 1402           | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   | 3902   |
|---|---------|-------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Compressor                                |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Bi-vite        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Compressor regulation                     | A,E,N,U | Type  | On-Off         |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A,E,N,U | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Circuits                                  | A,E,N,U | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Refrigerant                               | A,E,N,U | type  | R134a          |        |        |        |        |        |        |        |        |        |        |        |        |        |
| System side heat exchanger                |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Shell and tube |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A,E,N,U | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Connections (in/out)                      | A,E,N,U | Type  | Grooved joints |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan                                       |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Axial          |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A       | no.   | 8              | 8      | 8      | 8      | 10     | 10     | 10     | 12     | 12     | 12     | 12     | 14     | 14     | 16     |
|   | E,U     | no.   | 8              | 8      | 10     | 10     | 10     | 12     | 12     | 14     | 14     | 14     | 14     | 16     | 16     | 18     |
|   | N       | no.   | 10             | 10     | 12     | 12     | 12     | 14     | 14     | 16     | 16     | 16     | 16     | 18     | 20     | 22     |
| Air flow rate                             | A       | m³/h  | 116000         | 116000 | 116000 | 116000 | 145000 | 145000 | 145000 | 174000 | 174000 | 174000 | 174000 | 203000 | 203000 | 232000 |
|   | E       | m³/h  | 89600          | 89600  | 112000 | 112000 | 112000 | 134400 | 134400 | 156800 | 156800 | 156800 | 156800 | 179200 | 179200 | 201600 |
|   | N       | m³/h  | 112000         | 112000 | 134400 | 134400 | 134400 | 156800 | 156800 | 179200 | 179200 | 179200 | 179200 | 201600 | 224000 | 246400 |
|   | U       | m³/h  | 116000         | 116000 | 145000 | 145000 | 145000 | 174000 | 174000 | 203000 | 203000 | 203000 | 203000 | 232000 | 232000 | 261000 |
| Sound data calculated in cooling mode (1) |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level                         | A       | dB(A) | 98,0           | 98,0   | 98,0   | 98,0   | 99,0   | 99,0   | 99,0   | 99,7   | 99,7   | 99,7   | 99,7   | 100,4  | 100,4  | 101,1  |
|   | E       | dB(A) | 91,0           | 91,0   | 91,7   | 91,9   | 92,1   | 92,6   | 92,5   | 93,0   | 93,0   | 93,0   | 93,0   | 93,7   | 93,9   | 94,6   |
|   | N       | dB(A) | 91,7           | 91,7   | 92,3   | 92,5   | 92,6   | 93,1   | 93,0   | 93,5   | 93,5   | 93,5   | 93,5   | 94,1   | 94,6   | 95,2   |
| Sound pressure level (10 m)               | U       | dB(A) | 98,0           | 98,0   | 98,9   | 99,0   | 99,0   | 99,7   | 99,7   | 100,4  | 100,4  | 100,4  | 100,4  | 100,9  | 101,0  | 101,5  |
|   | A       | dB(A) | 65,6           | 65,6   | 65,6   | 65,6   | 66,4   | 66,4   | 66,4   | 67,1   | 67,1   | 67,1   | 67,1   | 67,6   | 67,7   | 68,2   |
|   | E       | dB(A) | 58,6           | 58,6   | 59,2   | 59,4   | 59,5   | 59,9   | 59,9   | 60,3   | 60,3   | 60,3   | 60,3   | 60,8   | 61,0   | 61,6   |
|   | N       | dB(A) | 59,2           | 59,2   | 59,7   | 59,9   | 60,0   | 60,3   | 60,3   | 60,6   | 60,6   | 60,6   | 60,6   | 61,1   | 61,5   | 62,0   |
|   | U       | dB(A) | 65,6           | 65,6   | 66,4   | 66,4   | 66,4   | 67,1   | 67,1   | 67,6   | 67,6   | 67,6   | 67,6   | 68,1   | 68,1   | 68,5   |

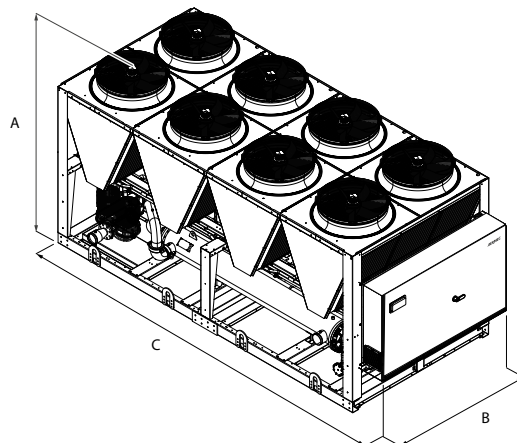
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).



| Size                                      |         |       | 4202           | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6503   | 6703   | 6903   | 7203   | 8403   | 9603   |
|---|---------|-------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Compressor                                |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Bi-vite        |        |        |        |        |        |        |        |        |        |        |        |        |
| Compressor regulation                     | A,E,N,U | Type  | On-Off         |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A       | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | 3      | 3      |
|   | E,U     | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | -      | -      |
|   | N       | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | -      | -      | -      | -      | -      |
| Circuits                                  | A       | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | 3      | 3      |
|   | E,U     | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | 3      | 3      | 3      | -      | -      |
|   | N       | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 3      | -      | -      | -      | -      | -      |
| Refrigerant                               | A,E,N,U | type  | R134a          |        |        |        |        |        |        |        |        |        |        |        |        |
| System side heat exchanger                |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Shell and tube |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A       | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      |
|   | E,U     | no.   | 1              | 1      | 1      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | -      | -      |
|   | N       | no.   | 1              | 2      | 2      | 2      | 2      | 2      | 2      | 2      | -      | -      | -      | -      | -      |
| Connections (in/out)                      | A,E,N,U | Type  | Grooved joints |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan                                       |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |
| Type                                      | A,E,N,U | type  | Axial          |        |        |        |        |        |        |        |        |        |        |        |        |
| Number                                    | A       | no.   | 16             | 18     | 18     | 18     | 20     | 22     | 22     | 24     | 24     | 28     | 28     | 30     | 34     |
|   | E,U     | no.   | 20             | 20     | 22     | 22     | 24     | 26     | 28     | 28     | 30     | 30     | 32     | -      | -      |
|   | N       | no.   | 22             | 26     | 28     | 30     | 32     | 32     | 32     | 34     | -      | -      | -      | -      | -      |
| Air flow rate                             | A       | m³/h  | 232000         | 261000 | 261000 | 261000 | 290000 | 319000 | 319000 | 348000 | 348000 | 406000 | 406000 | 435000 | 493000 |
|   | E       | m³/h  | 224000         | 224000 | 246400 | 246400 | 268800 | 291200 | 313600 | 313600 | 336000 | 336000 | 358400 | -      | -      |
|   | N       | m³/h  | 246400         | 291200 | 313600 | 336000 | 358400 | 358400 | 358400 | 380800 | -      | -      | -      | -      | -      |
|   | U       | m³/h  | 290000         | 290000 | 319000 | 319000 | 348000 | 377000 | 406000 | 406000 | 435000 | 435000 | 464000 | -      | -      |
| Sound data calculated in cooling mode (1) |         |       |                |        |        |        |        |        |        |        |        |        |        |        |        |
| Sound power level                         | A       | dB(A) | 101,1          | 101,6  | 101,6  | 101,6  | 102,1  | 102,5  | 102,5  | 102,7  | 102,8  | 103,4  | 103,4  | 103,7  | 104,2  |
|   | E       | dB(A) | 95,2           | 95,2   | 95,4   | 95,6   | 96,0   | 96,2   | 96,4   | 96,0   | 96,5   | 96,4   | 96,6   | -      | -      |
|   | N       | dB(A) | 95,5           | 96,0   | 96,2   | 96,6   | 96,9   | 96,9   | 96,9   | 96,7   | -      | -      | -      | -      | -      |
| Sound pressure level (10 m)               | U       | dB(A) | 102,0          | 102,0  | 102,4  | 102,4  | 102,8  | 103,1  | 103,4  | 103,4  | 103,7  | 103,7  | 103,9  | -      | -      |
|   | A       | dB(A) | 68,2           | 68,6   | 68,6   | 68,6   | 69,0   | 69,2   | 69,2   | 69,4   | 69,4   | 69,8   | 69,8   | 70,0   | 70,4   |
|   | E       | dB(A) | 62,1           | 62,0   | 62,2   | 62,3   | 62,7   | 62,8   | 62,9   | 62,5   | 62,8   | 62,8   | 62,8   | -      | -      |
|   | N       | dB(A) | 62,3           | 62,5   | 62,6   | 62,9   | 63,1   | 63,1   | 63,1   | 62,8   | -      | -      | -      | -      | -      |
| U   | dB(A)   | 68,9  | 68,9           | 69,1   | 69,2   | 69,5   | 69,7   | 69,9   | 69,8   | 70,0   | 70,0   | 70,2   | -      | -      | -      |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                   |         |    | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  | 3902  |
|------------------------|---------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights |         |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | A,E,N,U | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                      | A,E,N,U | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                      | A       | mm | 5160  | 5160  | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 7140  | 7140  | 8330  | 8330  | 9520  |
|                        | E,U     | mm | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 8330  | 8330  | 8330  | 8330  | 9520  | 9520  | 10710 |
|                        | N       | mm | 6350  | 6350  | 7140  | 7140  | 7140  | 8330  | 8330  | 9520  | 9520  | 9520  | 9520  | 10710 | 11900 | 13090 |
| Size                   |         |    | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6503  | 6703  | 6903  | 7203  | 8403  | 9603  |       |
| Dimensions and weights |         |    |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                      | A       | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|                        | E,U     | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     |
|                        | N       | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     | -     | -     | -     | -     |
| B                      | A       | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|                        | E,U     | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     |
|                        | N       | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     | -     | -     | -     | -     |
| C                      | A       | mm | 9520  | 10710 | 10710 | 10710 | 11900 | 13090 | 13090 | 14280 | 14280 | 16660 | 16660 | 16660 | 17850 | 20230 |
|                        | E,U     | mm | 11900 | 11900 | 13090 | 13090 | 14280 | 15470 | 16660 | 16660 | 17850 | 17850 | 19040 | 19040 | -     | -     |
|                        | N       | mm | 13090 | 15470 | 16660 | 17850 | 19040 | 19040 | 19040 | 20230 | -     | -     | -     | -     | -     | -     |

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

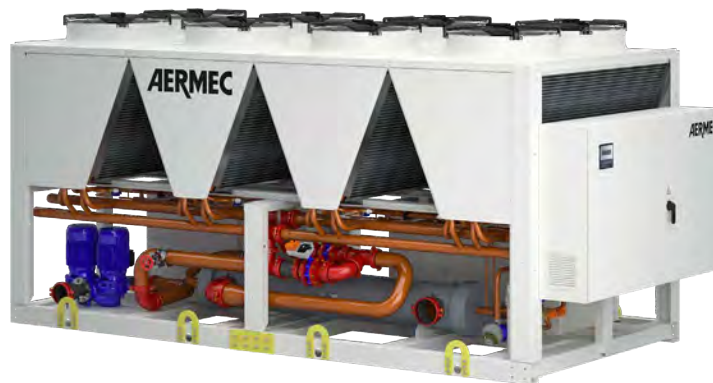
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NSM HWT F

## Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2001 kW

- High efficiency also at partial loads
- Microchannel coils
- Suitable for Data Center applications
- Water produced up to 30 °C
- Night mode



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and the use of steady speed compressors together with inverter-controlled variable speed compressors guaranteeing a high energy efficiency level both at full and partial load.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Water produced from 5 °C ÷ 30 °C.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system. The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

#### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

#### ACCESSORIES

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured

as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP :** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

**AK:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

### ACCESSORIES COMPATIBILITY

| Model               | Ver     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|---------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x n° 2 (1) | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET              | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1                 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model               | Ver     | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|---------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x n° 2 (1) | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |
| AER485P1 x n° 3 (1) | A,E,N,U |      |      |      |      |      |      |      |      | *    | *    | *    | *    |
| AERNET              | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1                 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

(1) x Indicates the quantity of accessories to match.

#### Antivibration

| Ver        | 1402     | 1602     | 1802     | 2002     | 2202     | 2352     | 2502     | 2652     | 2802     | 3002     | 3202     | 3402     | 3602     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

| Ver        | 3902     | 4202     | 4502     | 4802     | 5202     | 5602     | 6002     | 6402     | 6903     | 7203     | 8403     | 9603     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

#### Anti-intrusion grid

| Ver        | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902    | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6903    | 7203    | 8403    | 9603    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

#### Heater exchangers

| Ver        | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902    | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6903    | 7203    | 8403    | 9603    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

#### Acoustic kit

| Ver        | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E, N, U | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403   | 9603   |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E, N, U | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802C |
| E   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| N   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802C | RIFNSM2002Q | RIFNSM2202C | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| U   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002C | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002        | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A, E, U | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| N       | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

| Ver | 5602        | 6002        | 6402        | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----|-------------|-------------|-------------|------|------|------|------|------|------|
| A   | RIFNSM5602C | RIFNSM6002C | RIFNSM6402C | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NSM</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6903, 7203, 8403, 9603 |
| <b>8</b>       | <b>Operating field (1)</b>  |
| W              | Electronic thermostatic expansion valve   |
| <b>9</b>       | <b>Model</b>  |
| F              | Free-cooling  |
| P              | Free-cooling plus (2)   |
| <b>10</b>      | <b>Heat recovery</b>  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| N              | Silenced very high efficiency   |
| U              | Very high efficiency  |
| <b>12</b>      | <b>Coils / free-cooling coils</b>   |
| O              | Painted aluminium microchannel / Copper painted aluminium   |
| R              | Copper-copper/Copper-copper (2)   |
| S              | Copper-Tinned copper / Copper -Tinned copper (2)  |
| V              | Copper-painted aluminium / Copper-painted aluminium (2)   |
| °              | Aluminium microchannel / Copper - aluminium   |
| <b>13</b>      | <b>Fans</b>   |
| J              | Inverter  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>  |
|                | <b>Without hydronic kit</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |

| Field | Description                           |
|-------|---------------------------------------|
| PA    | Pump A                                |
| PB    | Pump B                                |
| PC    | Pump C                                |
| PD    | Pump D                                |
| PE    | Pump E                                |
| PF    | Pump F                                |
| PG    | Pump G                                |
| PH    | Pump H                                |
| PI    | Pump I                                |
| PJ    | Pump J (3)                            |
|       | <b>Pump n° 1 pump + stand-by pump</b> |
| DA    | Pump A + stand-by pump                |
| DB    | Pump B + stand-by pump                |
| DC    | Pump C + stand-by pump                |
| DD    | Pump D + stand-by pump                |
| DE    | Pump E + stand-by pump                |
| DF    | Pump F + stand-by pump                |
| DG    | Pump G + stand-by pump                |
| DH    | Pump H + stand-by pump                |
| DI    | Pump I + stand-by pump                |
| DJ    | Pump J + stand-by pump (3)            |
|       | <b>Kit with 2 pumps</b>               |
| TF    | Double pump F                         |
| TG    | Double pump G                         |
| TH    | Double pump H                         |
| TI    | Double pump I                         |
| TJ    | Double pump J (3)                     |

(1) Water produced from 5 °C ÷ 30 °C

(2) The Free-Cooling Plus "P" models are only compatible with "nom" ed "0"

(3) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

### NSM HWT FA-PA

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 306,0 | 351,0 | 400,0 | 441,0 | 479,0 | 505,0 | 546,0 | 589,0  | 638,0  | 653,0  | 687,0  | 753,0  | 792,0  |
| Input power                 | kW  | 82,0  | 95,0  | 109,0 | 118,0 | 125,0 | 135,0 | 147,0 | 155,0  | 167,0  | 172,0  | 179,0  | 192,0  | 205,0  |
| Cooling total input current | A   | 146,0 | 166,0 | 187,0 | 200,0 | 208,0 | 224,0 | 242,0 | 258,0  | 277,0  | 290,0  | 306,0  | 327,0  | 348,0  |
| EER                         | W/W | 3,75  | 3,69  | 3,69  | 3,73  | 3,83  | 3,73  | 3,71  | 3,79   | 3,81   | 3,80   | 3,84   | 3,92   | 3,86   |
| Water flow rate system side | l/h | 52650 | 60360 | 68820 | 75940 | 82440 | 86790 | 93850 | 101330 | 109680 | 112330 | 118100 | 129500 | 136230 |
| Pressure drop system side   | kPa | 60    | 80    | 95    | 76    | 89    | 99    | 116   | 85     | 91     | 96     | 84     | 93     | 103    |

##### Cooling performances with free-cooling

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 336,0 | 351,0 | 363,0 | 370,0 | 449,0 | 454,0 | 462,0 | 542,0  | 551,0  | 554,0  | 559,0  | 644,0  | 651,0  |
| Input power                      | kW  | 19,3  | 19,3  | 19,3  | 19,3  | 24,1  | 24,1  | 24,1  | 28,9   | 28,9   | 28,9   | 28,9   | 33,7   | 33,7   |
| Free cooling total input current | A   | 30,0  | 30,0  | 30,0  | 30,0  | 37,6  | 37,6  | 37,6  | 45,1   | 45,1   | 45,1   | 45,1   | 52,6   | 52,6   |
| EER                              | W/W | 17,43 | 18,20 | 18,82 | 19,20 | 18,63 | 18,86 | 19,16 | 18,74  | 19,06  | 19,15  | 19,32  | 19,11  | 19,29  |
| Water flow rate system side      | l/h | 52650 | 60360 | 68820 | 75940 | 82440 | 86790 | 93850 | 101330 | 109680 | 112330 | 118100 | 129500 | 136230 |
| Pressure drop system side        | kPa | 87    | 115   | 139   | 129   | 133   | 147   | 171   | 128    | 141    | 147    | 141    | 146    | 161    |

| Size | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: P

##### Cooling performance chiller operation

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 305,0 | 349,0 | 398,0 | 439,0 | 477,0 | 502,0 | 543,0 | 587,0  | 635,0  | 650,0  | 683,0  | 749,0  | 788,0  |
| Input power                 | kW  | 82,0  | 96,0  | 109,0 | 120,0 | 126,0 | 136,0 | 148,0 | 157,0  | 169,0  | 174,0  | 181,0  | 194,0  | 207,0  |
| Cooling total input current | A   | 147,0 | 167,0 | 188,0 | 201,0 | 210,0 | 226,0 | 244,0 | 260,0  | 279,0  | 292,0  | 308,0  | 330,0  | 351,0  |
| EER                         | W/W | 3,70  | 3,64  | 3,64  | 3,68  | 3,78  | 3,68  | 3,66  | 3,74   | 3,76   | 3,74   | 3,78   | 3,86   | 3,80   |
| Water flow rate system side | l/h | 52410 | 60090 | 68480 | 75580 | 82100 | 86410 | 93420 | 100950 | 109190 | 111820 | 117510 | 128910 | 135580 |
| Pressure drop system side   | kPa | 59    | 79    | 94    | 75    | 89    | 98    | 115   | 84     | 90     | 95     | 83     | 92     | 102    |

##### Cooling performances with free-cooling

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 361,0 | 378,0 | 391,0 | 399,0 | 484,0 | 490,0 | 497,0 | 584,0  | 594,0  | 597,0  | 602,0  | 694,0  | 701,0  |
| Input power                      | kW  | 19,7  | 19,7  | 19,7  | 19,7  | 24,6  | 24,6  | 24,6  | 29,5   | 29,5   | 29,5   | 29,5   | 34,4   | 34,4   |
| Free cooling total input current | A   | 30,6  | 30,6  | 30,6  | 30,6  | 38,2  | 38,2  | 38,2  | 45,9   | 45,9   | 45,9   | 45,9   | 53,5   | 53,5   |
| EER                              | W/W | 18,35 | 19,22 | 19,89 | 20,29 | 19,69 | 19,93 | 20,25 | 19,81  | 20,15  | 20,24  | 20,41  | 20,19  | 20,38  |
| Water flow rate system side      | l/h | 52410 | 60090 | 68480 | 75580 | 82100 | 86410 | 93420 | 100950 | 109190 | 111820 | 117510 | 128910 | 135580 |
| Pressure drop system side        | kPa | 86    | 114   | 138   | 128   | 131   | 145   | 169   | 127    | 139    | 146    | 139    | 145    | 160    |

### NSM HWT FA-PA

| Size | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: F

##### Cooling performance chiller operation

|                             |     |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 853,0  | 882,0  | 959,0  | 1014,0 | 1082,0 | 1169,0 | 1262,0 | 1327,0 | 1476,0 | 1531,0 | 1758,0 | 2001,0 |
| Input power                 | kW  | 216,0  | 228,0  | 244,0  | 260,0  | 281,0  | 295,0  | 319,0  | 343,0  | 373,0  | 388,0  | 442,0  | 512,0  |
| Cooling total input current | A   | 362,0  | 377,0  | 416,0  | 453,0  | 478,0  | 494,0  | 531,0  | 567,0  | 646,0  | 683,0  | 740,0  | 854,0  |
| EER                         | W/W | 3,95   | 3,87   | 3,92   | 3,90   | 3,86   | 3,97   | 3,95   | 3,87   | 3,96   | 3,94   | 3,97   | 3,91   |
| Water flow rate system side | l/h | 146650 | 151620 | 165010 | 174350 | 186190 | 201150 | 217040 | 228220 | 253930 | 263260 | 302310 | 344170 |
| Pressure drop system side   | kPa | 69     | 74     | 91     | 101    | 94     | 110    | 130    | 144    | 116    | 116    | 117    | 138    |

##### Cooling performances with free-cooling

|                                  |     |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 735,0  | 740,0  | 827,0  | 836,0  | 845,0  | 935,0  | 1025,0 | 1033,0 | 1284,0 | 1293,0 | 1402,0 | 1590,0 |
| Input power                      | kW  | 38,5   | 38,5   | 43,4   | 43,4   | 43,4   | 48,2   | 53,0   | 53,0   | 67,5   | 67,5   | 72,3   | 81,9   |
| Free cooling total input current | A   | 60,1   | 60,1   | 67,6   | 67,6   | 67,6   | 75,1   | 82,6   | 82,6   | 105,1  | 105,1  | 112,7  | 127,7  |
| EER                              | W/W | 19,07  | 19,19  | 19,07  | 19,27  | 19,48  | 19,39  | 19,33  | 19,49  | 19,03  | 19,17  | 19,40  | 19,42  |
| Water flow rate system side      | l/h | 146650 | 151620 | 165010 | 174350 | 186190 | 201150 | 217040 | 228220 | 253930 | 263260 | 302310 | 344170 |
| Pressure drop system side        | kPa | 119    | 127    | 142    | 158    | 159    | 173    | 194    | 213    | 165    | 165    | 179    | 207    |

| Size | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|

#### Model: P

##### Cooling performance chiller operation

|                             |     |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 849,0  | 878,0  | 955,0  | 1009,0 | 1077,0 | 1164,0 | 1256,0 | 1320,0 | 1470,0 | 1524,0 | 1749,0 | 1991,0 |
| Input power                 | kW  | 218,0  | 230,0  | 247,0  | 262,0  | 284,0  | 298,0  | 322,0  | 346,0  | 377,0  | 392,0  | 447,0  | 517,0  |
| Cooling total input current | A   | 365,0  | 381,0  | 420,0  | 456,0  | 482,0  | 498,0  | 536,0  | 571,0  | 652,0  | 688,0  | 747,0  | 861,0  |
| EER                         | W/W | 3,90   | 3,81   | 3,87   | 3,84   | 3,80   | 3,91   | 3,90   | 3,81   | 3,90   | 3,89   | 3,91   | 3,85   |
| Water flow rate system side | l/h | 146000 | 150930 | 164290 | 173550 | 185230 | 200120 | 215990 | 227050 | 252860 | 262120 | 300800 | 342450 |
| Pressure drop system side   | kPa | 69     | 73     | 90     | 100    | 93     | 109    | 129    | 142    | 115    | 115    | 115    | 136    |

##### Cooling performances with free-cooling

|                                  |     |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 792,0  | 797,0  | 891,0  | 900,0  | 910,0  | 1007,0 | 1104,0 | 1113,0 | 1384,0 | 1393,0 | 1510,0 | 1713,0 |
| Input power                      | kW  | 39,3   | 39,3   | 44,2   | 44,2   | 44,2   | 49,1   | 54,0   | 54,0   | 68,8   | 68,8   | 73,7   | 83,5   |
| Free cooling total input current | A   | 61,2   | 61,2   | 68,8   | 68,8   | 68,8   | 76,5   | 84,1   | 84,1   | 107,0  | 107,0  | 114,7  | 130,0  |
| EER                              | W/W | 20,16  | 20,28  | 20,16  | 20,36  | 20,58  | 20,49  | 20,42  | 20,59  | 20,12  | 20,25  | 20,49  | 20,51  |
| Water flow rate system side      | l/h | 146000 | 150930 | 164290 | 173550 | 185230 | 200120 | 215990 | 227050 | 252860 | 262120 | 300800 | 342450 |
| Pressure drop system side        | kPa | 118    | 126    | 141    | 156    | 157    | 172    | 192    | 211    | 164    | 164    | 178    | 205    |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling: System side water heat exchanger 25 °C; External air 12 °C

# NSM HWT FE-PE

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

## Model: F

### Cooling performance chiller operation

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 315,0 | 362,0 | 415,0 | 456,0 | 478,0 | 524,0 | 551,0 | 599,0  | 626,0  | 641,0  | 667,0  | 735,0  | 772,0  |
| Input power                 | kW  | 75,0  | 91,0  | 101,0 | 112,0 | 120,0 | 127,0 | 138,0 | 145,0  | 156,0  | 161,0  | 169,0  | 178,0  | 192,0  |
| Cooling total input current | A   | 134,0 | 158,0 | 175,0 | 189,0 | 199,0 | 210,0 | 227,0 | 240,0  | 258,0  | 272,0  | 288,0  | 303,0  | 325,0  |
| EER                         | W/W | 4,19  | 3,97  | 4,09  | 4,07  | 3,98  | 4,13  | 4,00  | 4,12   | 4,02   | 3,97   | 3,95   | 4,13   | 4,03   |
| Water flow rate system side | l/h | 54220 | 62220 | 71300 | 78430 | 82240 | 90170 | 94830 | 102950 | 107680 | 110230 | 114670 | 126390 | 132800 |
| Pressure drop system side   | kPa | 42    | 49    | 64    | 76    | 85    | 61    | 66    | 68     | 74     | 79     | 80     | 51     | 58     |

### Cooling performances with free-cooling

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 267,0 | 273,0 | 337,0 | 342,0 | 344,0 | 408,0 | 411,0 | 474,0  | 478,0  | 479,0  | 482,0  | 548,0  | 551,0  |
| Input power                      | kW  | 6,4   | 6,4   | 7,9   | 7,9   | 7,9   | 9,5   | 9,5   | 11,1   | 11,1   | 11,1   | 11,1   | 12,7   | 12,7   |
| Free cooling total input current | A   | 9,4   | 9,4   | 11,8  | 11,8  | 11,8  | 14,1  | 14,1  | 16,5   | 16,5   | 16,5   | 16,5   | 18,8   | 18,8   |
| EER                              | W/W | 41,99 | 43,01 | 42,41 | 43,05 | 43,31 | 42,79 | 43,10 | 42,64  | 42,94  | 43,08  | 43,29  | 43,10  | 43,35  |
| Water flow rate system side      | l/h | 54220 | 62220 | 71300 | 78430 | 82240 | 90170 | 94830 | 102950 | 107680 | 110230 | 114670 | 126390 | 132800 |
| Pressure drop system side        | kPa | 71    | 86    | 97    | 115   | 127   | 95    | 104   | 102    | 112    | 118    | 122    | 89     | 99     |

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

## Model: P

### Cooling performance chiller operation

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 314,0 | 360,0 | 412,0 | 453,0 | 474,0 | 521,0 | 548,0 | 595,0  | 622,0  | 637,0  | 662,0  | 730,0  | 767,0  |
| Input power                 | kW  | 76,0  | 92,0  | 102,0 | 113,0 | 122,0 | 128,0 | 139,0 | 147,0  | 157,0  | 163,0  | 170,0  | 180,0  | 194,0  |
| Cooling total input current | A   | 134,0 | 159,0 | 176,0 | 190,0 | 201,0 | 211,0 | 229,0 | 242,0  | 260,0  | 274,0  | 291,0  | 306,0  | 328,0  |
| EER                         | W/W | 4,14  | 3,92  | 4,03  | 4,00  | 3,90  | 4,07  | 3,93  | 4,06   | 3,96   | 3,90   | 3,88   | 4,06   | 3,95   |
| Water flow rate system side | l/h | 53990 | 61890 | 70890 | 77860 | 81600 | 89640 | 94230 | 102360 | 107020 | 109540 | 113890 | 125570 | 131860 |
| Pressure drop system side   | kPa | 42    | 49    | 63    | 75    | 83    | 60    | 65    | 67     | 73     | 78     | 79     | 51     | 57     |

### Cooling performances with free-cooling

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 285,0 | 292,0 | 360,0 | 365,0 | 367,0 | 435,0 | 438,0 | 506,0  | 509,0  | 511,0  | 513,0  | 584,0  | 587,0  |
| Input power                      | kW  | 6,5   | 6,5   | 8,1   | 8,1   | 8,1   | 9,7   | 9,7   | 11,3   | 11,3   | 11,3   | 11,3   | 12,9   | 12,9   |
| Free cooling total input current | A   | 9,6   | 9,6   | 11,9  | 11,9  | 11,9  | 14,3  | 14,3  | 16,7   | 16,7   | 16,7   | 16,7   | 19,1   | 19,1   |
| EER                              | W/W | 44,05 | 45,10 | 44,49 | 45,14 | 45,38 | 44,88 | 45,19 | 44,73  | 45,03  | 45,17  | 45,36  | 45,18  | 45,42  |
| Water flow rate system side      | l/h | 53990 | 61890 | 70890 | 77860 | 81600 | 89640 | 94230 | 102360 | 107020 | 109540 | 113890 | 125570 | 131860 |
| Pressure drop system side        | kPa | 70    | 86    | 96    | 113   | 125   | 94    | 102   | 101    | 110    | 116    | 120    | 88     | 98     |

# NSM HWT FE-PE

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

## Model: F

### Cooling performance chiller operation

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 823,0  | 870,0  | 932,0  | 1011,0 | 1070,0 | 1152,0 | 1226,0 | 1300,0 | 1423,0 | 1502,0 | - | - |
| Input power                 | kW  | 202,0  | 210,0  | 228,0  | 241,0  | 260,0  | 275,0  | 296,0  | 318,0  | 350,0  | 364,0  | - | - |
| Cooling total input current | A   | 339,0  | 348,0  | 388,0  | 421,0  | 443,0  | 460,0  | 493,0  | 526,0  | 601,0  | 631,0  | - | - |
| EER                         | W/W | 4,07   | 4,15   | 4,09   | 4,19   | 4,12   | 4,19   | 4,14   | 4,09   | 4,07   | 4,13   | - | - |
| Water flow rate system side | l/h | 141610 | 149590 | 160240 | 173870 | 184060 | 198120 | 210870 | 223620 | 244770 | 258380 | - | - |
| Pressure drop system side   | kPa | 69     | 78     | 91     | 86     | 94     | 65     | 81     | 81     | 105    | 105    | - | - |

### Cooling performances with free-cooling

|                                  |     |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 616,0  | 680,0  | 686,0  | 753,0  | 759,0  | 826,0  | 893,0  | 960,0  | 1031,0 | 1099,0 | - | - |
| Input power                      | kW  | 14,3   | 15,9   | 15,9   | 17,5   | 17,5   | 19,1   | 20,7   | 22,3   | 23,8   | 25,4   | - | - |
| Free cooling total input current | A   | 21,2   | 23,5   | 23,5   | 25,9   | 25,9   | 28,2   | 30,6   | 32,9   | 35,3   | 37,6   | - | - |
| EER                              | W/W | 43,07  | 42,76  | 43,17  | 43,10  | 43,39  | 43,32  | 43,24  | 43,16  | 43,27  | 43,21  | - | - |
| Water flow rate system side      | l/h | 141610 | 149590 | 160240 | 173870 | 184060 | 198120 | 210870 | 223620 | 244770 | 258380 | - | - |
| Pressure drop system side        | kPa | 107    | 114    | 133    | 128    | 140    | 106    | 121    | 121    | 150    | 150    | - | - |

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

## Model: P

### Cooling performance chiller operation

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 818,0  | 865,0  | 926,0  | 1005,0 | 1063,0 | 1144,0 | 1218,0 | 1292,0 | 1414,0 | 1493,0 | - | - |
| Input power                 | kW  | 204,0  | 212,0  | 230,0  | 244,0  | 263,0  | 278,0  | 300,0  | 321,0  | 354,0  | 368,0  | - | - |
| Cooling total input current | A   | 342,0  | 351,0  | 392,0  | 425,0  | 448,0  | 464,0  | 497,0  | 531,0  | 607,0  | 636,0  | - | - |
| EER                         | W/W | 4,00   | 4,08   | 4,02   | 4,12   | 4,04   | 4,12   | 4,07   | 4,02   | 3,99   | 4,06   | - | - |
| Water flow rate system side | l/h | 140680 | 148750 | 159230 | 172870 | 182790 | 196750 | 209470 | 222190 | 243180 | 256800 | - | - |
| Pressure drop system side   | kPa | 68     | 77     | 90     | 85     | 93     | 64     | 80     | 80     | 104    | 104    | - | - |

### Cooling performances with free-cooling

|                                  |     |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 657,0  | 725,0  | 732,0  | 803,0  | 808,0  | 880,0  | 952,0  | 1024,0 | 1099,0 | 1171,0 | - | - |
| Input power                      | kW  | 14,5   | 16,2   | 16,2   | 17,8   | 17,8   | 19,4   | 21,0   | 22,6   | 24,2   | 25,9   | - | - |
| Free cooling total input current | A   | 21,5   | 23,9   | 23,9   | 26,3   | 26,3   | 28,7   | 31,0   | 33,4   | 35,8   | 38,2   | - | - |
| EER                              | W/W | 45,16  | 44,85  | 45,26  | 45,19  | 45,45  | 45,40  | 45,32  | 45,24  | 45,35  | 45,30  | - | - |
| Water flow rate system side      | l/h | 140680 | 148750 | 159230 | 172870 | 182790 | 196750 | 209470 | 222190 | 243180 | 256800 | - | - |
| Pressure drop system side        | kPa | 106    | 113    | 131    | 127    | 139    | 104    | 119    | 120    | 148    | 149    | - | - |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling: System side water heat exchanger 25 °C; External air 12°C

**NSM HWT FU-PU**

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 328,0 | 381,0 | 435,0 | 482,0 | 506,0 | 550,0 | 580,0 | 627,0  | 657,0  | 674,0  | 703,0  | 772,0  | 814,0  |
| Input power                 | kW  | 84,0  | 98,0  | 112,0 | 121,0 | 128,0 | 138,0 | 148,0 | 159,0  | 168,0  | 172,0  | 178,0  | 191,0  | 203,0  |
| Cooling total input current | A   | 148,0 | 170,0 | 192,0 | 204,0 | 212,0 | 229,0 | 244,0 | 263,0  | 279,0  | 291,0  | 305,0  | 326,0  | 345,0  |
| EER                         | W/W | 3,93  | 3,90  | 3,89  | 3,99  | 3,97  | 3,99  | 3,92  | 3,94   | 3,91   | 3,91   | 3,95   | 4,05   | 4,02   |
| Water flow rate system side | l/h | 56440 | 65570 | 74810 | 82890 | 87080 | 94670 | 99780 | 107790 | 113080 | 115880 | 120880 | 132770 | 139960 |
| Pressure drop system side   | kPa | 46    | 54    | 71    | 84    | 94    | 66    | 72    | 74     | 81     | 86     | 87     | 56     | 64     |

**Cooling performances with free-cooling**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 344,0 | 359,0 | 437,0 | 450,0 | 455,0 | 533,0 | 540,0 | 617,0  | 625,0  | 629,0  | 635,0  | 719,0  | 728,0  |
| Input power                      | kW  | 19,3  | 19,3  | 24,1  | 24,1  | 24,1  | 28,9  | 28,9  | 33,7   | 33,7   | 33,7   | 33,7   | 38,5   | 38,5   |
| Free cooling total input current | A   | 30,0  | 30,0  | 37,6  | 37,6  | 37,6  | 45,1  | 45,1  | 52,6   | 52,6   | 52,6   | 52,6   | 60,1   | 60,1   |
| EER                              | W/W | 17,84 | 18,61 | 18,16 | 18,66 | 18,87 | 18,43 | 18,67 | 18,31  | 18,54  | 18,65  | 18,84  | 18,66  | 18,89  |
| Water flow rate system side      | l/h | 56440 | 65570 | 74810 | 82890 | 87080 | 94670 | 99780 | 107790 | 113080 | 115880 | 120880 | 132770 | 139960 |
| Pressure drop system side        | kPa | 77    | 95    | 107   | 127   | 142   | 104   | 114   | 111    | 122    | 129    | 134    | 97     | 109    |

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 327,0 | 380,0 | 433,0 | 480,0 | 504,0 | 548,0 | 578,0 | 624,0  | 655,0  | 671,0  | 700,0  | 769,0  | 810,0  |
| Input power                 | kW  | 84,0  | 99,0  | 113,0 | 122,0 | 129,0 | 139,0 | 149,0 | 160,0  | 170,0  | 174,0  | 180,0  | 192,0  | 205,0  |
| Cooling total input current | A   | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      | -      | -      |
| EER                         | W/W | 3,88  | 3,84  | 3,84  | 3,93  | 3,91  | 3,94  | 3,87  | 3,89   | 3,86   | 3,86   | 3,89   | 4,00   | 3,96   |
| Water flow rate system side | l/h | 56250 | 65300 | 74510 | 82510 | 86670 | 94290 | 99370 | 107380 | 112630 | 115420 | 120380 | 132250 | 139380 |
| Pressure drop system side   | kPa | 46    | 54    | 70    | 83    | 93    | 66    | 72    | 73     | 80     | 85     | 86     | 55     | 63     |

**Cooling performances with free-cooling**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 370,0 | 386,0 | 471,0 | 484,0 | 490,0 | 574,0 | 582,0 | 665,0  | 674,0  | 678,0  | 685,0  | 775,0  | 785,0  |
| Input power                      | kW  | 19,7  | 19,7  | 24,6  | 24,6  | 24,6  | 29,5  | 29,5  | 34,4   | 34,4   | 34,4   | 34,4   | 39,3   | 39,3   |
| Free cooling total input current | A   | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      | -      | -      | -      |
| EER                              | W/W | 18,82 | 19,66 | 19,17 | 19,72 | 19,94 | 19,47 | 19,73 | 19,34  | 19,59  | 19,71  | 19,91  | 19,72  | 19,97  |
| Water flow rate system side      | l/h | 56250 | 65300 | 74510 | 82510 | 86670 | 94290 | 99370 | 107380 | 112630 | 115420 | 120380 | 132250 | 139380 |
| Pressure drop system side        | kPa | 77    | 94    | 106   | 126   | 140   | 103   | 113   | 111    | 121    | 128    | 133    | 96     | 108    |

**NSM HWT FU-PU**

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 864,0  | 909,0  | 978,0  | 1059,0 | 1127,0 | 1213,0 | 1289,0 | 1365,0 | 1495,0 | 1576,0 | - | - |
| Input power                 | kW  | 216,0  | 228,0  | 243,0  | 260,0  | 276,0  | 293,0  | 317,0  | 341,0  | 372,0  | 388,0  | - | - |
| Cooling total input current | A   | 363,0  | 378,0  | 414,0  | 454,0  | 472,0  | 493,0  | 529,0  | 566,0  | 639,0  | 677,0  | - | - |
| EER                         | W/W | 3,99   | 3,99   | 4,02   | 4,08   | 4,09   | 4,14   | 4,06   | 4,00   | 4,02   | 4,06   | - | - |
| Water flow rate system side | l/h | 148610 | 156340 | 168140 | 182140 | 193790 | 208610 | 221670 | 234730 | 257070 | 271060 | - | - |
| Pressure drop system side   | kPa | 75     | 84     | 99     | 94     | 103    | 71     | 88     | 88     | 116    | 116    | - | - |

**Cooling performances with free-cooling**

|                                  |     |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 808,0  | 886,0  | 902,0  | 989,0  | 1003,0 | 1091,0 | 1177,0 | 1262,0 | 1359,0 | 1446,0 | - | - |
| Input power                      | kW  | 43,4   | 48,2   | 48,2   | 53,0   | 53,0   | 57,8   | 62,6   | 67,5   | 72,3   | 77,1   | - | - |
| Free cooling total input current | A   | 67,6   | 75,1   | 75,1   | 82,6   | 82,6   | 90,1   | 97,6   | 105,1  | 112,7  | 120,2  | - | - |
| EER                              | W/W | 18,64  | 18,38  | 18,72  | 18,65  | 18,92  | 18,86  | 18,78  | 18,71  | 18,80  | 18,75  | - | - |
| Water flow rate system side      | l/h | 148610 | 156340 | 168140 | 182140 | 193790 | 208610 | 221670 | 234730 | 257070 | 271060 | - | - |
| Pressure drop system side        | kPa | 117    | 124    | 145    | 140    | 154    | 116    | 132    | 132    | 166    | 165    | - | - |

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 861,0  | 906,0  | 974,0  | 1055,0 | 1122,0 | 1208,0 | 1284,0 | 1359,0 | 1489,0 | 1570,0 | - | - |
| Input power                 | kW  | 218,0  | 230,0  | 245,0  | 262,0  | 278,0  | 296,0  | 320,0  | 344,0  | 375,0  | 392,0  | - | - |
| Cooling total input current | A   | 366,0  | 381,0  | 418,0  | 457,0  | 475,0  | 497,0  | 533,0  | 570,0  | 644,0  | 682,0  | - | - |
| EER                         | W/W | 3,94   | 3,94   | 3,97   | 4,03   | 4,03   | 4,08   | 4,01   | 3,95   | 3,97   | 4,01   | - | - |
| Water flow rate system side | l/h | 148030 | 155780 | 167500 | 181460 | 193010 | 207750 | 220780 | 233810 | 256070 | 270020 | - | - |
| Pressure drop system side   | kPa | 75     | 84     | 99     | 93     | 102    | 70     | 87     | 87     | 115    | 115    | - | - |

**Cooling performances with free-cooling**

|                                  |     |        |        |        |        |        |        |        |        |        |        |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity                 | kW  | 871,0  | 954,0  | 972,0  | 1066,0 | 1081,0 | 1176,0 | 1268,0 | 1360,0 | 1465,0 | 1558,0 | - | - |
| Input power                      | kW  | 44,2   | 49,1   | 49,1   | 54,0   | 54,0   | 59,0   | 63,9   | 68,8   | 73,7   | 78,6   | - | - |
| Free cooling total input current | A   | 68,8   | 76,5   | 76,5   | 84,1   | 84,1   | 91,8   | 99,4   | 107,0  | 114,7  | 122,3  | - | - |
| EER                              | W/W | 19,70  | 19,42  | 19,79  | 19,71  | 20,00  | 19,94  | 19,85  | 19,77  | 19,88  | 19,82  | - | - |
| Water flow rate system side      | l/h | 148030 | 155780 | 167500 | 181460 | 193010 | 207750 | 220780 | 233810 | 256070 | 270020 | - | - |
| Pressure drop system side        | kPa | 117    | 123    | 144    | 139    | 153    | 115    | 131    | 131    | 164    | 164    | - | - |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling: System side water heat exchanger 25 °C; External air 12 °C



**NSM HWT FN-PN**

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 324,0 | 376,0 | 428,0 | 473,0 | 497,0 | 538,0 | 567,0 | 614,0  | 643,0  | 659,0  | 687,0  | 751,0  | 803,0  |
| Input power                 | kW  | 74,0  | 88,0  | 99,0  | 109,0 | 116,0 | 124,0 | 134,0 | 142,0  | 152,0  | 157,0  | 163,0  | 174,0  | 184,0  |
| Cooling total input current | A   | 132,0 | 154,0 | 172,0 | 184,0 | 192,0 | 206,0 | 222,0 | 235,0  | 252,0  | 265,0  | 280,0  | 297,0  | 313,0  |
| EER                         | W/W | 4,41  | 4,27  | 4,31  | 4,35  | 4,29  | 4,33  | 4,21  | 4,32   | 4,24   | 4,21   | 4,22   | 4,32   | 4,38   |
| Water flow rate system side | l/h | 55800 | 64730 | 73570 | 81410 | 85540 | 92510 | 97450 | 105570 | 110670 | 113400 | 118220 | 129100 | 138190 |
| Pressure drop system side   | kPa | 46    | 54    | 42    | 49    | 56    | 65    | 71    | 45     | 49     | 53     | 51     | 54     | 64     |

**Cooling performances with free-cooling**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 318,0 | 330,0 | 391,0 | 401,0 | 404,0 | 465,0 | 470,0 | 531,0  | 536,0  | 539,0  | 543,0  | 607,0  | 670,0  |
| Input power                      | kW  | 7,9   | 7,9   | 9,5   | 9,5   | 9,5   | 11,1  | 11,1  | 12,7   | 12,7   | 12,7   | 12,7   | 14,3   | 15,9   |
| Free cooling total input current | A   | 12,0  | 12,0  | 14,0  | 14,0  | 14,0  | 16,0  | 16,0  | 19,0   | 19,0   | 19,0   | 19,0   | 21,0   | 24,0   |
| EER                              | W/W | 39,96 | 41,57 | 41,02 | 42,00 | 42,41 | 41,76 | 42,22 | 41,75  | 42,17  | 42,36  | 42,67  | 42,46  | 42,16  |
| Water flow rate system side      | l/h | 55800 | 64730 | 73570 | 81410 | 85540 | 92510 | 97450 | 105570 | 110670 | 113400 | 118220 | 129100 | 138190 |
| Pressure drop system side        | kPa | 67    | 81    | 66    | 78    | 87    | 93    | 102   | 72     | 79     | 84     | 84     | 87     | 95     |

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 323,0 | 374,0 | 426,0 | 471,0 | 494,0 | 535,0 | 564,0 | 611,0  | 640,0  | 656,0  | 683,0  | 746,0  | 799,0  |
| Input power                 | kW  | 74,0  | 89,0  | 100,0 | 110,0 | 117,0 | 125,0 | 136,0 | 143,0  | 153,0  | 158,0  | 164,0  | 175,0  | 185,0  |
| Cooling total input current | A   | 132,0 | 155,0 | 173,0 | 185,0 | 194,0 | 207,0 | 224,0 | 237,0  | 254,0  | 267,0  | 282,0  | 300,0  | 316,0  |
| EER                         | W/W | 4,36  | 4,22  | 4,26  | 4,29  | 4,23  | 4,27  | 4,15  | 4,26   | 4,18   | 4,15   | 4,16   | 4,26   | 4,32   |
| Water flow rate system side | l/h | 55590 | 64410 | 73210 | 80970 | 85050 | 92040 | 96930 | 105040 | 110080 | 112780 | 117540 | 128400 | 137510 |
| Pressure drop system side   | kPa | 45    | 53    | 42    | 49    | 55    | 64    | 70    | 44     | 49     | 52     | 50     | 54     | 63     |

**Cooling performances with free-cooling**

|                                  |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | kW  | 337,0 | 352,0 | 417,0 | 427,0 | 431,0 | 495,0 | 501,0 | 566,0  | 572,0  | 575,0  | 579,0  | 648,0  | 715,0  |
| Input power                      | kW  | 8,1   | 8,1   | 9,7   | 9,7   | 9,7   | 11,3  | 11,3  | 12,9   | 12,9   | 12,9   | 12,9   | 14,5   | 16,2   |
| Free cooling total input current | A   | 12,0  | 12,0  | 14,0  | 14,0  | 14,0  | 17,0  | 17,0  | 19,0   | 19,0   | 19,0   | 19,0   | 21,0   | 24,0   |
| EER                              | W/W | 41,76 | 43,58 | 42,96 | 44,05 | 44,49 | 43,79 | 44,29 | 43,78  | 44,23  | 44,44  | 44,76  | 44,54  | 44,22  |
| Water flow rate system side      | l/h | 55590 | 64410 | 73210 | 80970 | 85050 | 92040 | 96930 | 105040 | 110080 | 112780 | 117540 | 128400 | 137510 |
| Pressure drop system side        | kPa | 66    | 80    | 65    | 77    | 86    | 92    | 101   | 71     | 78     | 83     | 83     | 86     | 94     |

**NSM HWT FN-PN**

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity            | kW  | 852,0  | 881,0  | 969,0  | 1033,0 | 1115,0 | 1198,0 | 1263,0 | 1329,0 | - | - | - | - |
| Input power                 | kW  | 195,0  | 207,0  | 218,0  | 232,0  | 249,0  | 265,0  | 288,0  | 311,0  | - | - | - | - |
| Cooling total input current | A   | 328,0  | 343,0  | 374,0  | 408,0  | 427,0  | 447,0  | 481,0  | 516,0  | - | - | - | - |
| EER                         | W/W | 4,37   | 4,26   | 4,44   | 4,46   | 4,49   | 4,51   | 4,38   | 4,27   | - | - | - | - |
| Water flow rate system side | l/h | 146560 | 151590 | 166730 | 177640 | 191820 | 206010 | 217280 | 228590 | - | - | - | - |
| Pressure drop system side   | kPa | 75     | 81     | 80     | 80     | 80     | 45     | 53     | 53     | - | - | - | - |

**Cooling performances with free-cooling**

|                                  |     |        |        |        |        |        |        |        |        |   |   |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity                 | kW  | 731,0  | 737,0  | 857,0  | 921,0  | 988,0  | 1056,0 | 1068,0 | 1079,0 | - | - | - | - |
| Input power                      | kW  | 17,5   | 17,5   | 20,7   | 22,3   | 23,8   | 25,4   | 25,4   | 25,4   | - | - | - | - |
| Free cooling total input current | A   | 26,0   | 26,0   | 31,0   | 33,0   | 35,0   | 38,0   | 38,0   | 38,0   | - | - | - | - |
| EER                              | W/W | 41,84  | 42,13  | 41,48  | 41,37  | 41,45  | 41,52  | 42,01  | 42,42  | - | - | - | - |
| Water flow rate system side      | l/h | 146560 | 151590 | 166730 | 177640 | 191820 | 206010 | 217280 | 228590 | - | - | - | - |
| Pressure drop system side        | kPa | 105    | 113    | 106    | 106    | 106    | 71     | 84     | 84     | - | - | - | - |

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity            | kW  | 848,0  | 877,0  | 965,0  | 1028,0 | 1110,0 | 1192,0 | 1257,0 | 1322,0 | - | - | - | - |
| Input power                 | kW  | 197,0  | 209,0  | 220,0  | 234,0  | 251,0  | 268,0  | 291,0  | 314,0  | - | - | - | - |
| Cooling total input current | A   | 330,0  | 346,0  | 377,0  | 411,0  | 430,0  | 450,0  | 485,0  | 520,0  | - | - | - | - |
| EER                         | W/W | 4,31   | 4,20   | 4,38   | 4,40   | 4,43   | 4,45   | 4,32   | 4,21   | - | - | - | - |
| Water flow rate system side | l/h | 145850 | 150820 | 165970 | 176870 | 190950 | 205020 | 216210 | 227390 | - | - | - | - |
| Pressure drop system side   | kPa | 74     | 80     | 79     | 79     | 79     | 45     | 53     | 53     | - | - | - | - |

**Cooling performances with free-cooling**

|                                  |     |        |        |        |        |        |        |        |        |   |   |   |   |
|----------------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity                 | kW  | 780,0  | 786,0  | 914,0  | 981,0  | 1053,0 | 1125,0 | 1139,0 | 1151,0 | - | - | - | - |
| Input power                      | kW  | 17,8   | 17,8   | 21,0   | 22,6   | 24,2   | 25,9   | 25,9   | 25,9   | - | - | - | - |
| Free cooling total input current | A   | 26,0   | 26,0   | 31,0   | 33,0   | 36,0   | 38,0   | 38,0   | 38,0   | - | - | - | - |
| EER                              | W/W | 43,88  | 44,20  | 43,48  | 43,37  | 43,45  | 43,52  | 44,06  | 44,51  | - | - | - | - |
| Water flow rate system side      | l/h | 145850 | 150820 | 165970 | 176870 | 190950 | 205020 | 216210 | 227390 | - | - | - | - |
| Pressure drop system side        | kPa | 104    | 112    | 105    | 105    | 105    | 70     | 84     | 84     | - | - | - | - |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling: System side water heat exchanger 25 °C; External air 12°C

## ELECTRIC DATA

| Size                  |     |   | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802  | 3002  | 3202   | 3402   | 3602  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|--------|--------|-------|
| Electric data         |     |   |       |       |       |       |       |       |        |        |       |       |        |        |       |
| Maximum current (FLA) | A   | A | 204,0 | 226,0 | 251,0 | 257,0 | 273,0 | 290,0 | 306,0  | 335,0  | 355,0 | 380,0 | 405,0  | 428,0  | 440,0 |
|                       | E,U | A | 204,0 | 226,0 | 261,0 | 267,0 | 273,0 | 299,0 | 316,0  | 345,0  | 364,0 | 390,0 | 415,0  | 437,0  | 450,0 |
|                       | N   | A | 214,0 | 236,0 | 270,0 | 277,0 | 283,0 | 309,0 | 325,0  | 354,0  | 374,0 | 399,0 | 425,0  | 447,0  | 469,0 |
| Peak current (LRA)    | A   | A | 277,0 | 285,0 | 299,0 | 336,0 | 350,0 | 346,0 | 359,0  | 439,0  | 451,0 | 515,0 | 568,0  | 622,0  | 592,0 |
|                       | E,U | A | 277,0 | 285,0 | 308,0 | 345,0 | 350,0 | 356,0 | 368,0  | 449,0  | 461,0 | 525,0 | 578,0  | 632,0  | 601,0 |
|                       | N   | A | 287,0 | 295,0 | 318,0 | 355,0 | 360,0 | 366,0 | 378,0  | 458,0  | 471,0 | 535,0 | 588,0  | 641,0  | 621,0 |
|                       |     |   |       |       |       |       |       |       |        |        |       |       |        |        |       |
| Size                  |     |   | 3902  | 4202  | 4502  | 4802  | 5202  | 5602  | 6002   | 6402   | 6903  | 7203  | 8403   | 9603   |       |
| Electric data         |     |   |       |       |       |       |       |       |        |        |       |       |        |        |       |
| Maximum current (FLA) | A   | A | 473,0 | 497,0 | 538,0 | 570,0 | 590,0 | 620,0 | 668,0  | 701,0  | 831,0 | 863,0 | 933,0  | 1051,0 |       |
|                       | E,U | A | 483,0 | 516,0 | 548,0 | 595,0 | 615,0 | 645,0 | 688,0  | 730,0  | 841,0 | 882,0 | -      | -      |       |
|                       | N   | A | 508,0 | 531,0 | 583,0 | 624,0 | 654,0 | 683,0 | 716,0  | 749,0  | -     | -     | -      | -      |       |
| Peak current (LRA)    | A   | A | 601,0 | 625,0 | 680,0 | 710,0 | 846,0 | 886,0 | 965,0  | 958,0  | 902,0 | 932,0 | 1137,0 | 1205,0 |       |
|                       | E,U | A | 611,0 | 644,0 | 690,0 | 735,0 | 871,0 | 911,0 | 984,0  | 986,0  | 911,0 | 951,0 | -      | -      |       |
|                       | N   | A | 636,0 | 659,0 | 724,0 | 764,0 | 910,0 | 949,0 | 1013,0 | 1006,0 | -     | -     | -      | -      |       |

Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

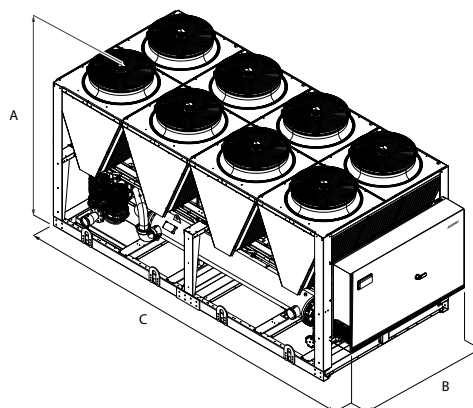
| Size                                      |         |       | 1402           | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202  | 3402  | 3602  |
|---|---------|-------|----------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| Compressor                                |         |       |                |      |      |      |      |      |      |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  | Screw          |      |      |      |      |      |      |      |      |      |       |       |       |
| Compressor regulation                     | A,E,N,U | Type  | On-Off         |      |      |      |      |      |      |      |      |      |       |       |       |
| Number                                    | A,E,N,U | no.   | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     |
| Circuits                                  | A,E,N,U | no.   | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     |
| Refrigerant                               | A,E,N,U | type  | R134a          |      |      |      |      |      |      |      |      |      |       |       |       |
| System side heat exchanger                |         |       |                |      |      |      |      |      |      |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  | Shell and tube |      |      |      |      |      |      |      |      |      |       |       |       |
| Number                                    | A,E,N,U | no.   | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1     | 1     | 1     |
| Inverter fan                              |         |       |                |      |      |      |      |      |      |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  | Axial          |      |      |      |      |      |      |      |      |      |       |       |       |
| Number                                    | A       | no.   | 8              | 8    | 8    | 8    | 10   | 10   | 10   | 12   | 12   | 12   | 12    | 14    | 14    |
|   | E,U     | no.   | 8              | 8    | 10   | 10   | 10   | 12   | 12   | 14   | 14   | 14   | 14    | 16    | 16    |
|   | N       | no.   | 10             | 10   | 12   | 12   | 12   | 14   | 14   | 16   | 16   | 16   | 16    | 18    | 20    |
| Sound data calculated in cooling mode (1) |         |       |                |      |      |      |      |      |      |      |      |      |       |       |       |
| Sound power level                         | A       | dB(A) | 97,0           | 97,0 | 97,0 | 97,0 | 98,0 | 98,0 | 98,0 | 98,0 | 98,0 | 99,0 | 99,0  | 100,0 | 101,0 |
|   | E       | dB(A) | 93,0           | 93,0 | 93,0 | 94,0 | 94,0 | 93,0 | 93,0 | 93,0 | 93,0 | 95,0 | 96,0  | 98,0  | 98,0  |
|   | N       | dB(A) | 93,0           | 93,0 | 94,0 | 94,0 | 94,0 | 94,0 | 93,0 | 93,0 | 93,0 | 94,0 | 96,0  | 98,0  | 99,0  |
|   | U       | dB(A) | 97,0           | 97,0 | 98,0 | 98,0 | 98,0 | 99,0 | 99,0 | 99,0 | 99,0 | 99,0 | 100,0 | 101,0 | 102,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size                                      |         |       | 3902           | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6903  | 7203  | 8403  | 9603  |
|---|---------|-------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                                |         |       |                |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E,N,U | type  | Screw          |       |       |       |       |       |       |       |       |       |       |       |
| Compressor regulation                     | A,E,N,U | Type  | On-Off         |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | A       | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
|   | E,U     | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | -     | -     |
|   | N       | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | -     | -     | -     | -     |
| Circuits                                  | A       | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
|   | E,U     | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | -     | -     |
|   | N       | no.   | 2              | 2     | 2     | 2     | 2     | 2     | 2     | 2     | -     | -     | -     | -     |
| Refrigerant                               | A,E,N,U | type  | R134a          |       |       |       |       |       |       |       |       |       |       |       |
| System side heat exchanger                |         |       |                |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E,N,U | type  | Shell and tube |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | A       | no.   | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 2     |
|   | E       | no.   | 1              | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 2     | 2     | -     | -     |
|   | N       | no.   | 1              | 1     | 2     | 2     | 2     | 2     | 2     | 2     | -     | -     | -     | -     |
|   | U       | no.   | 1              | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 2     | 2     | -     | -     |
| Inverter fan                              |         |       |                |       |       |       |       |       |       |       |       |       |       |       |
| Type                                      | A,E,N,U | type  | Axial          |       |       |       |       |       |       |       |       |       |       |       |
| Number                                    | A       | no.   | 16             | 16    | 18    | 18    | 18    | 20    | 22    | 22    | 28    | 28    | 30    | 34    |
|   | E,U     | no.   | 18             | 20    | 20    | 22    | 22    | 24    | 26    | 28    | 30    | 32    | -     | -     |
|   | N       | no.   | 22             | 22    | 26    | 28    | 30    | 32    | 32    | 32    | -     | -     | -     | -     |
| Sound data calculated in cooling mode (1) |         |       |                |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                         | A       | dB(A) | 101,0          | 100,0 | 101,0 | 101,0 | 101,0 | 102,0 | 102,0 | 102,0 | 104,0 | 104,0 | 105,0 | 105,0 |
|   | E       | dB(A) | 98,0           | 96,0  | 97,0  | 97,0  | 99,0  | 100,0 | 100,0 | 99,0  | 99,0  | 99,0  | -     | -     |
|   | N       | dB(A) | 98,0           | 97,0  | 97,0  | 97,0  | 99,0  | 100,0 | 100,0 | 99,0  | -     | -     | -     | -     |
|   | U       | dB(A) | 101,0          | 101,0 | 101,0 | 102,0 | 102,0 | 103,0 | 103,0 | 103,0 | 104,0 | 104,0 | -     | -     |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |         |    | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652  | 2802  | 3002  | 3202  | 3402  | 3602  |
|-------------------------------|---------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Dimensions and weights</b> |         |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                             | A,E,N,U | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                             | A,E,N,U | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                             | A       | mm | 5160  | 5160  | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 7140  | 7140  | 8330  | 8330  |
|                               | E,U     | mm | 5160  | 5160  | 6350  | 6350  | 6350  | 7140  | 7140  | 8330  | 8330  | 8330  | 8330  | 9520  | 9520  |
|                               | N       | mm | 6350  | 6350  | 7140  | 7140  | 7140  | 8330  | 8330  | 9520  | 9520  | 9520  | 9520  | 10710 | 11900 |
| Size                          |         |    | 3902  | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6903  | 7203  | 8403  | 9603  |       |
| <b>Dimensions and weights</b> |         |    |       |       |       |       |       |       |       |       |       |       |       |       |       |
| A                             | A       | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |       |
|                               | E,U     | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     |       |
|                               | N       | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | -     | -     | -     | -     |       |
| B                             | A       | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |       |
|                               | E,U     | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     |       |
|                               | N       | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | -     | -     | -     | -     |       |
| C                             | A       | mm | 9520  | 9520  | 10710 | 10710 | 10710 | 11900 | 13090 | 13090 | 16660 | 16660 | 17850 | 20230 |       |
|                               | E,U     | mm | 10710 | 11900 | 11900 | 13090 | 13090 | 14280 | 15470 | 16660 | 17850 | 19040 | -     | -     |       |
|                               | N       | mm | 13090 | 13090 | 15470 | 16660 | 17850 | 19040 | 19040 | 19040 | -     | -     | -     | -     |       |

■ For transport reasons, the units with the depth of more than 13090 mm are shipped separately.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

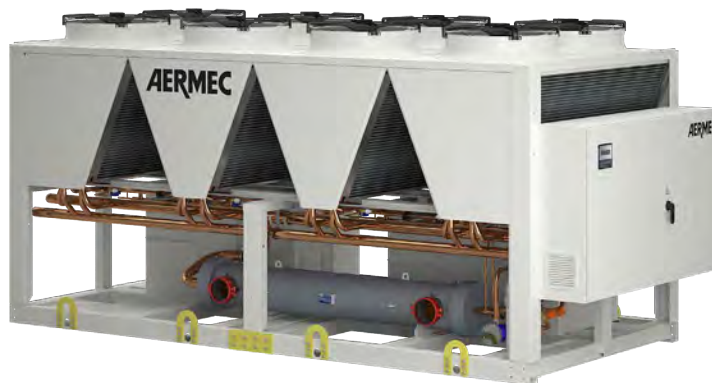
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NSM HWT B

## Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 306 ÷ 1991 kW

- High efficiency also at partial loads
- Microchannel coils
- Suitable for Data Center applications
- Water produced up to 30 °C
- Night mode



### DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and the use of steady speed compressors together with inverter-controlled variable speed compressors guaranteeing a high energy efficiency level both at full and partial load.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency
- N** Silenced very high efficiency
- U** Very high efficiency

### FEATURES

#### Operating field

Water produced from 5 °C ÷ 30 °C.

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

#### Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

## ACCESSORIES

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

**AK:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

## ACCESSORIES COMPATIBILITY

| Model               | Ver     | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|---------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x n° 2 (1) | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET              | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1                 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

| Model               | Ver     | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|---------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1 x n° 2 (1) | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    |      |      |      |      |
| AER485P1 x n° 3 (1) | A,E,N,U |      |      |      |      |      |      |      |      | *    | *    | *    | *    |
| AERNET              | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FB1                 | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | A,E,N,U | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Ver        | 1402     | 1602     | 1802     | 2002     | 2202     | 2352     | 2502     | 2652     | 2802     | 3002     | 3202     | 3402     | 3602     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

| Ver        | 3902     | 4202     | 4502     | 4802     | 5202     | 5602     | 6002     | 6402     | 6903     | 7203     | 8403     | 9603     |
|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E, N, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

### Power factor correction

| Ver | 1402        | 1602        | 1802        | 2002        | 2202        | 2352        | 2502        | 2652        | 2802        |
|-----|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352Q | RIFNSM2502Q | RIFNSM2652Q | RIFNSM2802C |
| E   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002Q | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| N   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802C | RIFNSM2002Q | RIFNSM2202C | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |
| U   | RIFNSM1402Q | RIFNSM1602Q | RIFNSM1802Q | RIFNSM2002C | RIFNSM2202Q | RIFNSM2352C | RIFNSM2502C | RIFNSM2652Q | RIFNSM2802C |

A grey background indicates the accessory must be assembled in the factory

| Ver     | 3002        | 3202        | 3402        | 3602        | 3902        | 4202        | 4502        | 4802        | 5202        |
|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| A, E, U | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | RIFNSM4502C | RIFNSM4802C | RIFNSM5202C |
| N       | RIFNSM3002C | RIFNSM3202C | RIFNSM3402C | RIFNSM3602C | RIFNSM3902C | RIFNSM4202C | -           | -           | -           |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

| Ver | 5602        | 6002        | 6402        | 6503 | 6703 | 6903 | 7203 | 8403 | 9603 |
|-----|-------------|-------------|-------------|------|------|------|------|------|------|
| A   | RIFNSM5602C | RIFNSM6002C | RIFNSM6402C | -    | -    | -    | -    | -    | -    |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

### Anti-intrusion grid

| Ver        | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902    | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6903    | 7203    | 8403    | 9603    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) | GP. (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

### Heater exchangers

| Ver        | 1402    | 1602    | 1802    | 2002    | 2202    | 2352    | 2502    | 2652    | 2802    | 3002    | 3202    | 3402    | 3602    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902    | 4202    | 4502    | 4802    | 5202    | 5602    | 6002    | 6402    | 6903    | 7203    | 8403    | 9603    |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| A, E, N, U | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) | KRS (1) |

(1) Contact the factory

A grey background indicates the accessory must be assembled in the factory

#### Acoustic kit

| Ver        | 1402   | 1602   | 1802   | 2002   | 2202   | 2352   | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E, N, U | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

| Ver        | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403   | 9603   |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| A, E, N, U | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) | AK (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description  |
|----------------|--|
| <b>1,2,3</b>   | <b>NSM</b>   |
|                | <b>Size</b>  |
| <b>4,5,6,7</b> | 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6903, 7203, 8403, 9603 |
| <b>8</b>       | <b>Operating field (1)</b>   |
| W              | Electronic thermostatic expansion valve  |
| <b>9</b>       | <b>Model</b>   |
| B              | Free-cooling glycol free   |
| G              | Free-cooling glycol free plus (2)  |
| <b>10</b>      | <b>Heat recovery</b>   |
| °              | Without heat recovery  |
| <b>11</b>      | <b>Version</b>   |
| A              | High efficiency  |
| E              | Silenced high efficiency   |
| N              | Silenced very high efficiency  |
| U              | Very high efficiency   |
| <b>12</b>      | <b>Coils / free-cooling coils</b>  |
| O              | Painted aluminium microchannel / Copper painted aluminium  |
| R              | Copper-copper/Copper-copper (2)  |
| S              | Copper-Tinned copper / Copper -Tinned copper (2)   |
| V              | Copper-painted aluminium / Copper-painted aluminium (2)  |
| °              | Aluminium microchannel / Copper - aluminium  |
| <b>13</b>      | <b>Fans</b>  |
| J              | Inverter   |
| <b>14</b>      | <b>Power supply</b>  |
| °              | 400V ~ 3 50Hz  |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>   |
|                | <b>Without hydronic kit</b>  |
| 00             | Without hydronic kit   |

(1) Water produced from 5 °C ÷ 30 °C

(2) The Free-Cooling Plus "P" models are only compatible with "nom" ed "0"

## PERFORMANCE SPECIFICATIONS

### NSM HWT BA-GA

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Model: B</b>   |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity  | kW  | 306,0 | 351,0 | 400,0 | 441,0 | 479,0 | 505,0 | 546,0 | 589,0  | 638,0  | 653,0  | 687,0  | 753,0  | 792,0  |
| Input power   | kW  | 82,0  | 95,0  | 109,0 | 118,0 | 125,0 | 135,0 | 147,0 | 155,0  | 167,0  | 172,0  | 179,0  | 192,0  | 205,0  |
| Cooling total input current                               | A   | 146,0 | 166,0 | 187,0 | 200,0 | 208,0 | 224,0 | 242,0 | 258,0  | 277,0  | 290,0  | 306,0  | 327,0  | 348,0  |
| EER   | W/W | 3,75  | 3,69  | 3,69  | 3,73  | 3,83  | 3,73  | 3,71  | 3,79   | 3,81   | 3,80   | 3,84   | 3,92   | 3,86   |
| Water flow rate system side                               | l/h | 52824 | 60556 | 69042 | 76187 | 82709 | 87074 | 94164 | 101663 | 110040 | 112699 | 118488 | 129925 | 136678 |
| Pressure drop system side                                 | kPa | 91    | 120   | 119   | 91    | 107   | 118   | 139   | 135    | 152    | 133    | 130    | 99     | 110    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity  | kW  | 303,0 | 276,0 | 281,0 | 292,0 | 360,0 | 363,0 | 367,0 | 437,0  | 441,0  | 454,0  | 456,0  | 541,0  | 542,0  |
| Input power   | kW  | 22,6  | 22,6  | 22,6  | 22,6  | 29,7  | 29,7  | 29,7  | 38,6   | 38,6   | 38,7   | 38,7   | 44,8   | 44,8   |
| Free cooling total input current                          | A   | 36,1  | 36,1  | 36,1  | 36,1  | 47,0  | 47,0  | 47,0  | 61,5   | 61,5   | 61,7   | 61,7   | 71,2   | 71,2   |
| EER   | W/W | 13,43 | 12,22 | 12,46 | 12,93 | 12,14 | 12,23 | 12,36 | 11,32  | 11,43  | 11,73  | 11,79  | 12,07  | 12,11  |

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502  | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Model: G</b>   |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity  | kW  | 305,0 | 349,0 | 398,0 | 439,0 | 477,0 | 502,0 | 543,0 | 587,0  | 635,0  | 650,0  | 683,0  | 749,0  | 788,0  |
| Input power   | kW  | 82,0  | 96,0  | 109,0 | 120,0 | 126,0 | 136,0 | 148,0 | 157,0  | 169,0  | 174,0  | 181,0  | 194,0  | 207,0  |
| Cooling total input current                               | A   | 147,0 | 167,0 | 188,0 | 201,0 | 210,0 | 226,0 | 244,0 | 260,0  | 279,0  | 292,0  | 308,0  | 330,0  | 351,0  |
| EER   | W/W | 3,70  | 3,64  | 3,64  | 3,68  | 3,78  | 3,68  | 3,66  | 3,74   | 3,76   | 3,74   | 3,78   | 3,86   | 3,80   |
| Water flow rate system side                               | l/h | 52588 | 60291 | 68707 | 75829 | 82367 | 86693 | 93725 | 101283 | 109546 | 112184 | 117898 | 129336 | 136024 |
| Pressure drop system side                                 | kPa | 90    | 119   | 118   | 90    | 106   | 117   | 137   | 134    | 151    | 132    | 129    | 98     | 108    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity  | kW  | 314,0 | 287,0 | 293,0 | 305,0 | 377,0 | 380,0 | 384,0 | 459,0  | 463,0  | 478,0  | 481,0  | 570,0  | 572,0  |
| Input power   | kW  | 23,0  | 22,9  | 22,9  | 23,0  | 30,1  | 30,1  | 30,1  | 39,2   | 39,2   | 39,3   | 39,3   | 45,5   | 45,5   |
| Free cooling total input current                          | A   | 36,6  | 36,6  | 36,6  | 36,6  | 47,7  | 47,7  | 47,7  | 62,3   | 62,3   | 62,5   | 62,5   | 72,1   | 72,1   |
| EER   | W/W | 13,67 | 12,52 | 12,77 | 13,30 | 12,51 | 12,60 | 12,74 | 11,72  | 11,84  | 12,18  | 12,25  | 12,53  | 12,58  |

### NSM HWT BA-GA

| Size  |     | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: B</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 853,0  | 882,0  | 959,0  | 1014,0 | 1082,0 | 1169,0 | 1262,0 | 1327,0 | 1476,0 | 1531,0 | 1758,0 | 2001,0 |
| Input power   | kW  | 216,0  | 228,0  | 244,0  | 260,0  | 281,0  | 295,0  | 319,0  | 343,0  | 373,0  | 388,0  | 442,0  | 512,0  |
| Cooling total input current                               | A   | 362,0  | 377,0  | 416,0  | 453,0  | 478,0  | 494,0  | 531,0  | 567,0  | 646,0  | 683,0  | 740,0  | 854,0  |
| EER   | W/W | 3,95   | 3,87   | 3,92   | 3,90   | 3,86   | 3,97   | 3,95   | 3,87   | 3,96   | 3,94   | 3,97   | 3,91   |
| Water flow rate system side                               | l/h | 147129 | 152124 | 165550 | 174920 | 186802 | 201811 | 217758 | 228975 | 254763 | 264131 | 303311 | 345300 |
| Pressure drop system side                                 | kPa | 128    | 137    | 148    | 165    | 155    | 146    | 171    | 190    | 126    | 141    | 111    | 144    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 598,0  | 599,0  | 674,0  | 675,0  | 675,0  | 748,0  | 802,0  | 807,0  | 1038,0 | 1039,0 | 1134,0 | 1263,0 |
| Input power   | kW  | 49,8   | 49,8   | 55,0   | 55,0   | 55,0   | 60,0   | 64,9   | 64,9   | 84,7   | 84,7   | 93,7   | 103,6  |
| Free cooling total input current                          | A   | 78,9   | 78,9   | 87,1   | 87,1   | 87,1   | 95,0   | 102,6  | 102,6  | 134,1  | 134,1  | 148,7  | 164,3  |
| EER   | W/W | 12,03  | 12,04  | 12,26  | 12,28  | 12,28  | 12,46  | 12,36  | 12,43  | 12,26  | 12,27  | 12,10  | 12,18  |

| Size  |     | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: G</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 849,0  | 878,0  | 955,0  | 1009,0 | 1077,0 | 1164,0 | 1256,0 | 1320,0 | 1470,0 | 1524,0 | 1749,0 | 1991,0 |
| Input power   | kW  | 218,0  | 230,0  | 247,0  | 262,0  | 284,0  | 298,0  | 322,0  | 346,0  | 377,0  | 392,0  | 447,0  | 517,0  |
| Cooling total input current                               | A   | 365,0  | 381,0  | 420,0  | 456,0  | 482,0  | 498,0  | 536,0  | 571,0  | 652,0  | 688,0  | 747,0  | 861,0  |
| EER   | W/W | 3,90   | 3,81   | 3,87   | 3,84   | 3,80   | 3,91   | 3,90   | 3,81   | 3,90   | 3,89   | 3,91   | 3,85   |
| Water flow rate system side                               | l/h | 146478 | 151430 | 164829 | 174121 | 185838 | 200784 | 216706 | 227798 | 253695 | 262987 | 301787 | 343582 |
| Pressure drop system side                                 | kPa | 127    | 136    | 147    | 164    | 153    | 144    | 170    | 188    | 125    | 140    | 110    | 143    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 628,0  | 629,0  | 708,0  | 709,0  | 709,0  | 785,0  | 839,0  | 844,0  | 1089,0 | 1090,0 | 1192,0 | 1325,0 |
| Input power   | kW  | 50,5   | 50,5   | 55,8   | 55,8   | 55,8   | 61,0   | 66,0   | 66,0   | 86,0   | 86,0   | 95,1   | 105,2  |
| Free cooling total input current                          | A   | 80,0   | 80,0   | 88,3   | 88,3   | 88,3   | 96,4   | 104,1  | 104,1  | 136,0  | 136,0  | 150,8  | 166,6  |
| EER   | W/W | 12,43  | 12,45  | 12,68  | 12,70  | 12,70  | 12,86  | 12,72  | 12,80  | 12,67  | 12,68  | 12,54  | 12,59  |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling glycol-free: System side water heat exchanger 25 °C; External air 12 °C

## NSM HWT BE-GE

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 315,0 | 362,0 | 415,0 | 456,0 | 478,0 | 524,0 | 551,0 | 599,0  | 626,0  | 641,0  | 667,0  | 735,0  | 772,0  |
| Input power                 | kW  | 75,0  | 91,0  | 101,0 | 112,0 | 120,0 | 127,0 | 138,0 | 145,0  | 156,0  | 161,0  | 169,0  | 178,0  | 192,0  |
| Cooling total input current | A   | 134,0 | 158,0 | 175,0 | 189,0 | 199,0 | 210,0 | 227,0 | 240,0  | 258,0  | 272,0  | 288,0  | 303,0  | 325,0  |
| EER                         | W/W | 4,19  | 3,97  | 4,09  | 4,07  | 3,98  | 4,13  | 4,00  | 4,12   | 4,02   | 3,97   | 3,95   | 4,13   | 4,03   |
| Water flow rate system side | l/h | 54400 | 62421 | 71530 | 78692 | 82506 | 90469 | 95144 | 103288 | 108035 | 110595 | 115049 | 126808 | 133234 |
| Pressure drop system side   | kPa | 81    | 100   | 101   | 95    | 104   | 105   | 116   | 127    | 139    | 121    | 125    | 96     | 106    |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 260,0 | 228,0 | 276,0 | 285,0 | 287,0 | 343,0 | 345,0 | 389,0 | 391,0 | 402,0 | 403,0 | 469,0 | 471,0 |
| Input power                      | kW  | 10,6  | 10,6  | 13,4  | 13,5  | 13,5  | 19,2  | 19,2  | 21,9  | 21,9  | 22,1  | 22,1  | 23,9  | 23,9  |
| Free cooling total input current | A   | 16,7  | 16,6  | 21,0  | 21,2  | 21,2  | 30,5  | 30,5  | 34,5  | 34,5  | 34,9  | 34,9  | 37,6  | 37,6  |
| EER                              | W/W | 24,39 | 21,44 | 20,58 | 21,09 | 21,21 | 17,84 | 17,94 | 17,79 | 17,87 | 18,15 | 18,22 | 19,61 | 19,67 |

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 314,0 | 360,0 | 412,0 | 453,0 | 474,0 | 521,0 | 548,0 | 595,0  | 622,0  | 637,0  | 662,0  | 730,0  | 767,0  |
| Input power                 | kW  | 76,0  | 92,0  | 102,0 | 113,0 | 122,0 | 128,0 | 139,0 | 147,0  | 157,0  | 163,0  | 170,0  | 180,0  | 194,0  |
| Cooling total input current | A   | 134,0 | 159,0 | 176,0 | 190,0 | 201,0 | 211,0 | 229,0 | 242,0  | 260,0  | 274,0  | 291,0  | 306,0  | 328,0  |
| EER                         | W/W | 4,14  | 3,92  | 4,03  | 4,00  | 3,90  | 4,07  | 3,93  | 4,06   | 3,96   | 3,90   | 3,88   | 4,06   | 3,95   |
| Water flow rate system side | l/h | 54167 | 62091 | 71121 | 78115 | 81864 | 89932 | 94544 | 102700 | 107375 | 109898 | 114268 | 125980 | 132294 |
| Pressure drop system side   | kPa | 81    | 99    | 99    | 94    | 103   | 103   | 114   | 126    | 138    | 119    | 123    | 94     | 104    |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 270,0 | 237,0 | 288,0 | 298,0 | 300,0 | 358,0 | 360,0 | 406,0 | 408,0 | 419,0 | 421,0 | 491,0 | 492,0 |
| Input power                      | kW  | 10,8  | 10,7  | 13,5  | 13,7  | 13,7  | 19,4  | 19,4  | 22,1  | 22,1  | 22,3  | 22,3  | 24,1  | 24,1  |
| Free cooling total input current | A   | 16,8  | 16,8  | 21,2  | 21,4  | 21,4  | 30,8  | 30,8  | 34,8  | 34,8  | 35,2  | 35,2  | 37,9  | 37,9  |
| EER                              | W/W | 25,10 | 22,15 | 21,24 | 21,80 | 21,93 | 18,48 | 18,59 | 18,39 | 18,48 | 18,80 | 18,87 | 20,33 | 20,39 |

## NSM HWT BE-GE

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 823,0  | 870,0  | 932,0  | 1011,0 | 1070,0 | 1152,0 | 1226,0 | 1300,0 | 1423,0 | 1502,0 | - | - |
| Input power                 | kW  | 202,0  | 210,0  | 228,0  | 241,0  | 260,0  | 275,0  | 296,0  | 318,0  | 350,0  | 364,0  | - | - |
| Cooling total input current | A   | 339,0  | 348,0  | 388,0  | 421,0  | 443,0  | 460,0  | 493,0  | 526,0  | 601,0  | 631,0  | - | - |
| EER                         | W/W | 4,07   | 4,15   | 4,09   | 4,19   | 4,12   | 4,19   | 4,14   | 4,09   | 4,07   | 4,13   | - | - |
| Water flow rate system side | l/h | 142081 | 150081 | 160772 | 174443 | 184665 | 198768 | 211564 | 224359 | 245581 | 259231 | - | - |
| Pressure drop system side   | kPa | 121    | 135    | 142    | 152    | 170    | 81     | 128    | 110    | 119    | 123    | - | - |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 515,0 | 578,0 | 588,0 | 633,0 | 634,0 | 693,0 | 742,0 | 788,0 | 880,0 | 924,0 | - | - |
| Input power                      | kW  | 25,6  | 31,3  | 31,5  | 33,1  | 33,1  | 38,4  | 41,1  | 43,7  | 46,8  | 48,5  | - | - |
| Free cooling total input current | A   | 40,1  | 48,8  | 49,1  | 51,6  | 51,6  | 61,1  | 65,0  | 69,0  | 73,4  | 75,9  | - | - |
| EER                              | W/W | 20,11 | 18,44 | 18,68 | 19,09 | 19,12 | 18,02 | 18,06 | 18,01 | 18,79 | 19,06 | - | - |

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |        |        |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|---|
| Cooling capacity            | kW  | 818,0  | 865,0  | 926,0  | 1005,0 | 1063,0 | 1144,0 | 1218,0 | 1292,0 | 1414,0 | 1493,0 | - | - |
| Input power                 | kW  | 204,0  | 212,0  | 230,0  | 244,0  | 263,0  | 278,0  | 300,0  | 321,0  | 354,0  | 368,0  | - | - |
| Cooling total input current | A   | 342,0  | 351,0  | 392,0  | 425,0  | 448,0  | 464,0  | 497,0  | 531,0  | 607,0  | 636,0  | - | - |
| EER                         | W/W | 4,00   | 4,08   | 4,02   | 4,12   | 4,04   | 4,12   | 4,07   | 4,02   | 3,99   | 4,06   | - | - |
| Water flow rate system side | l/h | 141148 | 149240 | 159755 | 173439 | 183394 | 197398 | 210159 | 222920 | 243982 | 257648 | - | - |
| Pressure drop system side   | kPa | 120    | 134    | 140    | 150    | 168    | 80     | 127    | 109    | 118    | 122    | - | - |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Cooling capacity                 | kW  | 538,0 | 604,0 | 615,0 | 661,0 | 662,0 | 724,0 | 775,0 | 822,0 | 920,0 | 966,0 | - | - |
| Input power                      | kW  | 25,8  | 31,6  | 31,7  | 33,4  | 33,4  | 38,8  | 41,4  | 44,1  | 46,8  | 48,9  | - | - |
| Free cooling total input current | A   | 40,5  | 49,2  | 49,4  | 52,0  | 52,0  | 61,5  | 65,5  | 69,5  | 73,9  | 76,5  | - | - |
| EER                              | W/W | 20,80 | 19,11 | 19,38 | 19,78 | 19,80 | 18,67 | 18,70 | 18,64 | 19,65 | 19,74 | - | - |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling glycol-free: System side water heat exchanger 25 °C; External air 12 °C



## NSM HWT BU-GU

| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
|---|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: B</b>   |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 328,0 | 381,0 | 435,0 | 482,0 | 506,0 | 550,0 | 580,0  | 627,0  | 657,0  | 674,0  | 703,0  | 772,0  | 814,0  |
| Input power   | kW  | 84,0  | 98,0  | 112,0 | 121,0 | 128,0 | 138,0 | 148,0  | 159,0  | 168,0  | 172,0  | 178,0  | 191,0  | 203,0  |
| Cooling total input current                               | A   | 148,0 | 170,0 | 192,0 | 204,0 | 212,0 | 229,0 | 244,0  | 263,0  | 279,0  | 291,0  | 305,0  | 326,0  | 345,0  |
| EER   | W/W | 3,93  | 3,90  | 3,89  | 3,99  | 3,97  | 3,99  | 3,92   | 3,94   | 3,91   | 3,91   | 3,95   | 4,05   | 4,02   |
| Water flow rate system side                               | l/h | 56622 | 65790 | 75056 | 83161 | 87363 | 94979 | 100110 | 108143 | 113452 | 116262 | 121282 | 133207 | 140417 |
| Pressure drop system side                                 | kPa | 88    | 112   | 111   | 106   | 117   | 115   | 128    | 139    | 127    | 134    | 130    | 106    | 117    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 319,0 | 287,0 | 345,0 | 367,0 | 369,0 | 433,0 | 436,0  | 488,0  | 506,0  | 507,0  | 538,0  | 595,0  | 597,0  |
| Input power   | kW  | 23,6  | 23,5  | 29,6  | 31,5  | 31,5  | 38,6  | 38,6   | 44,5   | 44,7   | 44,7   | 44,8   | 49,8   | 49,8   |
| Free cooling total input current                          | A   | 37,3  | 37,3  | 46,8  | 50,1  | 50,1  | 61,5  | 61,5   | 70,6   | 71,0   | 71,0   | 71,2   | 78,9   | 78,9   |
| EER   | W/W | 13,52 | 12,20 | 11,67 | 11,64 | 11,72 | 11,22 | 11,30  | 10,96  | 11,31  | 11,35  | 12,01  | 11,96  | 12,00  |
| Size  |     | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802   | 3002   | 3202   | 3402   | 3602   |
| <b>Model: G</b>   |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation</b>              |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 327,0 | 380,0 | 433,0 | 480,0 | 504,0 | 548,0 | 578,0  | 624,0  | 655,0  | 671,0  | 700,0  | 769,0  | 810,0  |
| Input power   | kW  | 84,0  | 99,0  | 113,0 | 122,0 | 129,0 | 139,0 | 149,0  | 160,0  | 170,0  | 174,0  | 180,0  | 192,0  | 205,0  |
| Cooling total input current                               | A   | 149,0 | 171,0 | 194,0 | 205,0 | 214,0 | 231,0 | 246,0  | 265,0  | 281,0  | 294,0  | 308,0  | 328,0  | 347,0  |
| EER   | W/W | 3,88  | 3,84  | 3,84  | 3,93  | 3,91  | 3,94  | 3,87   | 3,89   | 3,86   | 3,86   | 3,89   | 4,00   | 3,96   |
| Water flow rate system side                               | l/h | 56434 | 65512 | 74759 | 82781 | 86955 | 94601 | 99699  | 107739 | 113006 | 115799 | 120780 | 132683 | 139835 |
| Pressure drop system side                                 | kPa | 87    | 111   | 110   | 105   | 116   | 115   | 127    | 138    | 126    | 132    | 129    | 105    | 116    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 331,0 | 300,0 | 360,0 | 385,0 | 388,0 | 455,0 | 458,0  | 510,0  | 531,0  | 533,0  | 567,0  | 624,0  | 626,0  |
| Input power   | kW  | 23,9  | 23,9  | 30,0  | 32,0  | 32,0  | 39,2  | 39,2   | 45,1   | 45,4   | 45,4   | 45,5   | 50,5   | 50,5   |
| Free cooling total input current                          | A   | 37,9  | 37,8  | 47,5  | 50,8  | 50,8  | 62,3  | 62,3   | 71,6   | 72,0   | 72,0   | 72,1   | 80,0   | 80,0   |
| EER   | W/W | 13,81 | 12,56 | 11,98 | 12,04 | 12,13 | 11,61 | 11,69  | 11,30  | 11,70  | 11,73  | 12,47  | 12,36  | 12,40  |

## NSM HWT BU-GU

| Size  |     | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403 | 9603 |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Model: B</b>   |     |        |        |        |        |        |        |        |        |        |        |      |      |
| <b>Cooling performance chiller operation</b>              |     |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity  | kW  | 864,0  | 909,0  | 978,0  | 1059,0 | 1127,0 | 1213,0 | 1289,0 | 1365,0 | 1495,0 | 1576,0 | -    | -    |
| Input power   | kW  | 216,0  | 228,0  | 243,0  | 260,0  | 276,0  | 293,0  | 317,0  | 341,0  | 372,0  | 388,0  | -    | -    |
| Cooling total input current                               | A   | 363,0  | 378,0  | 414,0  | 454,0  | 472,0  | 493,0  | 529,0  | 566,0  | 639,0  | 677,0  | -    | -    |
| EER   | W/W | 3,99   | 3,99   | 4,02   | 4,08   | 4,09   | 4,14   | 4,06   | 4,00   | 4,02   | 4,06   | -    | -    |
| Water flow rate system side                               | l/h | 149099 | 156852 | 168696 | 182745 | 194431 | 209298 | 222401 | 235505 | 257918 | 271953 | -    | -    |
| Pressure drop system side                                 | kPa | 134    | 133    | 156    | 166    | 188    | 112    | 142    | 128    | 131    | 135    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity  | kW  | 647,0  | 743,0  | 746,0  | 796,0  | 797,0  | 885,0  | 938,0  | 990,0  | 1126,0 | 1177,0 | -    | -    |
| Input power   | kW  | 54,7   | 63,8   | 63,8   | 68,7   | 68,7   | 79,0   | 84,0   | 89,0   | 98,2   | 103,1  | -    | -    |
| Free cooling total input current                          | A   | 86,6   | 100,7  | 100,7  | 108,3  | 108,3  | 125,7  | 133,4  | 141,2  | 155,6  | 163,2  | -    | -    |
| EER   | W/W | 11,83  | 11,65  | 11,69  | 11,60  | 11,61  | 11,20  | 11,17  | 11,13  | 11,46  | 11,41  | -    | -    |
| Size  |     | 3902   | 4202   | 4502   | 4802   | 5202   | 5602   | 6002   | 6402   | 6903   | 7203   | 8403 | 9603 |
| <b>Model: G</b>   |     |        |        |        |        |        |        |        |        |        |        |      |      |
| <b>Cooling performance chiller operation</b>              |     |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity  | kW  | 861,0  | 906,0  | 974,0  | 1055,0 | 1122,0 | 1208,0 | 1284,0 | 1359,0 | 1489,0 | 1570,0 | -    | -    |
| Input power   | kW  | 218,0  | 230,0  | 245,0  | 262,0  | 278,0  | 296,0  | 320,0  | 344,0  | 375,0  | 392,0  | -    | -    |
| Cooling total input current                               | A   | 366,0  | 381,0  | 418,0  | 457,0  | 475,0  | 497,0  | 533,0  | 570,0  | 644,0  | 682,0  | -    | -    |
| EER   | W/W | 3,94   | 3,94   | 3,97   | 4,03   | 4,03   | 4,08   | 4,01   | 3,95   | 3,97   | 4,01   | -    | -    |
| Water flow rate system side                               | l/h | 148519 | 156292 | 168052 | 182059 | 193641 | 208436 | 221510 | 234585 | 256917 | 270905 | -    | -    |
| Pressure drop system side                                 | kPa | 133    | 132    | 155    | 165    | 187    | 111    | 141    | 127    | 130    | 134    | -    | -    |
| <b>Cooling performances with free-cooling glycol-free</b> |     |        |        |        |        |        |        |        |        |        |        |      |      |
| Cooling capacity  | kW  | 676,0  | 780,0  | 783,0  | 834,0  | 835,0  | 931,0  | 984,0  | 1036,0 | 1185,0 | 1236,0 | -    | -    |
| Input power   | kW  | 55,5   | 64,7   | 64,7   | 69,7   | 69,7   | 80,1   | 85,2   | 90,3   | 99,6   | 104,6  | -    | -    |
| Free cooling total input current                          | A   | 87,8   | 102,0  | 102,0  | 109,8  | 109,8  | 127,3  | 135,2  | 143,1  | 157,6  | 165,4  | -    | -    |
| EER   | W/W | 12,18  | 12,05  | 12,11  | 11,97  | 11,98  | 11,62  | 11,54  | 11,48  | 11,90  | 11,81  | -    | -    |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling glycol-free: System side water heat exchanger 25 °C; External air 12 °C

**NSM HWT BN-GN**

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 324,0 | 376,0 | 428,0 | 473,0 | 497,0 | 538,0 | 567,0 | 614,0  | 643,0  | 659,0  | 687,0  | 751,0  | 803,0  |
| Input power                 | kW  | 74,0  | 88,0  | 99,0  | 109,0 | 116,0 | 124,0 | 134,0 | 142,0  | 152,0  | 157,0  | 163,0  | 174,0  | 184,0  |
| Cooling total input current | A   | 132,0 | 154,0 | 172,0 | 184,0 | 192,0 | 206,0 | 222,0 | 235,0  | 252,0  | 265,0  | 280,0  | 297,0  | 313,0  |
| EER                         | W/W | 4,41  | 4,27  | 4,31  | 4,35  | 4,29  | 4,33  | 4,21  | 4,32   | 4,24   | 4,21   | 4,22   | 4,32   | 4,38   |
| Water flow rate system side | l/h | 55983 | 64940 | 73810 | 81682 | 85818 | 92811 | 97769 | 105919 | 111036 | 113774 | 118607 | 129528 | 138643 |
| Pressure drop system side   | kPa | 74    | 93    | 87    | 102   | 113   | 110   | 122   | 111    | 122    | 128    | 125    | 100    | 115    |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 266,0 | 278,0 | 329,0 | 334,0 | 337,0 | 384,0 | 387,0 | 439,0 | 441,0 | 442,0 | 467,0 | 523,0 | 567,0 |
| Input power                      | kW  | 12,0  | 14,0  | 19,0  | 19,0  | 20,0  | 22,0  | 22,0  | 24,0  | 24,0  | 24,0  | 24,0  | 29,0  | 31,0  |
| Free cooling total input current | A   | 19,1  | 21,2  | 30,3  | 30,3  | 31,5  | 34,5  | 34,5  | 37,5  | 37,5  | 37,5  | 37,6  | 45,8  | 48,3  |
| EER                              | W/W | 21,73 | 20,57 | 17,29 | 17,53 | 16,94 | 17,58 | 17,68 | 18,41 | 18,50 | 18,55 | 19,52 | 17,83 | 18,28 |

| Size |  | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402 | 3602 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation**

|                             |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 323,0 | 374,0 | 426,0 | 471,0 | 494,0 | 535,0 | 564,0 | 611,0  | 640,0  | 656,0  | 683,0  | 746,0  | 799,0  |
| Input power                 | kW  | 74,0  | 89,0  | 100,0 | 110,0 | 117,0 | 125,0 | 136,0 | 143,0  | 153,0  | 158,0  | 164,0  | 175,0  | 185,0  |
| Cooling total input current | A   | 132,0 | 155,0 | 173,0 | 185,0 | 194,0 | 207,0 | 224,0 | 237,0  | 254,0  | 267,0  | 282,0  | 300,0  | 316,0  |
| EER                         | W/W | 4,36  | 4,22  | 4,26  | 4,29  | 4,23  | 4,27  | 4,15  | 4,26   | 4,18   | 4,15   | 4,16   | 4,26   | 4,32   |
| Water flow rate system side | l/h | 55770 | 64623 | 73447 | 81232 | 85330 | 92341 | 97251 | 105389 | 110441 | 113149 | 117928 | 128821 | 137959 |
| Pressure drop system side   | kPa | 74    | 92    | 86    | 101   | 112   | 109   | 121   | 110    | 121    | 127    | 123    | 99     | 113    |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cooling capacity                 | kW  | 279,0 | 292,0 | 346,0 | 351,0 | 354,0 | 404,0 | 407,0 | 461,0 | 463,0 | 464,0 | 491,0 | 549,0 | 595,0 |
| Input power                      | kW  | 12,4  | 13,7  | 19,2  | 19,2  | 20,0  | 22,1  | 22,1  | 24,1  | 24,1  | 24,1  | 24,1  | 29,5  | 31,3  |
| Free cooling total input current | A   | 19,2  | 21,4  | 30,5  | 30,5  | 31,7  | 34,8  | 34,8  | 37,8  | 37,8  | 37,8  | 37,9  | 46,1  | 48,6  |
| EER                              | W/W | 22,53 | 21,40 | 18,03 | 18,27 | 17,67 | 18,32 | 18,43 | 19,17 | 19,27 | 19,31 | 20,33 | 18,59 | 19,04 |

**NSM HWT BN-GN**

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: B****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity            | kW  | 852,0  | 881,0  | 969,0  | 1033,0 | 1115,0 | 1198,0 | 1263,0 | 1329,0 | - | - | - | - |
| Input power                 | kW  | 195,0  | 207,0  | 218,0  | 232,0  | 249,0  | 265,0  | 288,0  | 311,0  | - | - | - | - |
| Cooling total input current | A   | 328,0  | 343,0  | 374,0  | 408,0  | 427,0  | 447,0  | 481,0  | 516,0  | - | - | - | - |
| EER                         | W/W | 4,37   | 4,26   | 4,44   | 4,46   | 4,49   | 4,51   | 4,38   | 4,27   | - | - | - | - |
| Water flow rate system side | l/h | 147047 | 152087 | 167278 | 178230 | 192448 | 206685 | 217997 | 229339 | - | - | - | - |
| Pressure drop system side   | kPa | 117    | 125    | 101    | 93     | 102    | 75     | 92     | 92     | - | - | - | - |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |   |   |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---|
| Cooling capacity                 | kW  | 617,0 | 618,0 | 727,0 | 770,0 | 828,0 | 880,0 | 887,0 | 889,0 | - | - | - | - |
| Input power                      | kW  | 32,8  | 32,8  | 41,1  | 43,7  | 45,7  | 47,7  | 47,7  | 47,7  | - | - | - | - |
| Free cooling total input current | A   | 51,0  | 51,0  | 65,0  | 69,0  | 72,0  | 75,0  | 75,0  | 75,0  | - | - | - | - |
| EER                              | W/W | 18,81 | 18,85 | 17,68 | 17,59 | 18,12 | 18,46 | 18,60 | 18,64 | - | - | - | - |

| Size |  | 3902 | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: G****Cooling performance chiller operation**

|                             |     |        |        |        |        |        |        |        |        |   |   |   |   |
|-----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|---|---|---|---|
| Cooling capacity            | kW  | 848,0  | 877,0  | 965,0  | 1028,0 | 1110,0 | 1192,0 | 1257,0 | 1322,0 | - | - | - | - |
| Input power                 | kW  | 197,0  | 209,0  | 220,0  | 234,0  | 251,0  | 268,0  | 291,0  | 314,0  | - | - | - | - |
| Cooling total input current | A   | 330,0  | 346,0  | 377,0  | 411,0  | 430,0  | 450,0  | 485,0  | 520,0  | - | - | - | - |
| EER                         | W/W | 4,31   | 4,20   | 4,38   | 4,40   | 4,43   | 4,45   | 4,32   | 4,21   | - | - | - | - |
| Water flow rate system side | l/h | 146331 | 151317 | 166517 | 177452 | 191576 | 205700 | 216918 | 228136 | - | - | - | - |
| Pressure drop system side   | kPa | 116    | 124    | 100    | 92     | 101    | 74     | 91     | 91     | - | - | - | - |

**Cooling performances with free-cooling glycol-free**

|                                  |     |       |       |       |       |       |       |       |       |   |   |   |   |
|----------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|---|---|---|---|
| Cooling capacity                 | kW  | 647,0 | 649,0 | 764,0 | 809,0 | 870,0 | 925,0 | 932,0 | 934,0 | - | - | - | - |
| Input power                      | kW  | 33,1  | 33,1  | 41,4  | 44,1  | 46,1  | 48,1  | 48,1  | 48,1  | - | - | - | - |
| Free cooling total input current | A   | 51,4  | 51,4  | 65,5  | 69,5  | 72,5  | 75,5  | 75,5  | 75,5  | - | - | - | - |
| EER                              | W/W | 19,56 | 19,61 | 18,44 | 18,34 | 18,87 | 19,22 | 19,37 | 19,41 | - | - | - | - |

Cooling performance chiller operation: System side water heat exchanger 25 °C/20 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

Cooling performances with free-cooling glycol-free: System side water heat exchanger 25 °C; External air 12 °C

## ELECTRIC DATA

| Size                  |   |   | 1402  | 1602  | 1802  | 2002  | 2202  | 2352  | 2502   | 2652   | 2802  | 3002  | 3202   | 3402   | 3602  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|--------|--------|-------|
| Electric data         |   |   |       |       |       |       |       |       |        |        |       |       |        |        |       |
| Maximum current (FLA) | A | A | 206,0 | 228,0 | 253,0 | 265,0 | 289,0 | 306,0 | 324,0  | 362,0  | 384,0 | 400,0 | 415,0  | 449,0  | 472,0 |
|                       | E | A | 207,0 | 229,0 | 265,0 | 277,0 | 289,0 | 322,0 | 339,0  | 372,0  | 394,0 | 410,0 | 426,0  | 457,0  | 480,0 |
|                       | N | A | 215,0 | 240,0 | 280,0 | 292,0 | 305,0 | 332,0 | 349,0  | 381,0  | 404,0 | 419,0 | 434,0  | 472,0  | 503,0 |
|                       | U | A | 207,0 | 229,0 | 265,0 | 280,0 | 292,0 | 322,0 | 339,0  | 372,0  | 395,0 | 410,0 | 426,0  | 457,0  | 480,0 |
| Peak current (LRA)    | A | A | 279,0 | 269,0 | 308,0 | 346,0 | 362,0 | 395,0 | 406,0  | 457,0  | 472,0 | 490,0 | 500,0  | 536,0  | 551,0 |
|                       | E | A | 279,0 | 269,0 | 317,0 | 354,0 | 362,0 | 403,0 | 415,0  | 466,0  | 480,0 | 499,0 | 509,0  | 545,0  | 560,0 |
|                       | N | A | 288,0 | 280,0 | 332,0 | 369,0 | 378,0 | 414,0 | 425,0  | 475,0  | 490,0 | 508,0 | 518,0  | 559,0  | 583,0 |
|                       | U | A | 279,0 | 269,0 | 317,0 | 357,0 | 365,0 | 403,0 | 415,0  | 466,0  | 481,0 | 499,0 | 509,0  | 545,0  | 560,0 |
| Size                  |   |   | 3902  | 4202  | 4502  | 4802  | 5202  | 5602  | 6002   | 6402   | 6903  | 7203  | 8403   | 9603   |       |
| Electric data         |   |   |       |       |       |       |       |       |        |        |       |       |        |        |       |
| Maximum current (FLA) | A | A | 504,0 | 527,0 | 569,0 | 602,0 | 619,0 | 645,0 | 698,0  | 737,0  | 877,0 | 910,0 | 976,0  | 1111,0 |       |
|                       | E | A | 512,0 | 550,0 | 583,0 | 631,0 | 648,0 | 681,0 | 730,0  | 779,0  | 894,0 | 936,0 | -      | -      |       |
|                       | N | A | 541,0 | 564,0 | 624,0 | 667,0 | 693,0 | 719,0 | 758,0  | 797,0  | -     | -     | -      | -      |       |
|                       | U | A | 512,0 | 550,0 | 583,0 | 631,0 | 648,0 | 683,0 | 731,0  | 779,0  | 899,0 | 941,0 | -      | -      |       |
| Peak current (LRA)    | A | A | 590,0 | 611,0 | 643,0 | 665,0 | 857,0 | 883,0 | 963,0  | 990,0  | 866,0 | 888,0 | 1072,0 | 1204,0 |       |
|                       | E | A | 598,0 | 628,0 | 651,0 | 687,0 | 879,0 | 906,0 | 980,0  | 1016,0 | 875,0 | 905,0 | -      | -      |       |
|                       | N | A | 627,0 | 642,0 | 692,0 | 723,0 | 924,0 | 945,0 | 1009,0 | 1034,0 | -     | -     | -      | -      |       |
|                       | U | A | 598,0 | 628,0 | 651,0 | 687,0 | 879,0 | 909,0 | 982,0  | 1016,0 | 880,0 | 910,0 | -      | -      |       |

Data calculated without hydronic kit and accessories.

## GENERAL TECHNICAL DATA

| Size                                      |         |       | 1402  | 1602 | 1802 | 2002 | 2202 | 2352 | 2502           | 2652 | 2802 | 3002 | 3202  | 3402  | 3602  |
|---|---------|-------|-------|------|------|------|------|------|----------------|------|------|------|-------|-------|-------|
| Compressor                                |         |       |       |      |      |      |      |      |                |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  |       |      |      |      |      |      | Screw          |      |      |      |       |       |       |
| Compressor regulation                     | A,E,N,U | Type  |       |      |      |      |      |      | On-Off         |      |      |      |       |       |       |
| Number                                    | A,E,N,U | no.   | 2     | 2    | 2    | 2    | 2    | 2    | 2              | 2    | 2    | 2    | 2     | 2     | 2     |
| Circuits                                  | A,E,N,U | no.   | 2     | 2    | 2    | 2    | 2    | 2    | 2              | 2    | 2    | 2    | 2     | 2     | 2     |
| Refrigerant                               | A,E,N,U | type  | R134a |      |      |      |      |      |                |      |      |      |       |       |       |
| System side heat exchanger                |         |       |       |      |      |      |      |      |                |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  |       |      |      |      |      |      | Shell and tube |      |      |      |       |       |       |
| Number                                    | A,E,N,U | no.   | 1     | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1     | 1     | 1     |
| Inverter fan                              |         |       |       |      |      |      |      |      |                |      |      |      |       |       |       |
| Type                                      | A,E,N,U | type  |       |      |      |      |      |      | Axial          |      |      |      |       |       |       |
| Number                                    | A       | no.   | 8     | 8    | 8    | 8    | 10   | 10   | 10             | 12   | 12   | 12   | 12    | 14    | 14    |
|   | E,U     | no.   | 8     | 8    | 10   | 10   | 10   | 12   | 12             | 14   | 14   | 14   | 14    | 16    | 16    |
|   | N       | no.   | 10    | 10   | 12   | 12   | 12   | 14   | 14             | 16   | 16   | 16   | 16    | 18    | 20    |
| Sound data calculated in cooling mode (1) |         |       |       |      |      |      |      |      |                |      |      |      |       |       |       |
| Sound power level                         | A       | dB(A) | 97,1  | 97,1 | 97,4 | 97,3 | 98,1 | 98,0 | 97,8           | 98,4 | 98,4 | 98,7 | 99,3  | 100,4 | 100,8 |
|   | E       | dB(A) | 92,7  | 93,0 | 93,4 | 93,6 | 93,8 | 93,4 | 92,8           | 92,7 | 92,5 | 94,9 | 96,4  | 97,6  | 98,4  |
|   | N       | dB(A) | 92,8  | 93,1 | 93,9 | 93,8 | 93,9 | 93,7 | 93,2           | 93,0 | 92,8 | 94,3 | 96,0  | 97,9  | 98,7  |
|   | U       | dB(A) | 97,3  | 97,4 | 98,4 | 98,3 | 98,4 | 98,8 | 98,7           | 99,1 | 99,1 | 99,5 | 100,1 | 101,2 | 101,6 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

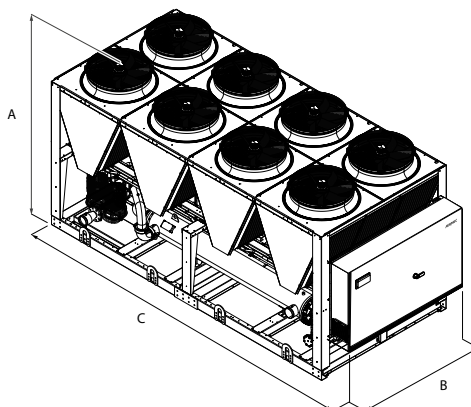
| Size                       |         |      | 3902           | 4202 | 4502 | 4802 | 5202 | 5602 | 6002 | 6402 | 6903 | 7203 | 8403 | 9603 |
|----------------------------|---------|------|----------------|------|------|------|------|------|------|------|------|------|------|------|
| Compressor                 |         |      |                |      |      |      |      |      |      |      |      |      |      |      |
| Type                       | A,E,N,U | type | Screw          |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation      | A,E,N,U | Type | On-Off         |      |      |      |      |      |      |      |      |      |      |      |
| Number                     | A       | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    |
|                            | E,U     | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | -    | -    |
|                            | N       | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | -    | -    | -    | -    |
| Circuits                   | A       | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    |
|                            | E,U     | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | -    | -    |
|                            | N       | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | -    | -    | -    | -    |
| Refrigerant                | A,E,N,U | type | R134a          |      |      |      |      |      |      |      |      |      |      |      |
| System side heat exchanger |         |      |                |      |      |      |      |      |      |      |      |      |      |      |
| Type                       | A,E,N,U | type | Shell and tube |      |      |      |      |      |      |      |      |      |      |      |
| Number                     | A       | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
|                            | E,U     | no.  | 1              | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | -    | -    |
|                            | N       | no.  | 1              | 1    | 2    | 2    | 2    | 2    | 2    | 2    | -    | -    | -    | -    |
| Inverter fan               |         |      |                |      |      |      |      |      |      |      |      |      |      |      |
| Type                       | A,E,N,U | type | Axial          |      |      |      |      |      |      |      |      |      |      |      |
| Number                     | A       | no.  | 16             | 16   | 18   | 18   | 18   | 20   | 22   | 22   | 28   | 28   | 30   | 34   |
|                            | E,U     | no.  | 18             | 20   | 20   | 22   | 22   | 24   | 26   | 28   | 30   | 32   | -    | -    |
|                            | N       | no.  | 22             | 22   | 26   | 28   | 30   | 32   | 32   | 32   | -    | -    | -    | -    |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size                                      |   |       | 3902  | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6903  | 7203  | 8403  | 9603  |
|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Sound data calculated in cooling mode (1) |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Sound power level                         | A | dB(A) | 100,8 | 100,4 | 100,8 | 100,9 | 101,4 | 102,3 | 102,3 | 101,9 | 103,7 | 103,8 | 105,0 | 104,8 |
|   | E | dB(A) | 97,6  | 96,4  | 96,7  | 97,0  | 98,9  | 100,3 | 99,5  | 98,7  | 98,7  | 98,9  | -     | -     |
|   | N | dB(A) | 97,9  | 96,8  | 97,0  | 97,3  | 98,7  | 100,1 | 99,5  | 98,7  | -     | -     | -     | -     |
|   | U | dB(A) | 101,5 | 101,4 | 101,4 | 101,8 | 102,3 | 103,2 | 103,1 | 102,9 | 104,0 | 104,3 | -     | -     |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |         |    | 1402 | 1602 | 1802 | 2002 | 2202 | 2352 | 2502 | 2652 | 2802 | 3002 | 3202 | 3402  | 3602  |
|-------------------------------|---------|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| <b>Dimensions and weights</b> |         |    |      |      |      |      |      |      |      |      |      |      |      |       |       |
| A                             | A,E,N,U | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  |
| B                             | A,E,N,U | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  |
| C                             | A       | mm | 5160 | 5160 | 5160 | 5160 | 6350 | 6350 | 6350 | 7140 | 7140 | 7140 | 7140 | 8330  | 8330  |
|                               | E,U     | mm | 5160 | 5160 | 6350 | 6350 | 6350 | 7140 | 7140 | 8330 | 8330 | 8330 | 8330 | 9520  | 9520  |
|                               | N       | mm | 6350 | 6350 | 7140 | 7140 | 7140 | 8330 | 8330 | 9520 | 9520 | 9520 | 9520 | 10710 | 11900 |

| Size                          |         |    | 3902  | 4202  | 4502  | 4802  | 5202  | 5602  | 6002  | 6402  | 6903  | 7203  | 8403  | 9603  |
|-------------------------------|---------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Dimensions and weights</b> |         |    |       |       |       |       |       |       |       |       |       |       |       |       |
| A                             | A,E,N,U | mm | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                             | A,E,N,U | mm | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                             | A       | mm | 9520  | 9520  | 10710 | 10710 | 10710 | 11900 | 13090 | 13090 | 16660 | 16660 | 17850 | 20230 |
|                               | E,U     | mm | 10710 | 11900 | 11900 | 13090 | 13090 | 14280 | 15470 | 16660 | 17850 | 19040 | -     | -     |
|                               | N       | mm | 13090 | 13090 | 15470 | 16660 | 17850 | 19040 | 19040 | 19040 | -     | -     | -     | -     |

■ For transport reasons, the units with the depth of more than 13090 mm are shipped separately.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

**NSMI 1251-6102 F**

## Air-water chiller with free-cooling

**Cooling capacity 286 ÷ 1280 kW**

- High efficiency also at partial loads
- Microchannel coil
- Low electrical consumption



## DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Outdoor units with high-efficiency screw compressors axial fans, micro-channel external coils and plant side shell and tube heat exchanger.

In the unit with desuperheater, it is also possible to produce free-hot water. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

## VERSIONS

### A High efficiency

**E** Silenced high efficiency

## FEATURES

## Operating field

Operation at full load up to 50 °C external air temperature. Unit can produce chilled water (up to -6 °C).

### Units mono or dual-circuit

Unit with 1–2 refrigerant circuits.

The single circuit units have the inverter compressor, while the dual-circuit have an asynchronous compressor on/off switch and an inverter, the combination provides both high efficiency at part load and full load

### Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

■ A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

### Low noise version

**Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4 dB.**

## CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save

a log file with all the connected unit datas in the personal terminal for post analysis.

**FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**GP\_:** Anti-intrusion grid kit

**KRS:** Electric heater for the heat exchanger

### ACCESSORIES COMPATIBILITY

| Model            | Ver  | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102  | 4402  | 4802  | 5202  | 5702  | 6102 |
|------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|------|
| AER485P1         | A,E  | *    | *    | *    |      |      |      |      |      |      |       |       |       |       |       |      |
| AER485P1 x no. 2 | A,E  |      |      |      | *    | *    | *    | *    | *    | *    | *     | *     | *     | *     | *     | *    |
| AERBACP          | A,E  | *    | *    | *    |      |      |      |      |      |      |       |       |       |       |       |      |
| AERBACP x no. 2  | A,E  |      |      |      | *    | *    | *    | *    | *    | *    | *     | *     | *     | *     | *     | *    |
| AERNET           | A,E  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *     | *     | *     | *     | *     | *    |
| FB1              | A,E  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *     | *     | *     | *     | *     | *    |
| MULTICHILLER-EVO | A,E  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *     | *     | *     | *     | *     | *    |
| Ver              | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402  | 4802  | 5202  | 5702  | 6102  |      |
| A, E             | GP4V | GP4V | GP5V | GP5V | GP6V | GP7V | GP7V | GP7V | GP8V | GP9V | GP10V | GP11V | GP11V | GP11V | GP11V |      |

A grey background indicates the accessory must be assembled in the factory

#### Antivibration - NSMI free-cooling

| Ver                         | 1251   | 1601   | 1801   | 2352   | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Integrated hydronic kit: 00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                           | AVX991 | AVX992 | AVX993 | AVX966 | AVX970 | AVX995 | AVX995 | AVX995 | AVX996 | AVX988 | AVX989 | AVX990 | AVX990 | AVX990 | AVX990 |
| E                           | AVX991 | AVX992 | AVX994 | AVX966 | AVX970 | AVX995 | AVX995 | AVX995 | AVX996 | AVX988 | AVX989 | AVX990 | AVX990 | AVX990 | AVX990 |

#### Antivibration - NSMI free-cooling plus

| Ver                         | 1251   | 1601   | 1801   | 2352   | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Integrated hydronic kit: 00 |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| A                           | AVX991 | AVX992 | AVX993 | AVX966 | AVX970 | AVX995 | AVX995 | AVX995 | AVX996 | AVX988 | AVX989 | AVX990 | AVX990 | AVX990 | AVX990 |
| E                           | AVX991 | AVX992 | AVX994 | AVX966 | AVX970 | AVX995 | AVX995 | AVX999 | AVX996 | AVX988 | AVX989 | AVX990 | AVX990 | AVX990 | AVX990 |

#### Heater exchangers

| Ver | 1251  | 1601  | 1801  | 2352  | 2652  | 2802  | 3202  | 3402  | 3802  | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A   | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | -     | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 |
| E   | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS23 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 | KRS24 |

The accessory cannot be fitted on the configurations indicated with -

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description  |
|----------------|--|
| <b>1,2,3,4</b> | <b>NSMI</b>  |
|                | <b>Size</b>  |
| <b>5,6,7,8</b> | 1251, 1601, 1801, 2352, 2652, 2802, 3202, 3402, 3802, 4102, 4402, 4802, 5202, 5702, 6102 |
| <b>9</b>       | <b>Model</b>   |
| F              | Free-cooling   |
| P              | Free-cooling plus (1)  |
| <b>10</b>      | <b>Heat recovery</b>   |
| D              | With desuperheater (2)   |
| °              | Without heat recovery  |
| <b>11</b>      | <b>Version</b>   |
| A              | High efficiency  |
| E              | Silenced high efficiency   |
| <b>12</b>      | <b>Coils / free-cooling coils</b>  |
| O              | Painted alluminium microchannel / Copper painted aluminium                               |
| R              | Copper-copper/Copper-copper  |
| S              | Copper-Tinned copper / Copper -Tinned copper   |
| V              | Copper-painted aluminium / Copper-painted aluminium                                      |
| °              | Alluminium microchannel / Copper - aluminium   |
| <b>13</b>      | <b>Fans</b>  |
| J              | Inverter   |
| °              | Standard   |
| <b>14</b>      | <b>Power supply</b>  |
| °              | 400V ~ 3 50Hz with magnet circuit breakers   |
| <b>15,16</b>   | <b>Integrated hydronic kit</b>   |
| 00             | Without hydronic kit   |
|                | <b>Kit with n° 1 pump</b>  |
| PA             | Pump A   |
| PB             | Pump B   |

| Field     | Description                           |
|-----------|---------------------------------------|
| PC        | Pump C                                |
| PD        | Pump D                                |
| PE        | Pump E                                |
| PF        | Pump F                                |
| PG        | Pump G                                |
| PH        | Pump H                                |
| PI        | Pump I                                |
| PJ        | Pump J (3)                            |
|           | <b>Pump n° 1 pump + stand-by pump</b> |
| DA        | Pump A + stand-by pump                |
| DB        | Pump B + stand-by pump                |
| DC        | Pump C + stand-by pump                |
| DD        | Pump D + stand-by pump                |
| DE        | Pump E + stand-by pump                |
| DF        | Pump F + stand-by pump                |
| DG        | Pump G + stand-by pump                |
| DH        | Pump H + stand-by pump                |
| DI        | Pump I + stand-by pump                |
| DJ        | Pump J + stand-by pump (3)            |
|           | <b>Kit with 2 pumps</b>               |
| TF        | Double pump F                         |
| TG        | Double pump G                         |
| TH        | Double pump H                         |
| TI        | Double pump I                         |
| TJ        | Double pump J (3)                     |
| <b>17</b> | <b>Refrigerant gas</b>                |
| °         | R134a                                 |

- (1) The Free-Cooling Plus "P" models are only compatible with<sup>nom</sup> ed "0"  
(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.  
(3) For all configurations including pump J please contact the factory.

## PERFORMANCE SPECIFICATIONS

### NSMI - free-cooling (FA/FE - PA/PE)

| Size  |     |     | 1251  | 1601  | 1801  | 2352  | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|---|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: F</b>                                   |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | A,E | kW  | 286,5 | 385,6 | 455,6 | 496,5 | 587,5  | 649,6  | 718,4  | 784,3  | 832,8  | 929,0  | 989,0  | 1096,3 | 1164,2 | 1208,4 | 1280,3 |
| Input power                                       | A,E | kW  | 96,6  | 126,7 | 157,5 | 177,7 | 206,3  | 221,2  | 244,7  | 272,7  | 280,5  | 324,3  | 343,8  | 368,4  | 417,3  | 436,6  | 477,9  |
| Cooling total input current                       | A,E | A   | 166,0 | 212,0 | 261,0 | 309,0 | 356,0  | 381,0  | 417,0  | 456,0  | 470,0  | 547,0  | 580,0  | 644,0  | 692,0  | 728,0  | 761,0  |
| EER   | A,E | W/W | 2,97  | 3,04  | 2,89  | 2,79  | 2,85   | 2,94   | 2,94   | 2,88   | 2,97   | 2,86   | 2,88   | 2,98   | 2,79   | 2,77   | 2,68   |
| Water flow rate system side                       | A,E | l/h | 49230 | 66245 | 78283 | 85309 | 100931 | 111607 | 123424 | 134748 | 143088 | 159614 | 169917 | 188349 | 200020 | 207622 | 219967 |
| Pressure drop system side                         | A,E | kPa | 52    | 78    | 75    | 48    | 67     | 68     | 76     | 46     | 54     | 68     | 79     | 80     | 90     | 94     | 107    |
| <b>Cooling performances with free-cooling (2)</b> |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | A,E | kW  | 254,5 | 276,0 | 340,9 | 346,5 | 414,6  | 649,6  | 488,1  | 495,1  | 559,2  | 628,2  | 692,4  | 762,8  | 771,1  | 775,7  | 782,2  |
| Input power                                       | A,E | kW  | 15,0  | 15,0  | 18,7  | 18,7  | 22,5   | 26,2   | 26,2   | 26,2   | 30,0   | 33,7   | 37,5   | 41,2   | 41,2   | 41,2   | 41,2   |
| Free cooling total input current                  | A,E | A   | 26,0  | 25,0  | 31,0  | 33,0  | 39,0   | 45,0   | 45,0   | 44,0   | 50,0   | 57,0   | 63,0   | 72,0   | 68,0   | 69,0   | 66,0   |
| EER   | A,E | W/W | 19,97 | 18,41 | 18,19 | 18,49 | 18,43  | 18,22  | 18,60  | 18,87  | 18,65  | 18,62  | 18,47  | 18,50  | 18,70  | 18,81  | 18,97  |
| Water flow rate system side                       | A,E | l/h | 49230 | 66245 | 78283 | 85309 | 100931 | 111607 | 123424 | 134748 | 143088 | 159614 | 169917 | 188349 | 200020 | 207622 | 219967 |
| Pressure drop system side                         | A,E | kPa | 80    | 121   | 128   | 88    | 109    | 109    | 124    | 94     | 99     | 108    | 125    | 127    | 143    | 157    | 169    |

- (1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%  
(2) Acqua scambiatore lato utenza 12 °C / ° °C ; Aria esterna 2 °C

| Size  |     |     | 1251  | 1601  | 1801  | 2352  | 2652   | 2802   | 3202   | 3402   | 3802   | 4102   | 4402   | 4802   | 5202   | 5702   | 6102   |
|---|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: P</b>                                   |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance chiller operation (1)</b>  |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | A,E | kW  | 285,5 | 383,5 | 453,4 | 493,5 | 584,0  | 646,4  | 714,7  | 778,5  | 827,8  | 923,5  | 983,6  | 1090,1 | 1156,6 | 1200,5 | 1270,3 |
| Input power                                       | A,E | kW  | 97,4  | 127,8 | 158,9 | 179,7 | 208,6  | 223,4  | 247,5  | 275,8  | 283,4  | 327,8  | 347,4  | 372,4  | 421,9  | 441,5  | 483,8  |
| Cooling total input current                       | A,E | A   | 168,0 | 214,0 | 263,0 | 312,0 | 360,0  | 385,0  | 421,0  | 461,0  | 474,0  | 553,0  | 585,0  | 644,0  | 692,0  | 728,0  | 761,0  |
| EER   | A,E | W/W | 2,93  | 3,00  | 2,85  | 2,75  | 2,80   | 2,89   | 2,89   | 2,82   | 2,92   | 2,82   | 2,83   | 2,93   | 2,74   | 2,72   | 2,63   |
| Water flow rate system side                       | A,E | l/h | 49048 | 65887 | 77903 | 84789 | 100332 | 111060 | 122801 | 133758 | 142233 | 158667 | 168998 | 187289 | 198712 | 206254 | 218254 |
| Pressure drop system side                         | A,E | kPa | 51    | 78    | 74    | 47    | 67     | 67     | 75     | 45     | 53     | 67     | 79     | 79     | 89     | 92     | 105    |
| <b>Cooling performances with free-cooling (2)</b> |     |     |       |       |       |       |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                                  | A,E | kW  | 271,8 | 296,0 | 365,5 | 371,4 | 444,5  | 512,7  | 523,2  | 530,1  | 599,3  | 673,3  | 742,3  | 817,7  | 826,2  | 830,9  | 837,1  |
| Input power                                       | A,E | kW  | 15,2  | 15,2  | 19,0  | 19,0  | 22,8   | 26,7   | 26,7   | 26,7   | 30,5   | 34,3   | 38,1   | 41,9   | 41,9   | 41,9   | 41,9   |
| Free cooling total input current                  | A,E | A   | 26,0  | 25,0  | 32,0  | 33,0  | 39,0   | 46,0   | 45,0   | 45,0   | 51,0   | 58,0   | 64,0   | 72,0   | 69,0   | 69,0   | 66,0   |
| EER   | A,E | W/W | 17,84 | 19,43 | 19,19 | 19,50 | 19,45  | 19,23  | 19,63  | 19,89  | 19,67  | 19,64  | 19,49  | 19,52  | 19,72  | 19,83  | 19,98  |
| Water flow rate system side                       | A,E | l/h | 49048 | 65887 | 77903 | 84789 | 100332 | 111060 | 122801 | 133758 | 142233 | 158667 | 168998 | 187289 | 198712 | 206254 | 218254 |
| Pressure drop system side                         | A,E | kPa | 80    | 120   | 127   | 87    | 108    | 108    | 123    | 93     | 98     | 107    | 123    | 125    | 141    | 155    | 166    |

- (1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%  
(2) Acqua scambiatore lato utenza 12 °C / ° °C ; Aria esterna 2 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****SEPR - (EN14825: 2018) High temperature with standard fans (1)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 6,95 | 6,32 | 6,23 | 6,60 | 6,73 | 7,06 | 6,85 | 6,65 | 6,98 | 6,74 | 6,83 | 7,24 | 7,11 | 7,28 | 7,05 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**SEPR - (EN14825: 2018) High temperature with inverter fans (1)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 6,95 | 6,32 | 6,23 | 6,60 | 6,73 | 7,06 | 6,85 | 6,65 | 6,98 | 6,74 | 6,83 | 7,24 | 7,11 | 7,28 | 7,05 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate.

| Size | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****SEPR - (EN14825: 2018) High temperature with standard fans (1)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 7,02 | 6,39 | 6,31 | 6,69 | 6,83 | 7,19 | 6,93 | 6,69 | 7,06 | 6,82 | 6,93 | 7,30 | 7,15 | 7,31 | 7,05 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**SEPR - (EN14825: 2018) High temperature with inverter fans (1)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 7,02 | 6,39 | 6,31 | 6,69 | 6,83 | 7,19 | 6,93 | 6,69 | 7,06 | 6,82 | 6,93 | 7,30 | 7,15 | 7,31 | 7,05 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Electric data**

|                       |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Maximum current (FLA) | A,E | A | 259,9 | 299,9 | 388,4 | 452,7 | 485,9 | 534,4 | 534,4 | 582,4 | 670,9 | 727,4 | 774,9 | 874,2 | 917,2 | 1002,2 | 1036,2 |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|

|                    |     |   |      |      |      |       |       |       |       |       |       |        |        |        |        |        |        |
|--------------------|-----|---|------|------|------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Peak current (LRA) | A,E | A | 59,9 | 59,9 | 68,4 | 582,4 | 617,9 | 666,4 | 666,4 | 790,4 | 878,9 | 1008,4 | 1080,0 | 1180,2 | 1335,2 | 1420,2 | 1532,2 |
|--------------------|-----|---|------|------|------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|

## GENERAL TECHNICAL DATA

| Size | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Compressor**

|      |     |      |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Type | A,E | type | Screw |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                       |     |      |   |   |   |          |          |          |          |          |          |          |          |          |          |          |          |
|-----------------------|-----|------|---|---|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Compressor regulation | A,E | Type | I | I | I | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off | I+On/Off |
|-----------------------|-----|------|---|---|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|

|        |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | A,E | no. | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|--------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

|          |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Circuits | A,E | no. | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|----------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

|             |     |      |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Refrigerant | A,E | type | R134a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

**System side heat exchanger**

|      |     |      |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Type | A,E | type | Shell and tube |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|        |     |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Number | A,E | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|--------|-----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**System side hydraulic connections**

|                      |     |      |                |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----|------|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Connections (in/out) | A,E | Type | Grooved joints |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-----|------|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|                |     |   |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |
|----------------|-----|---|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| Sizes (in/out) | A,E | Ø | 5" | 6" | 6" | 6" | 6" | 6" | 6" | 8" | 8" | 8" | 8" | 10" | 10" | 10" | 10" |
|----------------|-----|---|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|

**Fan**

|      |     |      |       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Type | A,E | type | Axial |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------|-----|------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|           |     |      |                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|-----|------|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Fan motor | A,E | type | Asynchronous with phase cut |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------|-----|------|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

|        |     |     |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Number | A,E | no. | 8 | 8 | 10 | 10 | 12 | 14 | 14 | 14 | 16 | 18 | 20 | 22 | 22 | 22 | 22 |
|--------|-----|-----|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|

|               |     |                   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|---------------|-----|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Air flow rate | A,E | m <sup>3</sup> /h | 109600 | 109600 | 137000 | 137000 | 164400 | 191800 | 191800 | 191800 | 219200 | 146600 | 274000 | 301400 | 301400 | 301400 | 301400 |
|---------------|-----|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|

## Sound data

| Size | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102 | 4402 | 4802 | 5202 | 5702 | 6102 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

**Sound data calculated in cooling mode (1)**

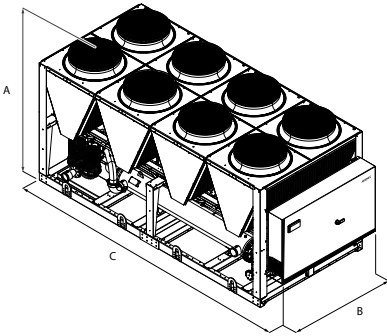
|                   |   |       |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |
|-------------------|---|-------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Sound power level | A | dB(A) | 98,1 | 99,2 | 99,4 | 99,4 | 99,7 | 100,7 | 100,7 | 101,1 | 101,2 | 101,3 | 101,9 | 103,6 | 103,8 | 103,8 | 103,9 |
|-------------------|---|-------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

|  |   |       |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|
|  | E | dB(A) | 94,2 | 96,0 | 96,3 | 95,7 | 96,2 | 96,6 | 96,6 | 97,8 | 97,9 | 98,3 | 98,6 | 100,2 | 100,2 | 100,2 | 100,3 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).



DIMENSIONS



| Size                   |     |    | 1251 | 1601 | 1801 | 2352 | 2652 | 2802 | 3202 | 3402 | 3802 | 4102  | 4402  | 4802  | 5202  | 5702  | 6102  |
|------------------------|-----|----|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| Dimensions and weights |     |    |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A                      | A,E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
| B                      | A,E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
| C                      | A,E | mm | 4760 | 4760 | 5950 | 6400 | 7140 | 8330 | 8330 | 8330 | 9520 | 10710 | 11900 | 13090 | 13090 | 13090 | 13090 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# TBA 1300-3350 F

## Air-water chiller with free-cooling

Cooling capacity 317,2 ÷ 1223,6 kW

- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge
- Available also with R513A (XP10) refrigerant



### DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications. These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

#### Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode. Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

- A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

#### CONTROL PCO<sup>5</sup>

**Units include 1 control board for each circuit.**

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

## CONFIGURATOR

| Field   | Description   |
|---------|---|
| 1,2,3   | TBA   |
| 4,5,6,7 | <b>Size</b><br>1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350 |
| 8       | <b>Model</b>  |
| F       | Free-cooling  |
| P       | Free-cooling plus (1)   |
| 9       | <b>Heat recovery</b>  |
| °       | Without heat recovery   |
| 10      | <b>Version</b>  |
| A       | High efficiency   |
| E       | Silenced high efficiency  |
| 11      | <b>Coils / free-cooling coils</b>                                   |
| O       | Painted aluminium microchannel / Copper painted aluminium           |
| R       | Copper-copper/Copper-copper   |
| S       | Copper-Tinned copper / Copper -Tinned copper                        |
| V       | Copper-painted aluminium / Copper-painted aluminium                 |
| °       | Aluminium microchannel / Copper - aluminium                         |
| 12      | <b>Fans</b>   |
| J       | Inverter  |
| 13      | <b>Power supply</b>   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers                          |
| 14,15   | <b>Integrated hydronic kit</b>                                      |
| 00      | Without hydronic kit  |
|         | <b>Kit with n° 1 pump</b>   |
| PA      | Pump A  |
| PB      | Pump B  |
| PC      | Pump C  |
| PD      | Pump D  |
| PE      | Pump E  |
| PF      | Pump F  |
| PG      | Pump G  |
| PH      | Pump H  |
| PI      | Pump I  |
| PJ      | Pump J (2)  |
|         | <b>Pump n° 1 pump + stand-by pump</b>                               |
| DA      | Pump A + stand-by pump  |
| DB      | Pump B + stand-by pump  |
| DC      | Pump C + stand-by pump  |
| DD      | Pump D + stand-by pump  |
| DE      | Pump E + stand-by pump  |
| DF      | Pump F + stand-by pump  |
| DG      | Pump G + stand-by pump  |

| Field | Description  |
|-------|--|
| DH    | Pump H + stand-by pump   |
| DI    | Pump I + stand-by pump   |
| DJ    | Pump J + stand-by pump (2)   |
|       | <b>Kit with inverter pump to fixed speed</b>   |
| IA    | Pump A equipped with inverter device to work at fixed speed  |
| IB    | Pump B equipped with inverter device to work at fixed speed  |
| IC    | Pump C equipped with inverter device to work at fixed speed  |
| ID    | Pump D equipped with inverter device to work at fixed speed  |
| IE    | Pump E equipped with inverter device to work at fixed speed  |
| IF    | Pump F equipped with inverter device to work at fixed speed  |
| IG    | Pump G equipped with inverter device to work at fixed speed  |
| IH    | Pump H equipped with inverter device to work at fixed speed  |
| II    | Pump I equipped with inverter device to work at fixed speed  |
| IJ    | Pump J equipped with inverter device to work at fixed speed (2)                                    |
|       | <b>Kit with n°1 pump + stand-by pump both equipped with inverter device to work at fixed speed</b> |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (2)                       |
|       | <b>Kit with double pump both equipped with inverter device to work at fixed speed</b>              |
| KF    | Doble pump F with inverter device to work at fixed speed   |
| KG    | Doble pump G with inverter device to work at fixed speed   |
| KH    | Doble pump H with inverter device to work at fixed speed   |
| KI    | Doble pump I with inverter device to work at fixed speed   |
| KJ    | Doble pump J with inverter device to work at fixed speed (2)                                       |
|       | <b>Kit with double pumps</b>   |
| TF    | Double pump F  |
| TG    | Double pump G  |
| TH    | Double pump H  |
| TI    | Double pump I  |
| TJ    | Double pump J (2)  |
| 16    | <b>Refrigerant gas</b>   |
| G     | R513A (XP10)   |
| °     | R134a  |

(1) The Free-Cooling Plus "P" models are only compatible with "nom" ed "O"

(2) For all configurations including pump J please contact the factory.

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save

a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**GP\_T:** Anti-intrusion grid kit

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 |
|------------------|-----|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | *    | *    | *    |      | *    | *    |      | *    | *    |
| AER485P1 x no. 2 | A,E |      |      |      | *    |      |      | *    |      |      |
| AERBACP          | A,E | *    | *    | *    |      | *    | *    |      | *    | *    |
| AERBACP x no. 2  | A,E |      |      |      | *    |      |      | *    |      |      |
| AERNET           | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Antivibration

| Ver  | 1300     | 1350     | 2300     | 2325     | 2350     | 3300     | 3320     | 3340     | 3350     |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, E | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

**Anti-intrusion grid**

| Ver  | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320  | 3340  | 3350  |
|------|------|------|------|------|------|------|-------|-------|-------|
| A, E | GP3T | GP4T | GP6T | GP7T | GP8T | GP9T | GP10T | GP11T | GP11T |

A grey background indicates the accessory must be assembled in the factory

**PERFORMANCE SPECIFICATIONS**

| Size | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

**Model: F****Cooling performance chiller operation (1)**

|                             |     |     |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | A,E | kW  | 317,2 | 419,2 | 634,5  | 736,4  | 838,4  | 934,7  | 1065,0 | 1149,0 | 1223,6 |
| Input power                 | A,E | kW  | 91,6  | 121,8 | 182,8  | 214,3  | 244,4  | 267,3  | 311,2  | 337,8  | 365,9  |
| Cooling total input current | A,E | A   | 147,5 | 198,3 | 295,0  | 345,8  | 396,7  | 427,5  | 498,3  | 559,2  | 604,2  |
| EER                         | A,E | W/W | 3,46  | 3,44  | 3,47   | 3,44   | 3,43   | 3,50   | 3,42   | 3,40   | 3,34   |
| Water flow rate system side | A,E | l/h | 54505 | 72025 | 109011 | 126530 | 144050 | 160596 | 182983 | 197414 | 210235 |
| Pressure drop system side   | A,E | kPa | 65    | 32    | 70     | 54     | 45     | 69     | 72     | 66     | 52     |

**Cooling performances with free-cooling (2)**

|                                  |     |     |       |       |        |        |        |        |        |        |        |
|----------------------------------|-----|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | A,E | kW  | 297,2 | 395,5 | 594,4  | 692,7  | 791,1  | 888,3  | 994,1  | 1085,0 | 1100,1 |
| Input power                      | A,E | kW  | 11,3  | 15,0  | 22,5   | 26,3   | 30,0   | 33,8   | 37,5   | 41,3   | 41,3   |
| Free cooling total input current | A,E | A   | 17,5  | 23,3  | 35,0   | 40,8   | 46,7   | 52,5   | 58,3   | 64,2   | 64,2   |
| EER                              | A,E | W/W | 26,41 | 26,36 | 26,41  | 26,38  | 26,36  | 26,31  | 26,50  | 26,30  | 26,66  |
| Water flow rate system side      | A,E | l/h | 54505 | 72025 | 109011 | 126530 | 144050 | 160596 | 182983 | 197414 | 210235 |
| Pressure drop system side        | A,E | kPa | 118   | 78    | 130    | 103    | 99     | 127    | 138    | 117    | 109    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

| Size | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

**Model: P****Cooling performance chiller operation (1)**

|                             |     |     |       |       |        |        |        |        |        |        |        |
|-----------------------------|-----|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | A,E | kW  | 317,2 | 419,2 | 634,5  | 736,4  | 838,4  | 934,7  | 1065,0 | 1149,0 | 1206,6 |
| Input power                 | A,E | kW  | 93,1  | 123,9 | 185,8  | 217,9  | 248,6  | 271,6  | 316,4  | 343,6  | 366,0  |
| Cooling total input current | A,E | A   | 147,9 | 198,8 | 295,7  | 346,7  | 397,6  | 428,6  | 499,6  | 560,5  | 605,5  |
| EER                         | A,E | W/W | 3,41  | 3,38  | 3,42   | 3,38   | 3,37   | 3,44   | 3,37   | 3,34   | 3,30   |
| Water flow rate system side | A,E | l/h | 54505 | 72025 | 109011 | 126530 | 144050 | 160596 | 182983 | 197414 | 207315 |
| Pressure drop system side   | A,E | kPa | 65    | 32    | 70     | 54     | 45     | 69     | 72     | 66     | 50     |

**Cooling performances with free-cooling (2)**

|                                  |     |     |       |       |        |        |        |        |        |        |        |
|----------------------------------|-----|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | A,E | kW  | 319,4 | 425,1 | 638,8  | 744,5  | 850,2  | 954,8  | 1068,2 | 1166,2 | 1181,8 |
| Input power                      | A,E | kW  | 11,5  | 15,3  | 23,0   | 26,8   | 30,7   | 34,5   | 38,4   | 42,2   | 42,2   |
| Free cooling total input current | A,E | A   | 17,9  | 18,8  | 35,7   | 36,7   | 37,6   | 53,6   | 44,6   | 65,5   | 80,5   |
| EER                              | A,E | W/W | 27,76 | 27,71 | 27,76  | 27,73  | 27,71  | 27,66  | 27,85  | 27,64  | 28,01  |
| Water flow rate system side      | A,E | l/h | 54505 | 72025 | 109011 | 126530 | 144050 | 160596 | 182983 | 197414 | 207315 |
| Pressure drop system side        | A,E | kPa | 114   | 74    | 126    | 99     | 95     | 123    | 134    | 113    | 102    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / \* °C ; Aria esterna 2 °C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

**Model: F****SEER - (EN14825:2018) 12/7 with inverter fans (1)**

|                     |     |     |        |        |        |        |        |        |        |        |        |
|---------------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER                | A,E | W/W | 5,06   | 5,14   | 5,21   | 5,17   | 5,30   | 5,40   | 5,32   | 5,26   | 5,23   |
| Seasonal efficiency | A,E | %   | 199,3% | 202,7% | 205,5% | 203,6% | 208,8% | 212,8% | 209,6% | 207,2% | 206,1% |

**SEPR - (EN14825:2018) High temperature with inverter fans (2)**

|      |     |     |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 8,65 | 8,51 | 8,79 | 8,32 | 8,53 | 9,04 | 9,34 | 8,89 | 8,58 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

**Model: P****SEER - (EN14825:2018) 12/7 with inverter fans (1)**

|                     |     |     |        |        |        |        |        |        |        |        |        |
|---------------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER                | A,E | W/W | 4,98   | 5,06   | 5,14   | 5,09   | 5,21   | 5,32   | 5,11   | 5,18   | 5,17   |
| Seasonal efficiency | A,E | %   | 196,3% | 199,4% | 202,5% | 200,4% | 205,5% | 209,7% | 201,2% | 204,0% | 203,7% |

**SEPR - (EN14825:2018) High temperature with inverter fans (2)**

|      |     |     |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 8,91 | 8,45 | 8,88 | 8,53 | 8,65 | 9,18 | 8,99 | 9,06 | 8,81 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 1300  | 1350  | 2300  | 2325  | 2350  | 3300  | 3320  | 3340  | 3350  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,E | A | 165,0 | 249,0 | 329,0 | 413,0 | 498,0 | 493,0 | 577,0 | 737,0 | 737,0 |
| Peak current (LRA)    | A,E | A | 36,0  | 45,0  | 210,0 | 305,0 | 315,0 | 384,0 | 479,0 | 575,0 | 575,0 |

## GENERAL TECHNICAL DATA

| Size   |     |       | 1300 | 1350  | 2300  | 2325  | 2350           | 3300  | 3320  | 3340  | 3350  |
|--|-----|-------|------|-------|-------|-------|----------------|-------|-------|-------|-------|
| <b>Compressor</b>                                |     |       |      |       |       |       |                |       |       |       |       |
| Type   | A,E | type  |      |       |       |       | Centrifugal    |       |       |       |       |
| Compressor regulation                            | A,E | Type  |      |       |       |       | Inverter       |       |       |       |       |
| Number   | A,E | no.   | 1    | 1     | 2     | 2     | 2              | 3     | 3     | 3     | 3     |
| Circuits   | A,E | no.   | 1    | 1     | 1     | 2     | 1              | 1     | 2     | 1     | 1     |
| Refrigerant                                      | A,E | type  |      |       |       |       | R134a          |       |       |       |       |
| Refrigerant charge (1)                           | A,E | kg    | 81,5 | 165,7 | 163,0 | 253,8 | 295,8          | 275,2 | 317,2 | 327,9 | 397,9 |
| <b>System side heat exchanger</b>                |     |       |      |       |       |       |                |       |       |       |       |
| Type   | A,E | type  |      |       |       |       | Shell and tube |       |       |       |       |
| Number   | A,E | no.   | 1    | 1     | 1     | 1     | 1              | 1     | 1     | 1     | 1     |
| <b>Hydraulic connections</b>                     |     |       |      |       |       |       |                |       |       |       |       |
| Connections (in/out)                             | A,E | Type  |      |       |       |       | Grooved joints |       |       |       |       |
| Size (in)  | A,E | Ø     | 3"   | 4"    | 4"    | 5"    | 5"             | 5"    | 5"    | 6"    | 6"    |
| Size (out)                                       | A,E | Ø     | 3"   | 4"    | 4"    | 5"    | 5"             | 5"    | 5"    | 6"    | 6"    |
| <b>Sound data calculated in cooling mode (2)</b> |     |       |      |       |       |       |                |       |       |       |       |
| Sound power level                                | A   | dB(A) | 88,3 | 90,0  | 91,3  | 92,8  | 93,1           | 93,1  | 94,1  | 95,5  | 95,5  |
|  | E   | dB(A) | 82,3 | 84,0  | 85,3  | 86,8  | 87,1           | 87,1  | 88,1  | 89,5  | 89,5  |
| Sound pressure level (10 m)                      | A   | dB(A) | 56,1 | 57,6  | 58,7  | 60,0  | 60,2           | 60,1  | 61,0  | 62,3  | 62,3  |
|  | E   | dB(A) | 50,1 | 51,6  | 52,7  | 54,0  | 54,2           | 54,1  | 55,0  | 56,3  | 56,3  |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

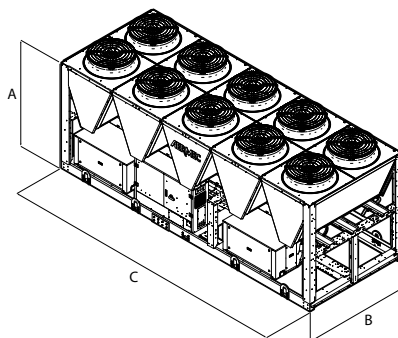
### General data - fans (F model)

| Size          |     |      | 1300  | 1350   | 2300   | 2325   | 2350     | 3300   | 3320   | 3340   | 3350   |
|---------------|-----|------|-------|--------|--------|--------|----------|--------|--------|--------|--------|
| <b>Fan</b>    |     |      |       |        |        |        |          |        |        |        |        |
| Type          | A,E | type |       |        |        |        | Axial    |        |        |        |        |
| Fan motor     | A,E | type |       |        |        |        | Inverter |        |        |        |        |
| Number        | A,E | no.  | 6     | 8      | 12     | 14     | 16       | 18     | 20     | 22     | 22     |
| Air flow rate | A,E | m³/h | 93180 | 124240 | 186360 | 217420 | 248480   | 279540 | 310600 | 341660 | 341660 |

### General data - fans (P model)

| Size          |     |      | 1300  | 1350   | 2300   | 2325   | 2350     | 3300   | 3320   | 3340   | 3350   |
|---------------|-----|------|-------|--------|--------|--------|----------|--------|--------|--------|--------|
| <b>Fan</b>    |     |      |       |        |        |        |          |        |        |        |        |
| Type          | A,E | type |       |        |        |        | Axial    |        |        |        |        |
| Fan motor     | A,E | type |       |        |        |        | Inverter |        |        |        |        |
| Number        | A,E | no.  | 6     | 8      | 12     | 14     | 16       | 18     | 20     | 22     | 22     |
| Air flow rate | A,E | m³/h | 88680 | 118240 | 177360 | 206920 | 236480   | 266040 | 295600 | 325160 | 325160 |

## DIMENSIONS



| Size   | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340  | 3350  |
|--|------|------|------|------|------|------|------|-------|-------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ</b> |      |      |      |      |      |      |      |       |       |
| <b>Dimensions and weights</b>  |      |      |      |      |      |      |      |       |       |
| A  | A,E  | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  |
| B  | A,E  | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  |
| C  | A,E  | mm   | 3570 | 4760 | 7140 | 8330 | 9520 | 10710 | 11900 |

### Model F

| Size                               | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350  |
|------------------------------------|------|------|------|------|------|------|------|------|-------|
| <b>Integrated hydronic kit: 00</b> |      |      |      |      |      |      |      |      |       |
| <b>Weights</b>                     |      |      |      |      |      |      |      |      |       |
| Empty weight                       | A    | kg   | 3290 | 4330 | 5860 | 7050 | 8020 | 8490 | 9820  |
|                                    | E    | kg   | 3370 | 4440 | 6030 | 7250 | 8240 | 8740 | 10100 |
| Weight functioning                 | A    | kg   | 3570 | 4720 | 6380 | 7680 | 8790 | 9270 | 10720 |
|                                    | E    | kg   | 3650 | 4830 | 6550 | 7880 | 9010 | 9520 | 11000 |

### Model P

| Size                               | 1300 | 1350 | 2300 | 2325 | 2350 | 3300 | 3320 | 3340 | 3350  |
|------------------------------------|------|------|------|------|------|------|------|------|-------|
| <b>Integrated hydronic kit: 00</b> |      |      |      |      |      |      |      |      |       |
| <b>Weights</b>                     |      |      |      |      |      |      |      |      |       |
| Empty weight                       | A    | kg   | 3380 | 4460 | 6050 | 7270 | 8270 | 8780 | 10140 |
|                                    | E    | kg   | 3470 | 4570 | 6220 | 7470 | 8490 | 9020 | 10410 |
| Weight functioning                 | A    | kg   | 3700 | 4910 | 6650 | 8000 | 9150 | 9680 | 11180 |
|                                    | E    | kg   | 3790 | 5020 | 6820 | 8200 | 9370 | 9920 | 11450 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# TBG 1230-4310 F

## Air-water chiller with free-cooling

Cooling capacity 238 ÷ 1110 kW



- HFO R1234ze refrigerant gas
- High efficiency also at partial loads
- Microchannel coil
- Low peak current (only 6 Amps!)
- Evaporator with low refrigerant charge



### DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.

These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.

The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

### VERSIONS

**A** High efficiency

**E** Silenced high efficiency

### FEATURES

#### Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/technical documentation.

#### Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

#### Compressor features:

- Operates without oil as bearings are magnetic levitation type
- Continuous load modulation by varying rpm (from 30% to 100%)
- Low peak currents (only 6 Amps!)

#### Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

#### Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

Free-cooling offers significant energy saving in applications that require cooling all year round.

As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The

compressors are completely shut down, if possible, leading to considerable electrical savings.

- A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

#### HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

**da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;** with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

#### CONTROL PCO<sup>5</sup>

**Units include 1 control board for each circuit.**

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Further features:

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>TBG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>1230, 1310, 2230, 2270, 2310, 3270, 3280, 3310, 4270, 4310 |
| <b>8</b>       | <b>Model</b>  |
| F              | Free-cooling  |
| P              | Free-cooling plus (1)   |
| <b>9</b>       | <b>Heat recovery</b>  |
| °              | Without heat recovery   |
| <b>10</b>      | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency  |
| <b>11</b>      | <b>Coils / free-cooling coils</b>   |
| O              | Painted alluminium microchannel / Copper painted aluminium                |
| R              | Copper-copper/Copper-copper   |
| S              | Copper-Tinned copper / Copper -Tinned copper                              |
| V              | Copper-painted aluminium / Copper-painted aluminium                       |
| °              | Alluminium microchannel / Copper - aluminium                              |
| <b>12</b>      | <b>Fans</b>   |
| J              | Inverter  |
| <b>13</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                |
| <b>14,15</b>   | <b>Integrated hydronic kit</b>  |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A  |
| PB             | Pump B  |
| PC             | Pump C  |
| PD             | Pump D  |
| PE             | Pump E  |
| PF             | Pump F  |
| PG             | Pump G  |
| PH             | Pump H  |
| PI             | Pump I  |
| PJ             | Pump J (2)  |
|                | <b>Pump n° 1 pump + stand-by pump</b>                                     |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |
| DD             | Pump D + stand-by pump  |
| DE             | Pump E + stand-by pump  |
| DF             | Pump F + stand-by pump  |

| Field | Description  |
|-------|--|
| DG    | Pump G + stand-by pump   |
| DH    | Pump H + stand-by pump   |
| DI    | Pump I + stand-by pump   |
| DJ    | Pump J + stand-by pump (2)   |
|       | <b>Kit with inverter pump to fixed speed</b>   |
| IA    | Pump A equipped with inverter device to work at fixed speed  |
| IB    | Pump B equipped with inverter device to work at fixed speed  |
| IC    | Pump C equipped with inverter device to work at fixed speed  |
| ID    | Pump D equipped with inverter device to work at fixed speed  |
| IE    | Pump E equipped with inverter device to work at fixed speed  |
| IF    | Pump F equipped with inverter device to work at fixed speed  |
| IG    | Pump G equipped with inverter device to work at fixed speed  |
| IH    | Pump H equipped with inverter device to work at fixed speed  |
| II    | Pump I equipped with inverter device to work at fixed speed  |
| IJ    | Pump J equipped with inverter device to work at fixed speed (2)                                    |
|       | <b>Kit with n°1 pump + stand-by pump both equipped with inverter device to work at fixed speed</b> |
| JA    | Pump A+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JB    | Pump B+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JC    | Pump C+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JD    | Pump D+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JE    | Pump E+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JF    | Pump F+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JG    | Pump G+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JH    | Pump H+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JI    | Pump I+stand-by pump, both equipped with inverter to work at fixed speed                           |
| JJ    | Pump J+stand-by pump, both equipped with inverter to work at fixed speed (2)                       |
|       | <b>Kit with double pump both equipped with inverter device to work at fixed speed</b>              |
| KF    | Doble pump F with inverter device to work at fixed speed   |
| KG    | Doble pump G with inverter device to work at fixed speed   |
| KH    | Doble pump H with inverter device to work at fixed speed   |
| KI    | Doble pump I with inverter device to work at fixed speed   |
| KJ    | Doble pump J with inverter device to work at fixed speed (2)                                       |
|       | <b>Kit with double pumps</b>   |
| TF    | Double pump F  |
| TG    | Double pump G  |
| TH    | Double pump H  |
| TI    | Double pump I  |
| TJ    | Double pump J (2)  |

(1) The Free-Cooling Plus "P" models are only compatible with "non" ed "0"

(2) For all configurations including pump J please contact the factory.



## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured

as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**GP\_T:** Anti-intrusion grid kit

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | *    | *    | *    |      | *    |      | *    | *    |      |      |
| AER485P1 x no. 2 | A,E |      |      |      | *    |      | *    |      |      | *    | *    |
| AERBACP          | A,E | *    | *    | *    |      | *    |      | *    | *    |      |      |
| AERBACP x no. 2  | A,E |      |      |      | *    |      | *    |      |      | *    | *    |
| AERNET           | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Antivibration

| Ver   | 1230   | 1310     | 2230    | 2270     | 2310     | 3270     | 3280     | 3310     | 4270     | 4310     |
|---|--------|----------|---------|----------|----------|----------|----------|----------|----------|----------|
| Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ |        |          |         |          |          |          |          |          |          |          |
| A, E  | AVX591 | AVX. (1) | AVX1187 | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

## Anti-intrusion grid

| Ver  | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310  | 4270  | 4310  |
|------|------|------|------|------|------|------|------|-------|-------|-------|
| A, E | GP3T | GP4T | GP5T | GP6T | GP7T | GP8T | GP9T | GP10T | GP11T | GP11T |

A grey background indicates the accessory must be assembled in the factory

## PERFORMANCE SPECIFICATIONS

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

### Model: F

#### Cooling performance chiller operation (1)

|                             |     |     |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | A,E | kW  | 237,9 | 328,6 | 453,2 | 526,8 | 623,2  | 730,8  | 798,8  | 907,5  | 1019,7 | 1110,3 |
| Input power                 | A,E | kW  | 68,6  | 95,3  | 130,6 | 153,1 | 181,1  | 211,4  | 231,7  | 260,0  | 294,0  | 328,1  |
| Cooling total input current | A,E | A   | 112,5 | 158,3 | 214,2 | 255,0 | 300,8  | 346,7  | 387,5  | 433,3  | 489,2  | 549,2  |
| EER                         | A,E | W/W | 3,47  | 3,45  | 3,47  | 3,44  | 3,44   | 3,46   | 3,45   | 3,49   | 3,47   | 3,38   |
| Water flow rate system side | A,E | l/h | 40879 | 56452 | 77865 | 90518 | 107064 | 125557 | 137237 | 155924 | 175196 | 190769 |
| Pressure drop system side   | A,E | kPa | 48    | 51    | 45    | 54    | 50     | 55     | 54     | 63     | 46     | 56     |

#### Cooling performances with free-cooling (2)

|                                  |     |     |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | A,E | kW  | 275,5 | 371,6 | 478,0 | 568,6 | 665,9  | 766,4  | 855,5  | 956,3  | 1057,8 | 1079,5 |
| Input power                      | A,E | kW  | 11,3  | 15,0  | 18,8  | 22,5  | 26,3   | 30,0   | 33,8   | 37,5   | 41,3   | 41,3   |
| Free cooling total input current | A,E | A   | 17,5  | 23,3  | 29,2  | 35,0  | 40,8   | 46,7   | 52,5   | 58,3   | 64,2   | 64,2   |
| EER                              | A,E | W/W | 24,49 | 24,77 | 25,49 | 25,27 | 25,36  | 25,54  | 25,34  | 25,50  | 25,64  | 26,16  |
| Water flow rate system side      | A,E | l/h | 40879 | 56452 | 77865 | 90518 | 107064 | 125557 | 137237 | 155924 | 175196 | 190769 |
| Pressure drop system side        | A,E | kPa | 81    | 93    | 86    | 97    | 87     | 97     | 98     | 113    | 88     | 105    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

### Model: P

#### Cooling performance chiller operation (1)

|                             |     |     |       |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | A,E | kW  | 237,9 | 328,6 | 453,2 | 526,8 | 623,1  | 730,8  | 798,8  | 907,5  | 1019,7 | 1110,3 |
| Input power                 | A,E | kW  | 69,6  | 96,9  | 132,6 | 155,8 | 184,3  | 214,7  | 235,6  | 265,7  | 296,9  | 337,7  |
| Cooling total input current | A,E | A   | 112,5 | 158,3 | 214,2 | 255,0 | 300,8  | 346,7  | 387,5  | 433,3  | 489,2  | 549,2  |
| EER                         | A,E | W/W | 3,42  | 3,39  | 3,42  | 3,38  | 3,38   | 3,40   | 3,39   | 3,42   | 3,43   | 3,29   |
| Water flow rate system side | A,E | l/h | 40879 | 56452 | 77865 | 90518 | 107064 | 125557 | 137237 | 155924 | 175196 | 190769 |
| Pressure drop system side   | A,E | kPa | 48    | 51    | 45    | 54    | 50     | 55     | 54     | 63     | 46     | 56     |

#### Cooling performances with free-cooling (2)

|                                  |     |     |       |       |       |       |        |        |        |        |        |        |
|----------------------------------|-----|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity                 | A,E | kW  | 295,4 | 398,2 | 514,2 | 610,9 | 714,2  | 823,8  | 919,0  | 1029,7 | 1136,1 | 1160,9 |
| Input power                      | A,E | kW  | 11,5  | 15,4  | 19,2  | 23,0  | 26,9   | 30,7   | 34,5   | 38,3   | 42,2   | 42,2   |
| Free cooling total input current | A,E | A   | 17,5  | 23,3  | 29,2  | 35,0  | 40,8   | 46,7   | 52,5   | 58,3   | 64,2   | 64,2   |
| EER                              | A,E | W/W | 25,70 | 25,90 | 26,80 | 26,50 | 26,60  | 26,90  | 26,60  | 26,90  | 26,90  | 27,50  |
| Water flow rate system side      | A,E | l/h | 40879 | 56452 | 77864 | 90517 | 107064 | 125557 | 137236 | 155924 | 175196 | 190768 |
| Pressure drop system side        | A,E | kPa | 78    | 91    | 83    | 94    | 84     | 94     | 95     | 110    | 84     | 101    |

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%

(2) Acqua scambiatore lato utenza 12 °C / °C ; Aria esterna 2 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****SEER - (EN14825:2018) 12/7 with inverter fans (1)**

|                     |     |     |        |        |        |        |        |        |        |        |        |        |
|---------------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER                | A,E | W/W | 5,40   | 5,47   | 5,72   | 5,35   | 5,72   | 5,53   | 5,64   | 5,67   | 5,66   | 5,49   |
| Seasonal efficiency | A,E | %   | 213,1% | 215,7% | 225,9% | 210,9% | 225,8% | 218,0% | 222,6% | 223,7% | 223,4% | 216,4% |

**SEPR - (EN14825:2018) High temperature with inverter fans (2)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 9,45 | 9,36 | 9,37 | 8,49 | 9,15 | 9,31 | 9,45 | 9,50 | 9,47 | 9,13 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****SEER - (EN14825:2018) 12/7 with inverter fans (1)**

|                     |     |     |        |        |        |        |        |        |        |        |        |        |
|---------------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER                | A,E | W/W | 5,33   | 5,58   | 5,65   | 5,27   | 5,63   | 5,45   | 5,56   | 5,56   | 5,63   | 5,34   |
| Seasonal efficiency | A,E | %   | 210,3% | 220,0% | 222,8% | 207,6% | 222,2% | 214,9% | 219,2% | 219,3% | 222,3% | 210,7% |

**SEPR - (EN14825:2018) High temperature with inverter fans (2)**

|      |     |     |      |      |      |      |      |      |      |      |      |      |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|
| SEPR | A,E | W/W | 9,36 | 9,24 | 9,27 | 8,55 | 9,21 | 9,34 | 9,35 | 9,35 | 9,43 | 8,93 |
|------|-----|-----|------|------|------|------|------|------|------|------|------|------|

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Electric data**

|                       |     |   |       |       |       |       |       |       |       |       |       |       |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Maximum current (FLA) | A,E | A | 125,0 | 189,0 | 239,0 | 304,0 | 368,0 | 418,0 | 538,0 | 547,0 | 597,0 | 707,0 |
| Peak current (LRA)    | A,E | A | 36,0  | 45,0  | 161,0 | 230,0 | 239,0 | 355,0 | 424,0 | 433,0 | 549,0 | 608,0 |

## GENERAL TECHNICAL DATA

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Compressor**

|                        |     |      |             |       |       |       |       |       |       |       |       |       |
|------------------------|-----|------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Type                   | A,E | type | Centrifugal |       |       |       |       |       |       |       |       |       |
| Compressor regulation  | A,E | Type | Inverter    |       |       |       |       |       |       |       |       |       |
| Number                 | A,E | no.  | 1           | 1     | 2     | 2     | 3     | 3     | 3     | 4     | 4     | 4     |
| Circuits               | A,E | no.  | 1           | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 2     | 2     |
| Refrigerant            | A,E | type | R1234ze     |       |       |       |       |       |       |       |       |       |
| Refrigerant charge (1) | A,E | kg   | 81,5        | 120,1 | 152,3 | 187,1 | 197,8 | 264,5 | 275,2 | 285,9 | 327,9 | 327,9 |

**System side heat exchanger**

|        |     |      |                |   |   |   |   |   |   |   |   |   |
|--------|-----|------|----------------|---|---|---|---|---|---|---|---|---|
| Type   | A,E | type | Shell and tube |   |   |   |   |   |   |   |   |   |
| Number | A,E | no.  | 1              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Hydraulic connections**

|                      |     |      |                |    |    |    |    |    |    |    |    |    |
|----------------------|-----|------|----------------|----|----|----|----|----|----|----|----|----|
| Connections (in/out) | A,E | Type | Grooved joints |    |    |    |    |    |    |    |    |    |
| Size (in)            | A,E | Ø    | 3"             | 3" | 4" | 4" | 5" | 5" | 5" | 5" | 6" | 6" |
| Size (out)           | A,E | Ø    | 3"             | 3" | 4" | 4" | 5" | 5" | 5" | 5" | 6" | 6" |

**Sound data calculated in cooling mode (2)**

|                             |   |       |      |      |      |      |      |      |      |      |      |      |
|-----------------------------|---|-------|------|------|------|------|------|------|------|------|------|------|
| Sound power level           | A | dB(A) | 86,3 | 88,9 | 88,8 | 90,5 | 91,7 | 91,6 | 93,1 | 93,3 | 93,3 | 94,2 |
|                             | E | dB(A) | 83,3 | 85,9 | 85,8 | 87,5 | 88,7 | 88,6 | 90,1 | 90,3 | 90,3 | 91,2 |
| Sound pressure level (10 m) | A | dB(A) | 54,1 | 56,5 | 56,3 | 57,9 | 58,9 | 58,7 | 60,1 | 60,2 | 60,1 | 61,0 |
|                             | E | dB(A) | 51,1 | 53,5 | 53,3 | 54,9 | 55,9 | 55,7 | 57,1 | 57,2 | 57,1 | 58,0 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

**General data - fans**

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Model: F****Inverter fan**

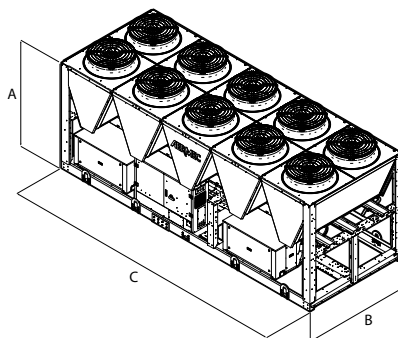
|               |     |      |          |        |        |        |        |        |        |        |        |        |
|---------------|-----|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Type          | A,E | type | Axial    |        |        |        |        |        |        |        |        |        |
| Fan motor     | A,E | type | Inverter |        |        |        |        |        |        |        |        |        |
| Number        | A,E | no.  | 6        | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     | 22     |
| Air flow rate | A,E | m³/h | 93150    | 124200 | 155250 | 186300 | 217350 | 248400 | 279450 | 310500 | 341550 | 341550 |

| Size | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310 |
|------|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|------|

**Model: P****Inverter fan**

|               |     |      |          |        |        |        |        |        |        |        |        |        |
|---------------|-----|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Type          | A,E | type | Axial    |        |        |        |        |        |        |        |        |        |
| Fan motor     | A,E | type | Inverter |        |        |        |        |        |        |        |        |        |
| Number        | A,E | no.  | 6        | 8      | 10     | 12     | 14     | 16     | 18     | 20     | 22     | 22     |
| Air flow rate | A,E | m³/h | 88800    | 118400 | 148000 | 177600 | 207200 | 236800 | 266400 | 296000 | 325600 | 325600 |

## DIMENSIONS



| Size   | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270  | 4310  |
|--|------|------|------|------|------|------|------|------|-------|-------|
| <b>Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, KF, KG, KH, KI, KJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ</b> |      |      |      |      |      |      |      |      |       |       |
| <b>Dimensions and weights</b>  |      |      |      |      |      |      |      |      |       |       |
| A  | A,E  | mm   | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  |
| B  | A,E  | mm   | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  |
| C  | A,E  | mm   | 3570 | 4760 | 5950 | 7140 | 8330 | 9520 | 10710 | 11900 |

### Model F

| Size                               | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270 | 4310  |
|------------------------------------|------|------|------|------|------|------|------|------|------|-------|
| <b>Integrated hydronic kit: 00</b> |      |      |      |      |      |      |      |      |      |       |
| <b>Weights</b>                     |      |      |      |      |      |      |      |      |      |       |
| Empty weight                       | A    | kg   | 3250 | 4110 | 5220 | 6180 | 6770 | 8130 | 8720 | 9400  |
|                                    | E    | kg   | 3330 | 4220 | 5360 | 6350 | 6960 | 8350 | 8960 | 9670  |
| Weight functioning                 | A    | kg   | 3510 | 4450 | 5630 | 6700 | 7360 | 8820 | 9500 | 10250 |
|                                    | E    | kg   | 3590 | 4560 | 5770 | 6870 | 7550 | 9040 | 9740 | 10520 |

### Model P

| Size                               | 1230 | 1310 | 2230 | 2270 | 2310 | 3270 | 3280 | 3310 | 4270  | 4310  |
|------------------------------------|------|------|------|------|------|------|------|------|-------|-------|
| <b>Integrated hydronic kit: 00</b> |      |      |      |      |      |      |      |      |       |       |
| <b>Weights</b>                     |      |      |      |      |      |      |      |      |       |       |
| Empty weight                       | A    | kg   | 3340 | 4240 | 5380 | 6370 | 6990 | 8380 | 9000  | 9710  |
|                                    | E    | kg   | 3430 | 4350 | 5520 | 6540 | 7180 | 8600 | 9250  | 9990  |
| Weight functioning                 | A    | kg   | 3640 | 4640 | 5860 | 6970 | 7680 | 9180 | 9900  | 10700 |
|                                    | E    | kg   | 3730 | 4750 | 6000 | 7140 | 7870 | 9400 | 10150 | 10980 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# WATER / WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

## WATER / WATER CHILLERS AND HEAT PUMPS

| WATER / WATER CHILLERS AND HEAT PUMPS |                   |  | Air flow rate<br>(m³/h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---------------------------------------|-------------------|--|-------------------------|--------------------|--------------------|------|
| Units with scroll compressors         |                   |  |                         |                    |                    |      |
|                                       | VENICE-H          | Reversible water-cooled heat pump, gas side  | -                       | 6,9-9,7            | 8,3-11,7           | 720  |
|                                       | WRL 026H-161H     | Reversible water-cooled heat pump, gas side  | -                       | 6,0-40,0           | 8,0-48,0           | 723  |
|                                       | WRL 026-161       | Water cooled heat pump reversible water side | -                       | 6,6-44,2           | 7,5-48,0           | 730  |
|                                       | WRL 180H-650H     | Reversible water-cooled heat pump, gas side  | -                       | 44,9-157,4         | 53,0-183,3         | 736  |
|                                       | WRL 180-650       | Water cooled heat pump reversible water side | -                       | 49,0-174,0         | 55,0-192,0         | 740  |
|                                       | WRK               | Reversible water-cooled heat pump, gas side  | -                       | 38,9-165,9         | 48,5-207,7         | 745  |
|                                       | WWB 0300-0900     | Water-water heat pumps only                  | -                       | -                  | 56,7-265,9         | 753  |
| new                                   | WWBG              | Water-water heat pumps only                  | -                       | -                  | 77,2-138,2         | 758  |
|                                       | WWM               | Water cooled heat pump reversible water side | -                       | 96                 | 110                | 763  |
|                                       | NXW 0503-1654     | Water cooled heat pump reversible water side | -                       | 111-511            | 127-582            | 769  |
|                                       | NXW 0503H - 1654H | Reversible water-cooled heat pump, gas side  | -                       | 106-477            | 125-565            | 774  |
| new                                   | NGW-0500-2600     | Water cooled heat pump reversible water side | -                       | 116,3-790,2        | 131,3-904,6        | 779  |
| new                                   | NGW-0350H-2600H   | Reversible water-cooled heat pump, gas side  | -                       | 107,0-746,4        | 126,3-879,3        | 784  |
| Units with screw compressors          |                   |  |                         |                    |                    |      |
|                                       | WS 0601-2802      | Water cooled heat pump reversible water side | -                       | 147-700            | 164-778            | 790  |
|                                       | HWS 0601 - 2802   | Water cooled heat pump reversible water side | -                       | 147-369            | 165-778            | 794  |
|                                       | HWSG              | Water cooled heat pump reversible water side | -                       | 110-396            | 122-595            | 799  |
|                                       | WSH               | Reversible water-cooled heat pump, gas side  | -                       | 165,8-269,7        | 183,3-300,3        | 803  |
|                                       | WFGI              | Water cooled heat pump reversible water side | -                       | 217-1765           | 243-1960           | 807  |
|                                       | WFGN              | Water cooled heat pump reversible water side | -                       | 136-1727           | 153-1921           | 817  |
|                                       | WFI               | Water cooled heat pump reversible water side | -                       | 291-2406           | 326-2664           | 824  |
|                                       | WFN               | Water cooled heat pump reversible water side | -                       | 182-2349           | 205-2610           | 833  |
| Units with centrifugal compressors    |                   |  |                         |                    |                    |      |
|                                       | WMX               | Water/water chiller (with R134a)             | -                       | 280,1-324,2        | -                  | 841  |
|                                       | WMG               | Water/water chiller (with R1234ze)           | -                       | 282,3-312,4        | -                  | 844  |
|                                       | WTX               | Water/water chiller                          | -                       | 222,9-1958,4       | -                  | 847  |
|                                       | WTG               | Water/water chiller (with R1234ze)           | -                       | 246,6-1959,4       | -                  | 852  |

# VENICE-H

## Reversible water-cooled heat pump, gas side

Cooling capacity 6,9 ÷ 9,7 kW  
Heating capacity 8,3 ÷ 11,7 kW



- Compact dimensions
- Quick & easy installation



### DESCRIPTION

The water-cooled heat pumps are reversible units for the production of chilled and hot water. They are indoor units with scroll compressors, system side heat exchangers and a plate source, which fully meet the needs of the residential market: reduced size, easy installation, low noise levels.

### FEATURES

- Cycle reversal on refrigerant circuit
- All versions are equipped with circulation pump, water tank, water filter and safety valve
- Complies with safety (EC) directive
- Differential pressure switch on the external circuit standard on heat pumps
- Flow-switch supplied in series only on the DHW side exchanger.
- Microprocessor control

- Control panel
- Plate heat exchanger
- Compact dimensions
- Metallic protective cabinet with rustproofing polyester paint RAL 9003
- Protection rating IP 24

### ACCESSORIES

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**VPH:** Pressure switch valve with bypass solenoid valve, during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.

**VT:** Anti-vibration supports.

### ACCESSORIES COMPATIBILITY

| Accessory                    | VENICE 20H | VENICE 30H |
|------------------------------|------------|------------|
| PR3                          | •          | •          |
| <b>Pressure switch valve</b> |            |            |
| Accessory                    | VENICE 20H | VENICE 30H |
| VPH10                        | •          |            |
| VPH11                        |            | •          |
| <b>Antivibration</b>         |            |            |
| Accessory                    | VENICE 20H | VENICE 30H |
| VT7                          | •          | •          |

## PERFORMANCE SPECIFICATIONS

|  |     | VENICE 20H | VENICE 30H |
|--|-----|------------|------------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |            |            |
| Cooling capacity                             | kW  | 6,9        | 9,7        |
| Input power                                  | kW  | 1,9        | 2,6        |
| Cooling total input current                  | A   | 9,0        | 13,0       |
| EER  | W/W | 3,62       | 3,72       |
| Water flow rate system side                  | l/h | 1185       | 1667       |
| Useful head system side                      | kPa | 63         | 59         |
| Water flow rate source side                  | l/h | 1495       | 2095       |
| Pressure drop source side                    | kPa | 18         | 12         |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |            |            |
| Heating capacity                             | kW  | 8,3        | 11,7       |
| Input power                                  | kW  | 2,3        | 3,2        |
| Heating total input current                  | A   | 12,0       | 16,0       |
| COP  | W/W | 3,66       | 3,70       |
| Water flow rate system side                  | l/h | 1450       | 2027       |
| Useful head system side                      | kPa | 48         | 41         |
| Water flow rate source side                  | l/h | 1791       | 2505       |
| Pressure drop source side                    | kPa | 25         | 17         |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

|   |     | VENICE 20H | VENICE 30H |
|---|-----|------------|------------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |            |            |
| SEER  | W/W | 3,66       | 4,02       |
| Seasonal efficiency   | %   | 143,4      | 157,8      |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |     |            |            |
| Pdesignh  | kW  | 11         | 16         |
| SCOP  | W/W | 4,20       | 4,33       |
| ηsh   | %   | 160,00     | 165,00     |
| Efficiency energy class   |     | A++        | A++        |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

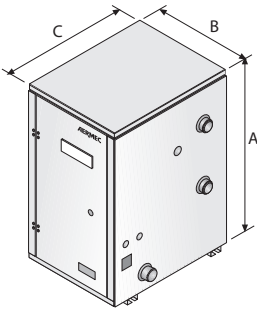
|                       |   | VENICE 20H | VENICE 30H |
|-----------------------|---|------------|------------|
| <b>Power supply</b>   |   |            |            |
| Power supply          |   | 230V~50Hz  | 230V~50Hz  |
| <b>Electric data</b>  |   |            |            |
| Maximum current (FLA) | A | 15,0       | 24,0       |
| Peak current (LRA)    | A | 61,0       | 100,0      |

## GENERAL TECHNICAL DATA

|                                   |       | VENICE 20H   | VENICE 30H   |
|-----------------------------------|-------|--------------|--------------|
| <b>Compressor</b>                 |       |              |              |
| Type                              | type  | Scroll       | Scroll       |
| Number                            | no.   | 1            | 1            |
| Circuits                          | no.   | 1            | 1            |
| Refrigerant                       | type  | R407C        | R407C        |
| <b>System side heat exchanger</b> |       |              |              |
| Type                              | type  | Brazed plate | Brazed plate |
| Number                            | no.   | 1            | 1            |
| Connections (in/out)              | Type  | Gas M        | Gas M        |
| Sizes (in/out)                    | Ø     | 1"           | 1"           |
| <b>Source side heat exchanger</b> |       |              |              |
| Type                              | type  | Brazed plate | Brazed plate |
| Number                            | no.   | 1            | 1            |
| Connections (in/out)              | Type  | Gas M        | Gas M        |
| Sizes (in/out)                    | Ø     | 1"           | 1"           |
| <b>Sound data</b>                 |       |              |              |
| Sound power level                 | dB(A) | 56,0         | 57,0         |
| Sound pressure level              | dB(A) | 48,0         | 49,0         |



DIMENSIONS



|                        |    | VENICE 20H | VENICE 30H |
|------------------------|----|------------|------------|
| Dimensions and weights |    |            |            |
| A                      | mm | 625        | 625        |
| B                      | mm | 404        | 404        |
| C                      | mm | 504        | 504        |
| Empty weight           | kg | 103        | 109        |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WRL 026H - 161H

## Reversible water-cooled heat pump, gas side

Cooling capacity 6 ÷ 40 kW  
Heating capacity 8 ÷ 48 kW

- High efficiency
- Production of hot water up to 60 °C
- Production of domestic hot water priority
- Suitable for geothermal applications



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Indoor units with hermetic scroll compressors and plate heat exchangers. In the configuration with desuperheater, it is also possible to produce free-hot water.

The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

### VERSIONS

° Without storage tank

A With storage tank

### FEATURES

#### Operating field

Operation at full power with domestic hot water for the system up to 60 °C. (for more information, refer to the technical documentation).

#### Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

#### Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).

To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).

Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

### CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**KSAE:** External air sensor.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SSM:** Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.

**TAH:** Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.

**TAT:** Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**VPHL:** Pressure switch valve with bypass solenoid valve, during cooling mode operation the bypass valve is closed so the water flows exclusively

through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.

## ACCESSORIES COMPATIBILITY

| Model    | 026 | 031 | 041 | 051 | 071 | 081 | 101 | 141 | 161 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER485P1 | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERBACP  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| KSAE     | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PGD1     | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD      | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SSM      | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TAH      | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| TAT      | *   | *   | *   | *   | *   | *   | *   | *   | *   |

## Antivibration

| Version | Integrated hydronic kit, source side | System side - pumps | 026  | 031  | 041  | 051  | 071  |
|---------|--------------------------------------|---------------------|------|------|------|------|------|
| °       | °, B, I, U, V                        | °, N, P             | VT9  | VT9  | VT9  | VT9  | VT9  |
| A       | °, B, I, U, V                        | °, N, P             | VT15 | VT15 | VT15 | VT15 | VT15 |

| Version | Integrated hydronic kit, source side | System side - pumps | 081  | 101   | 141   | 161   |
|---------|--------------------------------------|---------------------|------|-------|-------|-------|
| °       | °, B, I, U, V                        | °, N, P             | VT9  | VT15  | VT15  | VT15  |
| A       | °, B, I, U, V                        | °, N, P             | VT15 | VT15A | VT15A | VT15A |

## Pressure switch valve

| Ver  | 026   | 031   | 041   | 051   | 071   | 081   | 101   | 141   | 161   |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| °, A | VPHL1 | VPHL1 | VPHL2 | VPHL2 | VPHL3 | VPHL3 | VPHL4 | VPHL4 | VPHL4 |

## CONFIGURATOR

| Field        | Description  |
|--------------|--|
| <b>1,2,3</b> | <b>WRL</b>   |
| <b>4,5,6</b> | <b>Size</b><br>026, 031, 041, 051, 071, 081, 101, 141, 161 |
| <b>7</b>     | <b>Operating field</b>                                     |
| X            | Electronic thermostatic expansion valve                    |
| <b>8</b>     | <b>Model</b>   |
| H            | Reversible heat pump, gas side                             |
| <b>9</b>     | <b>Version</b>   |
| °            | Without storage tank                                       |
| A            | With storage tank  |
| <b>10</b>    | <b>Heat recovery</b>                                       |
| °            | Without heat recovery                                      |
| <b>11</b>    | <b>Integrated hydronic kit, source side</b>                |
| B            | On-off pump (1)  |
| I            | Inverter pump (2)  |
| U            | Pump high head (3)   |
| V            | Applications with bore hole water                          |
| °            | Without hydronic kit                                       |
| <b>12</b>    | <b>System side - pumps</b>                                 |
| N            | Pump high head (3)   |
| P            | Pump (4)   |
| °            | Without hydronic kit                                       |
| <b>13</b>    | <b>Recovery side - pumps</b>                               |
| °            | Without hydronic kit                                       |
| <b>14</b>    | <b>Soft-start</b>  |
| S            | With soft-start  |
| °            | Without soft-start   |
| <b>15</b>    | <b>Power supply</b>  |
| M            | 230V ~ 50Hz (5)  |
| °            | 400V ~ 3N 50Hz   |

(1) For size WRL 051 ÷ 081. The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

(2) Only for WRL 026 ÷ 081

(3) Only for WRL 101 ÷ 161

(4) In sizes WRL 026 ÷ 081, it's an inverter circulator; for other sizes, it's an on-off pump.

(5) Only for WRL 026 ÷ 041

## PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

### WRL - (H°) - (400V 3N ~ 50Hz)

| Size  |     | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161   |
|---|-----|------|------|------|------|------|------|------|------|-------|
| <b>Power supply: °</b>                      |     |      |      |      |      |      |      |      |      |       |
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |       |
| Cooling capacity                            | kW  | 6,3  | 8,1  | 10,4 | 13,7 | 17,8 | 20,3 | 27,6 | 35,4 | 40,4  |
| Input power                                 | kW  | 1,6  | 2,3  | 2,3  | 3,0  | 4,2  | 5,0  | 6,1  | 8,5  | 10,1  |
| Cooling total input current                 | A   | 4,0  | 4,0  | 6,0  | 7,0  | 9,0  | 10,0 | 13,0 | 17,0 | 19,0  |
| EER   | W/W | 3,98 | 3,47 | 4,52 | 4,51 | 4,18 | 4,08 | 4,49 | 4,15 | 4,01  |
| Water flow rate source side                 | l/h | 1346 | 1782 | 2178 | 2870 | 3759 | 4312 | 5763 | 7501 | 8611  |
| Pressure drop source side                   | kPa | 13   | 16   | 19   | 20   | 24   | 27   | 28   | 37   | 44    |
| Water flow rate system side                 | l/h | 1085 | 1396 | 1798 | 2367 | 3058 | 3492 | 4748 | 6098 | 6964  |
| Pressure drop system side                   | kPa | 9    | 11   | 13   | 14   | 16   | 18   | 20   | 24   | 29    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |       |
| Heating capacity                            | kW  | 7,9  | 9,5  | 12,4 | 16,4 | 20,9 | 24,0 | 32,7 | 41,7 | 47,6  |
| Input power                                 | kW  | 2,1  | 2,4  | 3,0  | 4,0  | 5,2  | 6,1  | 8,1  | 10,5 | 12,3  |
| Heating total input current                 | A   | 4,8  | 4,8  | 6,6  | 8,3  | 10,0 | 12,0 | 16,0 | 20,0 | 23,0  |
| COP   | W/W | 3,84 | 3,96 | 4,08 | 4,07 | 4,01 | 3,94 | 4,05 | 3,97 | 3,87  |
| Water flow rate source side                 | l/h | 1714 | 2086 | 2759 | 3635 | 4611 | 5291 | 7248 | 9196 | 10445 |
| Pressure drop source side                   | kPa | 34   | 34   | 46   | 43   | 50   | 59   | 52   | 62   | 73    |
| Water flow rate system side                 | l/h | 1364 | 1644 | 2151 | 2842 | 3616 | 4165 | 5669 | 7217 | 8246  |
| Pressure drop system side                   | kPa | 20   | 18   | 28   | 28   | 32   | 38   | 35   | 43   | 51    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

### Technical data WRL (H°) - (230V ~ 50Hz)

| Size  |     | 026  | 031  | 041  | 051 | 071 | 081 | 101 | 141 | 161 |
|---|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>                      |     |      |      |      |     |     |     |     |     |     |
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |     |     |     |     |     |     |
| Cooling capacity                            | kW  | 6,3  | 7,9  | 10,3 | -   | -   | -   | -   | -   | -   |
| Input power                                 | kW  | 1,7  | 1,9  | 2,4  | -   | -   | -   | -   | -   | -   |
| Cooling total input current                 | A   | 9,0  | 11,0 | 14,0 | -   | -   | -   | -   | -   | -   |
| EER   | W/W | 3,74 | 4,13 | 4,28 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                 | l/h | 1363 | 1678 | 2179 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                   | kPa | 14   | 16   | 19   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                 | l/h | 1085 | 1362 | 1781 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                   | kPa | 9    | 10   | 13   | -   | -   | -   | -   | -   | -   |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |     |     |     |     |     |     |
| Heating capacity                            | kW  | 7,9  | 9,9  | 12,6 | -   | -   | -   | -   | -   | -   |
| Input power                                 | kW  | 2,1  | 2,6  | 3,3  | -   | -   | -   | -   | -   | -   |
| Heating total input current                 | A   | 10,0 | 13,0 | 17,0 | -   | -   | -   | -   | -   | -   |
| COP   | W/W | 3,85 | 3,89 | 3,82 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                 | l/h | 1717 | 2173 | 2745 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                   | kPa | 34   | 36   | 46   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                 | l/h | 1366 | 1723 | 2186 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                   | kPa | 20   | 22   | 29   | -   | -   | -   | -   | -   | -   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

### WRL - (H°) - (400V 3N ~ 50Hz)

| Size  |     | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141   | 161   |
|---|-----|------|------|------|------|------|------|------|-------|-------|
| <b>Power supply: °</b>                      |     |      |      |      |      |      |      |      |       |       |
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |      |      |      |      |      |      |      |       |       |
| Cooling capacity                            | kW  | 8,3  | 10,0 | 13,5 | 17,5 | 23,9 | 27,4 | 34,9 | 47,8  | 54,5  |
| Input power                                 | kW  | 1,6  | 1,9  | 2,4  | 3,3  | 4,4  | 5,2  | 6,6  | 9,0   | 10,7  |
| Cooling total input current                 | A   | 4,1  | 3,0  | 6,0  | 7,6  | 9,2  | 10,0 | 14,0 | 17,0  | 19,0  |
| EER   | W/W | 5,22 | 5,34 | 5,54 | 5,35 | 5,39 | 5,25 | 5,31 | 5,32  | 5,11  |
| Water flow rate source side                 | l/h | 1681 | 2039 | 2719 | 3547 | 4844 | 5557 | 7089 | 9679  | 11092 |
| Pressure drop source side                   | kPa | 20   | 21   | 30   | 31   | 40   | 45   | 42   | 62    | 73    |
| Water flow rate system side                 | l/h | 1428 | 1737 | 2330 | 3022 | 4136 | 4730 | 6040 | 8270  | 9438  |
| Pressure drop system side                   | kPa | 16   | 17   | 22   | 23   | 29   | 33   | 32   | 44    | 53    |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |      |      |      |      |      |      |      |       |       |
| Heating capacity                            | kW  | 8,1  | 10,1 | 13,0 | 17,0 | 22,6 | 25,8 | 34,1 | 45,0  | 50,8  |
| Input power                                 | kW  | 1,6  | 1,9  | 2,5  | 3,2  | 4,3  | 5,1  | 6,4  | 8,7   | 10,3  |
| Heating total input current                 | A   | 3,7  | 3,7  | 5,2  | 6,4  | 8,4  | 9,7  | 12,0 | 16,0  | 19,0  |
| COP   | W/W | 5,03 | 5,38 | 5,29 | 5,33 | 5,24 | 5,06 | 5,31 | 5,18  | 4,91  |
| Water flow rate source side                 | l/h | 1397 | 1751 | 2246 | 2934 | 3893 | 4456 | 5888 | 7770  | 8761  |
| Pressure drop source side                   | kPa | 21   | 20   | 30   | 30   | 37   | 43   | 38   | 50    | 58    |
| Water flow rate system side                 | l/h | 1901 | 2418 | 3098 | 4045 | 5363 | 6102 | 8125 | 10710 | 11951 |
| Pressure drop system side                   | kPa | 42   | 46   | 58   | 53   | 68   | 78   | 65   | 84    | 95    |

(1) Date 14511:2022; Water user side 23 °C/ 18 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 30 °C/ 35 °C; Water source side 10 °C/ 5 °C

### WRL (H°) - (230V ~ 50Hz)

| Size  |     | 026  | 031  | 041  | 051 | 071 | 081 | 101 | 141 | 161 |
|---|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>                      |     |      |      |      |     |     |     |     |     |     |
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |      |      |      |     |     |     |     |     |     |
| Cooling capacity                            | kW  | 8,3  | 10,1 | 13,3 | -   | -   | -   | -   | -   | -   |
| Input power                                 | kW  | 1,6  | 2,0  | 2,5  | -   | -   | -   | -   | -   | -   |
| Cooling total input current                 | A   | 8,1  | 11,0 | 14,0 | -   | -   | -   | -   | -   | -   |
| EER   | W/W | 5,05 | 5,18 | 5,27 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                 | l/h | 1690 | 2070 | 2699 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                   | kPa | 22   | 24   | 29   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                 | l/h | 1428 | 1755 | 2295 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                   | kPa | 16   | 17   | 22   | -   | -   | -   | -   | -   | -   |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |      |      |      |     |     |     |     |     |     |
| Heating capacity                            | kW  | 8,2  | 10,2 | 13,1 | -   | -   | -   | -   | -   | -   |
| Input power                                 | kW  | 1,6  | 1,9  | 2,6  | -   | -   | -   | -   | -   | -   |
| Heating total input current                 | A   | 8,1  | 9,7  | 13,0 | -   | -   | -   | -   | -   | -   |
| COP   | W/W | 5,05 | 5,27 | 5,01 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                 | l/h | 1409 | 1767 | 2263 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                   | kPa | 21   | 23   | 31   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                 | l/h | 1919 | 2430 | 3082 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                   | kPa | 42   | 45   | 58   | -   | -   | -   | -   | -   | -   |

(1) Date 14511:2022; Water user side 23 °C/ 18 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 30 °C/ 35 °C; Water source side 10 °C/ 5 °C

## ENERGY INDICES (REG. 2016/2281 EU)

### WRL - (H°) - (400V 3N ~ 50Hz)

| Size  |     | 026    | 031    | 041    | 051    | 071    | 081    | 101    | 141    | 161    |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Power supply: °</b>  |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |        |        |        |        |        |        |        |        |        |
| SEER  | W/W | 3,64   | 3,39   | 4,31   | 4,53   | 4,20   | 4,13   | 4,81   | 4,49   | 4,36   |
| Seasonal efficiency   | %   | 142,7% | 132,4% | 169,4% | 178,1% | 165,1% | 162,3% | 189,4% | 176,5% | 171,4% |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  | kW  | 10     | 12     | 16     | 21     | 26     | 31     | 42     | 53     | 61     |
| ηsh   | %   | 141.0% | 145.0% | 151.0% | 152.0% | 151.0% | 150.0% | 175.0% | 173.0% | 167.0% |
| SCOP  | W/W | 3,73   | 3,83   | 3,98   | 4,00   | 3,98   | 3,95   | 4,58   | 4,53   | 4,38   |
| Efficiency energy class   |     | A++    | A++    | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)</b> |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  | kW  | 11     | 14     | 17     | 23     | 30     | 35     | 45     | 60     | 68     |
| ηsh   | %   | 195.0% | 210.0% | 207.0% | 212.0% | 211.0% | 205.0% | 233.0% | 226.0% | 212.0% |
| SCOP  | W/W | 5,08   | 5,45   | 5,38   | 5,50   | 5,48   | 5,33   | 6,03   | 5,85   | 5,50   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

### WRL - (H°) - (230V ~ 50Hz)

| Size  |     | 026    | 031    | 041    | 051 | 071 | 081 | 101 | 141 | 161 |
|---|-----|--------|--------|--------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>  |     |        |        |        |     |     |     |     |     |     |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |        |        |        |     |     |     |     |     |     |
| SEER  | W/W | 3,48   | 3,80   | 4,15   | -   | -   | -   | -   | -   | -   |
| Seasonal efficiency   | %   | 136,2% | 148,8% | 163,1% | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  | kW  | 10     | 13     | 16     | -   | -   | -   | -   | -   | -   |
| ηsh   | %   | 142.0% | 145.0% | 142.0% | -   | -   | -   | -   | -   | -   |
| SCOP  | W/W | 3,75   | 3,83   | 3,75   | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |     | A++    | A++    | A++    | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)</b> |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  | kW  | 11     | 14     | 17     | -   | -   | -   | -   | -   | -   |
| ηsh   | %   | 198.0% | 212.0% | 199.0% | -   | -   | -   | -   | -   | -   |
| SCOP  | W/W | 5,15   | 5,50   | 5,18   | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | -   | -   | -   | -   | -   | -   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

### WRL - (H ABP) - (400V 3N ~ 50Hz)

| Size  |     | 026    | 031    | 041    | 051    | 071    | 081    | 101    | 141    | 161    |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Power supply: °</b>  |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |        |        |        |        |        |        |        |        |        |
| SEER  | W/W | 4,47   | 4,07   | 5,37   | 5,40   | 4,96   | 4,85   | 5,17   | 4,75   | 4,67   |
| Seasonal efficiency   | %   | 175,9% | 159,7% | 211,8% | 213,1% | 195,3% | 190,9% | 203,7% | 186,8% | 183,9% |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  | kW  | 10     | 12     | 16     | 21     | 26     | 30     | 41     | 52     | 60     |
| ηsh   | %   | 151.0% | 155.0% | 161.0% | 161.0% | 157.0% | 155.0% | 173.0% | 170.0% | 166.0% |
| SCOP  | W/W | 3,98   | 4,08   | 4,23   | 4,23   | 4,13   | 4,08   | 4,53   | 4,45   | 4,35   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)</b> |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  | kW  | 10     | 13     | 17     | 22     | 30     | 34     | 44     | 59     | 66     |
| ηsh   | %   | 223.0% | 238.0% | 222.0% | 237.0% | 222.0% | 210.0% | 232.0% | 230.0% | 216.0% |
| SCOP  | W/W | 5,78   | 6,15   | 5,75   | 6,13   | 5,75   | 5,45   | 6,00   | 5,95   | 5,60   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

**WRL - (H ABP) - (230V ~ 50Hz)**

| Size  |     | 026    | 031    | 041    | 051 | 071 | 081 | 101 | 141 | 161 |
|---|-----|--------|--------|--------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>  |     |        |        |        |     |     |     |     |     |     |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |        |        |        |     |     |     |     |     |     |
| SEER  | W/W | 4,21   | 4,63   | 5,14   | -   | -   | -   | -   | -   | -   |
| Seasonal efficiency   | %   | 165,5% | 182,3% | 202,7% | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  | kW  | 10     | 13     | 16     | -   | -   | -   | -   | -   | -   |
| ηsh   | %   | 152,0% | 156,0% | 152,0% | -   | -   | -   | -   | -   | -   |
| SCOP  | W/W | 4,00   | 4,10   | 4,00   | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)</b> |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  | kW  | 11     | 13     | 17     | -   | -   | -   | -   | -   | -   |
| ηsh   | %   | 228,0% | 243,0% | 214,0% | -   | -   | -   | -   | -   | -   |
| SCOP  | W/W | 5,90   | 6,28   | 5,55   | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | -   | -   | -   | -   | -   | -   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

**ELECTRIC DATA**

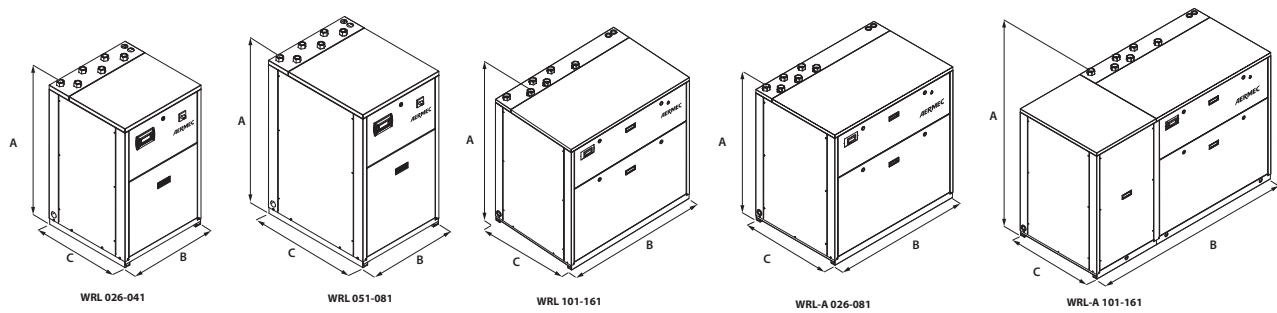
| Size                   |   | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161  |
|------------------------|---|------|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b> |   |      |      |      |      |      |      |      |      |      |
| <b>Electric data</b>   |   |      |      |      |      |      |      |      |      |      |
| Maximum current (FLA)  | A | 8,5  | 9,0  | 11,0 | 13,0 | 20,0 | 23,0 | 23,0 | 37,0 | 43,0 |
| Peak current (LRA)     | A | 34,0 | 37,0 | 50,0 | 66,0 | 75,0 | 75,0 | 88,0 | 91,0 | 94,0 |
| Size                   |   | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161  |
| <b>Power supply: M</b> |   |      |      |      |      |      |      |      |      |      |
| <b>Electric data</b>   |   |      |      |      |      |      |      |      |      |      |
| Maximum current (FLA)  | A | 19,0 | 22,0 | 26,0 | -    | -    | -    | -    | -    | -    |
| Peak current (LRA)     | A | 63,0 | 84,0 | 99,0 | -    | -    | -    | -    | -    | -    |

**GENERAL TECHNICAL DATA**

| Size   |          | 026  | 031  | 041  | 051  | 071          | 081  | 101  | 141  | 161  |
|--|----------|------|------|------|------|--------------|------|------|------|------|
| <b>Compressor</b>                                |          |      |      |      |      |              |      |      |      |      |
| Type   | °A type  |      |      |      |      | Scroll       |      |      |      |      |
| Number   | °A no.   | 1    | 1    | 1    | 1    | 1            | 1    | 2    | 2    | 2    |
| Circuits   | °A no.   | 1    | 1    | 1    | 1    | 1            | 1    | 1    | 1    | 1    |
| Refrigerant                                      | °A type  |      |      |      |      | R410A        |      |      |      |      |
| <b>Source side heat exchanger</b>                |          |      |      |      |      |              |      |      |      |      |
| Type   | °A type  |      |      |      |      | Brazed plate |      |      |      |      |
| Number   | °A no.   | 1    | 1    | 1    | 1    | 1            | 1    | 1    | 1    | 1    |
| <b>System side heat exchanger</b>                |          |      |      |      |      |              |      |      |      |      |
| Type   | °A type  |      |      |      |      | Brazed plate |      |      |      |      |
| Number   | °A no.   | 1    | 1    | 1    | 1    | 1            | 1    | 1    | 1    | 1    |
| <b>Source side hydraulic connections</b>         |          |      |      |      |      |              |      |      |      |      |
| Connections (in/out)                             | °A Type  |      |      |      |      | Gas - F      |      |      |      |      |
| Sizes (in/out)                                   | °A Ø     |      |      |      |      | 1" 1/4       |      |      |      |      |
| <b>System side hydraulic connections</b>         |          |      |      |      |      |              |      |      |      |      |
| Connections (in/out)                             | °A Type  |      |      |      |      | Gas - F      |      |      |      |      |
| Sizes (in/out)                                   | °A Ø     |      |      |      |      | 1" 1/4       |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |          |      |      |      |      |              |      |      |      |      |
| Sound power level                                | °A dB(A) | 55,5 | 57,0 | 57,5 | 59,0 | 60,0         | 60,5 | 62,0 | 63,0 | 63,5 |
| Sound pressure level (10 m)                      | ° dB(A)  | 24,3 | 25,8 | 26,3 | 27,7 | 28,7         | 29,2 | 30,6 | 31,6 | 32,1 |
|  | A dB(A)  | 24,1 | 25,6 | 26,1 | 27,6 | 28,6         | 29,1 | 30,5 | 31,5 | 32,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



| Size                   |   |    | 026     | 031     | 041     | 051     | 071     | 081     | 101     | 141     | 161     |
|------------------------|---|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Dimensions and weights |   |    |         |         |         |         |         |         |         |         |         |
| A                      | ° | mm | 976     | 976     | 976     | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    |
|                        | A | mm | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    |
| B                      | ° | mm | 605     | 605     | 605     | 605     | 605     | 605     | 1155    | 1155    | 1155    |
|                        | A | mm | 1155    | 1155    | 1155    | 1155    | 1155    | 1155    | 1755    | 1755    | 1755    |
| C                      | ° | mm | 603     | 603     | 603     | 773     | 773     | 773     | 773     | 773     | 773     |
|                        | A | mm | 773     | 773     | 773     | 773     | 773     | 773     | 773     | 773     | 773     |
| Empty weight           | ° | kg | 120     | 125     | 130     | 150     | 170     | 180     | 260     | 270     | 280     |
|                        | A | kg | 190 (1) | 200 (1) | 210 (1) | 230 (1) | 250 (1) | 260 (1) | 340 (1) | 350 (1) | 360 (1) |

(1) Units with two heat exchangers and storage tank, without pumps

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# WRL 026 -161

## Water cooled heat pump reversible water side

Cooling capacity 6,6 ÷ 44,2 kW  
Heating capacity 7,5 ÷ 48,0 kW

- High efficiency
- Suitable for geothermal applications



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Indoor units with hermetic scroll compressors and plate heat exchangers. In the configuration with desuperheater, it is also possible to produce free-hot water.

The technological choices made, always oriented to the highest quality, ensure very easy installation.

In fact, the electrical and hydraulic connections are all located at the top of the unit making it easy to install and maintain, also reducing the technical areas and their placement in the smallest space possible.

### VERSIONS

° Without storage tank

A With storage tank

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

#### Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).

To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).

Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

### MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

The regulation using an outside air temperature sensor (accessory) allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

### ACCESSORIES

**AERBAC-MODU:** Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP. The accessory is supplied with the unit and must be installed on an external electrical panel.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**KSAE:** External air sensor.

**MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.

**PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**VT:** Anti-vibration supports.

**VPL:** Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ For the installation of the PR4 remote panel, the MODU-485BL communication interface is indispensable.

## ACCESSORIES COMPATIBILITY

| Model       | Ver | 026 | 031 | 041 | 051 | 071 | 081 | 101 | 141 | 161 |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AERBAC-MODU | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERSET      | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| KSAE        | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| MODU-485BL  | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| PR3         | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD         | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |

## Antivibration

| Version | Integrated hydronic kit, source side | System side - pumps | 026  | 031  | 041  | 051  | 071  |
|---------|--------------------------------------|---------------------|------|------|------|------|------|
| °       | °                                    | °                   | VT9  | VT9  | VT9  | VT9  | VT9  |
| °       | B, I, U, V                           | N, P                | VT9  | VT9  | VT9  | VT9  | VT9  |
| A       | °B, I, U, V                          | °N, P               | VT15 | VT15 | VT15 | VT15 | VT15 |

| Version | Integrated hydronic kit, source side | System side - pumps | 081  | 101   | 141   | 161   |
|---------|--------------------------------------|---------------------|------|-------|-------|-------|
| °       | °                                    | °                   | VT9  | VT15  | VT15  | VT15  |
| °       | U                                    | N, P                | VT9  | VT15  | VT15  | VT15  |
| °       | B, I, V                              | N, P                | VT9  | VT15  | VT15  | -     |
| A       | °B, I, U, V                          | °N, P               | VT15 | VT15A | VT15A | VT15A |

- not available

## PR4

| Model | Ver | 026 | 031 | 041 | 051 | 071 | 081 | 101 | 141 | 161 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °A  | *   | *   | *   | *   | *   | *   | *   | *   | *   |

## Pressure switch valve

| Ver | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161  |
|-----|------|------|------|------|------|------|------|------|------|
| °A  | VPL1 | VPL1 | VPL2 | VPL2 | VPL3 | VPL3 | VPL4 | VPL4 | VPL4 |

## CONFIGURATOR

### Configuration options

| Field        | Description  |
|--------------|--|
| <b>1,2,3</b> | <b>WRL</b>   |
| <b>4,5,6</b> | <b>Size</b><br>026, 031, 041, 051, 071, 081, 101, 141, 161 |
| <b>7</b>     | <b>Operating field</b>                                     |
| Y            | Low temperature mechanic thermostatic valve (1)            |
| °            | Standard mechanic thermostatic valve (2)                   |
| <b>8</b>     | <b>Model</b>   |
| E            | Evaporating unit (3)                                       |
| °            | Heat pump reversible on the water side                     |
| <b>9</b>     | <b>Version</b>   |
| °            | Without storage tank                                       |
| A            | With storage tank  |
| <b>10</b>    | <b>Heat recovery</b>                                       |
| D            | With desuperheater   |
| °            | Without heat recovery                                      |
| <b>11</b>    | <b>Integrated hydronic kit, source side</b>                |
| B            | On-off pump (4)  |
| I            | Inverter pump (5)  |
| U            | Pump high head (6)   |

| Field                                    | Description                  |
|--|------------------------------|
| <b>Applications with bore hole water</b> |                              |
| V  | 2-way modulating valve       |
| °  | Without hydronic kit         |
| <b>12</b>                                | <b>System side - pumps</b>   |
| N  | Pump high head (6)           |
| P  | On-off pump (4)              |
| °  | Without hydronic kit         |
| <b>13</b>                                | <b>Recovery side - pumps</b> |
| °  | Without Pumps                |
| <b>14</b>                                | <b>Soft-start</b>            |
| S  | With soft-start              |
| °  | Without soft-start           |
| <b>15</b>                                | <b>Power supply</b>          |
| M  | 230V~ 50Hz (7)               |
| °  | 400V~3N 50Hz                 |

(1) Water produced from 4 °C ÷ - 8 °C

(2) Water produced from 4 °C ÷ 18 °C

(3) Shipped with holding charge only

(4) For size WRL 051 ÷ 081. The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

(5) Only for WRL 026 ÷ 081

(6) Only for WRL 101 ÷ 161

(7) Only for WRL 026 ÷ 041

## PERFORMANCE SPECIFICATIONS

WRL - °

| Size   |     | 026  | 031  | 041  | 051 | 071 | 081 | 101 | 141 | 161 |
|--|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |     |     |     |     |     |     |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |     |     |     |     |     |     |
| Cooling capacity                             | kW  | 6,6  | 8,3  | 11,3 | -   | -   | -   | -   | -   | -   |
| Input power                                  | kW  | 1,5  | 1,8  | 2,5  | -   | -   | -   | -   | -   | -   |
| Cooling total input current                  | A   | 7,2  | 9,2  | 12,0 | -   | -   | -   | -   | -   | -   |
| EER  | W/W | 4,30 | 4,50 | 4,56 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                  | l/h | 1386 | 1731 | 2359 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                    | kPa | 28   | 29   | 36   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1137 | 1430 | 1955 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 15   | 17   | 23   | -   | -   | -   | -   | -   | -   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |     |     |     |     |     |     |
| Heating capacity                             | kW  | 7,6  | 9,4  | 12,5 | -   | -   | -   | -   | -   | -   |
| Input power                                  | kW  | 2,0  | 2,4  | 3,1  | -   | -   | -   | -   | -   | -   |
| Heating total input current                  | A   | 9,3  | 12,0 | 15,0 | -   | -   | -   | -   | -   | -   |
| COP  | W/W | 3,86 | 3,89 | 4,05 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                  | l/h | 1662 | 2053 | 2778 | -   | -   | -   | -   | -   | -   |
| Pressure drop source side                    | kPa | 32   | 35   | 46   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1319 | 1626 | 2171 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                    | kPa | 25   | 26   | 30   | -   | -   | -   | -   | -   | -   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

| Size   |     | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161   |
|--|-----|------|------|------|------|------|------|------|------|-------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |       |
| Cooling capacity                             | kW  | 6,7  | 8,4  | 11,3 | 14,7 | 19,3 | 21,9 | 29,5 | 38,5 | 43,9  |
| Input power                                  | kW  | 1,5  | 1,8  | 2,6  | 3,1  | 4,0  | 4,7  | 6,2  | 8,1  | 9,5   |
| Cooling total input current                  | A   | 3,1  | 2,6  | 4,9  | 6,4  | 7,4  | 9,1  | 13,0 | 15,0 | 18,0  |
| EER  | W/W | 4,49 | 4,74 | 4,39 | 4,70 | 4,77 | 4,63 | 4,72 | 4,75 | 4,62  |
| Water flow rate source side                  | l/h | 1396 | 1735 | 2375 | 3054 | 3978 | 4538 | 6100 | 7947 | 9077  |
| Pressure drop source side                    | kPa | 28   | 30   | 35   | 32   | 40   | 46   | 42   | 57   | 66    |
| Water flow rate system side                  | l/h | 1154 | 1447 | 1955 | 2541 | 3320 | 3770 | 5078 | 6638 | 7555  |
| Pressure drop system side                    | kPa | 15   | 17   | 23   | 21   | 26   | 30   | 25   | 34   | 38    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |       |
| Heating capacity                             | kW  | 7,7  | 9,3  | 12,6 | 16,3 | 21,0 | 24,0 | 32,5 | 42,1 | 48,0  |
| Input power                                  | kW  | 1,9  | 2,3  | 3,2  | 4,0  | 5,1  | 5,9  | 8,0  | 10,2 | 12,0  |
| Heating total input current                  | A   | 4,1  | 3,4  | 6,1  | 8,2  | 9,2  | 11,0 | 16,0 | 18,0 | 23,0  |
| COP  | W/W | 3,93 | 4,04 | 3,94 | 4,05 | 4,17 | 4,04 | 4,06 | 4,14 | 4,02  |
| Water flow rate source side                  | l/h | 1680 | 2053 | 2767 | 3602 | 4708 | 5325 | 7200 | 9414 | 10671 |
| Pressure drop source side                    | kPa | 32   | 34   | 46   | 42   | 52   | 60   | 50   | 68   | 76    |
| Water flow rate system side                  | l/h | 1326 | 1607 | 2181 | 2819 | 3647 | 4159 | 5629 | 7284 | 8315  |
| Pressure drop system side                    | kPa | 25   | 26   | 30   | 27   | 34   | 39   | 36   | 48   | 55    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

WRL - °

| Size  |     | 026    | 031    | 041    | 051 | 071 | 081 | 101 | 141 | 161 |
|---|-----|--------|--------|--------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>  |     |        |        |        |     |     |     |     |     |     |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |     |        |        |        |     |     |     |     |     |     |
| SEER  | W/W | 3,77   | 4,13   | 4,27   | -   | -   | -   | -   | -   | -   |
| Seasonal efficiency   | %   | 147,9% | 162,0% | 167,6% | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  | kW  | 11     | 14     | 17     | -   | -   | -   | -   | -   | -   |
| SCOP  | W/W | 5,15   | 5,50   | 5,18   | -   | -   | -   | -   | -   | -   |
| ηsh   | %   | 198,0% | 212,0% | 199,0% | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | -   | -   | -   | -   | -   | -   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

| Size  |     | 026    | 031    | 041    | 051    | 071    | 081    | 101    | 141    | 161    |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Power supply: °</b>  |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |     |        |        |        |        |        |        |        |        |        |
| SEER  | W/W | 3,93   | 4,29   | 4,13   | 4,51   | 4,66   | 4,52   | 4,93   | 4,93   | 4,75   |
| Seasonal efficiency   | %   | 154,0% | 168,5% | 162,1% | 177,3% | 183,3% | 177,8% | 194,1% | 194,0% | 187,1% |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  | kW  | 11     | 14     | 17     | 23     | 30     | 35     | 45     | 60     | 68     |
| SCOP  | W/W | 5,08   | 5,45   | 5,38   | 5,50   | 5,48   | 5,33   | 6,03   | 5,85   | 5,50   |
| ηsh   | %   | 195,0% | 210,0% | 207,0% | 212,0% | 211,0% | 205,0% | 233,0% | 226,0% | 212,0% |
| Efficiency energy class   |     | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

## PERFORMANCE SPECIFICATIONS

### WRL ABP

| Size   |     | 026  | 031  | 041  | 051 | 071 | 081 | 101 | 141 | 161 |
|--|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>                       |     |      |      |      |     |     |     |     |     |     |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |     |     |     |     |     |     |
| Cooling capacity                             | kW  | 6,7  | 8,4  | 11,4 | -   | -   | -   | -   | -   | -   |
| Input power                                  | kW  | 1,5  | 1,8  | 2,4  | -   | -   | -   | -   | -   | -   |
| Cooling total input current                  | A   | 7,8  | 9,9  | 12,0 | -   | -   | -   | -   | -   | -   |
| EER  | W/W | 4,54 | 4,75 | 4,80 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                  | l/h | 1386 | 1731 | 2359 | -   | -   | -   | -   | -   | -   |
| Useful head source side                      | kPa | 59   | 54   | 36   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1137 | 1430 | 1955 | -   | -   | -   | -   | -   | -   |
| Useful head system side                      | kPa | 74   | 70   | 56   | -   | -   | -   | -   | -   | -   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |     |     |     |     |     |     |
| Heating capacity                             | kW  | 7,5  | 9,3  | 12,4 | -   | -   | -   | -   | -   | -   |
| Input power                                  | kW  | 1,9  | 2,3  | 3,0  | -   | -   | -   | -   | -   | -   |
| Heating total input current                  | A   | 9,9  | 13,0 | 15,0 | -   | -   | -   | -   | -   | -   |
| COP  | W/W | 3,97 | 4,01 | 4,17 | -   | -   | -   | -   | -   | -   |
| Water flow rate source side                  | l/h | 1662 | 2053 | 2778 | -   | -   | -   | -   | -   | -   |
| Useful head source side                      | kPa | 52   | 43   | 16   | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                  | l/h | 1319 | 1626 | 2171 | -   | -   | -   | -   | -   | -   |
| Useful head system side                      | kPa | 63   | 59   | 45   | -   | -   | -   | -   | -   | -   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

| Size   |     | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161   |
|--|-----|------|------|------|------|------|------|------|------|-------|
| <b>Power supply: °</b>                       |     |      |      |      |      |      |      |      |      |       |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |      |      |      |      |      |      |      |      |       |
| Cooling capacity                             | kW  | 6,8  | 8,5  | 11,4 | 14,9 | 19,4 | 22,0 | 29,8 | 38,9 | 44,2  |
| Input power                                  | kW  | 1,4  | 1,7  | 2,5  | 3,1  | 3,9  | 4,6  | 6,3  | 8,1  | 9,4   |
| Cooling total input current                  | A   | 3,7  | 3,3  | 5,6  | 7,5  | 8,6  | 10,0 | 14,0 | 17,0 | 20,0  |
| EER  | W/W | 4,75 | 5,02 | 4,62 | 4,84 | 4,93 | 4,78 | 4,75 | 4,79 | 4,69  |
| Water flow rate source side                  | l/h | 1396 | 1735 | 2375 | 3054 | 3978 | 4538 | 6100 | 7947 | 9077  |
| Useful head source side                      | kPa | 59   | 53   | 36   | 63   | 43   | 28   | 116  | 137  | 125   |
| Water flow rate system side                  | l/h | 1154 | 1447 | 1955 | 2541 | 3320 | 3770 | 5078 | 6638 | 7555  |
| Useful head system side                      | kPa | 74   | 70   | 56   | 79   | 66   | 56   | 148  | 164  | 157   |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |      |      |      |      |      |      |      |      |       |
| Heating capacity                             | kW  | 7,6  | 9,2  | 12,5 | 16,1 | 20,9 | 23,8 | 32,2 | 41,6 | 47,6  |
| Input power                                  | kW  | 1,9  | 2,2  | 3,1  | 3,9  | 4,9  | 5,8  | 8,0  | 10,1 | 11,8  |
| Heating total input current                  | A   | 4,7  | 4,0  | 6,7  | 9,3  | 10,0 | 13,0 | 18,0 | 20,0 | 25,0  |
| COP  | W/W | 4,05 | 4,17 | 4,05 | 4,11 | 4,24 | 4,09 | 4,01 | 4,13 | 4,04  |
| Water flow rate source side                  | l/h | 1680 | 2053 | 2767 | 3602 | 4708 | 5325 | 7200 | 9414 | 10671 |
| Useful head source side                      | kPa | 52   | 43   | 16   | 46   | 20   | 4    | 90   | 121  | 109   |
| Water flow rate system side                  | l/h | 1326 | 1607 | 2181 | 2819 | 3647 | 4159 | 5629 | 7284 | 8315  |
| Useful head system side                      | kPa | 63   | 59   | 46   | 70   | 54   | 41   | 130  | 148  | 138   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

| Size  |    |     | 026  | 031  | 041  | 051 | 071 | 081 | 101 | 141 | 161 |
|---|----|-----|------|------|------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>                      |    |     |      |      |      |     |     |     |     |     |     |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |    |     |      |      |      |     |     |     |     |     |     |
| Cooling capacity                            | °  | kW  | 6,6  | 8,3  | 11,3 | -   | -   | -   | -   | -   | -   |
|   | A  | kW  | 6,7  | 8,4  | 11,4 | -   | -   | -   | -   | -   | -   |
| Input power                                 | °  | kW  | 1,5  | 1,8  | 2,5  | -   | -   | -   | -   | -   | -   |
|   | A  | kW  | 1,5  | 1,8  | 2,4  | -   | -   | -   | -   | -   | -   |
| Cooling total input current                 | °  | A   | 7,2  | 9,2  | 12,0 | -   | -   | -   | -   | -   | -   |
|   | A  | A   | 7,8  | 9,9  | 12,0 | -   | -   | -   | -   | -   | -   |
| EER   | °  | W/W | 4,30 | 4,50 | 4,56 | -   | -   | -   | -   | -   | -   |
|   | A  | W/W | 4,54 | 4,75 | 4,80 | -   | -   | -   | -   | -   | -   |
| Water flow rate system side                 | °A | l/h | 1137 | 1430 | 1955 | -   | -   | -   | -   | -   | -   |
| Pressure drop system side                   | °A | kPa | 15   | 17   | 23   | -   | -   | -   | -   | -   | -   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

| Size  |    |     | 026  | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161  |
|---|----|-----|------|------|------|------|------|------|------|------|------|
| <b>Power supply: °</b>                      |    |     |      |      |      |      |      |      |      |      |      |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |    |     |      |      |      |      |      |      |      |      |      |
| Cooling capacity                            | °  | kW  | 6,7  | 8,4  | 11,3 | 14,7 | 19,3 | 21,9 | 29,5 | 38,5 | 43,9 |
|   | A  | kW  | 6,8  | 8,5  | 11,4 | 14,9 | 19,4 | 22,0 | 29,8 | 38,9 | 44,2 |
| Input power                                 | °  | kW  | 1,5  | 1,8  | 2,6  | 3,1  | 4,0  | 4,7  | 6,2  | 8,1  | 9,5  |
|   | A  | kW  | 1,4  | 1,7  | 2,5  | 3,1  | 3,9  | 4,6  | 6,3  | 8,1  | 9,4  |
| Cooling total input current                 | °  | A   | 3,1  | 2,6  | 4,9  | 6,4  | 7,4  | 9,1  | 13,0 | 15,0 | 18,0 |
|   | A  | A   | 3,7  | 3,3  | 5,6  | 7,5  | 8,6  | 10,0 | 14,0 | 17,0 | 20,0 |
| EER   | °  | W/W | 4,49 | 4,74 | 4,39 | 4,70 | 4,77 | 4,63 | 4,72 | 4,75 | 4,62 |
|   | A  | W/W | 4,75 | 5,02 | 4,62 | 4,84 | 4,93 | 4,78 | 4,75 | 4,79 | 4,69 |
| Water flow rate system side                 | °A | l/h | 1154 | 1447 | 1955 | 2541 | 3320 | 3770 | 5078 | 6638 | 7555 |
| Pressure drop system side                   | °A | kPa | 15   | 17   | 23   | 21   | 26   | 30   | 25   | 34   | 38   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

### WRL ABP

| Size  |  |     | 026    | 031    | 041    | 051 | 071 | 081 | 101 | 141 | 161 |
|---|--|-----|--------|--------|--------|-----|-----|-----|-----|-----|-----|
| <b>Power supply: M</b>  |  |     |        |        |        |     |     |     |     |     |     |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |  |     |        |        |        |     |     |     |     |     |     |
| SEER  |  | W/W | 4,73   | 5,20   | 5,22   | -   | -   | -   | -   | -   | -   |
| Seasonal efficiency   |  | %   | 186,3% | 205,1% | 205,6% | -   | -   | -   | -   | -   | -   |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |  |     |        |        |        |     |     |     |     |     |     |
| Pdesignh  |  | kW  | 11     | 13     | 17     | -   | -   | -   | -   | -   | -   |
| SCOP  |  | W/W | 5,90   | 6,28   | 5,55   | -   | -   | -   | -   | -   | -   |
| ηsh   |  | %   | 228,0% | 243,0% | 214,0% | -   | -   | -   | -   | -   | -   |
| Efficiency energy class   |  |     | A+++   | A+++   | A+++   | -   | -   | -   | -   | -   | -   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

| Size  |  |     | 026    | 031    | 041    | 051    | 071    | 081    | 101    | 141    | 161    |
|---|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Power supply: °</b>  |  |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>  |  |     |        |        |        |        |        |        |        |        |        |
| SEER  |  | W/W | 5,00   | 5,37   | 5,22   | 5,38   | 5,62   | 5,30   | 5,31   | 5,27   | 5,21   |
| Seasonal efficiency   |  | %   | 196,9% | 211,7% | 205,8% | 212,0% | 221,7% | 208,8% | 209,2% | 207,7% | 205,5% |
| <b>UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)</b> |  |     |        |        |        |        |        |        |        |        |        |
| Pdesignh  |  | kW  | 10     | 13     | 17     | 22     | 30     | 34     | 44     | 59     | 66     |
| SCOP  |  | W/W | 5,78   | 6,15   | 5,75   | 6,13   | 5,75   | 5,45   | 6,00   | 5,95   | 5,60   |
| ηsh   |  | %   | 223,0% | 238,0% | 222,0% | 237,0% | 222,0% | 210,0% | 232,0% | 230,0% | 216,0% |
| Efficiency energy class   |  |     | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   | A+++   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

### Electric data

| Size                  |   |   | 026  | 031  | 041   | 051  | 071  | 081  | 101  | 141  | 161  |
|-----------------------|---|---|------|------|-------|------|------|------|------|------|------|
| <b>Electric data</b>  |   |   |      |      |       |      |      |      |      |      |      |
| Maximum current (FLA) | ° | A | 8,0  | 8,0  | 15,0  | 17,0 | 21,0 | 22,0 | 32,0 | 40,0 | 41,0 |
|                       | M | A | 18,0 | 21,0 | 34,0  | -    | -    | -    | -    | -    | -    |
| Peak current (LRA)    | ° | A | 34,0 | 37,0 | 65,0  | 75,0 | 75,0 | 75,0 | 90,0 | 94,0 | 95,0 |
|                       | M | A | 63,0 | 84,0 | 119,0 | -    | -    | -    | -    | -    | -    |

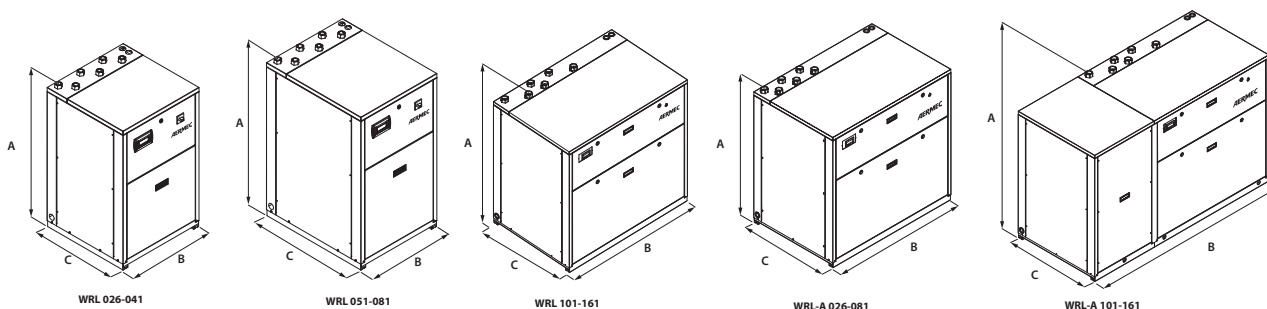
## GENERAL TECHNICAL DATA

| Size                                      |    |       | 026         | 031  | 041  | 051  | 071  | 081  | 101  | 141  | 161  |
|---|----|-------|-------------|------|------|------|------|------|------|------|------|
| Compressor                                |    |       |             |      |      |      |      |      |      |      |      |
| Type                                      | °A | type  | Scroll      |      |      |      |      |      |      |      |      |
| Number                                    | °A | no.   | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    |
| Circuits                                  | °A | no.   | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Refrigerant                               | °A | type  | R410A       |      |      |      |      |      |      |      |      |
| Refrigerant charge (1)                    | °A | kg    | 0,8         | 0,9  | 1,2  | 1,6  | 1,9  | 2,0  | 3,6  | 4,4  | 4,7  |
| Source side heat exchanger                |    |       |             |      |      |      |      |      |      |      |      |
| Type                                      | °A | type  | Braze plate |      |      |      |      |      |      |      |      |
| Number                                    | °A | no.   | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| System side heat exchanger                |    |       |             |      |      |      |      |      |      |      |      |
| Type                                      | °A | type  | Braze plate |      |      |      |      |      |      |      |      |
| Number                                    | °A | no.   | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Source side hydraulic connections         |    |       |             |      |      |      |      |      |      |      |      |
| Connections (in/out)                      | °A | Type  | Gas-F       |      |      |      |      |      |      |      |      |
| Sizes (in/out)                            | °A | Ø     | 1" 1/4      |      |      |      |      |      |      |      |      |
| System side hydraulic connections         |    |       |             |      |      |      |      |      |      |      |      |
| Connections (in/out)                      | °A | Type  | Gas-F       |      |      |      |      |      |      |      |      |
| Sizes (in/out)                            | °A | Ø     | 1" 1/4      |      |      |      |      |      |      |      |      |
| Sound data calculated in cooling mode (2) |    |       |             |      |      |      |      |      |      |      |      |
| Sound power level                         | °A | dB(A) | 55,5        | 57,0 | 57,5 | 59,0 | 60,0 | 60,5 | 62,0 | 63,0 | 63,5 |
| Sound pressure level (10 m)               | °  | dB(A) | 24,3        | 25,8 | 26,3 | 27,7 | 28,7 | 29,2 | 30,6 | 31,6 | 32,1 |
|   | A  | dB(A) | 24,1        | 25,6 | 26,1 | 27,6 | 28,6 | 29,1 | 30,5 | 31,5 | 32,0 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |   |    | 026     | 031     | 041     | 051     | 071     | 081     | 101     | 141     | 161     |
|-------------------------------|---|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |   |    |         |         |         |         |         |         |         |         |         |
| A                             | ° | mm | 976     | 976     | 976     | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    |
|                               | A | mm | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    | 1126    |
| B                             | ° | mm | 605     | 605     | 605     | 605     | 605     | 605     | 1155    | 1155    | 1155    |
|                               | A | mm | 1155    | 1155    | 1155    | 1155    | 1155    | 1155    | 1755    | 1755    | 1755    |
| C                             | ° | mm | 603     | 603     | 603     | 773     | 773     | 773     | 773     | 773     | 773     |
|                               | A | mm | 773     | 773     | 773     | 773     | 773     | 773     | 773     | 773     | 773     |
| Empty weight                  | ° | kg | 120     | 125     | 130     | 150     | 170     | 180     | 260     | 270     | 280     |
|                               | A | kg | 190 (1) | 200 (1) | 210 (1) | 230 (1) | 250 (1) | 260 (1) | 340 (1) | 350 (1) | 360 (1) |

(1) Units with two heat exchangers and storage tank, without pumps

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## WRL 180H - 650H

## Reversible water-cooled heat pump, gas side

Cooling capacity 44,9 ÷ 157,4 kW  
Heating capacity 53,0 ÷ 183,3 kW

- High efficiency
- Suitable for geothermal applications
- Production of hot water up to 55 °C



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Indoor units with hermetic scroll compressors and plate heat exchangers. In the configuration with desuperheater, it is also possible to produce free-hot water.

The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

#### Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).

To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).

Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

### CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click it is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**KSAE:** External air sensor.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SSM:** Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.

**TAH:** Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.

**TAT:** Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the

VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

## ACCESSORIES COMPATIBILITY

| Model    | Ver | 180 | 200 | 300 | 400 | 500 | 550 | 600 | 650 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| AER48SP1 | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| AERNET   | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| KSAE     | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| PGD1     | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| SGD      | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| SSM      | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| TAH      | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| TAT      | °   | *   | *   | *   | *   | *   | *   | *   | *   |
| VMF-CRP  | °   | *   | *   | *   | *   | *   | *   | *   | *   |

## Antivibration

| System side<br>- pumps | Integrated hydronic<br>kit, source side | 180 | 200 | 300 | 400 | 500  | 550  | 600  | 650  |
|------------------------|---|-----|-----|-----|-----|------|------|------|------|
| °, N, P                | °, B, F, I, U, V                        | VT9 | VT9 | VT9 | VT9 | VT15 | VT15 | VT15 | VT15 |

## PR4

| Model | Ver | 180 | 200 | 300 | 400 | 500 | 550 | 600 | 650 |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °   | *   | *   | *   | *   | *   | *   | *   | *   |

## CONFIGURATOR

| Field | Description                                     |
|-------|---|
| 1,2,3 | WRL   |
| 4,5,6 | Size<br>180, 200, 300, 400, 500, 550, 600, 650  |
| 7     | Operating field                                 |
| X     | Electronic thermostatic expansion valve         |
| Y     | Low temperature mechanic thermostatic valve (1) |
| °     | Standard mechanic thermostatic valve (2)        |
| 8     | Model   |
| H     | Reversible heat pump, gas side                  |
| 9     | Version   |
| °     | Standard  |
| 10    | Heat recovery                                   |
| D     | With desuperheater                              |
| °     | Without heat recovery                           |
| 11    | Integrated hydronic kit, source side            |
| B     | On-off pump                                     |
| F     | Single low-head inverter pump                   |

| Field                             | Description                  |
|-----------------------------------|------------------------------|
| I                                 | High-head inverter pump      |
| U                                 | Pump high head               |
| Applications with bore hole water |                              |
| V                                 | 2-way modulating valve       |
| °                                 | Without hydronic kit         |
| 12                                | System side - pumps          |
| N                                 | Pump high head               |
| P                                 | Pump low head                |
| °                                 | Without hydronic kit         |
| 13                                | Field for future development |
| °                                 | Field for future development |
| 14                                | Soft-start                   |
| S                                 | With soft-start              |
| °                                 | Without soft-start           |
| 15                                | Power supply                 |
| °                                 | 400V ~ 3N 50Hz               |

(1) Water produced from 4 °C ÷ - 8 °C  
(2) Water produced from 4 °C ÷ 18 °C



## PERFORMANCE SPECIFICATIONS

WRL - °

| Size   |   |     | 180   | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|--|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |   |     |       |       |       |       |       |       |       |       |
| Cooling capacity                             | ° | kW  | 44,9  | 59,6  | 64,8  | 79,5  | 93,0  | 120,1 | 140,1 | 157,4 |
| Input power                                  | ° | kW  | 10,8  | 14,7  | 16,3  | 18,6  | 20,1  | 27,6  | 31,4  | 35,8  |
| Cooling total input current                  | ° | A   | 20,0  | 25,0  | 28,0  | 32,0  | 36,0  | 52,0  | 60,0  | 69,0  |
| EER  | ° | W/W | 4,15  | 4,06  | 3,97  | 4,27  | 4,63  | 4,34  | 4,46  | 4,39  |
| Water flow rate source side                  | ° | l/h | 9520  | 12659 | 13823 | 16682 | 19331 | 25177 | 29250 | 32920 |
| Pressure drop source side                    | ° | kPa | 31    | 52    | 51    | 74    | 34    | 56    | 57    | 71    |
| Water flow rate system side                  | ° | l/h | 7732  | 10274 | 11168 | 13711 | 16013 | 20686 | 24139 | 27112 |
| Pressure drop system side                    | ° | kPa | 22    | 37    | 36    | 52    | 25    | 40    | 40    | 38    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |   |     |       |       |       |       |       |       |       |       |
| Heating capacity                             | ° | kW  | 53,0  | 70,9  | 76,6  | 92,6  | 106,4 | 143,7 | 164,2 | 183,3 |
| Input power                                  | ° | kW  | 12,9  | 17,7  | 19,1  | 22,6  | 24,0  | 33,1  | 37,2  | 42,7  |
| Heating total input current                  | ° | A   | 23,0  | 29,0  | 31,0  | 37,0  | 41,0  | 56,0  | 64,0  | 74,0  |
| COP  | ° | W/W | 4,10  | 4,00  | 4,01  | 4,10  | 4,44  | 4,34  | 4,41  | 4,30  |
| Water flow rate source side                  | ° | l/h | 11777 | 15734 | 17011 | 20840 | 24211 | 32704 | 37512 | 41689 |
| Pressure drop source side                    | ° | kPa | 49    | 89    | 92    | 132   | 61    | 107   | 101   | 126   |
| Water flow rate system side                  | ° | l/h | 9190  | 12277 | 13264 | 16046 | 18452 | 24913 | 28485 | 31788 |
| Pressure drop system side                    | ° | kPa | 30    | 52    | 49    | 72    | 32    | 58    | 56    | 70    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ELECTRIC DATA

| Size                  |   |   | 180   | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A | 32,6  | 41,8  | 45,2  | 52,1  | 59,0  | 99,0  | 112,0 | 125,0 |
| Peak current (LRA)    | ° | A | 119,0 | 123,0 | 125,0 | 167,0 | 174,0 | 265,0 | 310,0 | 323,0 |

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |   |     | 180    | 200    | 300    | 400    | 500    | 550    | 600    | 650    |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |     |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W | 4,25   | 4,04   | 4,15   | 4,38   | 5,04   | 4,62   | 4,80   | 4,69   |
| Seasonal efficiency  | ° | %   | 166,9% | 158,5% | 162,8% | 172,3% | 198,4% | 181,7% | 188,9% | 184,5% |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |   |     |        |        |        |        |        |        |        |        |
| Pdesignh   | ° | kW  | 68     | 91     | 98     | 119    | 137    | 185    | 212    | 236    |
| ηsh  | ° | %   | 173.0% | 170.0% | 170.0% | 175.0% | 189.0% | 186.0% | 189.0% | 184.0% |
| SCOP   | ° | W/W | 4,53   | 4,45   | 4,45   | 4,58   | 4,93   | 4,85   | 4,93   | 4,80   |
| Efficiency energy class  | ° |     | A+++   | -      | -      | -      | -      | -      | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |   |     |        |        |        |        |        |        |        |        |
| Pdesignh   | ° | kW  | 79     | -      | -      | -      | -      | -      | -      | -      |
| ηsh  | ° | %   | 222.0% | -      | -      | -      | -      | -      | -      | -      |
| SCOP   | ° | W/W | 5,75   | -      | -      | -      | -      | -      | -      | -      |
| Efficiency energy class  | ° |     | A+++   | -      | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

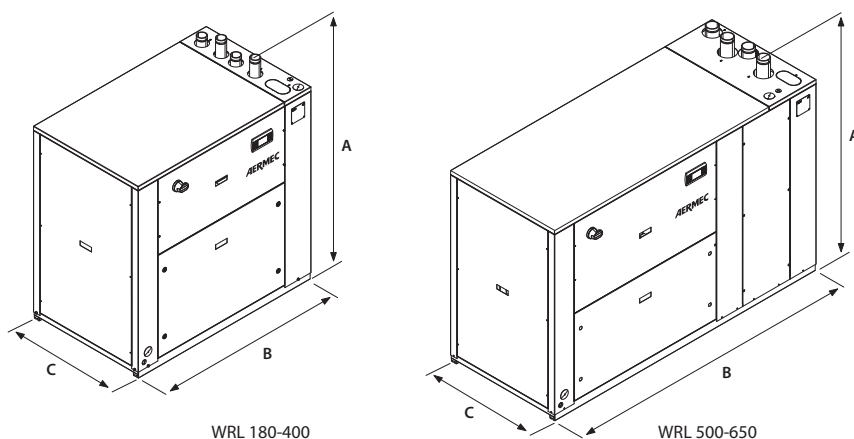
(3) Efficiencies for low temperature applications (35 °C)

## GENERAL TECHNICAL DATA

| Size   |   | 180   | 200  | 300  | 400  | 500            | 550    | 600    | 650    |
|--|---|-------|------|------|------|----------------|--------|--------|--------|
| <b>Compressor</b>                                |   |       |      |      |      |                |        |        |        |
| Type   | ° | type  |      |      |      | Scroll         |        |        |        |
| Compressor regulation                            | ° | Type  |      |      |      | On-Off         |        |        |        |
| Number   | ° | no.   | 2    | 2    | 2    | 2              | 2      | 2      | 2      |
| Circuits   | ° | no.   | 1    | 1    | 1    | 1              | 1      | 1      | 1      |
| Refrigerant                                      | ° | type  |      |      |      | R410A          |        |        |        |
| <b>Source side heat exchanger</b>                |   |       |      |      |      |                |        |        |        |
| Type   | ° | type  |      |      |      | Brazed plate   |        |        |        |
| Number   | ° | no.   | 1    | 1    | 1    | 1              | 1      | 1      | 1      |
| <b>System side heat exchanger</b>                |   |       |      |      |      |                |        |        |        |
| Type   | ° | type  |      |      |      | Brazed plate   |        |        |        |
| Number   | ° | no.   | 1    | 1    | 1    | 1              | 1      | 1      | 1      |
| <b>Source side hydraulic connections</b>         |   |       |      |      |      |                |        |        |        |
| Connections (in/out)                             | ° | Type  |      |      |      | Grooved joints |        |        |        |
| Sizes (in/out)                                   | ° | Ø     | 2"   | 2"   | 2"   | 2"             | 2" 1/2 | 2" 1/2 | 2" 1/2 |
| <b>System side hydraulic connections</b>         |   |       |      |      |      |                |        |        |        |
| Connections (in/out)                             | ° | Type  |      |      |      | Grooved joints |        |        |        |
| Sizes (in/out)                                   | ° | Ø     | 2"   | 2"   | 2"   | 2"             | 2" 1/2 | 2" 1/2 | 2" 1/2 |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |                |        |        |        |
| Sound power level                                | ° | dB(A) | 61,1 | 61,8 | 62,9 | 71,1           | 67,6   | 79,1   | 79,1   |
| Sound pressure level (10 m)                      | ° | dB(A) | 29,6 | 30,3 | 31,4 | 39,6           | 36,0   | 47,5   | 47,5   |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |   | 180 | 200  | 300  | 400  | 500  | 550  | 600  | 650  |
|-------------------------------|---|-----|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |   |     |      |      |      |      |      |      |      |
| A                             | ° | mm  | 1380 | 1380 | 1380 | 1380 | 1380 | 1380 | 1380 |
| B                             | ° | mm  | 1320 | 1320 | 1320 | 1320 | 2060 | 2060 | 2060 |
| C                             | ° | mm  | 845  | 845  | 845  | 845  | 845  | 845  | 845  |
| Empty weight                  | ° | kg  | 370  | 370  | 381  | 388  | 522  | 598  | 708  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## WRL 180 - 650

## Water cooled heat pump reversible water side

Cooling capacity 49 ÷ 174 kW  
Heating capacity 55 ÷ 192 kW

- High efficiency
- Suitable for geothermal applications
- Production of hot water up to 55 °C



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Indoor units with hermetic scroll compressors and plate heat exchangers. In the configuration with desuperheater, it is also possible to produce free-hot water.

The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

#### Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).

To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).

Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

### CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**KSAE:** External air sensor.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**SSM:** Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.

**TAH:** Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.

**TAT:** Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.

**VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the

VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

## ACCESSORIES COMPATIBILITY

| Ver            | 180   | 200   | 300   | 400   | 500   | 550  | 600  | 650  |
|----------------|---|---|---|---|---|--|--|--|
| Model: E, K, ° |   |   |   |   |   |  |  |  |
| °              | AER48SP1, AERNET, KSAE, PGD1, SGD, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SGD, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SGD, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SGD, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SGD, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP | AER48SP1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP |

### PR4

| Model | Ver  | 180 | 200 | 300 | 400 | 500 | 550 | 600 | 650 |
|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| PR4   | °E,K | •   | •   | •   | •   | •   | •   | •   | •   |

### Antivibration

| Integrated hydronic kit, source side | System side - pumps | 180 | 200 | 300 | 400 | 500  | 550  | 600  | 650  |
|--------------------------------------|---------------------|-----|-----|-----|-----|------|------|------|------|
| °, B, E, I, U, V                     | °, N, P             | VT9 | VT9 | VT9 | VT9 | VT15 | VT15 | VT15 | VT15 |

## CONFIGURATOR

| Field | Description  |
|-------|--|
| 1,2,3 | <b>WRL</b>   |
| 4,5,6 | <b>Size</b><br>180, 200, 300, 400, 500, 550, 600, 650          |
| 7     | <b>Operating field</b>   |
| X     | Electronic thermostatic expansion valve                        |
| Y     | Low temperature mechanic thermostatic valve (1)                |
| °     | Standard mechanic thermostatic valve (2)                       |
| 8     | <b>Model</b>   |
| E     | Evaporating unit (3)   |
| K     | Heat pump reversible on the water side with low pressure drops |
| °     | Heat pump reversible on the water side                         |
| 9     | <b>Version</b>   |
| °     | Standard   |
| 10    | <b>Heat recovery</b>   |
| D     | With desuperheater   |
| °     | Without heat recovery  |
| 11    | <b>Integrated hydronic kit, source side</b>                    |
| B     | On-off pump  |
| F     | Single low-head inverter pump                                  |

| Field | Description                              |
|-------|--|
| I     | High-head inverter pump                  |
| U     | Pump high head                           |
|       | <b>Applications with bore hole water</b> |
| V     | 2-way modulating valve                   |
| °     | Without hydronic kit                     |
| 12    | <b>System side - pumps</b>               |
| N     | Pump high head                           |
| P     | Pump low head                            |
| °     | Without hydronic kit                     |
| 13    | <b>Field for future development</b>      |
| °     | Field for future development             |
| 14    | <b>Soft-start</b>                        |
| S     | With soft-start                          |
| °     | Without soft-start                       |
| 15    | <b>Power supply</b>                      |
| °     | 400V~3N 50Hz                             |

(1) Water produced from 4 °C ÷ - 8 °C

(2) Water produced from 4 °C ÷ 18 °C

(3) Shipped with holding charge only

## PERFORMANCE SPECIFICATIONS

### WRL - E

| Size  |     | 180  | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|---|-----|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 46,0 | 60,1  | 69,6  | 80,1  | 90,6  | 121,3 | 140,2 | 158,7 |
| Input power                                 | kW  | 12,4 | 16,0  | 18,5  | 19,8  | 23,1  | 29,6  | 34,1  | 38,5  |
| Cooling total input current                 | A   | 23,0 | 29,0  | 32,0  | 36,0  | 42,0  | 56,0  | 65,0  | 74,0  |
| EER   | W/W | 3,71 | 3,76  | 3,76  | 4,05  | 3,92  | 4,10  | 4,11  | 4,12  |
| Water flow rate system side                 | l/h | 7903 | 10326 | 11958 | 13762 | 15566 | 20841 | 24088 | 27266 |
| Pressure drop system side                   | kPa | 23   | 39    | 39    | 56    | 25    | 42    | 47    | 57    |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

### WRL - °

| Size   |     | 180   | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 49,7  | 64,3  | 74,4  | 85,9  | 99,8  | 129,5 | 150,1 | 169,0 |
| Input power                                  | kW  | 10,8  | 14,4  | 16,8  | 18,3  | 20,4  | 27,0  | 31,0  | 35,7  |
| Cooling total input current                  | A   | 20,0  | 25,0  | 29,0  | 62,0  | 36,0  | 51,0  | 59,0  | 68,0  |
| EER  | W/W | 4,59  | 4,47  | 4,42  | 4,69  | 4,90  | 4,80  | 4,84  | 4,73  |
| Water flow rate source side                  | l/h | 10336 | 13418 | 15531 | 17725 | 20550 | 26664 | 30860 | 34836 |
| Pressure drop source side                    | kPa | 27    | 46    | 62    | 81    | 32    | 52    | 57    | 72    |
| Water flow rate system side                  | l/h | 8549  | 11082 | 12824 | 14822 | 17186 | 22296 | 25844 | 29025 |
| Pressure drop system side                    | kPa | 27    | 43    | 46    | 60    | 30    | 49    | 53    | 67    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 55,8  | 72,6  | 84,1  | 95,6  | 110,7 | 143,6 | 166,1 | 187,7 |
| Input power                                  | kW  | 13,2  | 17,6  | 20,5  | 22,4  | 24,8  | 32,9  | 37,9  | 43,9  |
| Heating total input current                  | A   | 24,0  | 30,0  | 34,0  | 38,0  | 44,0  | 61,0  | 71,0  | 82,0  |
| COP  | W/W | 4,24  | 4,13  | 4,10  | 4,27  | 4,46  | 4,36  | 4,38  | 4,27  |
| Water flow rate source side                  | l/h | 12542 | 16257 | 18813 | 21745 | 25213 | 32709 | 37914 | 42683 |
| Pressure drop source side                    | kPa | 58    | 93    | 99    | 129   | 65    | 105   | 114   | 144   |
| Water flow rate system side                  | l/h | 9685  | 12580 | 14561 | 16557 | 19196 | 24909 | 28816 | 32553 |
| Pressure drop system side                    | kPa | 24    | 40    | 55    | 71    | 28    | 45    | 50    | 63    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

### WRL - K

| Size   |     | 180   | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |
| Cooling capacity                             | kW  | 49,7  | 66,3  | 76,7  | 88,6  | 99,8  | 133,5 | 154,6 | 174,1 |
| Input power                                  | kW  | 10,8  | 14,4  | 16,9  | 18,3  | 20,4  | 26,7  | 30,8  | 35,6  |
| Cooling total input current                  | A   | 20,0  | 25,0  | 29,0  | 32,0  | 36,0  | 51,0  | 59,0  | 68,0  |
| EER  | W/W | 4,59  | 4,61  | 4,55  | 4,85  | 4,50  | 5,00  | 5,02  | 4,90  |
| Water flow rate source side                  | l/h | 10336 | 13753 | 15919 | 18173 | 20550 | 27338 | 31642 | 35716 |
| Pressure drop source side                    | kPa | 27    | 48    | 65    | 85    | 32    | 55    | 60    | 76    |
| Water flow rate system side                  | l/h | 8549  | 11414 | 13209 | 15267 | 17186 | 22965 | 26619 | 29967 |
| Pressure drop system side                    | kPa | 27    | 34    | 42    | 48    | 30    | 24    | 33    | 41    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |
| Heating capacity                             | kW  | 55,8  | 74,3  | 86,1  | 97,9  | 110,7 | 147,1 | 170,1 | 192,1 |
| Input power                                  | kW  | 13,2  | 17,5  | 20,5  | 22,2  | 24,8  | 32,3  | 37,3  | 43,1  |
| Heating total input current                  | A   | 24,0  | 30,0  | 34,0  | 38,0  | 44,0  | 61,0  | 71,0  | 82,0  |
| COP  | W/W | 4,24  | 4,24  | 4,20  | 4,40  | 4,46  | 4,56  | 4,56  | 4,46  |
| Water flow rate source side                  | l/h | 12542 | 16745 | 19337 | 22397 | 25213 | 33690 | 39052 | 43963 |
| Pressure drop source side                    | kPa | 58    | 73    | 90    | 103   | 65    | 52    | 71    | 88    |
| Water flow rate system side                  | l/h | 9685  | 12876 | 14904 | 16953 | 19196 | 25504 | 29507 | 33331 |
| Pressure drop system side                    | kPa | 24    | 42    | 57    | 74    | 28    | 48    | 52    | 66    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

### WRL °

| Size   |     | 180    | 200    | 300    | 400    | 500    | 550    | 600    | 650    |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |     |        |        |        |        |        |        |        |        |
| SEER   | W/W | 4,65   | 4,55   | 4,54   | 4,74   | 5,31   | 5,04   | 5,12   | 4,97   |
| Seasonal efficiency  | %   | 182,8% | 178,9% | 178,5% | 186,4% | 209,3% | 198,7% | 201,7% | 195,8% |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |     |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 68     | 91     | 98     | 119    | 137    | 185    | 212    | 236    |
| ηsh  | %   | 173.0% | 170.0% | 170.0% | 175.0% | 189.0% | 186.0% | 189.0% | 184.0% |
| SCOP   | W/W | 4,53   | 4,45   | 4,45   | 4,58   | 4,93   | 4,85   | 4,93   | 4,80   |
| Efficiency energy class  |     | A+++   | -      | -      | -      | -      | -      | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |     |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 79     | -      | -      | -      | -      | -      | -      | -      |
| ηsh  | %   | 222.0% | -      | -      | -      | -      | -      | -      | -      |
| SCOP   | W/W | 5,75   | -      | -      | -      | -      | -      | -      | -      |
| Efficiency energy class  |     | A+++   | -      | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

### WRL K

| Size   |     | 180    | 200    | 300    | 400    | 500    | 550    | 600    | 650    |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |     |        |        |        |        |        |        |        |        |
| SEER   | W/W | 4,65   | 4,71   | 4,67   | 4,90   | 5,31   | 5,31   | 5,35   | 5,19   |
| Seasonal efficiency  | %   | 182,8% | 185,3% | 183,6% | 192,9% | 209,3% | 209,2% | 210,9% | 204,6% |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |     |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 68     | 91     | 98     | 119    | 137    | 185    | 212    | 236    |
| ηsh  | %   | 173.0% | 170.0% | 170.0% | 175.0% | 189.0% | 186.0% | 189.0% | 184.0% |
| SCOP   | W/W | 4,53   | 4,45   | 4,45   | 4,58   | 4,93   | 4,85   | 4,93   | 4,80   |
| Efficiency energy class  |     | A+++   | -      | -      | -      | -      | -      | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |     |        |        |        |        |        |        |        |        |
| Pdesignh   | kW  | 79     | -      | -      | -      | -      | -      | -      | -      |
| ηsh  | %   | 222.0% | -      | -      | -      | -      | -      | -      | -      |
| SCOP   | W/W | 5,75   | -      | -      | -      | -      | -      | -      | -      |
| Efficiency energy class  |     | A+++   | -      | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

(3) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |      |   | 180   | 200   | 300   | 400   | 500   | 550   | 600   | 650   |
|-----------------------|------|---|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |      |   |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °E,K | A | 32,6  | 41,8  | 45,2  | 52,1  | 59,0  | 99,0  | 112,0 | 125,0 |
| Peak current (LRA)    | °E,K | A | 119,0 | 123,0 | 125,0 | 167,0 | 174,0 | 265,0 | 310,0 | 323,0 |

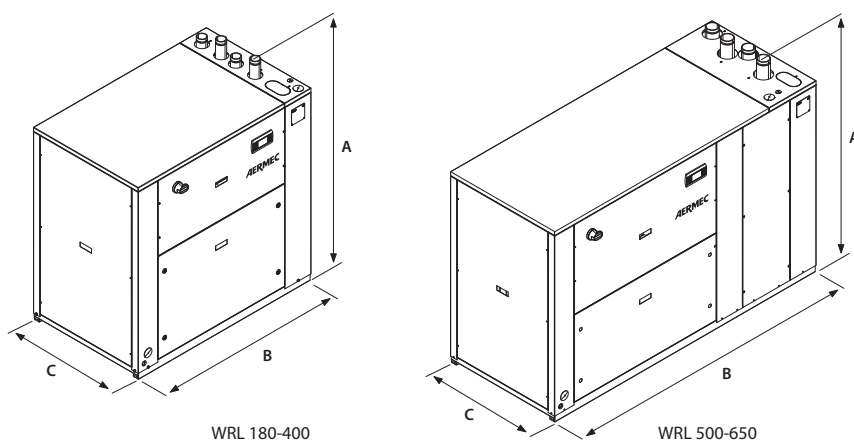
## GENERAL TECHNICAL DATA

| Size                                      |      |       | 180            | 200            | 300            | 400            | 500            | 550            | 600            | 650            |
|---|------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Compressor                                |      |       |                |                |                |                |                |                |                |                |
| Type                                      | °E,K | type  | Scroll         |                |                |                |                |                |                |                |
| Compressor regulation                     | °E,K | Type  | On-Off         |                |                |                |                |                |                |                |
| Number                                    | °E,K | no.   | 2              | 2              | 2              | 2              | 2              | 2              | 2              | 2              |
| Circuits                                  | °E,K | no.   | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              |
| Refrigerant                               | °E,K | type  | R410A          |                |                |                |                |                |                |                |
| Refrigerant charge (1)                    | °K   | kg    | 6,0            | 7,0            | 6,8            | 7,2            | 9,0            | 14,5           | 16,8           | 16,5           |
|   | E    | kg    | Holding charge | Holding charge | Holding charge | Holding charge | Holding charge | Holding charge | Holding charge | Holding charge |
| Source side heat exchanger                |      |       |                |                |                |                |                |                |                |                |
| Type                                      | °K   | type  | Brazed plate   |                |                |                |                |                |                |                |
|   | E    | type  |                |                |                |                |                |                |                |                |
| Number                                    | °K   | no.   | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              |
|   | E    | no.   | -              | -              | -              | -              | -              | -              | -              | -              |
| System side heat exchanger                |      |       |                |                |                |                |                |                |                |                |
| Type                                      | °E,K | type  | Brazed plate   |                |                |                |                |                |                |                |
| Number                                    | °E,K | no.   | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              |
| Source side hydraulic connections         |      |       |                |                |                |                |                |                |                |                |
| Connections (in/out)                      | °K   | Type  | Grooved joints |                |                |                |                |                |                |                |
|   | E    | Type  |                |                |                |                |                |                |                |                |
| Sizes (in/out)                            | °K   | Ø     | 2"             | 2"             | 2"             | 2"             | 2" 1/2         | 2" 1/2         | 2" 1/2         | 2" 1/2         |
|   | E    | Ø     |                |                |                |                |                |                |                |                |
| System side hydraulic connections         |      |       |                |                |                |                |                |                |                |                |
| Connections (in/out)                      | °E,K | Type  | Grooved joints |                |                |                |                |                |                |                |
| Sizes (in/out)                            | °E,K | Ø     | 2"             | 2"             | 2"             | 2"             | 2" 1/2         | 2" 1/2         | 2" 1/2         | 2" 1/2         |
| Sound data calculated in cooling mode (2) |      |       |                |                |                |                |                |                |                |                |
| Sound power level                         | °E,K | dB(A) | 61,1           | 61,8           | 62,9           | 71,1           | 67,6           | 79,1           | 79,1           | 79,1           |
| Sound pressure level (10 m)               | °E,K | dB(A) | 29,6           | 30,3           | 31,4           | 39,6           | 36,0           | 47,5           | 47,5           | 47,5           |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |      |    | 180  | 200  | 300  | 400  | 500  | 550  | 600  | 650  |
|-------------------------------|------|----|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |      |    |      |      |      |      |      |      |      |      |
| A                             | °E,K | mm | 1380 | 1380 | 1380 | 1380 | 1380 | 1380 | 1380 | 1380 |
| B                             | °E,K | mm | 1320 | 1320 | 1320 | 1320 | 2060 | 2060 | 2060 | 2060 |
| C                             | °E,K | mm | 845  | 845  | 845  | 845  | 845  | 845  | 845  | 845  |
| Empty weight                  | °K   | kg | 375  | 375  | 381  | 388  | 518  | 594  | 670  | 715  |
|                               | E    | kg | -    | -    | -    | -    | -    | -    | -    | -    |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# WRK

## Reversible water-cooled heat pump, gas side

Cooling capacity 38,9 ÷ 165,9 kW  
Heating capacity 48,5 ÷ 207,7 kW

- Optimised for heating in centralised systems.
- Production of hot water at high temperature up to 68°C.
- Independent from the gas network.
- DHW production.



### DESCRIPTION

Water source heat pump with reverse cycle valve. The unit can produce chilled and hot water but it is optimized for high temperature hot water production, making it a perfect solution for DHW applications. It can also work with low source temperatures which make it possible to work with geothermal applications.

### VERSIONS

- ° Standard
- L Standard silenced

### FEATURES

#### Extended operating range

Particular attention has been given to winter operation, ensuring the production of hot water up to 68°C.

#### Plug and play

All units are equipped with scroll compressors with steam injection and brazed plate heat exchangers. The base and panels are made of steel treated with polyester paints RAL 9003.

The heat pump can be supplied with all the components required for its installation in new systems and in retrofit applications. It can be combined with low temperature emission systems such as in floor radiant heating or fan coils, but also with conventional radiators.

#### Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

#### CONTROL PCO<sub>s</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**PGD1:** Allows you to control the unit at a distance.

**SGD:** Electronic expansion that enables connecting to the photovoltaic system and heat pumps to accumulate heat in the DHW tank or in the heating system during the photovoltaic production phase and release it at times when heating demand is highest.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**T6:** Double safety valve with exchange cock, both on the high and low pressure branches.



## ACCESSORIES COMPATIBILITY

| Model    | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|----------|-----|------|------|------|------|------|------|------|------|------|------|
| AER48SP1 | °   |      |      |      |      |      | *    | *    | *    | *    | *    |
|          | L   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP  | °   |      |      |      |      |      | *    | *    | *    | *    | *    |
|          | L   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET   | °   |      |      |      |      |      | *    | *    | *    | *    | *    |
|          | L   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1     | °   |      |      |      |      |      | *    | *    | *    | *    | *    |
|          | L   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SGD      | °   |      |      |      |      |      | *    | *    |      |      |      |
|          | L   | *    | *    | *    | *    | *    | *    | *    |      |      |      |

### Antivibration

| Version | System side - pumps | Integrated hydronic kit, source side | 0200 | 0280 | 0300 | 0330 | 0350 |
|---------|---------------------|--------------------------------------|------|------|------|------|------|
| °       | °                   | °, J, K, Q, R, U, V, W, Z            | -    | -    | -    | -    | -    |
| °       | M                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | N                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| °       | O                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | P                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| L       | °                   | °, J, K, Q, R, U, V, W, Z            | -    | -    | -    | -    | -    |
| L       | M                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| L       | N                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| L       | O                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| L       | P                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |

| Version | System side - pumps | Integrated hydronic kit, source side | 0500   | 0550   | 0600   | 0650   | 0700   |
|---------|---------------------|--------------------------------------|--------|--------|--------|--------|--------|
| °       | °                   | °                                    | AVX345 | AVX342 | AVX342 | AVX342 | AVX342 |
| °       | °, M                | J, K, U, W                           | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | N                   | °                                    | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | O                   | J, K, U, W                           | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | P                   | °                                    | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | °                   | Q, R, V, Z                           | AVX313 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | M, O                | °                                    | AVX313 | AVX343 | AVX343 | AVX343 | AVX343 |
| °       | N, P                | Q, R, V, Z                           | AVX343 | AVX343 | AVX343 | AVX344 | AVX344 |
| L       | °                   | °                                    | AVX345 | AVX342 | AVX342 | AVX342 | AVX342 |
| L       | °, M                | J, K, U, W                           | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | N                   | °                                    | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | O                   | J, K, U, W                           | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | P                   | °                                    | AVX343 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | °                   | Q, R, V, Z                           | AVX313 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | M, O                | °                                    | AVX313 | AVX343 | AVX343 | AVX343 | AVX343 |
| L       | N, P                | Q, R, V, Z                           | AVX343 | AVX343 | AVX343 | AVX344 | AVX344 |

- not available

| Version | System side - pumps | Integrated hydronic kit, source side | 0200 | 0280 | 0300 | 0330 | 0350 |
|---------|---------------------|--------------------------------------|------|------|------|------|------|
| °       | °                   | °, J, K, Q, R, U, V, W, Z            | -    | -    | -    | -    | -    |
| °       | M                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | N                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| °       | O                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | P                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| L       | °                   | °                                    | VT9  | VT9  | VT9  | VT9  | VT9  |
| L       | °                   | J, K, Q, R, U, V, W, Z               | VT15 | VT15 | VT15 | VT15 | VT15 |
| L       | M                   | °, J, K, U, W                        | VT15 | VT15 | VT15 | VT15 | VT15 |
| L       | N                   | °, Q, R, V, Z                        | VT15 | VT15 | VT15 | VT15 | VT15 |
| L       | O                   | °, J, K, U, W                        | VT15 | VT15 | VT15 | VT15 | VT15 |
| L       | P                   | °, Q, R, V, Z                        | VT15 | VT15 | VT15 | VT15 | VT15 |

| Version | System side - pumps | Integrated hydronic kit, source side | 0500 | 0550 | 0600 | 0650 | 0700 |
|---------|---------------------|--------------------------------------|------|------|------|------|------|
| °       | °                   | °, J, K, Q, R, U, V, W, Z            | -    | -    | -    | -    | -    |
| °       | M                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | N                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| °       | O                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| °       | P                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| L       | °                   | °, J, K, Q, R, U, V, W, Z            | -    | -    | -    | -    | -    |
| L       | M                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| L       | N                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |
| L       | O                   | °, J, K, U, W                        | -    | -    | -    | -    | -    |
| L       | P                   | °, Q, R, V, Z                        | -    | -    | -    | -    | -    |

- not available

## PR4

| Model | Ver | 0200 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|
| PR4   | °   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|       | L   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

### Electronic device for peak current reduction.

| Ver | 0200           | 0280           | 0300           | 0330           | 0350           | 0500           | 0550           | 0600           | 0650           | 0700           |
|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| °   | -              | -              | -              | -              | -              | DREWRK0500 (1) | DREWRK0550 (1) | DREWRK0600 (1) | DREWRK0650 (1) | DREWRK0700 (1) |
| L   | DREWRK0200 (1) | DREWRK0280 (1) | DREWRK0300 (1) | DREWRK0330 (1) | DREWRK0350 (1) | DREWRK0500 (1) | DREWRK0550 (1) | DREWRK0600 (1) | DREWRK0650 (1) | DREWRK0700 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

### Power factor correction.

| Ver | 0200       | 0280       | 0300       | 0330       | 0350       | 0500       | 0550       | 0600       | 0650       | 0700       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °   | -          | -          | -          | -          | -          | RIFWRK0500 | RIFWRK0550 | RIFWRK0600 | RIFWRK0650 | RIFWRK0700 |
| L   | RIFWRK0200 | RIFWRK0280 | RIFWRK0300 | RIFWRK0330 | RIFWRK0350 | RIFWRK0500 | RIFWRK0550 | RIFWRK0600 | RIFWRK0650 | RIFWRK0700 |

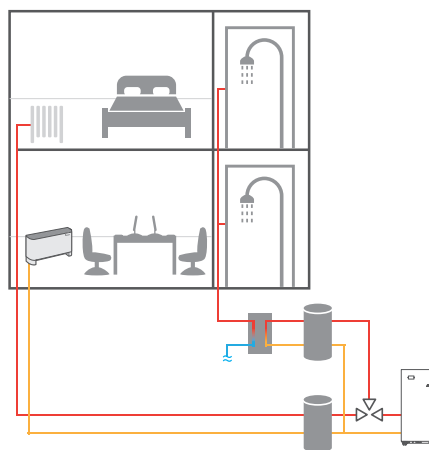
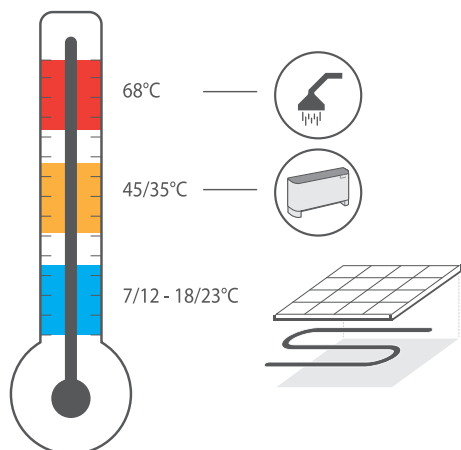
A grey background indicates the accessory must be assembled in the factory

### Double safety valve.

| Ver | 0200   | 0280   | 0300   | 0330   | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| °   | -      | -      | -      | -      | -      | T6WRK2 | T6WRK2 | T6WRK2 | T6WRK2 | T6WRK2 |
| L   | T6WRK1 | T6WRK1 | T6WRK1 | T6WRK1 | T6WRK1 | T6WRK2 | T6WRK2 | T6WRK2 | T6WRK2 | T6WRK2 |

A grey background indicates the accessory must be assembled in the factory

## APPLICATION EXAMPLES



WRK units are used in building renovations, where centralised boilers need replacing, while maintaining the existing distribution system and terminals (e.g. radiators) at the same time, to ensure the production of domestic hot water. This situation is typical when operating in contexts such as public buildings, but also in the case of centralised residential systems such as condominiums, where costs must be limited without changing the distribution system, while also offering a renewable energy source, represented precisely by heat pumps. Being able to upgrade a building without involving the distribution system also eliminates the inconveniences associated with the renovation of the premises, ensuring the continuity of the property's use, saving time and money.

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WRK  |
| 4,5,6,7 | Size<br>0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700 |
| 8       | Operating field  |
| °       | Standard mechanic thermostatic valve                               |
| 9       | Model  |
| H       | Heat pump  |
| 10      | Version  |
| °       | Standard   |
| L       | Standard silenced (1)  |
| 11      | Evaporator   |
| °       | Standard   |
| 12      | Heat recovery  |
| D       | With desuperheater   |
| °       | Without heat recovery  |
| 13      | Power supply   |
| °       | 400V ~ 3 50Hz with magnet circuit breakers                         |
| 14      | System side - pumps  |
| M       | Single pump low head   |

| Field | Description                                    |
|-------|--|
| N     | Pump low head + stand-by pump                  |
| O     | Single pump high head                          |
| P     | Pump high head + stand-by pump                 |
| °     | Without hydronic kit                           |
| 15    | Integrated hydronic kit, source side (2)       |
| J     | Single low-head inverter pump                  |
| K     | Single high-head inverter pump                 |
| Q     | Single high-head inverter pump + stand-by pump |
| R     | Single low-head inverter pump + stand-by pump  |
| U     | Single pump low head                           |
| V     | Pump low head + stand-by pump                  |
| W     | Single pump high head                          |
| Z     | Pump high head + stand-by pump                 |
| °     | Without hydronic kit                           |
| 16    | Field for future development                   |
| °     | Field for future development                   |

(1) The size 0200-0280-0300-0330-0350 only available in low noise version (L)  
(2) Heat pumps R and Q are available only for sizes 0500-0700

## PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

### WRK - H°

| Size  |     | 0200 | 0280 | 0300 | 0330 | 0350 | 0500  | 0550  | 0600  | 0650  | 0700  |
|---|-----|------|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |      |      |      |      |      |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | -    | 96,2  | 110,9 | 130,0 | 145,8 | 166,1 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 21,5  | 24,0  | 28,6  | 33,3  | 37,4  |
| Cooling total input current                 | A   | -    | -    | -    | -    | -    | 48,0  | 50,0  | 62,0  | 86,0  | 89,0  |
| EER   | W/W | -    | -    | -    | -    | -    | 4,47  | 4,63  | 4,55  | 4,38  | 4,44  |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | -    | 20140 | 23075 | 27128 | 30634 | 34797 |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | -    | 25    | 25    | 25    | 24    | 25    |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 16552 | 19082 | 22366 | 25077 | 28566 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 17    | 17    | 17    | 16    | 17    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |      |      |      |      |      |       |       |       |       |       |
| Heating capacity                            | kW  | -    | -    | -    | -    | -    | 120,8 | 137,7 | 163,1 | 187,1 | 207,9 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 26,4  | 29,7  | 35,4  | 41,2  | 45,4  |
| Heating total input current                 | A   | -    | -    | -    | -    | -    | 52,0  | 56,0  | 69,0  | 92,0  | 95,0  |
| COP   | W/W | -    | -    | -    | -    | -    | 4,58  | 4,64  | 4,61  | 4,55  | 4,58  |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | -    | 27658 | 31618 | 37369 | 42704 | 47563 |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | -    | 49    | 49    | 50    | 47    | 50    |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 20958 | 23884 | 28290 | 32459 | 36068 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 28    | 27    | 28    | 27    | 28    |

(1) Date 14511:2022; Water user side 12 °C/ 7 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 40 °C/ 45 °C; Water source side 10 °C/ 7 °C

### WRK - HL

| Size  |     | 0200  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C/ 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 38,9  | 54,4  | 65,0  | 74,1  | 83,5  | 96,2  | 110,9 | 130,0 | 145,8 | 166,1 |
| Input power                                 | kW  | 8,6   | 12,0  | 14,3  | 16,8  | 18,8  | 21,5  | 24,0  | 28,6  | 33,3  | 37,4  |
| Cooling total input current                 | A   | 20,0  | 25,0  | 31,0  | 43,0  | 45,0  | 48,0  | 50,0  | 62,0  | 86,0  | 89,0  |
| EER   | W/W | 4,54  | 4,54  | 4,54  | 4,41  | 4,43  | 4,47  | 4,63  | 4,55  | 4,38  | 4,44  |
| Water flow rate source side                 | l/h | 8131  | 11358 | 13570 | 15551 | 17498 | 20140 | 23075 | 27128 | 30634 | 34797 |
| Pressure drop source side                   | kPa | 19    | 23    | 24    | 25    | 26    | 25    | 25    | 25    | 24    | 25    |
| Water flow rate system side                 | l/h | 6699  | 9362  | 11186 | 12754 | 14363 | 16552 | 19082 | 22366 | 25077 | 28566 |
| Pressure drop system side                   | kPa | 13    | 16    | 16    | 17    | 17    | 17    | 17    | 17    | 16    | 17    |
| <b>Heating performance 40 °C/ 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | 48,4  | 68,6  | 81,6  | 93,4  | 104,0 | 120,8 | 137,7 | 163,1 | 187,1 | 207,9 |
| Input power                                 | kW  | 10,6  | 14,8  | 17,8  | 20,8  | 22,9  | 26,4  | 29,7  | 35,4  | 41,2  | 45,4  |
| Heating total input current                 | A   | 21,0  | 28,0  | 35,0  | 46,0  | 48,0  | 52,0  | 45,0  | 69,0  | 92,0  | 95,0  |
| COP   | W/W | 4,57  | 4,62  | 4,58  | 4,48  | 4,54  | 4,58  | 4,64  | 4,61  | 4,55  | 4,58  |
| Water flow rate source side                 | l/h | 11062 | 15751 | 18684 | 21290 | 23771 | 27658 | 31618 | 37369 | 42704 | 47563 |
| Pressure drop source side                   | kPa | 37    | 45    | 47    | 49    | 50    | 49    | 49    | 50    | 47    | 50    |
| Water flow rate system side                 | l/h | 8397  | 11904 | 14149 | 16207 | 18041 | 20958 | 23884 | 28290 | 32459 | 36068 |
| Pressure drop system side                   | kPa | 21    | 26    | 27    | 28    | 29    | 28    | 27    | 28    | 27    | 28    |

(1) Date 14511:2022; Water user side 12 °C/ 7 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 40 °C/ 45 °C; Water source side 10 °C/ 7 °C

## PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

### WRK - H°

| Size  |     | 0200 | 0280 | 0300 | 0330 | 0350 | 0500  | 0550  | 0600  | 0650  | 0700  |
|---|-----|------|------|------|------|------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |      |      |      |      |      |       |       |       |       |       |
| Cooling capacity                            | kW  | -    | -    | -    | -    | -    | 126,3 | 144,8 | 169,8 | 189,7 | 217,3 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 21,7  | 23,3  | 29,3  | 33,4  | 39,0  |
| Cooling total input current                 | A   | -    | -    | -    | -    | -    | 47,0  | 47,0  | 62,0  | 84,0  | 91,0  |
| EER   | W/W | -    | -    | -    | -    | -    | 5,82  | 6,20  | 5,80  | 5,69  | 5,58  |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | -    | 25317 | 28767 | 34057 | 38166 | 43828 |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | -    | 39    | 39    | 40    | 37    | 40    |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 21826 | 25015 | 29337 | 32770 | 37528 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 29    | 29    | 29    | 28    | 29    |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |      |      |      |      |      |       |       |       |       |       |
| Heating capacity                            | kW  | -    | -    | -    | -    | -    | 116,4 | 132,7 | 155,6 | 178,3 | 198,1 |
| Input power                                 | kW  | -    | -    | -    | -    | -    | 20,7  | 23,0  | 27,5  | 32,1  | 35,4  |
| Heating total input current                 | A   | -    | -    | -    | -    | -    | 42,0  | 44,0  | 54,0  | 73,0  | 75,0  |
| COP   | W/W | -    | -    | -    | -    | -    | 5,62  | 5,77  | 5,66  | 5,56  | 5,60  |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | -    | 16656 | 19095 | 22309 | 25455 | 28334 |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | -    | 18    | 18    | 18    | 17    | 18    |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | -    | 20118 | 22943 | 26905 | 30825 | 34248 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | -    | 25    | 25    | 25    | 24    | 25    |

(1) Date 14511:2022; Water user side 23 °C/ 18 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 30 °C/ 35 °C; Water source side 10 °C/ 5 °C

### WRK - HL

| Size  |     | 0200  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 23 °C/ 18 °C (1)</b> |     |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                            | kW  | 50,9  | 71,0  | 84,9  | 96,4  | 109,2 | 126,3 | 144,8 | 169,8 | 189,7 | 217,3 |
| Input power                                 | kW  | 8,8   | 11,7  | 14,7  | 16,9  | 19,8  | 21,7  | 23,3  | 29,3  | 33,4  | 39,0  |
| Cooling total input current                 | A   | 20,0  | 24,0  | 31,0  | 42,0  | 46,0  | 47,0  | 47,0  | 62,0  | 84,0  | 91,0  |
| EER   | W/W | 5,81  | 6,10  | 5,78  | 5,69  | 5,53  | 5,82  | 6,20  | 5,80  | 5,69  | 5,58  |
| Water flow rate source side                 | l/h | 10217 | 14150 | 17036 | 19386 | 22038 | 25317 | 28767 | 34057 | 38166 | 43828 |
| Pressure drop source side                   | kPa | 30    | 36    | 37    | 39    | 41    | 39    | 39    | 40    | 37    | 40    |
| Water flow rate system side                 | l/h | 8796  | 12274 | 14672 | 16662 | 18865 | 21826 | 25015 | 29337 | 32770 | 37528 |
| Pressure drop system side                   | kPa | 22    | 27    | 28    | 29    | 30    | 29    | 29    | 29    | 28    | 29    |
| <b>Heating performance 30 °C/ 35 °C (2)</b> |     |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                            | kW  | 46,4  | 66,1  | 77,8  | 89,0  | 100,1 | 116,4 | 132,7 | 155,6 | 178,3 | 198,1 |
| Input power                                 | kW  | 8,3   | 11,5  | 13,8  | 16,2  | 18,2  | 20,7  | 23,0  | 27,5  | 32,1  | 35,4  |
| Heating total input current                 | A   | 17,0  | 22,0  | 28,0  | 36,0  | 39,0  | 42,0  | 44,0  | 54,0  | 73,0  | 75,0  |
| COP   | W/W | 5,60  | 5,76  | 5,66  | 5,51  | 5,49  | 5,62  | 5,77  | 5,66  | 5,56  | 5,60  |
| Water flow rate source side                 | l/h | 6629  | 9514  | 11157 | 12694 | 14269 | 16656 | 19095 | 22309 | 25455 | 28334 |
| Pressure drop source side                   | kPa | 13    | 17    | 17    | 17    | 18    | 18    | 18    | 18    | 17    | 18    |
| Water flow rate system side                 | l/h | 8016  | 11435 | 13458 | 15390 | 17310 | 20118 | 22943 | 26905 | 30825 | 34248 |
| Pressure drop system side                   | kPa | 19    | 24    | 24    | 25    | 26    | 25    | 25    | 25    | 24    | 25    |

(1) Date 14511:2022; Water user side 23 °C/ 18 °C; Water source side 30 °C/ 35 °C

(2) Date 14511:2022; Water user side 30 °C/ 35 °C; Water source side 10 °C/ 5 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size  |   | 0200 | 0280   | 0300   | 0330   | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>   |   |      |        |        |        |        |        |        |        |        |        |
| SEER  | ° | W/W  | -      | -      | -      | -      | 5,33   | 5,46   | 5,28   | 5,38   | 5,28   |
|   | L | W/W  | 4,75   | 5,14   | 5,04   | 5,04   | 4,97   | 5,33   | 5,46   | 5,28   | 5,28   |
| Seasonal efficiency   | ° | %    | -      | -      | -      | -      | 210,2% | 215,4% | 208,2% | 212,2% | 208,2% |
|   | L | %    | 187,0% | 202,6% | 198,6% | 198,6% | 195,8% | 210,2% | 215,4% | 208,2% | 212,2% |
| <b>UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)</b> |   |      |        |        |        |        |        |        |        |        |        |
| Efficiency energy class   | ° | -    | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|   | L | A+++ | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| Pdesignh  | ° | kW   | -      | -      | -      | -      | 157    | 179    | 212    | 244    | 271    |
|   | L | kW   | 63     | 89     | 106    | 122    | 135    | 157    | 179    | 212    | 244    |
| ηsh   | ° | %    | -      | -      | -      | -      | 191,0% | 195,0% | 194,0% | 193,0% | 192,0% |
|   | L | %    | 181,0% | 187,0% | 185,0% | 181,0% | 182,0% | 191,0% | 195,0% | 194,0% | 193,0% |
| SCOP  | ° | W/W  | -      | -      | -      | -      | 4,98   | 5,08   | 5,05   | 5,03   | 5,00   |
|   | L | W/W  | 4,73   | 4,88   | 4,83   | 4,73   | 4,75   | 4,98   | 5,08   | 5,05   | 5,03   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |   |   | 0200  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° | A | -     | -     | -     | -     | -     | 75,0  | 84,0  | 104,0 | 130,0 | 132,0 |
|                       | L | A | 32,0  | 42,0  | 52,0  | 65,0  | 66,0  | 75,0  | 84,0  | 104,0 | 130,0 | 132,0 |
| Peak current (LRA)    | ° | A | -     | -     | -     | -     | -     | 216,0 | 181,0 | 218,0 | 271,5 | 273,0 |
|                       | L | A | 144,0 | 139,0 | 166,0 | 206,5 | 207,0 | 216,0 | 181,0 | 218,0 | 271,5 | 273,0 |

## GENERAL TECHNICAL DATA

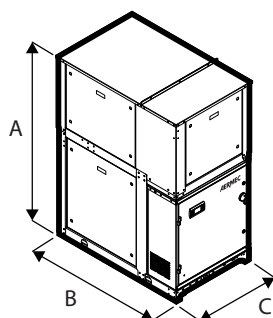
| Size   |     |       | 0200 | 0280 | 0300 | 0330 | 0350 | 0500           | 0550           | 0600           | 0650           | 0700           |
|--|-----|-------|------|------|------|------|------|----------------|----------------|----------------|----------------|----------------|
| <b>Compressor</b>                                |     |       |      |      |      |      |      |                |                |                |                |                |
| Type   | °   | type  | -    | -    | -    | -    | -    | Scroll         | Scroll         | Scroll         | Scroll         | Scroll         |
|  | L   | type  | -    | -    | -    | -    | -    | Scroll         | Scroll         | Scroll         | Scroll         | Scroll         |
| Number   | °   | no.   | -    | -    | -    | -    | -    | 3              | 4              | 4              | 4              | 4              |
|  | L   | no.   | 2    | 2    | 2    | 2    | 2    | 3              | 4              | 4              | 4              | 4              |
| Circuits   | °   | no.   | -    | -    | -    | -    | -    | 2              | 2              | 2              | 2              | 2              |
|  | L   | no.   | 2    | 2    | 2    | 2    | 2    | 2              | 2              | 2              | 2              | 2              |
| Refrigerant                                      | °   | type  | -    | -    | -    | -    | -    | R410A          | R410A          | R410A          | R410A          | R410A          |
|  | L   | type  | -    | -    | -    | -    | -    | R410A          | R410A          | R410A          | R410A          | R410A          |
| Refrigerant charge (l)                           | °   | kg    | -    | -    | -    | -    | -    | 13,0           | 16,0           | 18,0           | 22,0           | 24,0           |
|  | L   | kg    | 6,0  | 8,0  | 9,0  | 10,0 | 11,0 | 13,0           | 16,0           | 18,0           | 22,0           | 24,0           |
| <b>Source side heat exchanger</b>                |     |       |      |      |      |      |      |                |                |                |                |                |
| Type   | °/L | type  | -    | -    | -    | -    | -    | Brazed plate   | Brazed plate   | Brazed plate   | Brazed plate   | Brazed plate   |
| Number   | °   | no.   | -    | -    | -    | -    | -    | 1              | 1              | 1              | 1              | 1              |
|  | L   | no.   | 1    | 1    | 1    | 1    | 1    | 1              | 1              | 1              | 1              | 1              |
| <b>System side heat exchanger</b>                |     |       |      |      |      |      |      |                |                |                |                |                |
| Type   | °/L | type  | -    | -    | -    | -    | -    | Brazed plate   | Brazed plate   | Brazed plate   | Brazed plate   | Brazed plate   |
| Number   | °   | no.   | -    | -    | -    | -    | -    | 1              | 1              | 1              | 1              | 1              |
|  | L   | no.   | 1    | 1    | 1    | 1    | 1    | 1              | 1              | 1              | 1              | 1              |
| <b>Source side hydraulic connections</b>         |     |       |      |      |      |      |      |                |                |                |                |                |
| Connections (in/out)                             | °/L | Type  | -    | -    | -    | -    | -    | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)                                   | °   | Ø     | -    | -    | -    | -    | -    | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         |
|  | L   | Ø     | -    | -    | -    | -    | -    | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         |
| <b>System side hydraulic connections</b>         |     |       |      |      |      |      |      |                |                |                |                |                |
| Connections (in/out)                             | °/L | Type  | -    | -    | -    | -    | -    | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)                                   | °   | Ø     | -    | -    | -    | -    | -    | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         |
|  | L   | Ø     | -    | -    | -    | -    | -    | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         | 2 1/2"         |
| <b>Sound data calculated in cooling mode (2)</b> |     |       |      |      |      |      |      |                |                |                |                |                |
| Sound power level                                | °   | dB(A) | -    | -    | -    | -    | -    | 81,6           | 82,2           | 81,6           | 82,7           | 83,4           |
|  | L   | dB(A) | 71,6 | 73,9 | 72,4 | 74,0 | 75,6 | 76,3           | 77,0           | 75,9           | 77,5           | 78,0           |
| Sound pressure level (10 m)                      | °   | dB(A) | -    | -    | -    | -    | -    | 49,9           | 50,5           | 49,9           | 51,0           | 51,7           |
|  | L   | dB(A) | 40,1 | 42,4 | 40,9 | 42,5 | 44,1 | 44,6           | 45,3           | 44,2           | 45,8           | 46,3           |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

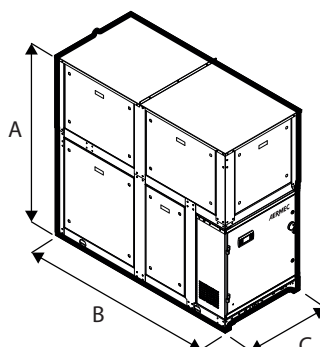
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS

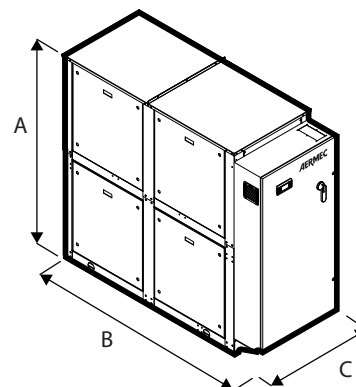
WRK 0350 °



WRK 0350 U-V-W-Z-J-R-K-Q



WRK 0700 °



| Size   |    |    | 0200 | 0280 | 0300 | 0330 | 0350 |
|--|----|----|------|------|------|------|------|
| <b>Dimensions and weights without hydronic kit</b> |    |    |      |      |      |      |      |
| A  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 1675 | 1675 | 1675 | 1675 | 1675 |
| B  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 1265 | 1265 | 1265 | 1265 | 1265 |
| C  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 800  | 800  | 800  | 800  | 800  |
| <b>Dimensions and weights with pump/s</b>          |    |    |      |      |      |      |      |
| A  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 1675 | 1675 | 1675 | 1675 | 1675 |
| B  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 1890 | 1890 | 1890 | 1890 | 1890 |
| C  | °  | mm | -    | -    | -    | -    | -    |
|  | L  | mm | 800  | 800  | 800  | 800  | 800  |
| Size   |    |    | 0500 | 0550 | 0600 | 0650 | 0700 |
| <b>Dimensions and weights without hydronic kit</b> |    |    |      |      |      |      |      |
| A  | °  | mm | 1840 | 1840 | 1840 | 1840 | 1840 |
|  | L  | mm | 1885 | 1885 | 1885 | 1885 | 1885 |
| B  | °L | mm | 2155 | 2155 | 2155 | 2155 | 2155 |
|  | °L | mm | 800  | 800  | 800  | 800  | 800  |
| <b>Dimensions and weights with pump/s</b>          |    |    |      |      |      |      |      |
| A  | °  | mm | 1840 | 1840 | 1840 | 1840 | 1840 |
|  | L  | mm | 1885 | 1885 | 1885 | 1885 | 1885 |
| B  | °L | mm | 3090 | 3090 | 3090 | 3090 | 3090 |
|  | °L | mm | 800  | 800  | 800  | 800  | 800  |

|              | Version | System side<br>- pumps | Integrated hydronic<br>kit, source side |    | 0200 | 0280 | 0300 | 0330 | 0350 |
|--------------|---------|------------------------|---|----|------|------|------|------|------|
| Empty weight | °       | °/M/N/O/P              | °/J/K/Q/R/U/V/W/Z                       | kg | -    | -    | -    | -    | -    |
|              | L       | °                      | °                                       | kg | 495  | 550  | 565  | 570  | 580  |
|              | L       | °                      | J/K/U/W                                 | kg | 665  | 720  | 735  | 740  | 750  |
|              | L       | °                      | Q/R/V/Z                                 | kg | 690  | 745  | 760  | 765  | 775  |
|              | L       | N/P                    | °                                       | kg | 690  | 745  | 760  | 765  | 775  |
|              | L       | M/O                    | °                                       | kg | 665  | 720  | 730  | 740  | 750  |
|              | L       | M/O                    | J/K/U/W                                 | kg | 695  | 755  | 765  | 775  | 785  |
|              | L       | M                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | L       | N                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | L       | O                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | L       | P                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | L       | N/P                    | Q/R/V/Z                                 | kg | 750  | 805  | 820  | 825  | 835  |

- not available

|              | Version | System side<br>- pumps | Integrated hydronic<br>kit, source side |    | 0500 | 0550 | 0600 | 0650 | 0700 |
|--------------|---------|------------------------|---|----|------|------|------|------|------|
| Empty weight | °       | °                      | °                                       | kg | 755  | 840  | 865  | 890  | 920  |
|              | °       | °                      | J/K/U/W                                 | kg | 935  | 1020 | 1045 | 1085 | 1115 |
|              | °       | °                      | Q/R/V/Z                                 | kg | 1005 | 1090 | 1115 | 1170 | 1200 |
|              | °       | M/O                    | °                                       | kg | 900  | 985  | 1010 | 1045 | 1075 |
|              | °       | M/O                    | J/K/U/W                                 | kg | 990  | 1075 | 1100 | 1150 | 1180 |
|              | °       | M                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | °       | N                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | °       | O                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | °       | P                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | °       | N/P                    | °                                       | kg | 970  | 1055 | 1080 | 1125 | 1155 |
|              | °       | N/P                    | Q/R/V/Z                                 | kg | 1130 | 1215 | 1240 | 1315 | 1340 |
|              | L       | °                      | °                                       | kg | 930  | 1015 | 1040 | 1065 | 1095 |
|              | L       | °                      | J/K/U/W                                 | kg | 1155 | 1240 | 1265 | 1305 | 1335 |
|              | L       | °                      | Q/R/V/Z                                 | kg | 1225 | 1310 | 1335 | 1390 | 1420 |
|              | L       | M/O                    | °                                       | kg | 1120 | 1205 | 1230 | 1265 | 1295 |
|              | L       | M/O                    | J/K/U/W                                 | kg | 1210 | 1295 | 1320 | 1370 | 1400 |
|              | L       | M                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | L       | N                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | L       | O                      | Q/R/V/Z                                 | kg | -    | -    | -    | -    | -    |
|              | L       | P                      | J/K/U/W                                 | kg | -    | -    | -    | -    | -    |
|              | L       | N/P                    | °                                       | kg | 1190 | 1275 | 1300 | 1345 | 1375 |
|              | L       | N/P                    | Q/R/V/Z                                 | kg | 1350 | 1435 | 1460 | 1535 | 1560 |

- not available

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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WWB 0300-0900

## Water-water heat pumps only

Heating capacity 56,7 ÷ 265,9 kW

- Optimised to produce high temperature hot water
- Can be used with any air or water cooled heat pump
- Max. processed water temperature: 80 °C
- Max inlet temperature on source side: 45 °C



### DESCRIPTION

WWB is a range of irreversible water-water heat pumps that produce high temperature water with a low or medium temperature source. Internal unit suitable for use in centralised residential systems, in systems that serve hotels and other forms of accommodation, and for applications in the tertiary and industrial sectors.

### FEATURES

#### Maximum energy efficiency

Aermec, which has focused for years on energy efficiency, designed the WWB units with the aim of guaranteeing high efficiency both with full and partial loads.

#### Operating field

With its wide operating range, it can be integrated with numerous applications and is a valid alternative to boilers and all conventional systems used to produce high temperature hot water since it also uses existing systems. Production of hot water up to 80 °C (Max inlet temperature on source side 45 °C).

#### Constructional characteristics of unit

- Optimised plate heat exchangers with low pressure drops.
- 2 cooling circuits, 1 compressor per circuit.
- Scroll compressors for high condensing temperatures.
- Compact size for easier installation.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

### CONTROL

Control unit accessible externally with touch-screen user interface, multilingual display of all operating parameters.

Optimised control logic for use with low and medium temperature heat pumps.

Complies with safety (EC) and electromagnetic compatibility directives.

**Removable slide-out electrical panel with opening side (LH/RH side) configurator option**

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**VT:** Anti-vibration supports.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.



## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0300 | 0330 | 0350 | 0550 | 0600 | 0700 | 0800 | 0900 |
|------------------|-----|------|------|------|------|------|------|------|------|
| AER48SP1         | L   | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP          | L   | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET           | L   | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO | L   | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1             | L   | .    | .    | .    | .    | .    | .    | .    | .    |

**MULTICHILLER\_EVO:** Contact the factory for compatibility of the accessory with the type of implant envisaged.

### Antivibration

| Ver | 0300 | 0330 | 0350 | 0550 | 0600 | 0700 | 0800 | 0900 |
|-----|------|------|------|------|------|------|------|------|
| L   | VT9  | VT9  | VT9  | VT9  | VT15 | VT15 | VT15 | VT15 |

### Power factor correction

| Ver | 0300       | 0330       | 0350       | 0550       | 0600       | 0700       | 0800       | 0900       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|
| L   | RIFWWB0300 | RIFWWB0330 | RIFWWB0350 | RIFWWB0550 | RIFWWB0600 | RIFWWB0700 | RIFWWB0800 | RIFWWB0900 |

A grey background indicates the accessory must be assembled in the factory

### PR4

| Model | Ver | 0300 | 0330 | 0350 | 0550 | 0600 | 0700 | 0800 | 0900 |
|-------|-----|------|------|------|------|------|------|------|------|
| PR4   | L   | .    | .    | .    | .    | .    | .    | .    | .    |

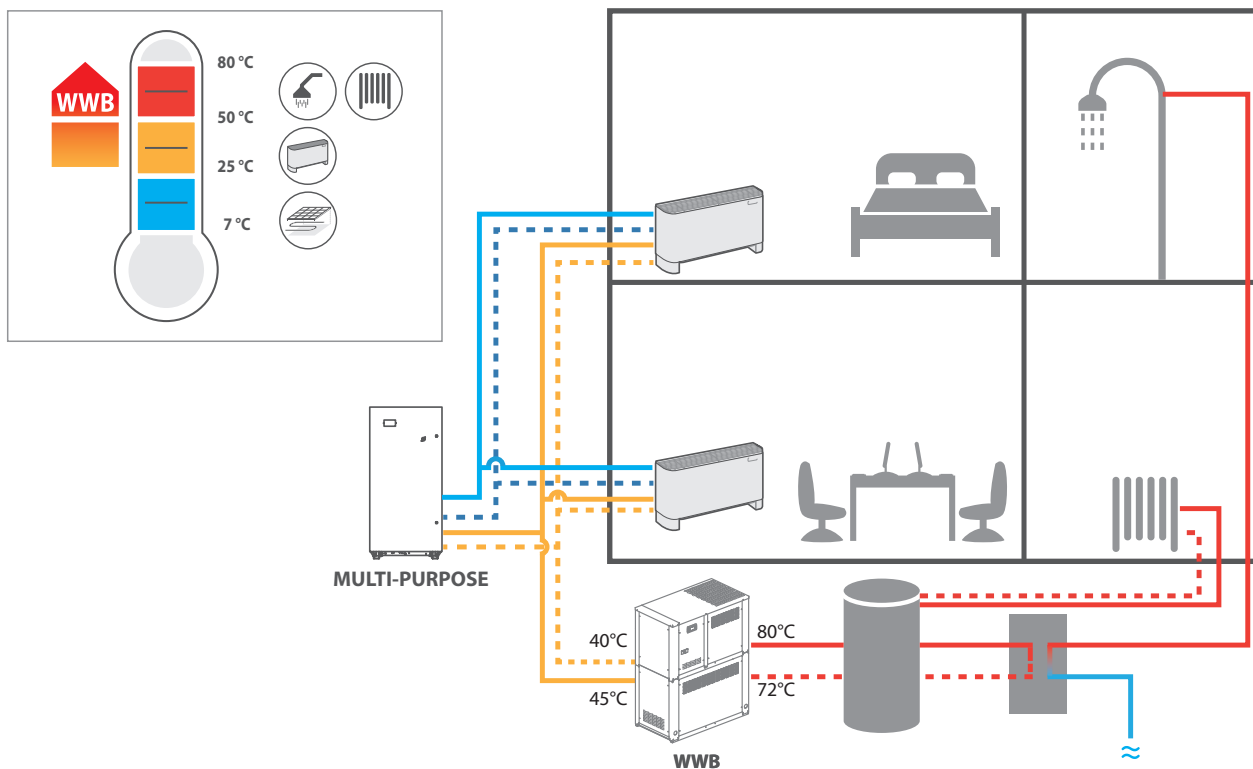
## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WWB  |
| 4,5,6,7 | Size<br>0300, 0330, 0350, 0550, 0600, 0700, 0800, 0900 |
| 8       | Operating field (1)                                    |
| X       | Standard   |
| 9       | Model  |
| H       | Heat pump  |
| 10      | Version  |

| Field | Description                   |
|-------|-------------------------------|
| L     | Silenced                      |
| 11    | Power supply                  |
| S     | 400V ~ 3 50Hz with Soft-Start |
| °     | 400V ~ 3 50Hz                 |
| 12    | Electrical panel version      |
| R     | Reverse opening (RH)          |
| °     | Standard opening (LH)         |

(1) Evaporator water up to +5°C. Electronic thermostatic valve as standard.

### Example of four-pipe system



## PERFORMANCE SPECIFICATIONS

| Size   |   |     | 0300 | 0330  | 0350  | 0550  | 0600  | 0700  | 0800  | 0900  |
|--|---|-----|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Heating performances (Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C) (1)</b> |   |     |      |       |       |       |       |       |       |       |
| Heating capacity   | L | kW  | 70,3 | 77,7  | 93,2  | 114,6 | 143,7 | 181,7 | 220,5 | 265,9 |
| Input power  | L | kW  | 16,7 | 18,0  | 21,6  | 27,7  | 34,7  | 44,3  | 55,4  | 66,4  |
| Heating total input current  | L | A   | 29,0 | 30,0  | 36,0  | 46,0  | 61,0  | 71,0  | 89,0  | 104,0 |
| COP  | L | W/W | 4,22 | 4,31  | 4,33  | 4,14  | 4,14  | 4,11  | 3,98  | 4,00  |
| Water flow rate system side  | L | l/h | 7721 | 8537  | 10243 | 12592 | 15787 | 19973 | 24229 | 29221 |
| Pressure drop system side  | L | kPa | 18   | 22    | 31    | 21    | 33    | 24    | 35    | 24    |
| Water flow rate source side  | L | l/h | 9339 | 10400 | 12491 | 15141 | 18986 | 23950 | 28791 | 34785 |
| Pressure drop source side  | L | kPa | 12   | 15    | 10    | 15    | 8     | 12    | 16    | 23    |
| <b>Heating performances (Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C) (2)</b> |   |     |      |       |       |       |       |       |       |       |
| Heating capacity   | L | kW  | 56,7 | 62,7  | 75,2  | 92,4  | 115,9 | 146,5 | 177,8 | 214,4 |
| Input power  | L | kW  | 16,3 | 17,6  | 21,0  | 27,0  | 33,9  | 43,2  | 54,0  | 64,7  |
| Heating total input current  | L | A   | 28,0 | 29,0  | 35,0  | 45,0  | 59,0  | 70,0  | 87,0  | 102,0 |
| COP  | L | W/W | 3,48 | 3,56  | 3,58  | 3,42  | 3,42  | 3,39  | 3,29  | 3,31  |
| Water flow rate system side  | L | l/h | 6228 | 6886  | 8262  | 10157 | 12734 | 16110 | 19543 | 23570 |
| Pressure drop system side  | L | kPa | 12   | 14    | 20    | 14    | 22    | 15    | 23    | 16    |
| Water flow rate source side  | L | l/h | 7008 | 7820  | 9396  | 11340 | 14221 | 17924 | 21486 | 25974 |
| Pressure drop source side  | L | kPa | 7    | 9     | 6     | 8     | 4     | 7     | 9     | 13    |
| <b>Heating performances (Water user side 47 °C / 55 °C; Water source side 10 °C / 7 °C) (3)</b>  |   |     |      |       |       |       |       |       |       |       |
| Heating capacity   | L | kW  | 35,6 | 39,4  | 47,3  | 58,1  | 72,9  | 92,2  | 111,8 | 134,8 |
| Input power  | L | kW  | 9,8  | 10,6  | 12,7  | 16,3  | 20,4  | 26,1  | 32,6  | 39,1  |
| Input current  | L | A   | 16,9 | 17,8  | 21,4  | 27,4  | 35,9  | 42,1  | 52,7  | 61,8  |
| COP  | L | W/W | 3,62 | 3,71  | 3,73  | 3,56  | 3,57  | 3,53  | 3,43  | 3,45  |
| Water flow rate system side  | L | l/h | 3881 | 4291  | 5148  | 6329  | 7935  | 10039 | 12178 | 14688 |
| Pressure drop system side  | L | kPa | 5    | 6     | 8     | 8     | 8     | 6     | 9     | 6     |
| Water flow rate source side  | L | l/h | 7405 | 8259  | 9923  | 11988 | 15034 | 18952 | 22733 | 27478 |
| Pressure drop source side  | L | kPa | 8    | 10    | 6     | 9     | 5     | 7     | 10    | 15    |

(1) Date 14511:2022; Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C

(2) Date 14511:2022; Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C

(3) Date 14511:2022; Water user side 47 °C / 55 °C; Water source side 10 °C / 7 °C

## ENERGY DATA

| Size   |   |     | 0300   | 0330   | 0350   | 0550   | 0600   | 0700   | 0800   | 0900   |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |     |        |        |        |        |        |        |        |        |
| Pdesignh   | L | kW  | 46     | 51     | 61     | 76     | 95     | 120    | 145    | 175    |
| ηsh  | L | %   | 176,00 | 180,00 | 180,00 | 175,00 | 174,00 | 174,00 | 169,00 | 175,00 |
| SCOP   | L | W/W | 4,60   | 4,70   | 4,70   | 4,58   | 4,55   | 4,55   | 4,43   | 4,48   |
| Efficiency energy class  | L |     | A++    | A++    | A++    | -      | -      | -      | -      | -      |

(1) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                   |   |   | 0300  | 0330  | 0350  | 0550  | 0600  | 0700  | 0800  | 0900  |
|------------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Power supply: S</b> |   |   |       |       |       |       |       |       |       |       |
| <b>Electric data</b>   |   |   |       |       |       |       |       |       |       |       |
| Maximum current (FLA)  | L | A | 30,9  | 32,2  | 38,2  | 50,2  | 64,6  | 79,8  | 94,6  | 113,7 |
| Peak current (LRA)     | L | A | 53,4  | 60,5  | 66,3  | 81,1  | 101,9 | 129,9 | 156,1 | 180,9 |
| Size                   |   |   | 0300  | 0330  | 0350  | 0550  | 0600  | 0700  | 0800  | 0900  |
| <b>Power supply: °</b> |   |   |       |       |       |       |       |       |       |       |
| <b>Electric data</b>   |   |   |       |       |       |       |       |       |       |       |
| Maximum current (FLA)  | L | A | 30,9  | 32,2  | 38,2  | 50,2  | 64,6  | 79,8  | 94,6  | 113,7 |
| Peak current (LRA)     | L | A | 110,4 | 127,1 | 137,1 | 165,1 | 206,3 | 264,9 | 319,3 | 366,9 |

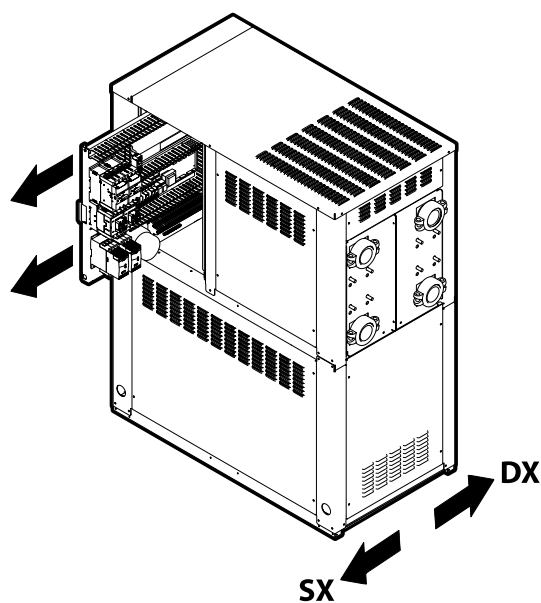
## GENERAL TECHNICAL DATA

| Size   |   |       | 0300 | 0330 | 0350 | 0550 | 0600           | 0700   | 0800   | 0900   |
|--|---|-------|------|------|------|------|----------------|--------|--------|--------|
| <b>Compressor</b>                                |   |       |      |      |      |      |                |        |        |        |
| Type   | L | type  |      |      |      |      | Scroll         |        |        |        |
| Compressor regulation                            | L | Type  |      |      |      |      | On-Off         |        |        |        |
| Number   | L | no.   | 2    | 2    | 2    | 2    | 2              | 2      | 2      | 2      |
| Circuits   | L | no.   | 2    | 2    | 2    | 2    | 2              | 2      | 2      | 2      |
| Refrigerant                                      | L | type  |      |      |      |      | R134a          |        |        |        |
| Refrigerant load circuit 1 (1)                   | L | kg    | 2,8  | 2,8  | 3,6  | 4,4  | 6,5            | 7,7    | 8,0    | 9,9    |
| Refrigerant load circuit 2 (1)                   | L | kg    | 2,8  | 2,8  | 3,5  | 4,3  | 6,3            | 7,5    | 7,8    | 9,7    |
| <b>Source side heat exchanger</b>                |   |       |      |      |      |      |                |        |        |        |
| Type   | L | type  |      |      |      |      | Brazed plate   |        |        |        |
| Number   | L | no.   | 1    | 1    | 1    | 1    | 1              | 1      | 1      | 1      |
| Connections (in/out)                             | L | Type  |      |      |      |      | Grooved joints |        |        |        |
| Sizes (in/out)                                   | L | Ø     | 2"   | 2"   | 2"   | 2"   | 2"             | 2" 1/2 | 2" 1/2 | 2" 1/2 |
| <b>System side heat exchanger</b>                |   |       |      |      |      |      |                |        |        |        |
| Type   | L | type  |      |      |      |      | Brazed plate   |        |        |        |
| Number   | L | no.   | 1    | 1    | 1    | 1    | 1              | 1      | 1      | 1      |
| Connections (in/out)                             | L | Type  |      |      |      |      | Grooved joints |        |        |        |
| Sizes (in/out)                                   | L | Ø     | 2"   | 2"   | 2"   | 2"   | 2"             | 2" 1/2 | 2" 1/2 | 2" 1/2 |
| <b>Sound data calculated in cooling mode (2)</b> |   |       |      |      |      |      |                |        |        |        |
| Sound power level                                | L | dB(A) | 71,8 | 71,8 | 71,8 | 75,1 | 78,3           | 79,3   | 80,4   | 82,4   |
| Sound pressure level (10 m)                      | L | dB(A) | 40,2 | 40,2 | 40,2 | 43,5 | 46,7           | 47,7   | 48,9   | 50,9   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

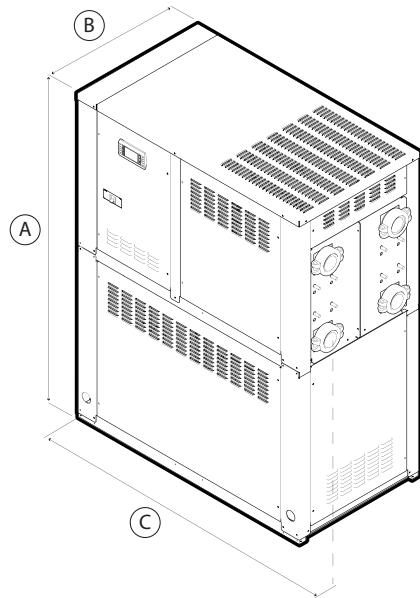
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## Removal of electrical panel



| Electrical panel version | Configurator option |
|--------------------------|---------------------|
| Sx - LH side             | ° (Standard)        |
| Dx - RH side             | R                   |

# DIMENSIONS



| Size                     |   |    | 0300 | 0330 | 0350 | 0550 | 0600 | 0700 | 0800 | 0900 |
|--------------------------|---|----|------|------|------|------|------|------|------|------|
| Dimensions and weights   |   |    |      |      |      |      |      |      |      |      |
| A                        | L | mm | 1650 | 1650 | 1650 | 1650 | 1650 | 1650 | 1650 | 1650 |
| B                        | L | mm | 710  | 710  | 710  | 710  | 710  | 710  | 710  | 710  |
| C                        | L | mm | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 |
| Weights                  |   |    |      |      |      |      |      |      |      |      |
| Weight empty + packaging | L | kg | 420  | 425  | 440  | 455  | 500  | 715  | 760  | 820  |
| Weight functioning       | L | kg | 415  | 420  | 440  | 460  | 510  | 730  | 775  | 840  |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
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# WWBG

## Water-water heat pumps only

Heating capacity 77,2 ÷ 138,2 kW

- Optimised to produce high temperature hot water
- Can be used with any air or water cooled heat pump
- Max. processed water temperature: 80 °C
- Max inlet temperature on source side: 45 °C



### DESCRIPTION

WWBG is a range of irreversible water-water heat pumps that produce high temperature water with a low or medium temperature source. Internal unit suitable for use in centralised residential systems, in systems that serve hotels and other forms of accommodation, and for applications in the tertiary and industrial sectors.

### FEATURES

#### Maximum energy efficiency

Aermec, which has focused for years on energy efficiency, designed the WWBG units with the aim of guaranteeing high efficiency both with full and partial loads.

#### Operating field

With its wide operating range, it can be integrated with numerous applications and is a valid alternative to boilers and all conventional systems used to produce high temperature hot water since it also uses existing systems. Production of hot water up to 80 °C (Max inlet temperature on source side 45 °C).

#### Constructional characteristics of unit

- Optimised plate heat exchangers with low pressure drops.
- 2 cooling circuits, 1 compressor per circuit.
- Scroll compressors for high condensing temperatures.
- Compact size for easier installation.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

#### R513A (XP10) refrigerant gas

Thanks to the R513A (XP10) refrigerant, the environmental impact of the units is significantly reduced.

Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

### CONTROL

Control unit accessible externally with touch-screen user interface, multilingual display of all operating parameters.

Optimised control logic for use with low and medium temperature heat pumps.

Complies with safety (EC) and electromagnetic compatibility directives.

**Removable slide-out electrical panel with opening side (LH/RH side) configurator option**

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**VT:** Anti-vibration supports.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0330 | 0350 | 0550 | 0600 |
|------------------|-----|------|------|------|------|
| AER48SP1         | L   | •    | •    | •    | •    |
| AERBACP          | L   | •    | •    | •    | •    |
| AERNET           | L   | •    | •    | •    | •    |
| MULTICHILLER-EVO | L   | •    | •    | •    | •    |
| PGD1             | L   | •    | •    | •    | •    |

**MULTICHILLER\_EVO:** Contact the factory for compatibility of the accessory with the type of implant envisaged.

### Antivibration

| Ver | 0330 | 0350 | 0550 | 0600 |
|-----|------|------|------|------|
| L   | VT9  | VT9  | VT9  | VT15 |

### PR4

| Model | Ver | 0330 | 0350 | 0550 | 0600 |
|-------|-----|------|------|------|------|
| PR4   | L   | •    | •    | •    | •    |

### Power factor correction

| Ver | 0330        | 0350        | 0550        | 0600        |
|-----|-------------|-------------|-------------|-------------|
| L   | RIFWWBG0330 | RIFWWBG0350 | RIFWWBG0550 | RIFWWBG0600 |

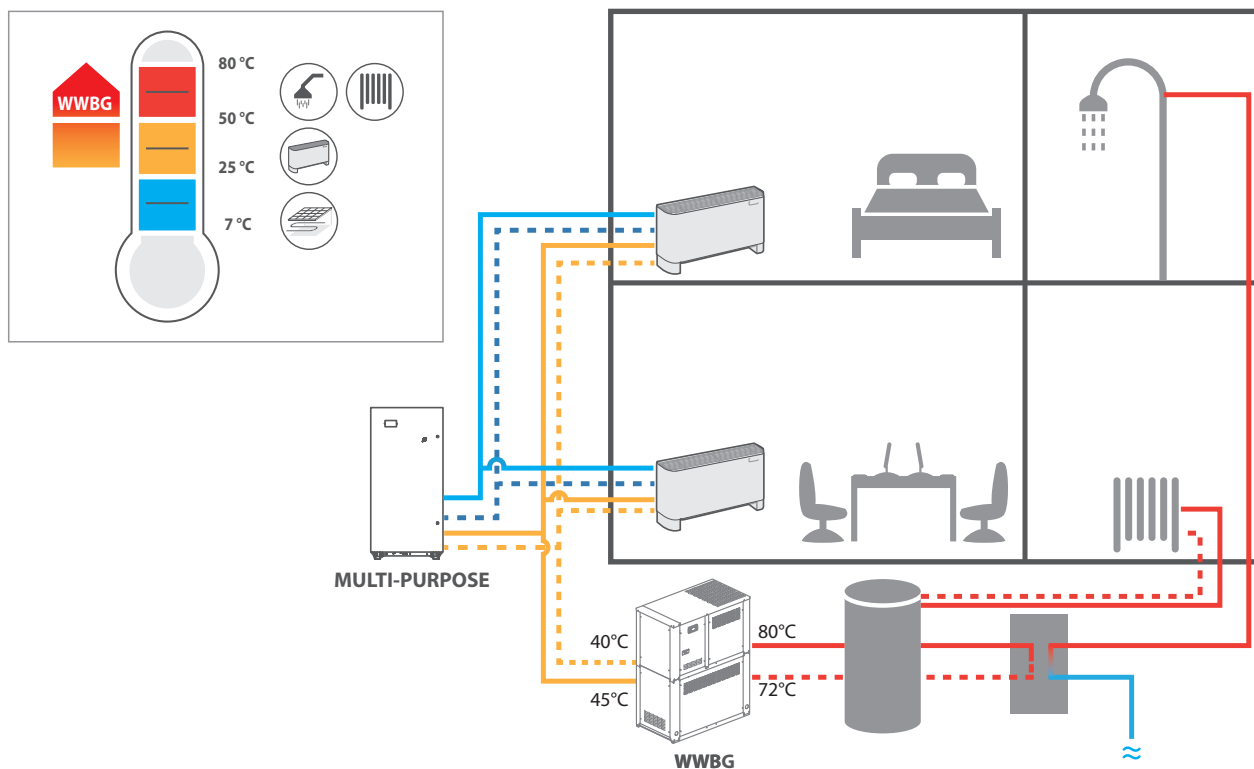
A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description                    |
|---------|--------------------------------|
| 1,2,3,4 | WWBG                           |
| 5,6,7,8 | Size<br>0330, 0350, 0550, 0600 |
| 9       | Operating field                |
| X       | Standard                       |
| 10      | Model                          |
| H       | Heat pump                      |
| 11      | Version                        |
| L       | Silenced                       |

| Field | Description                   |
|-------|-------------------------------|
| 12    | Power supply                  |
| S     | 400V ~ 3 50Hz with Soft-Start |
| °     | 400V ~ 3 50Hz                 |
| 13    | Electrical panel version      |
| R     | Reverse opening (RH)          |
| °     | Standard opening (LH)         |
| 14    | Leak detector                 |
| G     | with leak detector            |
| °     | Without leak detector         |

### Example of four-pipe system



## PERFORMANCE SPECIFICATIONS

| Size   |   |     | 0330  | 0350  | 0550  | 0600  |
|--|---|-----|-------|-------|-------|-------|
| <b>Heating performances (Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C) (1)</b> |   |     |       |       |       |       |
| Heating capacity   | L | kW  | 77,2  | 92,5  | 115,4 | 138,2 |
| Input power  | L | kW  | 18,4  | 21,9  | 28,0  | 33,6  |
| COP  | L | W/W | 4,19  | 4,22  | 4,13  | 4,11  |
| Water flow rate system side  | L | l/h | 8485  | 10161 | 12667 | 15166 |
| Pressure drop system side  | L | kPa | 10    | 14    | 21    | 31    |
| Water flow rate source side  | L | l/h | 10279 | 12336 | 15279 | 18264 |
| Pressure drop source side  | L | kPa | 15    | 10    | 15    | 7     |
| <b>Heating performances (Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C) (2)</b> |   |     |       |       |       |       |
| Heating capacity   | L | kW  | 63,0  | 75,4  | 94,1  | 112,7 |
| Input power  | L | kW  | 18,2  | 21,6  | 27,6  | 33,1  |
| COP  | L | W/W | 3,46  | 3,49  | 3,41  | 3,40  |
| Water flow rate system side  | L | l/h | 6922  | 8289  | 10334 | 12372 |
| Pressure drop system side  | L | kPa | 6     | 9     | 14    | 20    |
| Water flow rate source side  | L | l/h | 7806  | 9373  | 11588 | 13845 |
| Pressure drop source side  | L | kPa | 9     | 6     | 9     | 4     |
| <b>Heating performances (Water user side 47 °C / 55 °C; Water source side 10 °C / 7 °C) (3)</b>  |   |     |       |       |       |       |
| Heating capacity   | L | kW  | 40,0  | 47,9  | 59,8  | 71,6  |
| Input power  | L | kW  | 11,3  | 13,4  | 17,1  | 20,6  |
| COP  | L | W/W | 3,53  | 3,57  | 3,48  | 3,48  |
| Water flow rate system side  | L | l/h | 4343  | 5200  | 6483  | 7761  |
| Pressure drop system side  | L | kPa | 3     | 4     | 6     | 8     |
| Water flow rate source side  | L | l/h | 8505  | 10210 | 12631 | 15094 |
| Pressure drop source side  | L | kPa | 10    | 7     | 10    | 5     |

- (1) Date 14511:2022; Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C  
(2) Date 14511:2022; Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C  
(3) Date 14511:2022; Water user side 47 °C / 55 °C; Water source side 10 °C / 7 °C

## ENERGY DATA

| Size   |   |     | 0330   | 0350   | 0550   | 0600   |
|--|---|-----|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |     |        |        |        |        |
| Pdesignh   | L | kW  | 51     | 61     | 76     | 91     |
| ηsh  | L | %   | 175,00 | 177,00 | 173,00 | 172,00 |
| SCOP   | L | W/W | 4,58   | 4,62   | 4,53   | 4,51   |
| Efficiency energy class  | L |     | A+++   | A+++   | -      | -      |

- (1) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

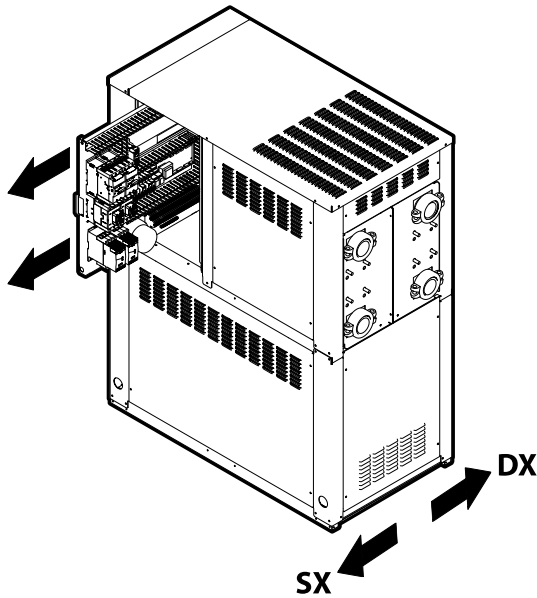
| Size                         |   |   | 0330  | 0350  | 0550  | 0600  |
|------------------------------|---|---|-------|-------|-------|-------|
| <b>Electric data</b>         |   |   |       |       |       |       |
| Maximum current (FLA)        | L | A | 40,0  | 46,0  | 60,0  | 72,0  |
| Peak current (LRA)           | L | A | 131,0 | 141,0 | 170,0 | 210,0 |
| Peak current with Soft-start | L | A | 66,0  | 71,0  | 85,0  | 105,0 |

# GENERAL TECHNICAL DATA

| Size                                      |   |       | 0330           | 0350 | 0550 | 0600 |
|---|---|-------|----------------|------|------|------|
| Compressor                                |   |       |                |      |      |      |
| Type                                      | L | type  | Scroll         |      |      |      |
| Compressor regulation                     | L | Type  | On-Off         |      |      |      |
| Number                                    | L | no.   | 2              | 2    | 2    | 2    |
| Circuits                                  | L | no.   | 2              | 2    | 2    | 2    |
| Refrigerant                               | L | type  | R513A (XP10)   |      |      |      |
| Refrigerant load circuit 1 (1)            | L | kg    | 3,1            | 3,4  | 4,2  | 5,8  |
| Refrigerant load circuit 2 (1)            | L | kg    | 3,1            | 3,4  | 4,2  | 5,8  |
| Source side heat exchanger                |   |       |                |      |      |      |
| Type                                      | L | type  | Brazen plate   |      |      |      |
| Number                                    | L | no.   | 1              | 1    | 1    | 1    |
| Connections (in/out)                      | L | Type  | Grooved joints |      |      |      |
| Sizes (in/out)                            | L | Ø     | 2"             |      |      |      |
| System side heat exchanger                |   |       |                |      |      |      |
| Type                                      | L | type  | Brazen plate   |      |      |      |
| Number                                    | L | no.   | 1              | 1    | 1    | 1    |
| Connections (in/out)                      | L | Type  | Grooved joints |      |      |      |
| Sizes (in/out)                            | L | Ø     | 2"             |      |      |      |
| Sound data calculated in heating mode (2) |   |       |                |      |      |      |
| Sound power level                         | L | dB(A) | 71,8           | 71,8 | 76,1 | 78,3 |
| Sound pressure level (10 m)               | L | dB(A) | 40,2           | 40,2 | 44,5 | 46,7 |
| Sound pressure level (1 m)                | L | dB(A) | 55,7           | 55,7 | 60,0 | 62,2 |

- (1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.  
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

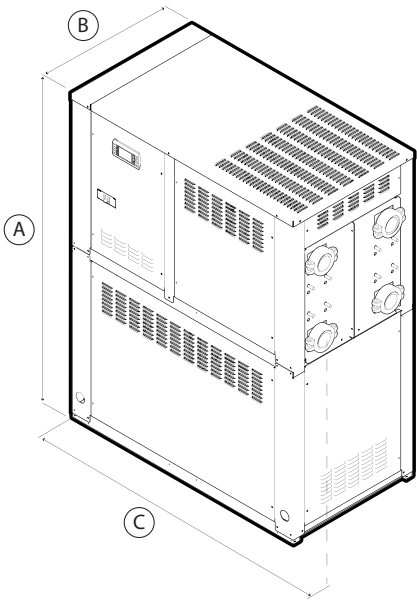
## Removal of electrical panel



| Electrical panel version | Configurator option |
|--------------------------|---------------------|
| Sx - LH side             | ° (Standard)        |
| Dx - RH side             | R                   |



DIMENSIONS



| Size                     |   |    | 0330 | 0350 | 0550 | 0600 |
|--------------------------|---|----|------|------|------|------|
| Dimensions and weights   |   |    |      |      |      |      |
| A                        | L | mm | 1650 | 1650 | 1650 | 1650 |
| B                        | L | mm | 710  | 710  | 710  | 710  |
| C                        | L | mm | 1300 | 1300 | 1300 | 1300 |
| Weights                  |   |    |      |      |      |      |
| Weight empty + packaging | L | kg | 430  | 445  | 455  | 500  |
| Weight functioning       | L | kg | 430  | 445  | 460  | 510  |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## WWM

## Water cooled heat pump reversible water side

Cooling capacity 96 kW  
Heating capacity 110 kW

- Compact module
- Single or dual refrigerant circuit
- Reliable and modular
- Max 2 levels of stackable units
- Up to 36 connectable units (see the modularity options)
- Easy installation and maintenance



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. These are indoor units with hermetic scroll compressors, system side heat exchanger and plate source.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### FEATURES

The precise choice of components, the special configuration, and the possibility to connect several independent modules and manage them as if they were a single unit are all aspects that guarantee maximum output at full load, whilst ensuring continuous adaptation to the real service needs.

**Bus Bar, to facilitate the electrical connections.**

### Modularity

Thanks to its modular construction, the installation can be adapted to suit specific system development needs whilst guaranteeing improved safety and reliability.

As a result, the cooling capacity can be easily increased over time, at a limited cost.

**WWM consists of independent 96 kW modules that can be linked together to reach a capacity of 3456 kW.**

**With WWM, you can combine up to 36 units designed to minimise the overall dimensions.**

The modules are easy to install and link together from the hydronic point of view, thanks to the connections with grooved joints.

### Refrigerant circuit

The refrigerant circuit can easily be disconnected from the unit, maintaining all the functions of the hydronic circuit to ensure correct system operation.

### Hydraulic components

WWM version PN10 has the **switch**; WWM version PN21 mounts the **transmitter**.

Fitted as standard, with **butterfly shut-off valves** on both hydronic lines for disconnecting the circuit when maintenance needs to be carried out.

In the event of a variable flow rate, the **motorised hydronic valves** can intercept one module or more in order to reduce the flow rate when there is a low thermal load level.

### Very quiet

The WWM units stand out for their quiet operation. Accurate unit sound-proofing, using good-quality sound absorbent material, means all the units work at low noise levels.

### Units in parallel

The MULTICHILLER\_EVO (accessory) allows up to 9 units to be managed in parallel mode.

This accessory allows to maximise the total efficiency to the system under to work load, external air temperature conditions and water produced.

Each unit has its own electrical panel, guaranteeing continuity even if one module malfunctions or goes into lockout.

### CONTROL

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The adjustment system includes the complete management of alarms and the alarm log.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click it is possible to save a log file with all the connected unit data in the personal terminal for post analysis.

**KWWM:** Kit containing 4 caps with a diameter of 6" for the water manifolds.  
**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

- The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.

## FACTORY FITTED ACCESSORIES

**CRATE\_WWMH-A:** Special crate for transport

## ACCESSORIES COMPATIBILITY

| Accessory        | WWM05001H | WWM05001° | WWM05002H | WWM05002° |
|------------------|-----------|-----------|-----------|-----------|
| AER485P1         | *         | *         | *         | *         |
| AERBACP          | *         | *         | *         | *         |
| AERNET           | *         | *         | *         | *         |
| KWWM             | *         | *         | *         | *         |
| MULTICHILLER-EVO | *         | *         | *         | *         |

For the control with MULTICHILLER EVO, nr.1 accessory AER485P1 is mandatory for every WWM of the system.

### PR4

| Accessory | WWM05001H | WWM05001° | WWM05002H | WWM05002° |
|-----------|-----------|-----------|-----------|-----------|
| PR4       | *         | *         | *         | *         |

### Special crate for transport

| Accessory    | WWM05001H | WWM05001° | WWM05002H | WWM05002° |
|--------------|-----------|-----------|-----------|-----------|
| CRATE_WWMH-A | *         | *         | *         | *         |
| CRATE_WWM°   |           | *         |           | *         |

- CRATE\_WWM°: 100 kg, CRATE\_WWMH-A: 130 kg

### Cable entries box

| Accessory | WWM05001H | WWM05001° | WWM05002H | WWM05002° |
|-----------|-----------|-----------|-----------|-----------|
| KREC_WWM  | *         | *         | *         | *         |

### Water filter

| Accessory   | WWM05001H | WWM05001° | WWM05002H | WWM05002° |
|-------------|-----------|-----------|-----------|-----------|
| KITIDRO_WWM | *         | *         | *         | *         |

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WWM  |
| 4,5,6,7 | Size<br>0500   |
| 8       | Operating field (1)  |
| °       | Standard mechanic thermostatic valve   |
| 9       | Model  |
| 1       | Single refrigerant circuit   |
| 2       | Double refrigerant circuit   |
| 10      | Hydraulic pressure rating  |
| 1       | 145 psi (PN10)   |
| 3       | 300 psi (PN21)   |
| 11      | Hydraulic headers kit  |
| H       | 6" Headers kit - PN21 standard carbon steel pipes declared in accordance with EN 10255 |
| °       | No headers provided  |

**CRATE\_WWM°:** Special crate for transport

**KITIDRO\_WWM:** Water filter with connection pipe (diameter 6") with drain tap and additional bulb well (diameter ½") available to the installer.

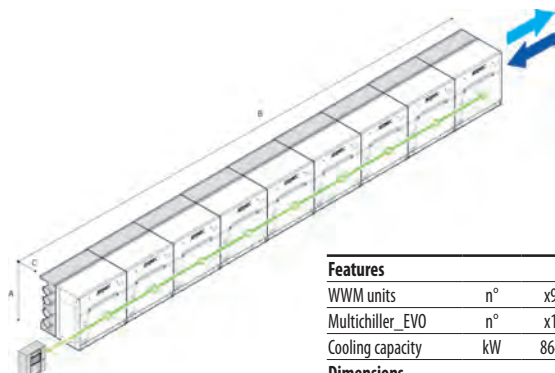
**KREC\_WWM:** Cable entries box in order to facilitate the electrical installation.

| Field | Description                                |
|-------|--|
| 12    | Power connection                           |
| B     | With bus bars                              |
| °     | Without bus bars                           |
| 13    | Power supply                               |
| °     | 400V ~ 3 50Hz with magnet circuit breakers |
| 14    | Electrical panel SCCR                      |
| °     | 10 kA control panel                        |
| 15    | Peak current reduction                     |
| R     | With power factor device (2)               |
| °     | Without power factor device                |
| 16    | Field for future development               |
| °     | -  |

(1) Water produced up to +4 °C  
(2) Factory installed

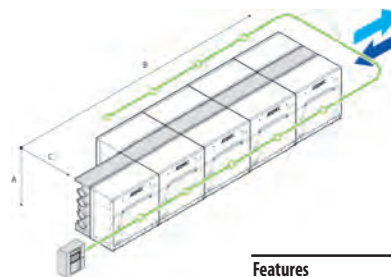
## MODULARITY OPTIONS

**CONFIGURATION 1:  
IN LINE**



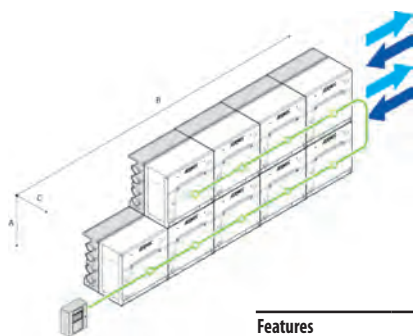
| Features         |    |       |  |
|------------------|----|-------|--|
| WWM units        | n° | x9    |  |
| Multichiller_EVO | n° | x1    |  |
| Cooling capacity | kW | 864   |  |
| Dimensions       |    |       |  |
| A                | mm | 1300  |  |
| B                | mm | 11970 |  |
| C                | mm | 1150  |  |

**CONFIGURATION 2:  
BACK TO BACK**



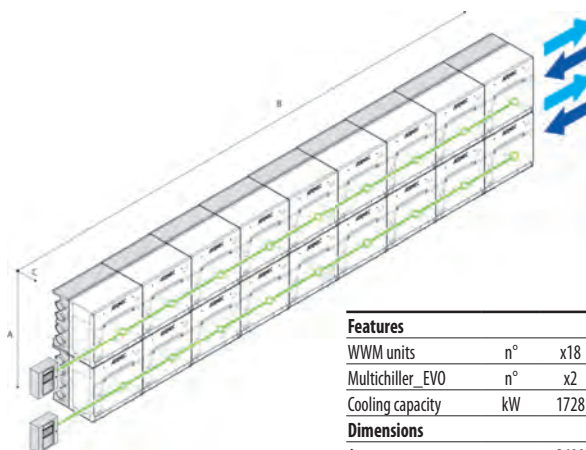
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x9   |  |
| Multichiller_EVO | n° | x1   |  |
| Cooling capacity | kW | 864  |  |
| Dimensions       |    |      |  |
| A                | mm | 1300 |  |
| B                | mm | 6650 |  |
| C                | mm | 1850 |  |

**CONFIGURATION 3.1:  
STACK IN LINE**



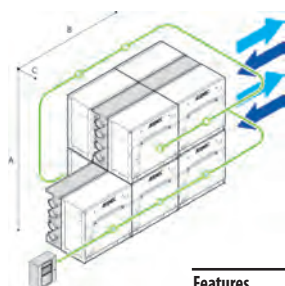
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x9   |  |
| Multichiller_EVO | n° | x1   |  |
| Cooling capacity | kW | 864  |  |
| Dimensions       |    |      |  |
| A                | mm | 2600 |  |
| B                | mm | 6650 |  |
| C                | mm | 1150 |  |

**CONFIGURATION 3.2:  
STACK IN LINE**



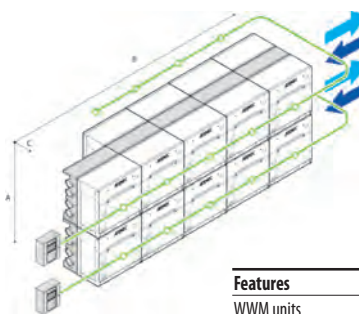
| Features         |    |       |  |
|------------------|----|-------|--|
| WWM units        | n° | x18   |  |
| Multichiller_EVO | n° | x2    |  |
| Cooling capacity | kW | 1728  |  |
| Dimensions       |    |       |  |
| A                | mm | 2600  |  |
| B                | mm | 11970 |  |
| C                | mm | 1150  |  |

**CONFIGURATION 4.1:  
STACK IN LINE BACK TO BACK**



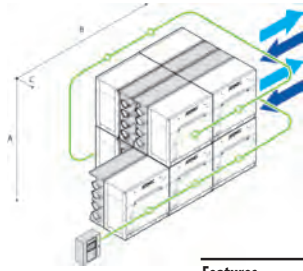
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x9   |  |
| Multichiller_EVO | n° | x1   |  |
| Cooling capacity | kW | 864  |  |
| Dimensions       |    |      |  |
| A                | mm | 2600 |  |
| B                | mm | 3990 |  |
| C                | mm | 1850 |  |

**CONFIGURATION 4.2:  
STACK IN LINE BACK TO BACK**



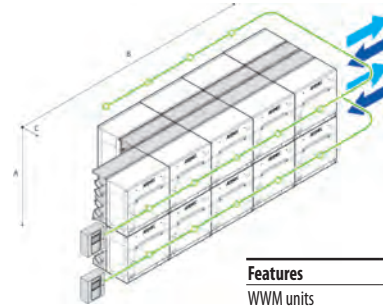
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x18  |  |
| Multichiller_EVO | n° | x2   |  |
| Cooling capacity | kW | 1728 |  |
| Dimensions       |    |      |  |
| A                | mm | 2600 |  |
| B                | mm | 6650 |  |
| C                | mm | 1850 |  |

**CONFIGURATION 5.1:  
STACK IN LINE BACK TO BACK DOUBLE**



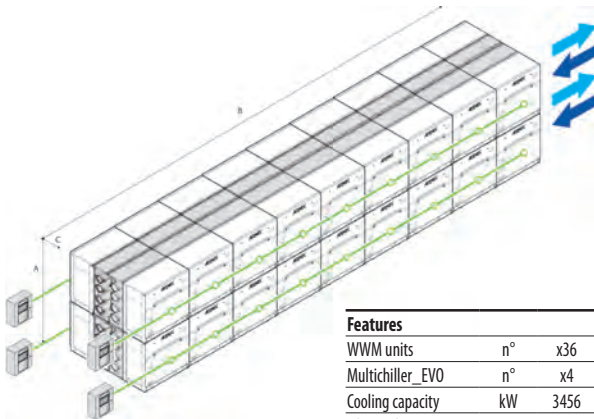
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x9   |  |
| Multichiller_EVO | n° | x1   |  |
| Cooling capacity | kW | 864  |  |
| Dimensions       |    |      |  |
| A                | mm | 2600 |  |
| B                | mm | 3990 |  |
| C                | mm | 2300 |  |

**CONFIGURATION 5.2:  
STACK IN LINE BACK TO BACK DOUBLE**



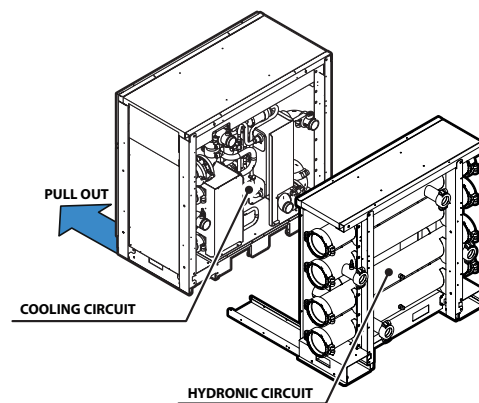
| Features         |    |      |  |
|------------------|----|------|--|
| WWM units        | n° | x18  |  |
| Multichiller_EVO | n° | x2   |  |
| Cooling capacity | kW | 1728 |  |
| Dimensions       |    |      |  |
| A                | mm | 2600 |  |
| B                | mm | 6650 |  |
| C                | mm | 2300 |  |

**CONFIGURATION 5.3:  
STACK IN LINE BACK TO BACK DOUBLE**



| Features         |    |       |  |
|------------------|----|-------|--|
| WWM units        | n° | x36   |  |
| Multichiller_EVO | n° | x4    |  |
| Cooling capacity | kW | 3456  |  |
| Dimensions       |    |       |  |
| A                | mm | 2600  |  |
| B                | mm | 11970 |  |
| C                | mm | 2300  |  |

**EASY MAINTENANCE**



## PERFORMANCE SPECIFICATIONS

### WWM - Single refrigerant circuit "1" - Double refrigerant circuit "2"

|  |     | WWM05001° | WWM05002° |
|--|-----|-----------|-----------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |           |           |
| Cooling capacity                             | kW  | 96,0      | 95,2      |
| Input power                                  | kW  | 20,3      | 20,0      |
| Cooling total input current                  | A   | 40,0      | 40,0      |
| EER  | W/W | 4,74      | 4,76      |
| Water flow rate source side                  | l/h | 20046     | 19895     |
| Pressure drop source side                    | kPa | 34        | 23        |
| Water flow rate system side                  | l/h | 16528     | 16384     |
| Pressure drop system side                    | kPa | 24        | 17        |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |           |           |
| Heating capacity                             | kW  | 109,2     | 110,0     |
| Input power                                  | kW  | 24,8      | 24,1      |
| Heating total input current                  | A   | 48,0      | 48,0      |
| COP  | W/W | 4,41      | 4,57      |
| Water flow rate system side                  | l/h | 18943     | 19092     |
| Pressure drop system side                    | kPa | 30        | 21        |
| Water flow rate source side                  | l/h | 24430     | 24809     |
| Pressure drop source side                    | kPa | 52        | 39        |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY DATA

|  |     | WWM05001° | WWM05002° |
|--|-----|-----------|-----------|
| <b>SEER - 12/7 (EN14825:2018) with standard fans (1)</b>   |     |           |           |
| SEER   | W/W | 6,12      | 5,37      |
| Seasonal efficiency  | %   | 241,8%    | 211,8%    |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |     |           |           |
| Pdesignh   | kW  | 138       | 140       |
| SCOP   | W/W | 4,83      | 4,68      |
| ηsh  | %   | 185,0%    | 179,0%    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

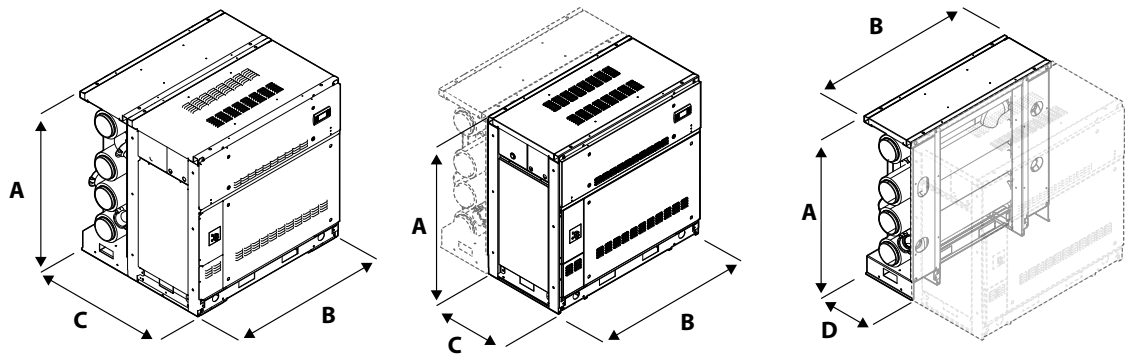
|                       |   | WWM05001° | WWM05002° |
|-----------------------|---|-----------|-----------|
| <b>Electric data</b>  |   |           |           |
| Maximum current (FLA) | A | 62,0      | 62,0      |
| Peak current (LRA)    | A | 148,9     | 148,9     |

## GENERAL TECHNICAL DATA

|  |       | WWM05001°      | WWM05002°      |
|--|-------|----------------|----------------|
| <b>Compressor</b>                                |       |                |                |
| Type   | type  | Scroll         | Scroll         |
| Number   | no.   | 2              | 2              |
| Circuits   | no.   | 1              | 2              |
| Refrigerant                                      | type  | R410A          | R410A          |
| <b>Source side heat exchanger</b>                |       |                |                |
| Type   | type  | Brazed plate   | Brazed plate   |
| Number   | no.   | 1              | 1              |
| Connections (in/out)                             | Type  | Grooved joints | Grooved joints |
| Sizes (in/out)                                   | Ø     | 6"             | 6"             |
| <b>System side heat exchanger</b>                |       |                |                |
| Type   | type  | Brazed plate   | Brazed plate   |
| Number   | no.   | 1              | 1              |
| Connections (in/out)                             | Type  | Grooved joints | Grooved joints |
| Sizes (in/out)                                   | Ø     | 6"             | 6"             |
| <b>Sound data calculated in cooling mode (1)</b> |       |                |                |
| Sound power level                                | dB(A) | 81,0           | 81,0           |
| Sound pressure level (10 m)                      | dB(A) | 49,5           | 49,5           |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



|  |    | WWM05001° | WWM05001H | WWM05002° | WWM05002H |
|--|----|-----------|-----------|-----------|-----------|
| <b>Dimensions and weights</b>            |    |           |           |           |           |
| A  | mm | 1300      | 1300      | 1300      | 1300      |
| B  | mm | 1330      | 1330      | 1330      | 1330      |
| C  | mm | 775       | 1150      | 775       | 1150      |
| D  | mm | -         | 452       | -         | 452       |
| <b>Weights</b>                           |    |           |           |           |           |
| Weight empty + packaging                 | kg | 700       | 930       | 700       | 930       |
| Weight functioning                       | kg | 711       | 1042      | 711       | 1042      |
| Empty weight + packaging (with bus bars) | kg | 736       | 966       | 736       | 966       |
| Weight functioning (with bus bars)       | kg | 747       | 1078      | 747       | 1078      |
| <b>Hydraulic headers kit</b>             |    |           |           |           |           |
| Weight empty + packaging                 | kg | -         | 230       | -         | 230       |
| Weight functioning                       | kg | -         | 330       | -         | 330       |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# NXW 0503 - 1654

## Water cooled heat pump reversible water side

Cooling capacity 111 ÷ 511 kW  
Heating capacity 127 ÷ 582 kW

- Options of 1 or 2 pumps on both source and user side.
- Reversible on hydraulic side in heat pump



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Indoor units with hermetic scroll compressors and plate heat exchangers. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-18 °C, and the possibility to produce also negative temperature water down to -10°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Option integrated hydronic kit, source and user side

The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the source side, to obtain a solution that allows you to save money and to facilitate installation.

### CONTROL PCO

Microprocessor adjustment, with display LCD which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the adjustment includes complete management of the alarms and their log.

You also have the possibility to:

- Check two units in parallel Master-Slave
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*



## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Antivibration

| Version | System side - pumps | Integrated hydronic kit, source side | 0503   | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   |
|---------|---------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                                    | AVX319 | AVX319 | AVX301 | AVX301 | AVX301 | AVX303 | AVX310 |
| °       | °                   | J, K, U, W                           | AVX320 | AVX320 | AVX320 | AVX320 | AVX320 | AVX312 | AVX651 |
| °       | M, O                | °                                    | AVX320 | AVX320 | AVX320 | AVX320 | AVX320 | AVX312 | AVX651 |
| °       | °                   | V, Z                                 | AVX320 | AVX320 | AVX309 | AVX309 | AVX309 | AVX312 | AVX651 |
| °       | M                   | J, K, U, V, W, Z                     | AVX320 | AVX320 | AVX309 | AVX309 | AVX309 | AVX312 | AVX651 |
| °       | N                   | °, J, K, U, W                        | AVX320 | AVX320 | AVX309 | AVX309 | AVX309 | AVX312 | AVX651 |
| °       | O                   | J, K, U, V, W, Z                     | AVX320 | AVX320 | AVX309 | AVX309 | AVX309 | AVX312 | AVX651 |
| °       | P                   | °, J, K, U, W                        | AVX320 | AVX320 | AVX309 | AVX309 | AVX309 | AVX312 | AVX651 |
| °       | N, P                | V, Z                                 | AVX309 | AVX309 | AVX310 | AVX310 | AVX310 | AVX312 | AVX651 |
| L       | °                   | °                                    | AVX309 | AVX309 | AVX310 | AVX303 | AVX303 | AVX310 | AVX314 |
| L       | °                   | J, K, U, W                           | AVX321 | AVX321 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | M, O                | °                                    | AVX321 | AVX321 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | °                   | V, Z                                 | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | M                   | J, K, U, W                           | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | N                   | °                                    | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | O                   | J, K, U, W                           | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | P                   | °                                    | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX651 | AVX652 |
| L       | M                   | V, Z                                 | AVX311 | AVX311 | AVX312 | AVX312 | AVX651 | AVX651 | AVX652 |
| L       | N                   | J, K, U, W                           | AVX311 | AVX311 | AVX312 | AVX312 | AVX651 | AVX651 | AVX652 |
| L       | O                   | V, Z                                 | AVX311 | AVX311 | AVX312 | AVX312 | AVX651 | AVX651 | AVX652 |
| L       | P                   | J, K, U, W                           | AVX311 | AVX311 | AVX312 | AVX312 | AVX651 | AVX651 | AVX652 |
| L       | N, P                | V, Z                                 | AVX312 | AVX312 | AVX312 | AVX310 | AVX651 | AVX651 | AVX652 |

| Version | System side - pumps | Integrated hydronic kit, source side | 0904   | 1004   | 1254   | 1404   | 1504   | 1654   |
|---------|---------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                                    | AVX314 | AVX316 | AVX316 | AVX315 | AVX330 | AVX330 |
| °       | °                   | J, K, U, W                           | AVX655 | AVX653 | AVX654 | AVX654 | AVX334 | AVX337 |
| °       | M, N, O             | °                                    | AVX655 | AVX653 | AVX654 | AVX654 | AVX334 | AVX337 |
| °       | °                   | V, Z                                 | AVX655 | AVX653 | AVX654 | AVX654 | AVX337 | -      |
| °       | M, O                | J, K, U, W                           | AVX665 | AVX653 | AVX654 | AVX654 | AVX337 | AVX335 |
| °       | M, O                | V, Z                                 | AVX655 | AVX653 | AVX654 | AVX654 | AVX340 | -      |
| °       | N                   | J, K, U, W                           | AVX665 | AVX653 | AVX654 | AVX654 | AVX340 | AVX335 |
| °       | N                   | V, Z                                 | AVX665 | AVX653 | AVX654 | AVX654 | AVX335 | -      |
| °       | P                   | °                                    | AVX655 | AVX653 | AVX654 | AVX654 | -      | -      |
| °       | P                   | J, K, U, V, W, Z                     | AVX665 | AVX653 | AVX654 | AVX654 | -      | -      |
| L       | °                   | °                                    | AVX314 | AVX315 | AVX315 | AVX317 | AVX331 | AVX331 |
| L       | °                   | J, K, U, W                           | AVX653 | AVX654 | AVX659 | AVX659 | AVX335 | AVX338 |
| L       | M, O                | °                                    | AVX653 | AVX654 | AVX659 | AVX659 | AVX335 | AVX338 |
| L       | °                   | V, Z                                 | AVX653 | AVX654 | AVX659 | AVX659 | AVX338 | -      |
| L       | M                   | J, K, U, W                           | AVX653 | AVX654 | AVX659 | AVX659 | AVX338 | AVX339 |
| L       | N                   | °                                    | AVX653 | AVX654 | AVX659 | AVX659 | AVX338 | AVX339 |
| L       | O                   | J, K, U, W                           | AVX653 | AVX654 | AVX659 | AVX659 | AVX338 | AVX339 |
| L       | M, N, O             | V, Z                                 | AVX653 | AVX654 | AVX659 | AVX659 | AVX339 | -      |
| L       | N                   | J, K, U, W                           | AVX653 | AVX654 | AVX659 | AVX659 | AVX339 | AVX341 |
| L       | P                   | °, J, K, U, V, W, Z                  | AVX653 | AVX654 | AVX659 | AVX659 | -      | -      |

- not available

## PR4

| Model | Ver | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Power factor correction

| Ver | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  | 0904  | 1004  | 1254  | 1404  | 1504  | 1654  |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| °L  | RIF98 | RIF98 | RIF95 | RIF95 | RIF95 | RIF95 | RIF95 | RIF96 | RIF97 | RIF97 | RIF97 | RIF97 | RIF97 |

A grey background indicates the accessory must be assembled in the factory

## Device for peak current reduction

| Ver | 0503       | 0553       | 0604       | 0654       | 0704       | 0754       | 0804       | 0904       | 1004        | 1254        | 1404        | 1504        | 1654        |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
| °L  | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) | DRE751 (1) | DRE801 (1) | DRE901 (1) | DRE1001 (1) | DRE1251 (1) | DRE1401 (1) | DRE1500 (1) | DRE1650 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | NXW  |
| 4,5,6,7 | Size<br>0503, 0553, 0604, 0654, 0704, 0754, 0804, 0904, 1004, 1254, 1404, 1504, 1654 |
| 8       | Operating field  |
| X       | Electronic thermostatic expansion valve  |
| Y       | Low temperature mechanic thermostatic valve (1)                                      |
| °       | Standard mechanic thermostatic valve (2)   |
| 9       | Model  |
| K       | Heat pump reversible on the water side with low pressure drops (3)                   |
| °       | Heat pump reversible on the water side   |
| 10      | Version  |
| °       | Standard   |
| L       | Standard silenced  |
| 11      | Evaporator   |
| E       | Evaporating unit (4)   |
| °       | Standard   |
| 12      | Heat recovery  |
| D       | With desuperheater (5)   |
| T       | With total recovery (6)  |
| °       | Without heat recovery  |
| 13      | Power supply   |
| 5       | 500V ~ 3 50Hz with magnet circuit breakers (7)                                       |
| °       | 400V ~ 3 50Hz with magnet circuit breakers   |
| 14      | System side - pumps  |
| M       | Single pump low head   |
| N       | Pump low head + stand-by pump  |
| O       | Single pump high head  |
| P       | Pump high head + stand-by pump (8)   |
| °       | Without hydronic kit   |
| 15      | Integrated hydronic kit, source side   |
| J       | Single low-head inverter pump (8)  |
| K       | Single high-head inverter pump (8)   |
| U       | Single pump low head   |
| V       | Pump low head + stand-by pump (9)  |
| W       | Pump high head   |
| Z       | Pump high head + stand-by pump (9)   |
| °       | Without hydronic kit   |

(1) Water produced from 4 °C ÷ -10 °C; for the availability with the heat recovery we advise you to contact us

(2) Water produced from 4 °C ÷ 18 °C

(3) Only for sizes from 0704 ÷ 0904

(4) Shipped with holding charge only.

(5) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower

than 35°C must always be guaranteed on the heat exchanger inlet.

(6) Options not available for condensing unit, and for models with pump/s

(7) Only for 0804 ÷ 1004 sizes

(8) Not available for size 1504 ÷ 1654

(9) Not available for size 1654

## PERFORMANCE SPECIFICATIONS

| Size   |    |     | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  | 0904  | 1004  | 1254  | 1404   | 1504   | 1654   |
|--|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |    |     |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity                             | °L | kW  | 111,8 | 120,7 | 148,7 | 166,7 | 188,7 | 222,7 | 257,6 | 291,6 | 325,7 | 354,6 | 384,6  | 453,9  | 511,4  |
| Input power                                  | °L | kW  | 23,0  | 24,8  | 30,6  | 34,4  | 38,9  | 45,6  | 53,0  | 60,3  | 66,5  | 72,6  | 78,7   | 92,3   | 104,0  |
| Cooling total input current                  | °L | A   | 48,0  | 51,0  | 58,0  | 63,0  | 86,0  | 94,0  | 102,0 | 120,0 | 138,0 | 140,0 | 143,0  | 160,0  | 178,0  |
| EER  | °L | W/W | 4,87  | 4,86  | 4,86  | 4,85  | 4,85  | 4,88  | 4,86  | 4,84  | 4,90  | 4,88  | 4,89   | 4,92   | 4,92   |
| Water flow rate source side                  | °L | l/h | 23047 | 24886 | 30656 | 34332 | 38866 | 45790 | 52970 | 60075 | 67065 | 73041 | 79190  | 93374  | 105103 |
| Pressure drop source side                    | °L | kPa | 25    | 29    | 29    | 37    | 37    | 45    | 60    | 38    | 29    | 34    | 36     | 36     | 47     |
| Water flow rate system side                  | °L | l/h | 19243 | 20789 | 25600 | 28692 | 32472 | 38314 | 44327 | 50169 | 56011 | 60993 | 66147  | 78063  | 87938  |
| Pressure drop system side                    | °L | kPa | 30    | 35    | 32    | 40    | 43    | 47    | 49    | 55    | 35    | 36    | 36     | 36     | 40     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |    |     |       |       |       |       |       |       |       |       |       |       |        |        |        |
| Heating capacity                             | °L | kW  | 127,6 | 137,8 | 170,0 | 190,3 | 215,4 | 253,7 | 293,5 | 332,9 | 371,5 | 404,7 | 438,7  | 517,1  | 582,0  |
| Input power                                  | °L | kW  | 27,6  | 29,9  | 36,3  | 40,9  | 46,4  | 54,5  | 63,3  | 72,3  | 79,0  | 86,2  | 93,3   | 109,5  | 123,4  |
| Heating total input current                  | °L | A   | 57,0  | 60,0  | 68,0  | 73,0  | 100,0 | 109,0 | 119,0 | 140,0 | 161,0 | 163,0 | 166,0  | 186,0  | 207,0  |
| COP  | °L | W/W | 4,62  | 4,61  | 4,69  | 4,66  | 4,64  | 4,66  | 4,64  | 4,60  | 4,70  | 4,69  | 4,70   | 4,72   | 4,71   |
| Water flow rate source side                  | °L | l/h | 29340 | 31697 | 39235 | 43975 | 49768 | 58721 | 67938 | 76891 | 85844 | 93480 | 101380 | 119642 | 134776 |
| Pressure drop source side                    | °L | kPa | 70    | 81    | 75    | 94    | 101   | 110   | 115   | 129   | 82    | 85    | 85     | 85     | 94     |
| Water flow rate system side                  | °L | l/h | 22142 | 23905 | 29490 | 33021 | 37384 | 44030 | 50933 | 57790 | 64513 | 70265 | 76175  | 89802  | 101065 |
| Pressure drop system side                    | °L | kPa | 23    | 27    | 27    | 34    | 34    | 42    | 55    | 35    | 27    | 31    | 33     | 33     | 43     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |    |     | 0503   | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   | 0904   | 1004   | 1254   | 1404   | 1504   | 1654   |
|--|----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | °L | W/W | 5,50   | 5,85   | 5,79   | 5,77   | 5,84   | 5,81   | 5,52   | 6,30   | 6,42   | 6,37   | 6,38   | 6,49   | 6,48   |
| Seasonal efficiency  | °L | %   | 217,0% | 231,0% | 228,6% | 227,8% | 230,6% | 229,4% | 217,8% | 248,8% | 253,8% | 251,6% | 252,0% | 256,4% | 256,2% |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b>  |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | °  | W/W | -      | -      | -      | -      | -      | -      | -      | 7,90   | 7,90   | 7,80   | 7,80   | 8,00   | 8,00   |
|  | L  | W/W | -      | -      | -      | -      | -      | -      | -      | 7,93   | 7,90   | 7,78   | 7,80   | 8,00   | 8,02   |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)</b> |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | °L | kW  | 164    | 177    | 218    | 244    | 277    | 326    | 377    | -      | -      | -      | -      | -      | -      |
| SCOP   | °L | W/W | 5,10   | 5,05   | 5,18   | 5,10   | 5,10   | 5,10   | 5,08   | -      | -      | -      | -      | -      | -      |
| ηsh  | °L | %   | 196,0% | 194,0% | 199,0% | 196,0% | 196,0% | 196,0% | 195,0% | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |    |   | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  | 0904  | 1004  | 1254  | 1404  | 1504  | 1654  |
|-----------------------|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |    |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °L | A | 75,0  | 80,0  | 96,0  | 107,0 | 122,0 | 146,0 | 169,0 | 193,0 | 217,0 | 231,0 | 248,0 | 267,0 | 296,0 |
| Peak current (LRA)    | °L | A | 240,0 | 245,0 | 227,0 | 238,0 | 289,0 | 319,0 | 341,0 | 398,0 | 422,0 | 490,0 | 504,0 | 601,0 | 630,0 |

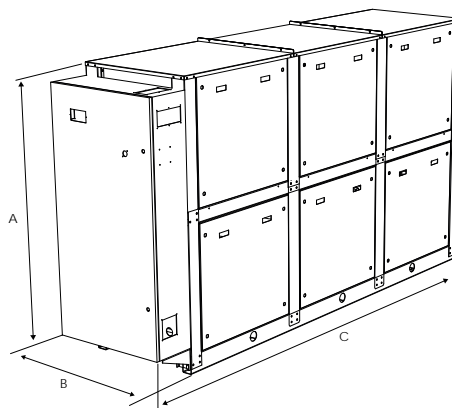
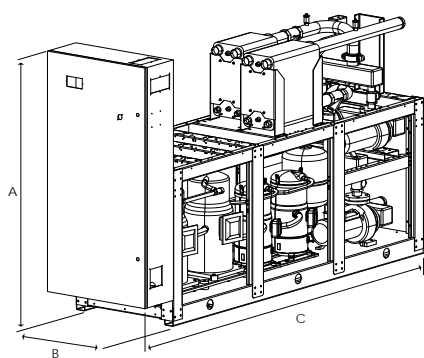
## GENERAL TECHNICAL DATA

| Size   |    |       | 0503           | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   | 0904   | 1004 | 1254 | 1404 | 1504 | 1654 |
|--|----|-------|----------------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|
| <b>Compressor</b>                                |    |       |                |        |        |        |        |        |        |        |      |      |      |      |      |
| Type   | °L | type  | Scroll         |        |        |        |        |        |        |        |      |      |      |      |      |
| Compressor regulation                            | °L | Type  | On-Off         |        |        |        |        |        |        |        |      |      |      |      |      |
| Number   | °L | no.   | 3              | 3      | 4      | 4      | 4      | 4      | 4      | 4      | 4    | 4    | 4    | 4    | 4    |
| Circuits   | °L | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | °L | type  | R410A          |        |        |        |        |        |        |        |      |      |      |      |      |
| Refrigerant charge (1)                           | °L | kg    | 13,2           | 12,5   | 15,6   | 15,6   | 18,0   | 22,0   | 26,0   | 33,0   | 38,0 | 44,0 | 44,0 | 46,0 | 53,0 |
| <b>Source side heat exchanger</b>                |    |       |                |        |        |        |        |        |        |        |      |      |      |      |      |
| Type   | °L | type  | Braze plate    |        |        |        |        |        |        |        |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | °L | Type  | Grooved joints |        |        |        |        |        |        |        |      |      |      |      |      |
| Size (in)  | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"     | 3"   | 3"   | 3"   | 3"   | 3"   |
| Size (out)                                       | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"     | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>System side heat exchanger</b>                |    |       |                |        |        |        |        |        |        |        |      |      |      |      |      |
| Type   | °L | type  | Braze plate    |        |        |        |        |        |        |        |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | °L | Type  | Grooved joints |        |        |        |        |        |        |        |      |      |      |      |      |
| Size (in)  | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   |
| Size (out)                                       | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>Sound data calculated in cooling mode (2)</b> |    |       |                |        |        |        |        |        |        |        |      |      |      |      |      |
| Sound power level                                | °  | dB(A) | 78,0           | 79,0   | 79,0   | 80,0   | 82,0   | 86,0   | 88,0   | 88,0   | 88,0 | 90,0 | 90,0 | 93,0 | 95,0 |
|  | L  | dB(A) | 72,0           | 73,0   | 73,0   | 74,0   | 76,0   | 80,0   | 82,0   | 82,0   | 82,0 | 84,0 | 84,0 | 86,0 | 87,0 |
| Sound pressure level (10 m)                      | °  | dB(A) | 46,4           | 47,4   | 47,4   | 48,4   | 50,4   | 54,3   | 56,3   | 56,3   | 56,3 | 58,3 | 58,3 | 61,3 | 63,3 |
|  | L  | dB(A) | 40,3           | 41,3   | 41,3   | 42,3   | 44,3   | 48,3   | 50,3   | 50,3   | 50,3 | 52,3 | 52,3 | 54,3 | 55,3 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                                      |     |    | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|---|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>             |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °   | mm | 1835 | 1835 | 1835 | 1835 | 1835 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
|   | L   | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 |
| B   | °/L | mm | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  |
| C   | °   | mm | 1795 | 1795 | 1795 | 1795 | 1795 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
|   | L   | mm | 2090 | 2090 | 2090 | 2090 | 2090 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
| <b>Dimensions and weights with pump/s</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °   | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
|   | L   | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 |
| B   | °/L | mm | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  |
| C   | °/L | mm | 3020 | 3020 | 3020 | 3020 | 3020 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 |
| <b>Dimensions and weights</b>             |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                              | °   | kg | 578  | 582  | 682  | 690  | 727  | 882  | 989  | 1180 | 1417 | 1461 | 1539 | 1613 | 1721 |
|   | L   | kg | 750  | 755  | 854  | 863  | 900  | 1054 | 1187 | 1378 | 1615 | 1659 | 1737 | 1811 | 1919 |

The weight of the unit does not include the hydronic kit and accessories.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## NXW

## Reversible water-cooled heat pump, gas side

Cooling capacity 106 ÷ 477 kW  
Heating capacity 125 ÷ 565 kW

- Installation versatility also for geothermal applications.
- Options of 1 or 2 pumps on both source and user side.
- Production of hot water up to 55 °C



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. These are indoor units with hermetic scroll compressors, system side heat exchanger and plate source. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Option integrated hydronic kit, source and user side

Possibility of integrated hydronic kit containing the main hydraulic components and available with various configurations.

### CONTROL PCO

Microprocessor adjustment, with display LCD which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the adjustment includes complete management of the alarms and their log.

You also have the possibility to:

- Check two units in parallel Master-Slave
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with the RS485 communication interface when the serial port is occupied by another device.*

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 |
|------------------|-----|------|------|------|------|------|------|------|
| AER485P1         | °L  | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °L  | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °L  | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °L  | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °L  | *    | *    | *    | *    | *    | *    | *    |

| Model            | Ver | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|------------------|-----|------|------|------|------|------|------|
| AER485P1         | °L  | *    | *    | *    | *    | *    | *    |
| AERBACP          | °L  | *    | *    | *    | *    | *    | *    |
| AERNET           | °L  | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °L  | *    | *    | *    | *    | *    | *    |
| PGD1             | °L  | *    | *    | *    | *    | *    | *    |

## Antivibration

| Version | System side - pumps | Integrated hydronic kit, source side | 0503   | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   |
|---------|---------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                                    | AVX319 | AVX319 | AVX301 | AVX301 | AVX302 | AVX310 | AVX310 |
| °       | °                   | J, K, U, W                           | AVX320 | AVX320 | AVX320 | AVX309 | AVX309 | AVX651 | AVX651 |
| °       | M, O                | °                                    | AVX320 | AVX320 | AVX320 | AVX309 | AVX309 | AVX651 | AVX651 |
| °       | °                   | V, Z                                 | AVX320 | AVX320 | AVX303 | AVX309 | AVX311 | AVX651 | AVX651 |
| °       | M                   | J, K, U, W                           | AVX320 | AVX320 | AVX303 | AVX309 | AVX311 | AVX651 | AVX651 |
| °       | N                   | °                                    | AVX320 | AVX320 | AVX303 | AVX309 | AVX311 | AVX651 | AVX651 |
| °       | O                   | J, K, U, W                           | AVX320 | AVX320 | AVX303 | AVX309 | AVX311 | AVX651 | AVX651 |
| °       | P                   | °                                    | AVX320 | AVX320 | AVX303 | AVX309 | AVX311 | AVX651 | AVX651 |
| °       | M                   | V, Z                                 | AVX309 | AVX309 | AVX303 | AVX311 | AVX312 | AVX651 | AVX651 |
| °       | N                   | J, K, U, W                           | AVX309 | AVX309 | AVX303 | AVX311 | AVX312 | AVX651 | AVX651 |
| °       | O                   | V, Z                                 | AVX309 | AVX309 | AVX303 | AVX311 | AVX312 | AVX651 | AVX651 |
| °       | P                   | J, K, U, W                           | AVX309 | AVX309 | AVX303 | AVX311 | AVX312 | AVX651 | AVX651 |
| °       | N, P                | V, Z                                 | AVX309 | AVX309 | AVX312 | AVX312 | AVX312 | AVX651 | AVX651 |
| L       | °                   | °                                    | AVX309 | AVX309 | AVX310 | AVX303 | AVX304 | AVX314 | AVX314 |
| L       | °                   | J, K, U, W                           | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX652 | AVX665 |
| L       | M, O                | °                                    | AVX311 | AVX311 | AVX311 | AVX311 | AVX651 | AVX652 | AVX665 |
| L       | °                   | V, Z                                 | AVX311 | AVX311 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | M                   | J, K, U, W                           | AVX311 | AVX311 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | N                   | °                                    | AVX311 | AVX311 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | O                   | J, K, U, W                           | AVX311 | AVX311 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | P                   | °                                    | AVX311 | AVX311 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | M                   | V, Z                                 | AVX312 | AVX312 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | N                   | J, K, U, V, W, Z                     | AVX312 | AVX312 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | O                   | V, Z                                 | AVX312 | AVX312 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |
| L       | P                   | J, K, U, V, W, Z                     | AVX312 | AVX312 | AVX312 | AVX313 | AVX651 | AVX652 | AVX665 |

| Version | System side - pumps | Integrated hydronic kit, source side | 0904   | 1004   | 1254   | 1404   | 1504   | 1654   |
|---------|---------------------|--------------------------------------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                                    | AVX314 | AVX316 | AVX315 | AVX317 | AVX330 | AVX331 |
| °       | °                   | J, K, U, W                           | AVX665 | AVX654 | AVX654 | AVX654 | AVX337 | AVX336 |
| °       | M, O                | °                                    | AVX665 | AVX654 | AVX654 | AVX654 | AVX337 | AVX336 |
| °       | °                   | V, Z                                 | AVX665 | AVX654 | AVX654 | AVX654 | AVX336 | -      |
| °       | M                   | J, K, U, W                           | AVX665 | AVX654 | AVX654 | AVX654 | AVX336 | AVX335 |
| °       | N                   | °                                    | AVX665 | AVX654 | AVX654 | AVX654 | AVX336 | AVX335 |
| °       | O                   | J, K, U, W                           | AVX665 | AVX654 | AVX654 | AVX654 | AVX336 | AVX335 |
| °       | M, O                | V, Z                                 | AVX665 | AVX654 | AVX654 | AVX654 | AVX335 | -      |
| °       | N                   | J, K, U, W                           | AVX665 | AVX654 | AVX654 | AVX654 | AVX335 | AVX339 |
| °       | N                   | V, Z                                 | AVX665 | AVX654 | AVX654 | AVX654 | -      | -      |
| °       | P                   | °, J, K, U, V, W, Z                  | AVX665 | AVX654 | AVX654 | AVX654 | -      | -      |
| L       | °                   | °                                    | AVX315 | AVX317 | AVX317 | AVX318 | AVX331 | AVX333 |
| L       | °                   | J, K, U, W                           | AVX653 | AVX659 | AVX659 | AVX659 | AVX338 | AVX338 |
| L       | °                   | V, Z                                 | AVX653 | AVX659 | AVX659 | AVX659 | AVX338 | AVX341 |
| L       | M                   | °, J, K, U, W                        | AVX653 | AVX659 | AVX659 | AVX659 | AVX338 | AVX341 |
| L       | N                   | °                                    | AVX653 | AVX659 | AVX659 | AVX659 | AVX338 | AVX341 |
| L       | O                   | °, J, K, U, W                        | AVX653 | AVX659 | AVX659 | AVX659 | AVX338 | AVX341 |
| L       | M, O                | V, Z                                 | AVX653 | AVX659 | AVX659 | AVX659 | AVX339 | -      |
| L       | N                   | J, K, U, W                           | AVX653 | AVX659 | AVX659 | AVX659 | AVX339 | AVX341 |
| L       | N                   | V, Z                                 | AVX653 | AVX659 | AVX659 | AVX659 | AVX341 | -      |
| L       | P                   | °, J, K, U, V, W, Z                  | AVX653 | AVX659 | AVX659 | AVX659 | -      | -      |

- not available

## PR4

| Model | Ver | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|-------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Power factor correction

| Ver  | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  |
|------|-------|-------|-------|-------|-------|-------|-------|
| °, L | RIF98 | RIF98 | RIF95 | RIF95 | RIF95 | RIF95 | RIF95 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 0904  | 1004  | 1254  | 1404  | 1504  | 1654  |
|------|-------|-------|-------|-------|-------|-------|
| °, L | RIF96 | RIF97 | RIF97 | RIF97 | RIF97 | RIF97 |

A grey background indicates the accessory must be assembled in the factory

## Device for peak current reduction

| Ver  | 0503       | 0553       | 0604       | 0654       | 0704       | 0754       | 0804       |
|------|------------|------------|------------|------------|------------|------------|------------|
| °, L | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) | DRE751 (1) | DRE801 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 0904       | 1004        | 1254        | 1404        | 1504        | 1654        |
|------|------------|-------------|-------------|-------------|-------------|-------------|
| °, L | DRE901 (1) | DRE1001 (1) | DRE1251 (1) | DRE1401 (1) | DRE1500 (1) | DRE1650 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NXW</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0503, 0553, 0604, 0654, 0704, 0754, 0804, 0904, 1004, 1254, 1404, 1504, 1654 |
| <b>8</b>       | <b>Operating field (1)</b>  |
| X              | Electronic thermostatic expansion valve   |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>Model</b>  |
| H              | Heat pump   |
| <b>10</b>      | <b>Version</b>  |
| °              | Standard  |
| L              | Standard silenced   |
| <b>11</b>      | <b>Evaporator</b>   |
| °              | Standard  |
| <b>12</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (2)  |
| °              | Without heat recovery   |
| <b>13</b>      | <b>Power supply</b>   |
| 5              | 500V ~ 3 50Hz with magnet circuit breakers (3)  |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>14</b>      | <b>System side - pumps</b>  |
| M              | Single pump low head  |
| N              | Pump low head + stand-by pump   |
| O              | Single pump high head   |
| P              | Pump high head + stand-by pump (4)  |
| °              | Without hydronic kit  |
| <b>15</b>      | <b>Integrated hydronic kit, source side</b>   |
| J              | Single low-head inverter pump   |
| K              | Single high-head inverter pump  |
| U              | Single pump low head  |
| V              | Pump low head + stand-by pump (5)   |
| W              | Pump high head  |
| Z              | Pump high head + stand-by pump (5)  |
| °              | Without hydronic kit  |

(1) Water produced from 4 °C ÷ 18 °C

(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(3) Only for 0804 ÷ 1004 sizes

(4) The hydronic kit P is not available for sizes 1504 and 1654

(5) The hydronic kits V and Z are not available for size 1654

## PERFORMANCE SPECIFICATIONS

| Size   |    |     | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  | 0904  | 1004  | 1254  | 1404  | 1504   | 1654   |
|--|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |    |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                             | °L | kW  | 105,9 | 113,8 | 140,8 | 159,8 | 180,7 | 211,6 | 242,7 | 277,7 | 313,6 | 341,7 | 369,7 | 423,6  | 477,0  |
| Input power                                  | °L | kW  | 23,8  | 25,7  | 31,1  | 35,3  | 40,2  | 47,1  | 54,2  | 62,2  | 70,4  | 76,6  | 82,7  | 94,8   | 106,7  |
| Cooling total input current                  | °L | A   | 49,0  | 52,0  | 60,0  | 65,0  | 87,0  | 95,0  | 104,0 | 122,0 | 140,0 | 144,0 | 147,0 | 164,0  | 183,0  |
| EER  | °L | W/W | 4,45  | 4,43  | 4,52  | 4,52  | 4,50  | 4,49  | 4,47  | 4,47  | 4,45  | 4,46  | 4,47  | 4,47   | 4,47   |
| Water flow rate source side                  | °L | l/h | 22173 | 23854 | 29402 | 33334 | 37744 | 44198 | 50635 | 58078 | 65694 | 71514 | 77333 | 88547  | 99702  |
| Pressure drop source side                    | °L | kPa | 25    | 29    | 28    | 35    | 35    | 42    | 55    | 36    | 28    | 32    | 34    | 41     | 44     |
| Water flow rate system side                  | °L | l/h | 18212 | 19586 | 24225 | 27490 | 31098 | 36424 | 41750 | 47764 | 53949 | 58759 | 63570 | 72837  | 82027  |
| Pressure drop system side                    | °L | kPa | 17    | 20    | 19    | 24    | 24    | 29    | 38    | 24    | 19    | 22    | 24    | 29     | 30     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |    |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity                             | °L | kW  | 125,4 | 135,8 | 165,8 | 187,6 | 210,4 | 269,6 | 310,2 | 325,2 | 365,6 | 399,8 | 434,0 | 500,6  | 565,2  |
| Input power                                  | °L | kW  | 27,9  | 30,2  | 36,8  | 41,8  | 46,9  | 55,6  | 64,6  | 72,6  | 80,8  | 88,6  | 96,4  | 111,2  | 124,9  |
| Heating total input current                  | °L | A   | 54,0  | 57,0  | 66,0  | 72,0  | 94,0  | 105,0 | 115,0 | 135,0 | 154,0 | 160,0 | 165,0 | 181,0  | 202,0  |
| COP  | °L | W/W | 4,49  | 4,49  | 4,51  | 4,49  | 4,48  | 4,85  | 4,80  | 4,48  | 4,52  | 4,51  | 4,50  | 4,50   | 4,52   |
| Water flow rate source side                  | °L | l/h | 28545 | 30928 | 37776 | 42774 | 47928 | 62567 | 71944 | 74067 | 83306 | 91109 | 98905 | 114256 | 129207 |
| Pressure drop source side                    | °L | kPa | 43    | 49    | 46    | 58    | 58    | 46    | 61    | 58    | 46    | 52    | 58    | 66     | 71     |
| Water flow rate system side                  | °L | l/h | 21762 | 23561 | 28776 | 32552 | 36508 | 46797 | 53844 | 56470 | 63485 | 69420 | 75355 | 86926  | 98135  |
| Pressure drop system side                    | °L | kPa | 24    | 28    | 26    | 33    | 32    | 31    | 40    | 33    | 26    | 30    | 32    | 41     | 43     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |    |     | 0503   | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   | 0904   | 1004   | 1254   | 1404   | 1504   | 1654   |
|--|----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | °L | W/W | 5,39   | 5,38   | 5,53   | 5,60   | 5,38   | 5,60   | 5,27   | 5,77   | 5,88   | 5,94   | 5,97   | 6,43   | 6,44   |
| Seasonal efficiency  | °L | %   | 212,6% | 212,2% | 218,2% | 221,0% | 212,2% | 221,0% | 207,8% | 227,8% | 232,2% | 234,5% | 235,6% | 254,2% | 254,7% |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b>  |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | °L | W/W | -      | -      | -      | -      | -      | -      | -      | 7,03   | 7,06   | 7,06   | 7,03   | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)</b> |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | °L | kW  | 161    | 175    | 213    | 241    | 271    | 320    | 368    | -      | -      | -      | -      | -      | -      |
| SCOP   | °L | W/W | 4,95   | 4,93   | 4,95   | 4,93   | 4,93   | 4,90   | 4,80   | -      | -      | -      | -      | -      | -      |
| ηsh  | °L | %   | 190,0% | 189,0% | 190,0% | 189,0% | 189,0% | 188,0% | 184,0% | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |    |   | 0503  | 0553  | 0604  | 0654  | 0704  | 0754  | 0804  | 0904  | 1004  | 1254  | 1404  | 1504  | 1654  |
|-----------------------|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |    |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °L | A | 75,0  | 80,0  | 96,0  | 107,0 | 122,0 | 146,0 | 169,0 | 193,0 | 217,0 | 231,0 | 248,0 | 267,0 | 296,0 |
| Peak current (LRA)    | °L | A | 240,0 | 245,0 | 227,0 | 238,0 | 289,0 | 319,0 | 341,0 | 398,0 | 422,0 | 490,0 | 504,0 | 601,0 | 630,0 |

## GENERAL TECHNICAL DATA

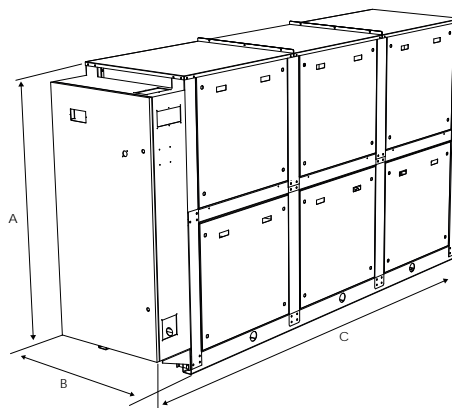
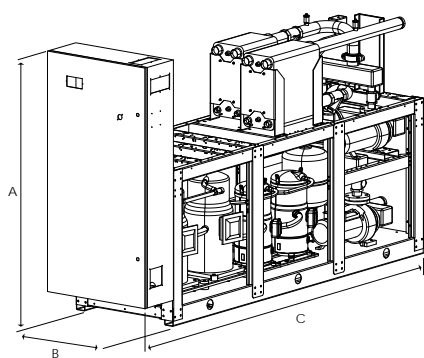
| Size   |    |       | 0503           | 0553   | 0604   | 0654   | 0704   | 0754   | 0804   | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|--|----|-------|----------------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|
| <b>Compressor</b>                                |    |       |                |        |        |        |        |        |        |      |      |      |      |      |      |
| Type   | °L | type  | Scroll         |        |        |        |        |        |        |      |      |      |      |      |      |
| Compressor regulation                            | °L | Type  | On-Off         |        |        |        |        |        |        |      |      |      |      |      |      |
| Number   | °L | no.   | 3              | 3      | 4      | 4      | 4      | 4      | 4      | 4    | 4    | 4    | 4    | 4    | 4    |
| Circuits   | °L | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | °L | type  | R410A          |        |        |        |        |        |        |      |      |      |      |      |      |
| Refrigerant charge (1)                           | °L | kg    | 13,0           | 13,0   | 17,0   | 17,0   | 20,0   | 22,0   | 26,0   | 36,0 | 54,0 | 54,0 | 58,0 | 60,0 | 62,0 |
| <b>Source side heat exchanger</b>                |    |       |                |        |        |        |        |        |        |      |      |      |      |      |      |
| Type   | °L | type  | Brazed plate   |        |        |        |        |        |        |      |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | °L | Type  | Grooved joints |        |        |        |        |        |        |      |      |      |      |      |      |
| Size (in)  | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| Size (out)                                       | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>System side heat exchanger</b>                |    |       |                |        |        |        |        |        |        |      |      |      |      |      |      |
| Type   | °L | type  | Brazed plate   |        |        |        |        |        |        |      |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | °L | Type  | Grooved joints |        |        |        |        |        |        |      |      |      |      |      |      |
| Size (in)  | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| Size (out)                                       | °L | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>Sound data calculated in cooling mode (2)</b> |    |       |                |        |        |        |        |        |        |      |      |      |      |      |      |
| Sound power level                                | °  | dB(A) | 78,0           | 79,0   | 79,0   | 80,0   | 82,0   | 86,0   | 88,0   | 88,0 | 88,0 | 90,0 | 90,0 | 93,0 | 95,0 |
|  | L  | dB(A) | 72,0           | 73,0   | 73,0   | 74,0   | 76,0   | 80,0   | 82,0   | 82,0 | 82,0 | 84,0 | 84,0 | 86,0 | 87,0 |
| Sound pressure level (10 m)                      | °  | dB(A) | 46,4           | 47,4   | 47,4   | 48,4   | 50,4   | 54,3   | 56,3   | 56,3 | 56,3 | 58,3 | 58,3 | 61,3 | 63,3 |
|  | L  | dB(A) | 40,3           | 41,3   | 41,3   | 42,3   | 44,3   | 48,3   | 50,3   | 50,3 | 50,3 | 52,3 | 52,3 | 54,3 | 55,3 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).



## DIMENSIONS



| Size                                      |     |    | 0503 | 0553 | 0604 | 0654 | 0704 | 0754 | 0804 | 0904 | 1004 | 1254 | 1404 | 1504 | 1654 |
|---|-----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>             |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °   | mm | 1835 | 1835 | 1835 | 1835 | 1835 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
|   | L   | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 |
| B   | °/L | mm | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  |
| C   | °   | mm | 1795 | 1795 | 1795 | 1795 | 1795 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
|   | L   | mm | 2090 | 2090 | 2090 | 2090 | 2090 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 | 2420 |
| <b>Dimensions and weights with pump/s</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °   | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1775 | 1820 | 1820 | 1820 | 1820 | 1820 | 1820 |
|   | L   | mm | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 | 1885 |
| B   | °/L | mm | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  | 800  |
| C   | °/L | mm | 3020 | 3020 | 3020 | 3020 | 3020 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 | 3480 |
| <b>Dimensions and weights</b>             |     |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                              | °   | kg | 628  | 633  | 734  | 743  | 791  | 948  | 1042 | 1275 | 1545 | 1577 | 1657 | 1687 | 1825 |
|   | L   | kg | 801  | 805  | 907  | 915  | 963  | 1121 | 1240 | 1473 | 1743 | 1774 | 1855 | 1885 | 2023 |

The weight of the unit does not include the hydronic kit and accessories.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NGW 0500-2600

## Water cooled heat pump reversible water side

Cooling capacity 116,3 ÷ 790,2 kW  
Heating capacity 131,3 ÷ 904,6 kW

- Production of hot water up to 60 °C
- Options of 1 or 2 pumps on both source and user side.
- Reversible on hydraulic side in heat pump



### DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications. Units with hermetic scroll compressors and plate heat exchangers. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### FEATURES

#### Operating field

Full load functioning with production of chilled water from -2 to 20 °C, with the possibility of also producing water at negative temperatures down to -10 °C at the evaporator and hot water at the condenser up to 60 °C. (for more information, refer to the technical documentation).

#### Compressors

The compressors, optimised for low compression ratios in tandem and trio two-circuit configuration, ensure high efficiency especially at part loads, enabling them to exceed the minimum seasonal energy efficiency requirements for the design of low energy systems in both winter and summer.

#### Dual-circuit unit

The units are two-circuit to ensure continuity of operation in case one of the circuits fails.

#### Option integrated hydronic kit, source and user side

The hydronic kit is available in different configurations with one or two pumps, both on the evaporator and condenser side, in order to have a cost-saving solution that also facilitates final installation.

#### Refrigerant HFC R32

Thanks to the R32 refrigerant (A2L slightly flammable), the environmental impact of the units is significantly reduced. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

The unit is fitted with:

- Refrigerant gas detector and safety valves with exchange valve as standard
- Electrical control board completely separate from compressor compartment
- Only the version with hood is available

The machine can be installed in class 3 areas according to EN 378-3.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

#### CONTROL

Microprocessor control, complete with a 6-button multifunction keypad for simple and intuitive navigation between the various screens, making it possible to edit the operating parameters and fully manage alarms and their history.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

#### ACCESSORIES

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**SI485:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AVX:** Spring anti-vibration supports.

**SAENGW:** External air probe for climate control curve.

**KITFILTRO\_2"1/2:** The kit, supplied in a wooden crate, contains all the necessary elements for quick and efficient installation: water filter, 2"1/2 flexible coupling and insulation shell.

**KITFILTRO\_4":** The kit, supplied in a wooden crate, contains all the necessary elements for quick and efficient installation: Y-water filter, 4" pipe, flexible coupling and insulation shell.

**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signaling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with SI485 communication interface when the serial port is occupied by another device.*

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model            | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AERNET           | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SI485            | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with SI485 communication interface when the serial port is occupied by another device.

### Antivibration

| Hydronic kit integrated on chilled water utility side | Integrated hydronic kit, source side   | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900   | 1000   |
|---|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 00  | 00   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 |
| 00  | IA, IB, IC, ID, IE, IF, IG, JA, JB, JC, JD, JE, JF, JG, UA, UB, UC, UD, UE, UF, UG, VA, VB, VC, VD, VE, VF, VG     | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 |
| DA, DB, DC, DD, DE, DF, DG                            | 00, IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 | AVX381 |
| PA, PB, PC, PD, PE, PF, PG                            | 00, IA, IB, IC, ID, IE, IF, IG, JA, JB, JC, JD, JE, JF, JG, UA, UB, UC, UD, UE, UF, UG, VA, VB, VC, VD, VE, VF, VG | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 | AVX381 |
| DA, DB, DC, DD, DE, DF, DG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX391 | AVX382 | AVX382 | AVX382 |
| Hydronic kit integrated on chilled water utility side | Integrated hydronic kit, source side   | 1200   | 1400   | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
| 00  | 00   | AVX389 | AVX389 | AVX389 | AVX389 | AVX389 | AVX393 | AVX390 | AVX390 | AVX390 |
| 00  | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX381 | AVX383 | AVX383 | AVX383 | AVX384 | AVX384 | AVX386 | AVX386 |
| PA, PB, PC, PD, PE, PF, PG                            | 00   | AVX381 | AVX381 | AVX383 | AVX383 | AVX383 | AVX384 | AVX384 | AVX386 | AVX386 |
| 00  | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | 00   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| PA, PB, PC, PD, PE, PF, PG                            | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX382 | AVX382 | AVX383 | AVX383 | AVX384 | AVX385 | AVX385 | AVX385 |
| PA, PB, PC, PD, PE, PF, PG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX381 | AVX382 | AVX382 | AVX383 | AVX383 | AVX384 | AVX385 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX382 | AVX382 | AVX382 | AVX392 | AVX392 | AVX385 | AVX385 | AVX385 | AVX387 |

**Device for peak current reduction**

| 0500       | 0550       | 0600       | 0650       | 0700       | 0750       | 0800       | 0900       | 1000       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| DRENGW0500 | DRENGW0550 | DRENGW0600 | DRENGW0650 | DRENGW0700 | DRENGW0750 | DRENGW0800 | DRENGW0900 | DRENGW1000 |

A grey background indicates the accessory must be assembled in the factory

| 1200       | 1400       | 1500       | 1600       | 1800       | 2000       | 2200       | 2450       | 2600       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| DRENGW1200 | DRENGW1400 | DRENGW1500 | DRENGW1600 | DRENGW1800 | DRENGW2000 | DRENGW2200 | DRENGW2450 | DRENGW2600 |

A grey background indicates the accessory must be assembled in the factory

**water filter kit**

| Model           | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| KITFILTRO_2"1/2 | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| Model           | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
| KITFILTRO_4"    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

**CONFIGURATOR****Configuration options**

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NGW</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1200, 1400, 1500, 1600, 1800, 2000, 2200, 2450, 2600 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model</b>  |
| °              | Heat pump reversible on the water side  |
| <b>10</b>      | <b>Evaporator</b>   |
| E              | Evaporating unit  |
| °              | Standard  |
| <b>11</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater  |
| °              | Without heat recovery   |
| <b>12</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>13,14</b>   | <b>Hydronic kit integrated on chilled water utility side</b>  |
| 00             | Without hydronic kit  |
|                | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA             | Pump A + stand-by pump (3)  |
| DB             | Pump B + stand-by pump (3)  |
| DC             | Pump C + stand-by pump (3)  |
| DD             | Pump D + stand-by pump (4)  |
| DE             | Pump E + stand-by pump (4)  |
| DF             | Pump F + stand-by pump (4)  |
| DG             | Pump G + stand-by pump (4)  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A (3)  |
| PB             | Pump B (3)  |
| PC             | Pump C (3)  |
| PD             | Pump D (4)  |
| PE             | Pump E (4)  |
| PF             | Pump F (4)  |
| PG             | Pump G (4)  |
| <b>15,16</b>   | <b>Integrated hydronic kit, source side</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 inverter pump to fixed speed</b>   |
| IA             | Pump A equipped with inverter device to work at fixed speed (3)   |
| IB             | Pump B equipped with inverter device to work at fixed speed (3)   |
| IC             | Pump C equipped with inverter device to work at fixed speed (3)   |
| ID             | Pump D equipped with inverter device to work at fixed speed (4)   |
| IE             | Pump E equipped with inverter device to work at fixed speed (4)   |
| IF             | Pump F equipped with inverter device to work at fixed speed (4)   |
| IG             | Pump G equipped with inverter device to work at fixed speed (4)   |
|                | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>   |
| JA             | Pump A+stand-by pump, both equipped with inverter to work at fixed speed (3)  |
| JB             | Pump B+stand-by pump, both equipped with inverter to work at fixed speed (3)  |
| JC             | Pump C+stand-by pump, both equipped with inverter to work at fixed speed (3)  |
| JD             | Pump D+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JE             | Pump E+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JF             | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JG             | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
|                | <b>Kit with n° 1 pump</b>   |
| UA             | Pump A (3)  |

| Field                                 | Description                |
|---------------------------------------|----------------------------|
| UB                                    | Pump B (3)                 |
| UC                                    | Pump C (3)                 |
| UD                                    | Pump D (4)                 |
| UE                                    | Pump E (4)                 |
| UF                                    | Pump F (4)                 |
| UG                                    | Pump G (4)                 |
| <b>Pump n° 1 pump + stand-by pump</b> |                            |
| VA                                    | Pump A + stand-by pump (3) |
| VB                                    | Pump B + stand-by pump (3) |
| VC                                    | Pump C + stand-by pump (3) |
| VD                                    | Pump D + stand-by pump (4) |
| VE                                    | Pump E + stand-by pump (4) |
| VF                                    | Pump F + stand-by pump (4) |
| VG                                    | Pump G + stand-by pump (4) |

(1) Water produced from -2 °C ÷ 20 °C  
(2) Water produced from -10 °C ÷ 10 °C

(3) Only for 0500 - 0750 sizes  
(4) Only for 0800 - 2600 sizes

## PERFORMANCE SPECIFICATIONS

| Size  |       | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500  | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b> |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | ° kW  | 116,3 | 126,3 | 142,0 | 157,8 | 174,4 | 208,3 | 242,3 | 272,8 | 310,2 | 333,6 | 385,4 | 430,0 | 488,0  | 532,0  | 614,8  | 703,9  | 747,1  | 790,2  |
| Input power                                 | ° kW  | 23,1  | 25,8  | 28,6  | 32,0  | 35,4  | 41,8  | 48,3  | 55,2  | 61,1  | 68,2  | 78,4  | 89,9  | 99,2   | 110,8  | 128,0  | 144,9  | 156,9  | 169,0  |
| Cooling total input current                 | ° A   | 46,0  | 50,0  | 56,0  | 63,0  | 69,0  | 82,0  | 92,0  | 102,0 | 112,0 | 122,0 | 139,0 | 158,0 | 174,0  | 193,0  | 223,0  | 252,0  | 271,0  | 290,0  |
| EER   | ° W/W | 5,02  | 4,91  | 4,97  | 4,93  | 4,93  | 4,98  | 5,02  | 4,94  | 5,08  | 4,89  | 4,92  | 4,78  | 4,92   | 4,80   | 4,80   | 4,86   | 4,76   | 4,67   |
| Water flow rate source side                 | ° l/h | 23858 | 26011 | 29172 | 32446 | 35868 | 42774 | 49770 | 56140 | 63592 | 68752 | 79371 | 88890 | 100428 | 109848 | 126942 | 145015 | 154345 | 163659 |
| Pressure drop source side                   | ° kPa | 26    | 30    | 33    | 33    | 35    | 35    | 23    | 27    | 23    | 28    | 30    | 38    | 36     | 42     | 45     | 49     | 56     | 63     |
| Water flow rate system side                 | ° l/h | 20000 | 21737 | 24440 | 27149 | 30009 | 35846 | 41678 | 46918 | 53358 | 57360 | 66276 | 73940 | 83902  | 91467  | 105717 | 121028 | 128461 | 135873 |
| Pressure drop system side                   | ° kPa | 18    | 21    | 23    | 23    | 25    | 25    | 15    | 19    | 16    | 20    | 21    | 27    | 25     | 30     | 32     | 35     | 39     | 43     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

| Size   |       | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Heating performance 40 °C / 45 °C (1)</b> |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Heating capacity                             | ° kW  | 131,3 | 144,6 | 160,4 | 178,4 | 197,7 | 236,2 | 275,0 | 308,6 | 348,8 | 377,8 | 437,4 | 490,5  | 553,8  | 606,7  | 700,9  | 800,5  | 852,7  | 904,6  |
| Input power                                  | ° kW  | 29,5  | 33,4  | 36,2  | 40,5  | 44,9  | 53,0  | 61,0  | 68,9  | 76,7  | 85,8  | 99,0  | 113,7  | 125,5  | 140,1  | 161,4  | 182,2  | 197,5  | 212,2  |
| COP  | ° W/W | 4,46  | 4,33  | 4,43  | 4,41  | 4,40  | 4,45  | 4,50  | 4,48  | 4,55  | 4,40  | 4,42  | 4,31   | 4,41   | 4,33   | 4,34   | 4,39   | 4,32   | 4,26   |
| Water flow rate system side                  | ° l/h | 22789 | 25088 | 27829 | 30948 | 34307 | 40989 | 47727 | 53585 | 60562 | 65594 | 75963 | 85177  | 96178  | 105356 | 121721 | 139011 | 148077 | 157091 |
| Pressure drop system side                    | ° kPa | 24    | 28    | 30    | 30    | 32    | 32    | 21    | 24    | 21    | 26    | 28    | 35     | 33     | 39     | 42     | 45     | 51     | 58     |
| Water flow rate source side                  | ° l/h | 29818 | 32608 | 36390 | 40424 | 44800 | 53701 | 62474 | 70101 | 79473 | 85435 | 99053 | 110507 | 125500 | 136976 | 158407 | 181617 | 192771 | 204032 |
| Pressure drop source side                    | ° kPa | 41    | 48    | 51    | 52    | 55    | 57    | 33    | 42    | 37    | 44    | 48    | 59     | 56     | 68     | 71     | 78     | 87     | 98     |

(1) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

### Energy index

| Size   |       | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900   | 1000   | 1200   | 1400   | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
|--|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° W/W | 7,45   | 7,37   | 7,46   | 7,57   | 7,62   | 7,15   | 7,68   | 7,47   | 7,83   | 7,76   | 7,90   | 7,73   | 7,98   | 7,71   | 7,93   | 7,93   | 7,80   | 7,63   |
| Seasonal efficiency  | ° %   | 295,1  | 291,8  | 295,4  | 299,9  | 301,9  | 282,9  | 304,2  | 295,7  | 310,2  | 307,3  | 313    | 306,3  | 316,3  | 305,4  | 314    | 314,1  | 309,1  | 302,1  |
| <b>SEER - 23/18 (EN 14825:2018)</b>  |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° W/W | 10,71  | 10,82  | 10,79  | 11,02  | 11,06  | 9,83   | 10,66  | 10,29  | 11,04  | 10,96  | 11,37  | 11,04  | 11,80  | 11,35  | 11,68  | 12,21  | 11,84  | 11,43  |
| Seasonal efficiency  | ° %   | 425,30 | 429,80 | 428,50 | 437,90 | 439,20 | 390,20 | 423,30 | 408,50 | 438,50 | 435,50 | 451,70 | 438,80 | 469,00 | 451,10 | 464,00 | 485,20 | 470,50 | 454,10 |
| <b>SEPR - (EN 14825:2018) High temperature (2)</b>   |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | ° W/W | 7,71   | 7,60   | 7,81   | 7,80   | 7,54   | 7,38   | 7,76   | 7,52   | 7,93   | 7,66   | 7,89   | 7,41   | 7,84   | 7,50   | 7,86   | 7,74   | 7,62   | 7,42   |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° W/W | 6,71   | 6,61   | 6,51   | 6,62   | 6,84   | 6,60   | 7,03   | 6,85   | 7,06   | 6,86   | 6,96   | 6,71   | 6,83   | 6,67   | 6,63   | 7,01   | 6,79   | 6,73   |
| ηsh  | ° %   | 260,20 | 256,30 | 252,50 | 256,60 | 265,40 | 255,80 | 273,00 | 265,80 | 274,20 | 266,50 | 270,30 | 260,50 | 265,30 | 258,90 | 257,20 | 272,40 | 263,70 | 261,30 |
| Pdesignh   | ° kW  | 138    | 151    | 169    | 187    | 207    | 247    | 287    | 324    | 367    | 397    | 458    | 513    | 579    | 634    | 732    | 836    | 890    | 943    |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (4)</b> |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | ° W/W | 4,91   | 4,78   | 4,82   | 4,93   | 4,93   | 4,80   | 5,04   | 4,96   | 5,00   | 4,85   | 4,93   | 4,80   | 4,86   | 4,74   | 4,83   | 5,40   | 5,31   | 5,27   |
| ηsh  | ° %   | 188,50 | 183,30 | 184,90 | 189,30 | 189,00 | 184,10 | 193,70 | 190,20 | 191,80 | 186,00 | 189,30 | 184,10 | 186,20 | 181,50 | 185,20 | 207,90 | 204,20 | 202,60 |
| Pdesignh   | ° kW  | 128    | 141    | 156    | 174    | 192    | 229    | 267    | 300    | 340    | 369    | 425    | 478    | 539    | 591    | 684    | 777    | 829    | 880    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.  
(2) Calculation performed with FIXED water flow rate.  
(3) Efficiencies for low temperature applications (35 °C)  
(4) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

### Electric data

| Size                  |     | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500  | 1600  | 1800  | 2000  | 2200  | 2450  | 2600  |
|-----------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | ° A | 73,0  | 81,0  | 89,0  | 99,0  | 108,0 | 127,0 | 145,0 | 163,0 | 181,0 | 198,0 | 228,0 | 258,0 | 288,0 | 318,0 | 367,0 | 416,0 | 446,0 | 476,0 |
| Peak current (LRA)    | ° A | 239,0 | 204,0 | 210,0 | 265,0 | 274,0 | 293,0 | 359,0 | 377,0 | 395,0 | 412,0 | 538,0 | 568,0 | 598,0 | 628,0 | 677,0 | 726,0 | 756,0 | 786,0 |

## GENERAL TECHNICAL DATA

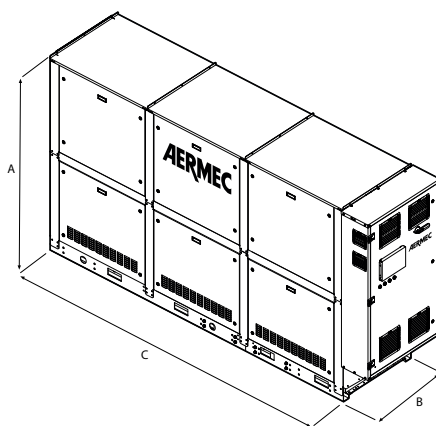
### General data

| Size   |         | 0500           | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|--|---------|----------------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b>                                |         |                |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Type   | ° type  | Scroll         |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                            | ° Type  | On-Off         |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Number   | ° no.   | 3              | 4      | 4      | 4      | 4      | 4      | 4      | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits   | ° no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2      | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | ° type  | R32            |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)                   | ° kg    | 6,0            | 6,0    | 7,0    | 8,0    | 9,0    | 11,0   | 11,0   | 11,0 | 14,0 | 14,0 | 15,0 | 15,0 | 19,0 | 19,0 | 23,0 | 28,0 | 28,0 | 28,0 |
| Refrigerant load circuit 2 (1)                   | ° kg    | 6,0            | 6,0    | 7,0    | 8,0    | 9,0    | 11,0   | 11,0   | 11,0 | 14,0 | 14,0 | 15,0 | 15,0 | 19,0 | 19,0 | 23,0 | 28,0 | 28,0 | 28,0 |
| <b>Source side heat exchanger</b>                |         |                |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Type   | ° type  | Braze plate    |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Number   | ° no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | ° Type  | Grooved joints |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Size (in)  | °       | Ø 2" 1/2       | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Size (out)                                       | °       | Ø 2" 1/2       | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"     | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| <b>System side heat exchanger</b>                |         |                |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Type   | ° type  | Braze plate    |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Number   | ° no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | ° Type  | Grooved joints |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Size (in)  | °       | Ø 2" 1/2       | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"     | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Size (out)                                       | °       | Ø 2" 1/2       | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"     | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| <b>Sound data calculated in cooling mode (2)</b> |         |                |        |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° dB(A) | 79,0           | 80,0   | 80,0   | 80,0   | 81,0   | 82,0   | 82,0   | 83,0 | 84,0 | 85,0 | 87,0 | 88,0 | 90,0 | 91,0 | 91,0 | 91,0 | 92,0 | 92,0 |
| Sound pressure level (10 m)                      | ° dB(A) | 47,3           | 48,3   | 48,3   | 48,3   | 49,3   | 50,2   | 50,2   | 51,2 | 52,2 | 53,2 | 55,2 | 56,2 | 58,2 | 59,2 | 59,1 | 59,1 | 60,1 | 60,1 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



### Dimensions and weights

| Size                                      |      | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | ° mm | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| B   | ° mm | 800  | 800  | 800  | 800  | 800  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 900  | 900  | 900  | 900  |
| C   | ° mm | 2090 | 2090 | 2090 | 2090 | 2090 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 3600 | 3600 | 3600 | 3600 |
| Empty weight                              | ° kg | 920  | 980  | 995  | 1015 | 1040 | 1095 | 1225 | 1285 | 1405 | 1470 | 1585 | 1655 | 1860 | 1970 | 2330 | 2550 | 2610 | 2670 |
| <b>Dimensions and weights with pump/s</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | ° mm | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| B   | ° mm | 800  | 800  | 800  | 800  | 800  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 900  | 900  | 900  | 900  | 900  | 900  |
| C   | ° mm | 2950 | 2950 | 2950 | 2950 | 2950 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 4700 | 4700 | 4700 | 4700 |

The weight of the unit does not include the hydronic kit and accessories.

■ For the version with hydronic kit please contact headquarters.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NGW 0500H-2600H

## Reversible water-cooled heat pump, gas side

Cooling capacity 107 ÷ 746,4 kW  
Heating capacity 126,3 ÷ 879,3 kW

- Production of hot water up to 60 °C
- Installation versatility also for geothermal applications.
- Options of 1 or 2 pumps on both source and user side.
- Reversible in heat pump on refrigerant circuit.



### DESCRIPTION

Water-water offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications. Units with hermetic scroll compressors and plate heat exchangers. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### FEATURES

#### Operating field

Full load functioning with production of chilled water from -2 to 20 °C, with the possibility of also producing water at negative temperatures down to -10 °C at the evaporator and hot water at the condenser up to 60 °C. (for more information, refer to the technical documentation).

#### Compressors

The compressors, optimised for low compression ratios in tandem and trio two-circuit configuration, ensure high efficiency especially at part loads, enabling them to exceed the minimum seasonal energy efficiency requirements for the design of low energy systems in both winter and summer.

#### Dual-circuit unit

The units are two-circuit to ensure continuity of operation in case one of the circuits fails.

#### Option integrated hydronic kit, source and user side

The hydronic kit is available in different configurations with one or two pumps, both on the evaporator and condenser side, in order to have a cost-saving solution that also facilitates final installation.

#### Refrigerant HFC R32

Thanks to the R32 refrigerant (A2L slightly flammable), the environmental impact of the units is significantly reduced. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

The unit is fitted with:

- Refrigerant gas detector and safety valves with exchange valve as standard
- Electrical control board completely separate from compressor compartment
- Only the version with hood is available

The machine can be installed in class 3 areas according to EN 378-3.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

#### CONTROL

Microprocessor control, complete with a 6-button multifunction keypad for simple and intuitive navigation between the various screens, making it possible to edit the operating parameters and fully manage alarms and their history.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

#### ACCESSORIES

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**SI485:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AVX:** Spring anti-vibration supports.

**SAENGW:** External air probe for climate control curve.

**KITFILTRO\_2"1/2:** The kit, supplied in a wooden crate, contains all the necessary elements for quick and efficient installation: water filter, 2"1/2 flexible coupling and insulation shell.

**KITFILTRO\_4":** The kit, supplied in a wooden crate, contains all the necessary elements for quick and efficient installation: Y-water filter, 4" pipe, flexible coupling and insulation shell.



**PR4:** Remote panel with LCD display and touch keyboard that allows carrying out the basic controls, the programming of time ranges and the signalling of the alarms of a single unit.

■ *The accessory PR4 should only be combined with SI485 communication interface when the serial port is occupied by another device.*

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

## ACCESSORIES COMPATIBILITY

### Accessories

| Model            | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AERNET           | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| SI485            | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Remote panel

| Model | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| PR4   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

The accessory PR4 should only be combined with SI485 communication interface when the serial port is occupied by another device.

### Antivibration

| Hydronic kit integrated on chilled water utility side | Integrated hydronic kit, source side   | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900   | 1000   |
|---|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 00  | 00   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 |
| 00  | IA, IB, IC, ID, IE, IF, IG, JA, JB, JC, JD, JE, JF, JG, UA, UB, UC, UD, UE, UF, UG, VA, VB, VC, VD, VE, VF, VG     | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 |
| DA, DB, DC, DD, DE, DF, DG                            | 00, IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 | AVX381 |
| PA, PB, PC, PD, PE, PF, PG                            | 00, IA, IB, IC, ID, IE, IF, IG, JA, JB, JC, JD, JE, JF, JG, UA, UB, UC, UD, UE, UF, UG, VA, VB, VC, VD, VE, VF, VG | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX381 | AVX381 | AVX381 | AVX381 |
| DA, DB, DC, DD, DE, DF, DG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX380 | AVX380 | AVX380 | AVX380 | AVX380 | AVX391 | AVX382 | AVX382 | AVX382 |
| Hydronic kit integrated on chilled water utility side | Integrated hydronic kit, source side   | 1200   | 1400   | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
| 00  | 00   | AVX389 | AVX389 | AVX389 | AVX389 | AVX389 | AVX393 | AVX390 | AVX390 | AVX390 |
| 00  | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX381 | AVX383 | AVX383 | AVX383 | AVX384 | AVX384 | AVX386 | AVX386 |
| PA, PB, PC, PD, PE, PF, PG                            | 00   | AVX381 | AVX381 | AVX383 | AVX383 | AVX383 | AVX384 | AVX384 | AVX386 | AVX386 |
| 00  | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | 00   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| PA, PB, PC, PD, PE, PF, PG                            | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX381 | AVX382 | AVX383 | AVX383 | AVX384 | AVX384 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | IA, IB, IC, ID, IE, IF, IG, UA, UB, UC, UD, UE, UF, UG   | AVX381 | AVX382 | AVX382 | AVX383 | AVX383 | AVX384 | AVX385 | AVX385 | AVX385 |
| PA, PB, PC, PD, PE, PF, PG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX381 | AVX382 | AVX382 | AVX383 | AVX383 | AVX384 | AVX385 | AVX385 | AVX385 |
| DA, DB, DC, DD, DE, DF, DG                            | JA, JB, JC, JD, JE, JF, JG, VA, VB, VC, VD, VE, VF, VG   | AVX382 | AVX382 | AVX382 | AVX392 | AVX392 | AVX385 | AVX385 | AVX385 | AVX387 |

### External air sensor

| Model  | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SAENGW | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |



## Device for peak current reduction

| 0500       | 0550       | 0600       | 0650       | 0700       | 0750       | 0800       | 0900       | 1000       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| DRENGW0500 | DRENGW0550 | DRENGW0600 | DRENGW0650 | DRENGW0700 | DRENGW0750 | DRENGW0800 | DRENGW0900 | DRENGW1000 |

A grey background indicates the accessory must be assembled in the factory

| 1200       | 1400       | 1500       | 1600       | 1800       | 2000       | 2200       | 2450       | 2600       |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| DRENGW1200 | DRENGW1400 | DRENGW1500 | DRENGW1600 | DRENGW1800 | DRENGW2000 | DRENGW2200 | DRENGW2450 | DRENGW2600 |

A grey background indicates the accessory must be assembled in the factory

## Water filter kit

| Model           | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| KITFILTRO_2"1/2 | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| Model           | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
| KITFILTRO_4"    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

## CONFIGURATOR

### Configuration options

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NGW</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1200, 1400, 1500, 1600, 1800, 2000, 2200, 2450, 2600 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>9</b>       | <b>Model (3)</b>  |
| H              | Reversible heat pump, gas side  |
| <b>10</b>      | <b>Evaporator</b>   |
| °              | Standard  |
| <b>11</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater  |
| °              | Without heat recovery   |
| <b>12</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>13,14</b>   | <b>Hydronic kit integrated on chilled water utility side</b>  |
| 00             | Without hydronic kit  |
|                | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA             | Pump A + stand-by pump (4)  |
| DB             | Pump B + stand-by pump (4)  |
| DC             | Pump C + stand-by pump (4)  |
| DD             | Pump D + stand-by pump (5)  |
| DE             | Pump E + stand-by pump (5)  |
| DF             | Pump F + stand-by pump (5)  |
| DG             | Pump G + stand-by pump (5)  |
|                | <b>Kit with n° 1 pump</b>   |
| PA             | Pump A (4)  |
| PB             | Pump B (4)  |
| PC             | Pump C (4)  |
| PD             | Pump D (5)  |
| PE             | Pump E (5)  |
| PF             | Pump F (5)  |
| PG             | Pump G (5)  |
| <b>15,16</b>   | <b>Integrated hydronic kit, source side</b>   |
| 00             | Without hydronic kit  |
|                | <b>Kit with n° 1 inverter pump to fixed speed</b>   |
| IA             | Pump A equipped with inverter device to work at fixed speed (4)   |
| IB             | Pump B equipped with inverter device to work at fixed speed (4)   |
| IC             | Pump C equipped with inverter device to work at fixed speed (4)   |
| ID             | Pump D equipped with inverter device to work at fixed speed (5)   |
| IE             | Pump E equipped with inverter device to work at fixed speed (5)   |
| IF             | Pump F equipped with inverter device to work at fixed speed (5)   |
| IG             | Pump G equipped with inverter device to work at fixed speed (5)   |
|                | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>   |
| JA             | Pump A+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JB             | Pump B+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JC             | Pump C+stand-by pump, both equipped with inverter to work at fixed speed (4)  |
| JD             | Pump D+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
| JE             | Pump E+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
| JF             | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
| JG             | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
|                | <b>Kit with n° 1 pump</b>   |
| UA             | Pump A (4)  |
| UB             | Pump B (4)  |

| Field                                 | Description                |
|---------------------------------------|----------------------------|
| UC                                    | Pump C (4)                 |
| UD                                    | Pump D (5)                 |
| UE                                    | Pump E (5)                 |
| UF                                    | Pump F (5)                 |
| UG                                    | Pump G (5)                 |
| <b>Pump n° 1 pump + stand-by pump</b> |                            |
| VA                                    | Pump A + stand-by pump (4) |
| VB                                    | Pump B + stand-by pump (4) |
| VC                                    | Pump C + stand-by pump (4) |
| VD                                    | Pump D + stand-by pump (5) |
| VE                                    | Pump E + stand-by pump (5) |
| VF                                    | Pump F + stand-by pump (5) |
| VG                                    | Pump G + stand-by pump (5) |

(1) Water produced from -2 °C ÷ 20 °C

(2) Water produced from -10 °C ÷ 10 °C

(3) Not available for the condenserless "E"

(4) Only for 0500 - 0750 sizes

(5) Only for 0800 - 2600 sizes

## PERFORMANCE SPECIFICATIONS

| Size                                 |   |     | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500  | 1600  | 1800   | 2000   | 2200   | 2450   | 2600   |
|--------------------------------------|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Cooling performance 12 °C / 7 °C (1) |   |     |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Cooling capacity                     | H | kW  | 107,0 | 116,5 | 131,0 | 145,6 | 161,0 | 192,0 | 224,1 | 252,8 | 285,3 | 312,6 | 361,4 | 405,2 | 458,1 | 501,6  | 578,8  | 661,4  | 703,9  | 746,4  |
| Input power                          | H | kW  | 24,4  | 27,0  | 29,9  | 33,5  | 37,1  | 44,1  | 50,3  | 57,2  | 63,9  | 70,9  | 81,5  | 92,5  | 103,0 | 114,1  | 132,0  | 150,0  | 161,2  | 172,6  |
| Cooling total input current          | H | A   | 46,0  | 50,0  | 56,0  | 63,0  | 69,0  | 82,0  | 92,0  | 102,0 | 112,0 | 122,0 | 139,0 | 158,0 | 174,0 | 193,0  | 223,0  | 252,0  | 271,0  | 290,0  |
| EER                                  | H | W/W | 4,38  | 4,31  | 4,38  | 4,35  | 4,34  | 4,35  | 4,45  | 4,42  | 4,47  | 4,41  | 4,43  | 4,38  | 4,45  | 4,40   | 4,39   | 4,41   | 4,37   | 4,33   |
| Water flow rate source side          | H | l/h | 22477 | 24529 | 27493 | 30595 | 33839 | 40348 | 46960 | 53028 | 59761 | 65602 | 75759 | 85059 | 95925 | 105189 | 121421 | 138586 | 147677 | 156768 |
| Pressure drop source side            | H | kPa | 25    | 29    | 31    | 32    | 33    | 33    | 20    | 25    | 22    | 26    | 28    | 36    | 33    | 40     | 42     | 46     | 52     | 59     |
| Water flow rate system side          | H | l/h | 18406 | 20041 | 22537 | 25048 | 27701 | 33030 | 38529 | 43476 | 49070 | 53766 | 62145 | 69667 | 78757 | 86242  | 99517  | 113722 | 121034 | 128345 |
| Pressure drop system side            | H | kPa | 16    | 19    | 20    | 21    | 22    | 22    | 13    | 17    | 14    | 17    | 19    | 23    | 22    | 26     | 28     | 30     | 34     | 39     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

| Size                                  |   |     | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
|---------------------------------------|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Heating performance 40 °C / 45 °C (1) |   |     |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |
| Heating capacity                      | H | kW  | 126,3 | 137,9 | 153,5 | 171,3 | 189,8 | 226,8 | 263,2 | 296,7 | 333,6 | 365,9 | 423,3 | 476,1  | 537,1  | 589,7  | 680,3  | 775,8  | 827,5  | 879,3  |
| Input power                           | H | kW  | 30,7  | 34,0  | 37,6  | 42,0  | 46,5  | 55,3  | 62,6  | 70,9  | 78,9  | 87,4  | 100,4 | 114,0  | 126,9  | 140,5  | 162,7  | 185,1  | 199,0  | 213,0  |
| COP                                   | H | W/W | 4,11  | 4,06  | 4,08  | 4,08  | 4,08  | 4,10  | 4,20  | 4,18  | 4,23  | 4,19  | 4,21  | 4,18   | 4,23   | 4,20   | 4,18   | 4,19   | 4,16   | 4,13   |
| Water flow rate source side           | H | l/h | 28011 | 30483 | 34010 | 37920 | 42038 | 50310 | 58607 | 66067 | 74467 | 81529 | 94494 | 106176 | 120167 | 131791 | 151939 | 173447 | 184814 | 196191 |
| Pressure drop source side             | H | kPa | 35    | 42    | 44    | 45    | 47    | 48    | 28    | 36    | 31    | 38    | 41    | 51     | 49     | 58     | 62     | 67     | 76     | 86     |
| Water flow rate system side           | H | l/h | 21919 | 23928 | 26641 | 29720 | 32926 | 39358 | 45687 | 51511 | 57935 | 63543 | 73504 | 82679  | 93270  | 102408 | 118150 | 134728 | 143707 | 152693 |
| Pressure drop system side             | H | kPa | 22    | 26    | 27    | 27    | 29    | 29    | 17    | 22    | 19    | 23    | 24    | 31     | 29     | 35     | 37     | 40     | 46     | 52     |

(1) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

### Energy index

| Size  |   |     | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900   | 1000   | 1200   | 1400   | 1500   | 1600   | 1800   | 2000   | 2200   | 2450   | 2600   |
|---|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| SEER - 12/7 (EN14825:2018) (1)  |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER  | H | W/W | 6,48   | 6,44   | 6,55   | 6,59   | 6,61   | 6,36   | 6,68   | 6,56   | 6,73   | 6,60   | 6,76   | 6,75   | 6,86   | 6,74   | 6,78   | 6,83   | 6,89   | 6,84   |
| Seasonal efficiency   | H | %   | 256,10 | 254,70 | 259,10 | 260,60 | 261,30 | 251,50 | 264,10 | 259,30 | 266,30 | 261,00 | 267,50 | 267,00 | 271,30 | 266,40 | 268,20 | 270,00 | 272,40 | 270,50 |
| SEER - 23/18 (EN 14825: 2018)   |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER  | H | W/W | 9,24   | 9,35   | 9,44   | 9,48   | 9,49   | 8,75   | 9,30   | 9,06   | 9,49   | 9,22   | 9,56   | 9,56   | 9,86   | 9,67   | 9,73   | 9,68   | 9,70   | 9,90   |
| Seasonal efficiency   | H | %   | 366,40 | 370,90 | 374,50 | 376,30 | 376,60 | 346,80 | 368,90 | 359,30 | 376,40 | 365,60 | 379,20 | 379,50 | 391,30 | 383,90 | 386,30 | 384,10 | 385,10 | 393,00 |
| SEPR - (EN 14825:2018) High temperature (2)   |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR  | H | W/W | 6,83   | 6,75   | 6,84   | 6,93   | 6,79   | 6,70   | 6,89   | 6,80   | 6,95   | 6,67   | 6,93   | 6,95   | 7,15   | 6,92   | 6,95   | 7,04   | 7,14   | 6,94   |
| UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP  | H | W/W | 5,41   | 5,55   | 5,45   | 5,58   | 5,54   | 5,41   | 5,62   | 5,63   | 5,77   | 5,78   | 5,81   | 5,75   | 5,85   | 5,82   | 5,80   | 5,74   | 5,75   | 5,69   |
| ηsh   | H | %   | 208,40 | 214,00 | 210,00 | 215,00 | 213,60 | 208,20 | 216,90 | 217,10 | 222,60 | 223,00 | 224,50 | 221,90 | 225,90 | 224,60 | 224,10 | 221,70 | 221,90 | 219,50 |
| Pdesignh  | H | kW  | 126    | 138    | 154    | 171    | 190    | 226    | 263    | 296    | 333    | 365    | 423    | 475    | 536    | 589    | 679    | 774    | 826    | 877    |
| UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (4) |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SCOP  | H | W/W | 4,70   | 4,72   | 4,75   | 4,87   | 4,83   | 4,72   | 4,86   | 4,82   | 4,87   | 4,84   | 4,87   | 4,85   | 4,87   | 4,80   | 4,85   | 5,00   | 4,95   | 4,94   |
| ηsh   | H | %   | 180,10 | 180,70 | 181,90 | 186,90 | 185,30 | 180,80 | 186,30 | 184,90 | 186,70 | 185,40 | 186,60 | 185,80 | 186,90 | 183,80 | 186,00 | 192,00 | 189,90 | 189,50 |
| Pdesignh  | H | kW  | 121    | 133    | 148    | 164    | 183    | 218    | 252    | 286    | 321    | 352    | 406    | 456    | 514    | 565    | 652    | 742    | 797    | 848    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for low temperature applications (35 °C)

(4) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

### Electric data

| Size                  |   |   | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1200  | 1400  | 1500  | 1600  | 1800  | 2000  | 2200  | 2450  | 2600  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Electric data         |   |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | H | A | 73,0  | 81,0  | 89,0  | 99,0  | 108,0 | 127,0 | 145,0 | 163,0 | 181,0 | 198,0 | 228,0 | 258,0 | 288,0 | 318,0 | 367,0 | 416,0 | 446,0 | 476,0 |
| Peak current (LRA)    | H | A | 239,0 | 204,0 | 210,0 | 265,0 | 274,0 | 293,0 | 359,0 | 377,0 | 395,0 | 412,0 | 538,0 | 568,0 | 598,0 | 628,0 | 677,0 | 726,0 | 756,0 | 786,0 |

## GENERAL TECHNICAL DATA

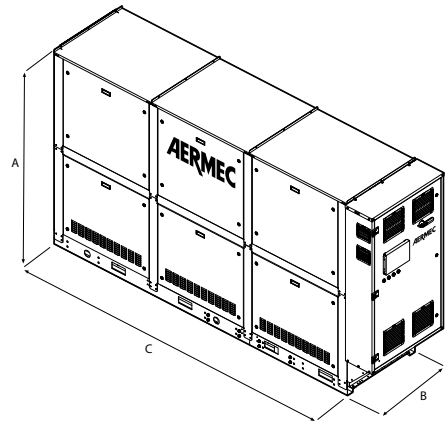
### General data

| Size   |   |       | 0500           | 0550   | 0600   | 0650   | 0700   | 0750   | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|--|---|-------|----------------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b>                                |   |       |                |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | H | type  | Scroll         |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                            | H | Type  | On-Off         |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | H | no.   | 3              | 4      | 4      | 4      | 4      | 4      | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    |
| Circuits   | H | no.   | 2              | 2      | 2      | 2      | 2      | 2      | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | H | type  | R32            |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)                   | H | kg    | 6,0            | 6,0    | 7,0    | 8,0    | 9,0    | 11,0   | 11,0 | 11,0 | 14,0 | 14,0 | 15,0 | 15,0 | 19,0 | 19,0 | 23,0 | 28,0 | 28,0 | 28,0 |
| Refrigerant load circuit 2 (1)                   | H | kg    | 6,0            | 6,0    | 7,0    | 8,0    | 9,0    | 11,0   | 11,0 | 11,0 | 14,0 | 14,0 | 15,0 | 15,0 | 19,0 | 19,0 | 23,0 | 28,0 | 28,0 | 28,0 |
| <b>Source side heat exchanger</b>                |   |       |                |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | H | type  | Braze plate    |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | H | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | H | Type  | Grooved joints |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (in)  | H | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Size (out)                                       | H | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| <b>System side heat exchanger</b>                |   |       |                |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | H | type  | Braze plate    |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | H | no.   | 1              | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)                             | H | Type  | Grooved joints |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (in)  | H | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| Size (out)                                       | H | Ø     | 2" 1/2         | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   | 4"   |
| <b>Sound data calculated in cooling mode (2)</b> |   |       |                |        |        |        |        |        |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | H | dB(A) | 79,0           | 80,0   | 80,0   | 80,0   | 81,0   | 82,0   | 82,0 | 83,0 | 84,0 | 85,0 | 87,0 | 88,0 | 90,0 | 91,0 | 91,0 | 91,0 | 92,0 | 92,0 |
| Sound pressure level (10 m)                      | H | dB(A) | 47,3           | 48,3   | 48,3   | 48,3   | 49,3   | 50,2   | 50,2 | 51,2 | 52,2 | 53,2 | 55,2 | 56,2 | 58,2 | 59,2 | 59,1 | 59,1 | 60,1 | 60,1 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

# DIMENSIONS



## Dimensions and weights

| Size                                      |   |    | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1200 | 1400 | 1500 | 1600 | 1800 | 2000 | 2200 | 2450 | 2600 |
|---|---|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>             |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | H | mm | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| B   | H | mm | 800  | 800  | 800  | 800  | 800  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 900  | 900  | 900  | 900  |
| C   | H | mm | 2090 | 2090 | 2090 | 2090 | 2090 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 3600 | 3600 | 3600 | 3600 |
| Empty weight                              | H | kg | 920  | 980  | 995  | 1015 | 1040 | 1095 | 1225 | 1285 | 1405 | 1470 | 1585 | 1655 | 1860 | 1970 | 2330 | 2550 | 2610 | 2670 |
| <b>Dimensions and weights with pump/s</b> |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | H | mm | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| B   | H | mm | 800  | 800  | 800  | 800  | 800  | 850  | 850  | 850  | 850  | 850  | 850  | 850  | 900  | 900  | 900  | 900  | 900  | 900  |
| C   | H | mm | 2950 | 2950 | 2950 | 2950 | 2950 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 3600 | 4700 | 4700 | 4700 | 4700 |

The weight of the unit does not include the hydronic kit and accessories.

■ For the version with hydronic kit please contact headquarters.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WS

## Water cooled heat pump reversible water side

Cooling capacity 147 ÷ 700 kW  
Heating capacity 164 ÷ 778 kW

- High efficiency all in Class A Eurovent
- Optimised for low condenser temperatures
- Optimised for geothermal applications
- Available also with R513A (XP10) refrigerant



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water from 4 to 16°C, and the possibility to produce negative temperature water (down to -6°C) on the evaporator and hot water (up to 50 °C) on the condenser.

(for more information, refer to the technical documentation).

#### Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.

They are equipped with screw compressors and system and source side plate heat exchangers.

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for BACnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**AKW:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | °L  | *    | *    | *    | *    | *    |      |      |      |      |      |      |      |      |
| AER485P1 x n° 2 (1) | °L  |      |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP             | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET              | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Ver                  | 0601   | 0701   | 0801   | 0901   | 1101   | 1202   | 1402   | 1602   | 1802   | 2002   | 2202   | 2502   | 2802   |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Evaporator: E</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °L                   | AVX651 | AVX651 | AVX652 | AVX652 | AVX656 | AVX658 | AVX658 | AVX658 | AVX659 | AVX667 | AVX661 | AVX661 | AVX661 |
| <b>Evaporator: °</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |
| °L                   | AVX651 | AVX651 | AVX652 | AVX652 | AVX656 | AVX658 | AVX658 | AVX658 | AVX659 | AVX667 | AVX661 | AVX661 | AVX661 |

### Power factor correction

| Ver | 0601 | 0701   | 0801   | 0901   | 1101   | 1202      | 1402      |
|-----|------|--------|--------|--------|--------|-----------|-----------|
| °L  | -    | RIF161 | RIF161 | RIF201 | RIF241 | RIF161 x2 | RIF161 x2 |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

| Ver | 1602      | 1802       | 2002          | 2202      | 2502      | 2802      |
|-----|-----------|------------|---------------|-----------|-----------|-----------|
| °L  | RIF161 x2 | RIF201 x 2 | RIF201+RIF241 | RIF241 x2 | RIF301 x2 | RIF301 x2 |

A grey background indicates the accessory must be assembled in the factory

### Acoustic kit

| Ver | 0601    | 0701    | 0801    | 0901    | 1101    | 1202    | 1402    |
|-----|---------|---------|---------|---------|---------|---------|---------|
| L   | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

| Ver | 1602    | 1802    | 2002    | 2202    | 2502    | 2802    |
|-----|---------|---------|---------|---------|---------|---------|
| L   | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2</b>     | <b>WS</b>   |
| <b>3,4,5,6</b> | <b>Size</b><br>0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802 |
| <b>7</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Y              | Low temperature mechanic thermostatic valve (2)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| °              | Standard mechanic thermostatic valve (1)  |
| <b>8</b>       | <b>Model</b>  |
| °              | Heat pump reversible on the water side  |
| <b>9</b>       | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| T              | With total recovery (4)   |
| °              | Without heat recovery   |
| <b>10</b>      | <b>Version</b>  |
| °              | Standard  |

| Field     | Description                                |
|-----------|--|
| L         | Standard silenced                          |
| <b>11</b> | <b>Evaporator</b>                          |
| E         | Evaporating unit (5)                       |
| °         | Standard                                   |
| <b>12</b> | <b>Power supply</b>                        |
| 2         | 230V ~ 3 50Hz with fuses                   |
| 4         | 230V ~ 3 50Hz with magnet circuit breakers |
| 5         | 500V ~ 3 50Hz with fuses                   |
| 8         | 400V ~ 3 50Hz with magnet circuit breakers |
| 9         | 500V ~ 3 50Hz with magnet circuit breakers |
| °         | 400V ~ 3 50Hz with fuses                   |

(1) Water produced from 4 °C ÷ 16 °C

(2) Water produced from 4 °C ÷ -6 °C; for the availability with the heat recovery we advise you to contact us

(3) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) Option not available for condenserless unit.

(5) Shipped with holding charge only.

## PERFORMANCE SPECIFICATIONS

### WS - °/L

| Size   |    |     | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602   | 1802   | 2002   | 2202   | 2502   | 2802   |
|--|----|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |    |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                             | °L | kW  | 147,7 | 186,9 | 212,2 | 233,8 | 299,0 | 308,6 | 369,1 | 421,6  | 469,8  | 545,6  | 599,8  | 654,3  | 700,4  |
| Input power                                  | °L | kW  | 29,1  | 36,6  | 81,8  | 46,0  | 58,7  | 605,6 | 72,8  | 83,2   | 92,7   | 106,7  | 117,2  | 128,1  | 136,8  |
| Cooling total input current                  | °L | A   | 56,0  | 67,0  | 74,0  | 83,0  | 95,0  | 110,0 | 133,0 | 149,0  | 167,0  | 179,0  | 190,0  | 219,0  | 235,0  |
| EER  | °L | W/W | 5,08  | 5,11  | 5,07  | 5,08  | 5,09  | 5,10  | 5,07  | 5,06   | 5,07   | 5,11   | 5,12   | 5,11   | 5,12   |
| Water flow rate source side                  | °L | l/h | 30238 | 38269 | 43508 | 47922 | 61258 | 63078 | 75593 | 86332  | 96177  | 111478 | 122506 | 133608 | 142894 |
| Pressure drop source side                    | °L | kPa | 33    | 23    | 22    | 22    | 25    | 47    | 36    | 39     | 43     | 48     | 52     | 58     | 65     |
| Water flow rate system side                  | °L | l/h | 25421 | 32148 | 36495 | 40212 | 51431 | 53088 | 63476 | 72492  | 80788  | 93813  | 103143 | 112508 | 120438 |
| Pressure drop system side                    | °L | kPa | 23    | 17    | 15    | 16    | 18    | 33    | 25    | 27     | 30     | 33     | 35     | 39     | 44     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |    |     |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Heating capacity                             | °L | kW  | 164,9 | 208,7 | 237,3 | 261,4 | 334,0 | 343,7 | 412,1 | 470,6  | 524,2  | 607,2  | 667,2  | 727,6  | 778,0  |
| Input power                                  | °L | kW  | 36,8  | 46,3  | 52,9  | 58,1  | 74,2  | 76,9  | 92,2  | 105,5  | 117,7  | 135,5  | 148,8  | 162,8  | 174,1  |
| Heating total input current                  | °L | A   | 70,0  | 84,0  | 94,0  | 105,0 | 120,0 | 138,0 | 168,0 | 188,0  | 210,0  | 225,0  | 240,0  | 275,0  | 296,0  |
| COP  | °L | W/W | 4,48  | 4,51  | 4,49  | 4,50  | 4,50  | 4,47  | 4,47  | 4,46   | 4,46   | 4,48   | 4,48   | 4,47   | 4,47   |
| Water flow rate system side                  | °L | l/h | 28611 | 36218 | 41197 | 45370 | 57987 | 59660 | 71552 | 81718  | 91025  | 105442 | 115854 | 126347 | 135087 |
| Pressure drop system side                    | °L | kPa | 29    | 21    | 19    | 20    | 23    | 42    | 32    | 35     | 38     | 43     | 46     | 52     | 58     |
| Water flow rate source side                  | °L | l/h | 37525 | 47456 | 53873 | 59360 | 75920 | 78366 | 93702 | 107011 | 119257 | 138485 | 152256 | 166081 | 177787 |
| Pressure drop source side                    | °L | kPa | 49    | 37    | 33    | 34    | 39    | 73    | 54    | 59     | 65     | 72     | 77     | 85     | 96     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## Performance specifications Evaporating units

### WS - E

| Size  |    |     | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602  | 1802  | 2002  | 2202  | 2502   | 2802   |
|---|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Evaporator: E</b>                        |    |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |    |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity                            | °L | kW  | 134,5 | 167,9 | 189,2 | 216,7 | 264,4 | 276,7 | 333,2 | 381,0 | 431,7 | 489,8 | 542,5 | 591,7  | 629,6  |
| Input power                                 | °L | kW  | 34,7  | 42,2  | 48,2  | 55,0  | 67,0  | 69,3  | 84,4  | 96,5  | 109,9 | 122,0 | 134,1 | 146,8  | 157,0  |
| Cooling total input current                 | °L | A   | 63,0  | 75,0  | 85,0  | 96,0  | 111,0 | 127,0 | 151,0 | 170,0 | 192,0 | 207,0 | 222,0 | 252,0  | 270,0  |
| EER   | °L | W/W | 3,88  | 3,98  | 3,92  | 3,94  | 3,94  | 3,99  | 3,95  | 3,95  | 3,93  | 4,01  | 4,05  | 4,03   | 4,01   |
| Water flow rate system side                 | °L | l/h | 23108 | 28849 | 32512 | 37238 | 45248 | 47546 | 57251 | 65458 | 74169 | 84147 | 93212 | 101661 | 108175 |
| Pressure drop system side                   | °L | kPa | 18    | 13    | 12    | 12    | 14    | 25    | 19    | 20    | 23    | 25    | 27    | 30     | 34     |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |    |     | 0601   | 0701   | 0801   | 0901   | 1101   | 1202   | 1402   | 1602   | 1802   | 2002   | 2202   | 2502   | 2802   |
|--|----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | °L | W/W | 5,58   | 5,80   | 6,09   | 6,04   | 5,96   | 6,22   | 6,24   | 6,39   | 6,39   | 6,38   | 6,38   | 6,42   | 6,39   |
| Seasonal efficiency  | °L | %   | 220,2% | 229,0% | 240,6% | 238,6% | 235,2% | 245,7% | 246,6% | 252,5% | 252,6% | 252,1% | 252,2% | 253,9% | 252,7% |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b>  |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | °L | W/W | -      | -      | -      | -      | 7,77   | 7,97   | 7,99   | 8,11   | 8,01   | 8,04   | 8,01   | 8,05   | 8,01   |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | °L | kW  | 229    | 290    | 330    | 363    | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| SCOP   | °L | W/W | 5,98   | 6,10   | 6,30   | 6,25   | -      | -      | -      | -      | -      | -      | -      | -      | -      |
| ηsh  | °L | %   | 231,0% | 236,0% | 244,0% | 242,0% | -      | -      | -      | -      | -      | -      | -      | -      | -      |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with VARIABLE water flow rate.

(3) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |    |   | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602  | 1802  | 2002  | 2202  | 2502  | 2802  |
|-----------------------|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |    |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °L | A | 90,7  | 98,0  | 112,0 | 128,0 | 156,0 | 168,0 | 196,0 | 224,0 | 256,0 | 284,0 | 312,0 | 354,0 | 380,0 |
| Peak current (LRA)    | °L | A | 147,0 | 140,0 | 163,0 | 192,0 | 246,0 | 194,1 | 198,5 | 228,0 | 262,6 | 316,6 | 324,7 | 388,1 | 448,1 |

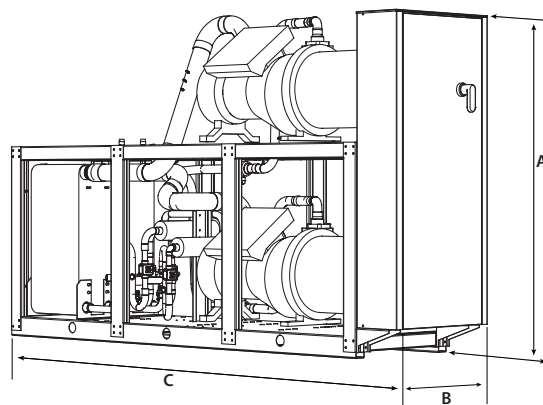
## GENERAL TECHNICAL DATA

| Size   |    |       | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402           | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|--|----|-------|------|------|------|------|------|------|----------------|------|------|------|------|------|------|
| <b>Compressor</b>                                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Screw          |      |      |      |      |      |      |
| Compressor regulation                            | °L | Type  |      |      |      |      |      |      | On-Off         |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 2    | 2              | 2    | 2    | 2    | 2    | 2    | 2    |
| Circuits   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 2    | 2              | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | °L | type  |      |      |      |      |      |      | R134a          |      |      |      |      |      |      |
| Refrigerant charge (1)                           | °L | kg    | 18,0 | 22,0 | 22,0 | 25,0 | 38,0 | 36,0 | 42,0           | 44,0 | 50,0 | 59,0 | 68,0 | 70,0 | 80,0 |
| <b>System side heat exchanger</b>                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Brazed plate   |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>Source side heat exchanger</b>                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Brazed plate   |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>System side hydraulic connections</b>         |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  |      |      |      |      |      |      | Grooved joints |      |      |      |      |      |      |
| Sizes (in/out)                                   | °L | Ø     |      |      |      |      |      |      | 3"             |      |      |      |      |      |      |
| <b>Source side hydraulic connections</b>         |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  |      |      |      |      |      |      | Grooved joints |      |      |      |      |      |      |
| Sizes (in/out)                                   | °L | Ø     |      |      |      |      |      |      | 3"             |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (2)</b> |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Sound power level                                | °  | dB(A) | 86,1 | 86,8 | 87,1 | 87,8 | 87,1 | 89,1 | 89,8           | 90,1 | 90,8 | 90,5 | 90,1 | 91,3 | 91,8 |
|  | L  | dB(A) | 78,1 | 78,8 | 79,1 | 79,9 | 78,1 | 81,1 | 81,8           | 82,1 | 82,9 | 82,1 | 81,1 | 83,4 | 84,1 |
| Sound pressure level (10 m)                      | °  | dB(A) | 54,3 | 55,0 | 55,3 | 56,0 | 55,3 | 57,2 | 57,9           | 58,3 | 59,0 | 58,6 | 58,2 | 59,3 | 59,9 |
|  | L  | dB(A) | 46,3 | 47,0 | 47,3 | 48,1 | 46,3 | 49,2 | 50,0           | 50,2 | 51,0 | 50,2 | 49,2 | 51,5 | 52,2 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |    |    | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|-------------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1975 | 1975 | 1975 | 2005 | 1985 | 2065 | 2065 | 2065 |
|                               | L  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 |
| B                             | °L | mm | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  |
| C                             | °L | mm | 2960 | 2960 | 2960 | 2960 | 3360 | 2960 | 2960 | 2960 | 2960 | 3360 | 3360 | 3360 | 3360 |
| Empty weight                  | °  | kg | 1101 | 1251 | 1301 | 1357 | 1788 | 1738 | 2071 | 2140 | 2212 | 2648 | 3050 | 3131 | 3131 |
|                               | L  | kg | 1229 | 1379 | 1429 | 1485 | 1934 | 1966 | 2299 | 2368 | 2440 | 2905 | 3307 | 3388 | 3388 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# HWS

## Water cooled heat pump reversible water side

Cooling capacity 147 ÷ 369 kW  
Heating capacity 165 ÷ 778 kW

- High efficiency all in Class A Eurovent
- Unit optimised for high condenser temperatures.
- Optimised for geothermal applications
- Available also with R513A (XP10) refrigerant



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-16 °C, and the possibility to produce also hot water for the condenser up to 60 °C. (for more information, refer to the technical documentation).

#### Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.

They are equipped with screw compressors and system and source side plate heat exchangers.

#### Integral acoustic enclosure

For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.

#### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for BACnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**AKW:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | °L  | *    | *    | *    | *    | *    |      |      |      |      |      |      |      |      |
| AER485P1 x n° 2 (1) | °L  |      |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP             | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET              | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Version | Heat recovery | Evaporator | 0601   | 0701   | 0801   | 0901   | 1101   |
|---------|---------------|------------|--------|--------|--------|--------|--------|
| °       | °             | °          | AVX651 | AVX651 | AVX652 | AVX652 | AVX656 |
| °       | °D            | E          | -      | AVX668 | AVX668 | AVX668 | AVX669 |
| °       | D             | °          | -      | AVX651 | AVX652 | AVX652 | AVX654 |
| °       | T             | °          | -      | AVX652 | AVX655 | AVX655 | AVX657 |
| L       | °             | °          | AVX651 | AVX651 | AVX652 | AVX652 | AVX656 |
| L       | °D            | E          | -      | AVX668 | AVX668 | AVX668 | AVX669 |
| L       | D             | °          | -      | AVX651 | AVX652 | AVX652 | AVX654 |
| L       | T             | °          | -      | AVX652 | AVX655 | AVX655 | AVX657 |

| Version | Heat recovery | Evaporator | 1202   | 1402   | 1602   | 1802   | 2002   |
|---------|---------------|------------|--------|--------|--------|--------|--------|
| °       | °             | °          | AVX658 | AVX658 | AVX658 | AVX659 | AVX667 |
| °       | °             | E          | -      | AVX670 | AVX670 | AVX670 | AVX671 |
| °       | D             | °          | AVX658 | AVX658 | -      | -      | -      |
| °       | D             | E          | -      | AVX670 | -      | -      | -      |
| °       | T             | °          | -      | AVX662 | -      | -      | -      |
| L       | °             | °          | AVX658 | AVX658 | AVX658 | AVX659 | AVX667 |
| L       | °             | E          | -      | AVX670 | AVX670 | AVX670 | AVX671 |
| L       | D             | °          | AVX658 | AVX658 | -      | -      | -      |
| L       | D             | E          | -      | AVX670 | -      | -      | -      |
| L       | T             | °          | -      | AVX662 | -      | -      | -      |

| Version | Heat recovery | Evaporator | 2202   | 2502   | 2802   |
|---------|---------------|------------|--------|--------|--------|
| °       | °             | °          | AVX661 | AVX661 | AVX661 |
| °       | °             | E          | AVX672 | AVX672 | AVX672 |
| °       | D             | °E         | -      | -      | -      |
| °       | T             | °          | -      | -      | -      |
| L       | °             | °          | AVX661 | AVX661 | AVX661 |
| L       | °             | E          | AVX672 | AVX672 | AVX672 |
| L       | D             | °E         | -      | -      | -      |
| L       | T             | °          | -      | -      | -      |

- not available

### Power factor correction

| Ver | 0601 | 0701   | 0801   | 0901   | 1101   | 1202 | 1402      |
|-----|------|--------|--------|--------|--------|------|-----------|
| °L  | -    | RIF161 | RIF161 | RIF201 | RIF241 | -    | RIF161 x2 |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

| Ver | 1602      | 1802      | 2002          | 2202      | 2502      | 2802      |
|-----|-----------|-----------|---------------|-----------|-----------|-----------|
| °L  | RIF161 x2 | RIF201 x2 | RIF201+RIF241 | RIF241 x2 | RIF301 x2 | RIF301 x2 |

A grey background indicates the accessory must be assembled in the factory

### Acoustic kit

| Ver | 0601    | 0701    | 0801    | 0901    | 1101    | 1202    | 1402    | 1602    | 1802    | 2002    | 2202    | 2502    | 2802    |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| L   | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) | AKW (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>HWS</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>Model</b>  |
| °              | Heat pump reversible on the water side  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (1)  |
| T              | With total recovery (2)   |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| L              | Standard silenced   |

| Field     | Description                                |
|-----------|--|
| <b>12</b> | <b>Evaporator</b>                          |
| E         | Evaporating unit (3)                       |
| °         | Standard                                   |
| <b>13</b> | <b>Power supply</b>                        |
| 2         | 230V ~ 3 50Hz with fuses                   |
| 4         | 230V ~ 3 50Hz with magnet circuit breakers |
| 5         | 500V ~ 3 50Hz with fuses                   |
| 8         | 400V ~ 3 50Hz with magnet circuit breakers |
| 9         | 500V ~ 3 50Hz with magnet circuit breakers |
| °         | 400V ~ 3 50Hz with fuses                   |

- (1) The temperature of the water in the heat exchanger inlet must never drop below 35°C. The desuperheater is not available for sizes 0601 and 1202.  
(2) The desuperheater and total recovery are not available for sizes 0601 and 1202; T are not compatible with E.  
(3) Shipped with holding charge only. Option not available for size 0601 and 1202.

## PERFORMANCE SPECIFICATIONS

### HWS - °/L

| Size   |    |     | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  |
|--|----|-----|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |    |     |       |       |       |       |       |       |       |
| Cooling capacity                             | °L | kW  | 146,7 | 178,8 | 212,7 | 233,7 | 293,7 | 293,7 | 356,6 |
| Input power                                  | °L | kW  | 31,7  | 38,0  | 43,2  | 49,2  | 59,7  | 63,5  | 76,8  |
| Cooling total input current                  | °L | A   | 56,0  | 66,0  | 74,0  | 82,0  | 101,0 | 112,0 | 132,0 |
| EER  | °L | W/W | 4,63  | 4,70  | 4,92  | 4,75  | 4,92  | 4,62  | 4,64  |
| Water flow rate source side                  | °L | l/h | 30474 | 37085 | 43795 | 48419 | 60454 | 60948 | 73996 |
| Pressure drop source side                    | °L | kPa | 40    | 27    | 27    | 26    | 31    | 53    | 50    |
| Water flow rate system side                  | °L | l/h | 25256 | 30754 | 36596 | 40204 | 50513 | 50513 | 61337 |
| Pressure drop system side                    | °L | kPa | 29    | 20    | 20    | 19    | 23    | 38    | 36    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |    |     |       |       |       |       |       |       |       |
| Heating capacity                             | °L | kW  | 163,9 | 199,3 | 234,8 | 260,1 | 324,0 | 327,5 | 397,5 |
| Input power                                  | °L | kW  | 38,0  | 45,4  | 51,6  | 58,8  | 71,4  | 76,3  | 92,2  |
| Heating total input current                  | °L | A   | 66,0  | 78,0  | 88,0  | 97,0  | 120,0 | 133,0 | 157,0 |
| COP  | °L | W/W | 4,31  | 4,39  | 4,55  | 4,42  | 4,54  | 4,29  | 4,31  |
| Water flow rate source side                  | °L | l/h | 36968 | 45016 | 53566 | 58847 | 73936 | 73936 | 89780 |
| Pressure drop source side                    | °L | kPa | 62    | 43    | 43    | 41    | 49    | 81    | 77    |
| Water flow rate system side                  | °L | l/h | 28421 | 34581 | 40752 | 45134 | 56255 | 56843 | 69010 |
| Pressure drop system side                    | °L | kPa | 35    | 23    | 23    | 23    | 27    | 46    | 43    |

- (1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

| Size   |    |     | 1602   | 1802   | 2002   | 2202   | 2502   | 2802   |
|--|----|-----|--------|--------|--------|--------|--------|--------|
| <b>Heating performance 40 °C / 45 °C (1)</b> |    |     |        |        |        |        |        |        |
| Heating capacity                             | °L | kW  | 465,7  | 522,8  | 584,8  | 646,9  | 730,9  | 799,6  |
| Input power                                  | °L | kW  | 104,0  | 121,3  | 133,2  | 145,1  | 165,9  | 181,5  |
| Heating total input current                  | °L | A   | 176,0  | 195,0  | 218,0  | 241,0  | 277,0  | 280,0  |
| COP  | °L | W/W | 4,48   | 4,31   | 4,39   | 4,46   | 4,41   | 4,40   |
| Water flow rate source side                  | °L | l/h | 106378 | 118198 | 133036 | 147873 | 166735 | 182932 |
| Pressure drop source side                    | °L | kPa | 86     | 88     | 96     | 103    | 114    | 137    |
| Water flow rate system side                  | °L | l/h | 80851  | 90770  | 101543 | 112315 | 126902 | 138328 |
| Pressure drop system side                    | °L | kPa | 48     | 50     | 54     | 58     | 65     | 79     |

- (1) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## Performance specifications Evaporating units

### HWS - E

| Size  |    |     | 0601 | 0701  | 0801  | 0901  | 1101  | 1202 | 1402  | 1602  | 1802  | 2002  | 2202  | 2502   | 2802   |
|---|----|-----|------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|--------|--------|
| <b>Evaporator: E</b>                        |    |     |      |       |       |       |       |      |       |       |       |       |       |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |    |     |      |       |       |       |       |      |       |       |       |       |       |        |        |
| Cooling capacity                            | °L | kW  | -    | 163,0 | 192,0 | 212,0 | 263,0 | -    | 326,0 | 385,0 | 428,0 | 481,0 | 539,0 | 601,0  | 676,0  |
| Input power                                 | °L | kW  | -    | 41,0  | 47,0  | 54,0  | 66,0  | -    | 82,0  | 93,0  | 108,0 | 120,0 | 132,0 | 146,0  | 159,0  |
| Cooling total input current                 | °L | A   | -    | 72,0  | 81,0  | 90,0  | 113,0 | -    | 144,0 | 162,0 | 180,0 | 204,0 | 226,0 | 254,0  | 272,0  |
| EER   | °L | W/W | -    | 3,98  | 4,09  | 3,93  | 3,98  | -    | 3,98  | 4,14  | 3,96  | 4,01  | 4,08  | 4,12   | 4,25   |
| Water flow rate system side                 | °L | l/h | -    | 28005 | 32988 | 36424 | 45186 | -    | 56011 | 66147 | 73535 | 82641 | 92606 | 103259 | 116144 |
| Pressure drop system side                   | °L | kPa | -    | 20    | 20    | 19    | 23    | -    | 36    | 40    | 41    | 45    | 48    | 53     | 62     |

- (1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |    |     | 0601   | 0701   | 0801   | 0901   | 1101   | 1202   | 1402   |
|--|----|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |    |     |        |        |        |        |        |        |        |
| SEER   | °L | W/W | 5,01   | 5,28   | 5,57   | 5,43   | 5,59   | 5,36   | 5,42   |
| Seasonal efficiency  | °L | %   | 197,4% | 208,2% | 219,8% | 214,2% | 220,6% | 211,4% | 213,6% |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |    |     |        |        |        |        |        |        |        |
| Pdesignh   | °L | kW  | 215    | 257    | 293    | 330    | -      | -      | -      |
| SCOP   | °L | W/W | 4,55   | 4,60   | 4,73   | 4,58   | -      | -      | -      |
| ηsh  | °L | %   | 174,0% | 176,0% | 181,0% | 175,0% | -      | -      | -      |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

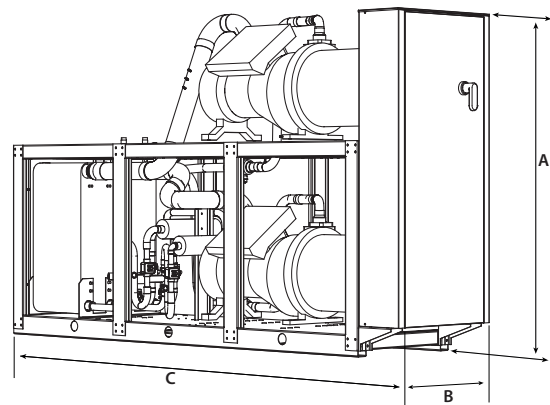
| Size                  |    |   | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602  | 1802  | 2002  | 2202  | 2502  | 2802  |
|-----------------------|----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |    |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °L | A | 105,0 | 124,0 | 144,0 | 162,0 | 182,0 | 210,0 | 248,0 | 288,0 | 324,0 | 344,0 | 364,0 | 430,0 | 430,0 |
| Peak current (LRA)    | °L | A | 180,0 | 163,0 | 192,0 | 229,0 | 300,0 | 285,0 | 287,0 | 336,0 | 391,0 | 462,0 | 482,0 | 575,0 | 575,0 |

## GENERAL TECHNICAL DATA

| Size   |    |       | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402           | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|--|----|-------|------|------|------|------|------|------|----------------|------|------|------|------|------|------|
| <b>Compressor</b>                                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Screw          |      |      |      |      |      |      |
| Compressor regulation                            | °L | Type  |      |      |      |      |      |      | On-Off         |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 2    | 2              | 2    | 2    | 2    | 2    | 2    | 2    |
| Circuits   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 2    | 2              | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | °L | type  |      |      |      |      |      |      | R134a          |      |      |      |      |      |      |
| <b>System side heat exchanger</b>                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Brazed plate   |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>Source side heat exchanger</b>                |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Type   | °L | type  |      |      |      |      |      |      | Brazed plate   |      |      |      |      |      |      |
| Number   | °L | no.   | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>System side hydraulic connections</b>         |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  |      |      |      |      |      |      | Grooved joints |      |      |      |      |      |      |
| Sizes (in/out)                                   | °L | Ø     |      |      |      |      |      |      | 3"             |      |      |      |      |      |      |
| <b>Source side hydraulic connections</b>         |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  |      |      |      |      |      |      | Grooved joints |      |      |      |      |      |      |
| Sizes (in/out)                                   | °L | Ø     |      |      |      |      |      |      | 3"             |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |    |       |      |      |      |      |      |      |                |      |      |      |      |      |      |
| Sound power level                                | °  | dB(A) | 85,0 | 86,0 | 86,0 | 86,0 | 92,0 | 88,0 | 89,0           | 89,0 | 89,0 | 93,0 | 95,0 | 95,0 | 95,0 |
|  | L  | dB(A) | 77,0 | 78,0 | 78,0 | 78,0 | 84,0 | 80,0 | 81,0           | 81,0 | 81,0 | 85,0 | 87,0 | 87,0 | 87,0 |
| Sound pressure level (10 m)                      | °  | dB(A) | 53,2 | 54,2 | 54,2 | 54,2 | 60,2 | 56,2 | 57,2           | 57,2 | 57,2 | 61,1 | 63,1 | 63,1 | 63,1 |
|  | L  | dB(A) | 45,2 | 46,2 | 46,2 | 46,2 | 52,2 | 48,1 | 49,1           | 49,1 | 49,1 | 53,1 | 55,1 | 55,1 | 55,1 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



| Size                   |    |    | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Dimensions and weights |    |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                      | °  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1975 | 1975 | 1975 | 2005 | 1985 | 2065 | 2065 | 2065 |
|                        | L  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 |
| B                      | °L | mm | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  |
| C                      | °L | mm | 2960 | 2960 | 2960 | 2960 | 3360 | 2960 | 2960 | 2960 | 2960 | 3360 | 3360 | 3360 | 3360 |
| Empty weight           | °L | kg | 1101 | 1251 | 1301 | 1357 | 1788 | 1738 | 2028 | 2097 | 2169 | 2598 | 3000 | 3095 | 3095 |

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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# HWSG

## Water cooled heat pump reversible water side

Cooling capacity 110 ÷ 396 kW  
Heating capacity 122 ÷ 595 kW

- Use of the new ecological gas R1234ze
- Unit optimised for high condenser temperatures.
- Production of hot water from condenser up to 65° C.



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

L Standard silenced

### FEATURES

#### Operating field

Production of chilled water up to 4°C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 65°C.

#### Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.

They are equipped with screw compressors and system and source side plate heat exchangers dedicated to use of the new HFO R1234ze gas.

#### HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

**ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430**, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

### CONTROL

pCO<sup>5</sup> control type

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | °L  | *    | *    | *    | *    | *    |      |      |      |      |      |      |      |      |
| AER485P1 x n° 2 (1) | °L  |      |      |      |      |      | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP             | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET              | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO    | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PRV3                | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Ver | 0601   | 0701   | 0801   | 0901   | 1101   | 1202   | 1402   | 1602   | 1802   | 2002   | 2202   | 2502   | 2802   |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| °L  | AVX651 | AVX651 | AVX652 | AVX652 | AVX656 | AVX658 | AVX658 | AVX658 | AVX659 | AVX667 | AVX661 | AVX661 | AVX661 |

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3,4</b> | <b>HWSG</b>   |
| <b>5,6,7,8</b> | <b>Size</b><br>0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802 |
| <b>9</b>       | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (1)   |
| Z              | Low temperature electronic thermostatic valve (2)   |
| <b>10</b>      | <b>Model</b>  |
| °              | Optimised for high condenser temperatures   |
| <b>11</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| T              | With total recovery (3)   |
| °              | Without heat recovery   |
| <b>12</b>      | <b>Version</b>  |
| °              | Standard  |
| L              | Standard silenced   |
| <b>13</b>      | <b>Evaporator</b>   |
| °              | Standard  |
| <b>14</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with fuses  |

(1) Water produced from 4 °C ÷ 16 °C

(2) Water produced from -5 °C ÷ 4 °C

(3) Order management

## PERFORMANCE SPECIFICATIONS

### HWSG - °/L

| Size   |     |     | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602  | 1802  | 2002  |
|--|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |     |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity                             | °/L | kW  | 110,5 | 135,1 | 156,5 | 176,0 | 215,8 | 221,7 | 271,4 | 315,9 | 354,9 | 396,8 |
| Input power                                  | °/L | kW  | 23,2  | 27,7  | 31,3  | 35,6  | 43,2  | 46,2  | 57,0  | 63,9  | 73,6  | 80,7  |
| Cooling total input current                  | °/L | A   | 48,0  | 55,0  | 61,0  | 66,0  | 82,0  | 96,0  | 111,0 | 122,0 | 132,0 | 149,0 |
| EER  | °/L | W/W | 4,77  | 4,87  | 5,00  | 4,94  | 4,99  | 4,80  | 4,76  | 4,94  | 4,82  | 4,92  |
| Water flow rate system side                  | °/L | l/h | 19007 | 23236 | 26907 | 30255 | 37102 | 38143 | 46690 | 54329 | 61030 | 68240 |
| Pressure drop system side                    | °/L | kPa | 16    | 11    | 10    | 11    | 12    | 24    | 32    | 21    | 23    | 25    |
| Water flow rate source side                  | °/L | l/h | 22875 | 27903 | 32183 | 36261 | 44378 | 45808 | 56089 | 64986 | 73289 | 81668 |
| Pressure drop source side                    | °/L | kPa | 23    | 16    | 15    | 15    | 17    | 34    | 47    | 31    | 34    | 36    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |     |       |       |       |       |       |       |       |       |       |       |
| Heating capacity                             | °/L | kW  | 122,8 | 149,7 | 172,4 | 194,4 | 237,8 | 245,8 | 301,0 | 348,2 | 393,1 | 437,6 |
| Input power                                  | °/L | kW  | 27,7  | 33,1  | 37,3  | 42,5  | 51,6  | 55,2  | 68,3  | 76,4  | 88,0  | 96,5  |
| Heating total input current                  | °/L | A   | 58,0  | 65,0  | 72,0  | 78,0  | 97,0  | 114,0 | 131,0 | 145,0 | 157,0 | 176,0 |
| COP  | °/L | W/W | 4,43  | 4,52  | 4,62  | 4,57  | 4,61  | 4,45  | 4,41  | 4,56  | 4,47  | 4,53  |
| Water flow rate system side                  | °/L | l/h | 21319 | 25989 | 29942 | 33756 | 41288 | 42668 | 52248 | 60463 | 68263 | 75995 |
| Pressure drop system side                    | °/L | kPa | 20    | 14    | 13    | 13    | 15    | 29    | 41    | 27    | 30    | 31    |
| Water flow rate source side                  | °/L | l/h | 27820 | 34012 | 39384 | 44285 | 54307 | 55832 | 68342 | 79522 | 89331 | 99885 |
| Pressure drop source side                    | °/L | kPa | 35    | 24    | 22    | 23    | 26    | 50    | 69    | 46    | 50    | 54    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

| Size   |     |     |  |  |  |        |  |  |        |  |  |        |
|--|-----|-----|--|--|--|--------|--|--|--------|--|--|--------|
| <b>Heating performance 40 °C / 45 °C (1)</b> |     |     |  |  |  |        |  |  |        |  |  |        |
| Heating capacity                             | °/L | kW  |  |  |  | 488,6  |  |  | 540,8  |  |  | 595,5  |
| Input power                                  | °/L | kW  |  |  |  | 106,1  |  |  | 119,3  |  |  | 131,9  |
| Heating total input current                  | °/L | A   |  |  |  | 196,0  |  |  | 225,0  |  |  | 240,0  |
| COP  | °/L | W/W |  |  |  | 4,60   |  |  | 4,53   |  |  | 4,52   |
| Water flow rate system side                  | °/L | l/h |  |  |  | 84852  |  |  | 93902  |  |  | 103410 |
| Pressure drop system side                    | °/L | kPa |  |  |  | 34     |  |  | 37     |  |  | 45     |
| Water flow rate source side                  | °/L | l/h |  |  |  | 112042 |  |  | 123541 |  |  | 136133 |
| Pressure drop source side                    | °/L | kPa |  |  |  | 58     |  |  | 62     |  |  | 75     |

(1) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |     |     | 0601   | 0701   | 0801   | 0901   | 1101   | 1202   | 1402   | 1602   | 1802   | 2002   |
|--|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |     |     |        |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency  | °/L | %   | 205,9% | 214,4% | 222,6% | 221,7% | 221,9% | 210,8% | 211,5% | 228,3% | 223,0% | 226,4% |
| SEER   | °/L | W/W | 5,22   | 5,44   | 5,64   | 5,62   | 5,62   | 5,35   | 5,36   | 5,78   | 5,65   | 5,74   |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |     |     |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | °/L | kW  | 155    | 188    | 217    | 245    | 299    | 309    | 379    | -      | -      | -      |
| SCOP   | °/L | W/W | 4,52   | 4,62   | 4,72   | 4,69   | 4,69   | 4,63   | 4,60   | -      | -      | -      |
| ηsh  | °/L | %   | 173,0% | 177,0% | 181,0% | 179,0% | 181,0% | 177,0% | 176,0% | -      | -      | -      |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |     |   | 0601  | 0701  | 0801  | 0901  | 1101  | 1202  | 1402  | 1602  | 1802  | 2002  | 2202  | 2502  | 2802  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °/L | A | 75,6  | 95,6  | 104,4 | 115,9 | 143,2 | 151,2 | 191,2 | 208,8 | 231,8 | 259,1 | 286,4 | 323,8 | 352,0 |
| Peak current (LRA)    | °/L | A | 180,0 | 163,0 | 192,0 | 229,0 | 267,0 | 255,6 | 258,6 | 296,4 | 344,9 | 372,2 | 410,2 | 475,9 | 490,0 |



## GENERAL TECHNICAL DATA

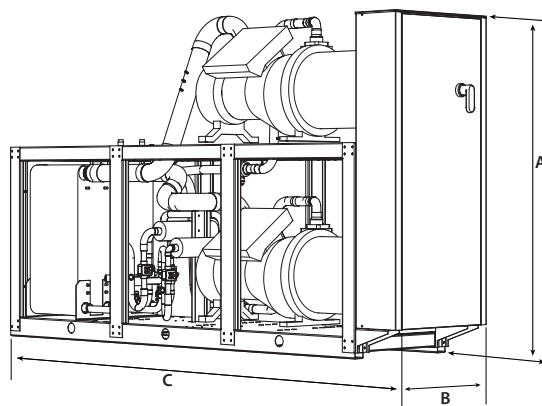
| Size   |    |       | 0601           | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|--|----|-------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b>                                |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | °L | type  | Screw          |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation                            | °L | Type  | On/Off         |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Circuits   | °L | no.   | 1              | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant                                      | °L | type  | R1234ze        |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)                   | °L | kg    | 18,0           | 20,0 | 22,0 | 25,0 | 38,0 | 18,0 | 20,5 | 21,5 | 25,0 | 25,0 | 33,0 | 35,0 | 39,0 |
| Refrigerant load circuit 2 (1)                   | °L | kg    | -              | -    | -    | -    | -    | 18,0 | 20,0 | 22,0 | 25,0 | 30,0 | 18,0 | 20,5 | 21,5 |
| <b>System side heat exchanger</b>                |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | °L | type  | Braze plate    |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>Source side heat exchanger</b>                |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | °L | type  | Braze plate    |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | °L | no.   | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>System side hydraulic connections</b>         |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (in) (2)                                    | °L | Ø     | 3"             |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (out) (2)                                   | °L | Ø     | 3"             |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Source side hydraulic connections</b>         |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Connections (in/out)                             | °L | Type  | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (in)  | °L | Ø     | 3"             |      |      |      |      |      |      |      |      |      |      |      |      |
| Size (out)                                       | °L | Ø     | 3"             |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (3)</b> |    |       |                |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | °  | dB(A) | 87,0           | 86,0 | 86,0 | 86,0 | 92,0 | 89,0 | 90,0 | 89,0 | 89,0 | 93,0 | 95,0 | 95,0 | 95,0 |
|  | L  | dB(A) | 78,9           | 78,0 | 78,0 | 78,0 | 84,0 | 81,0 | 81,9 | 81,0 | 81,0 | 85,0 | 87,0 | 87,0 | 87,0 |
| Sound pressure level (10 m)                      | °  | dB(A) | 55,2           | 54,2 | 54,2 | 54,2 | 60,2 | 57,2 | 58,1 | 57,2 | 57,2 | 61,1 | 63,1 | 63,1 | 63,1 |
|  | L  | dB(A) | 47,1           | 46,2 | 46,2 | 46,2 | 52,2 | 49,1 | 50,0 | 49,1 | 49,1 | 53,1 | 55,1 | 55,1 | 55,1 |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Size

(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |    |    | 0601 | 0701 | 0801 | 0901 | 1101 | 1202 | 1402 | 1602 | 1802 | 2002 | 2202 | 2502 | 2802 |
|-------------------------------|----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |    |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | °  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 1975 | 1975 | 1975 | 2005 | 1985 | 2065 | 2065 | 2065 |
|                               | L  | mm | 1775 | 1775 | 1775 | 1775 | 1775 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 |
| B                             | °L | mm | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  | 810  |
| C                             | °L | mm | 2960 | 2960 | 2960 | 2960 | 3360 | 2960 | 2960 | 2960 | 2960 | 3360 | 3360 | 3360 | 3360 |
| Empty weight                  | °  | kg | 1101 | 1251 | 1301 | 1357 | 1788 | 1738 | 2028 | 2097 | 2169 | 2598 | 3000 | 3095 | 3095 |
|                               | L  | kg | 1229 | 1379 | 1429 | 1485 | 1934 | 1966 | 2256 | 2325 | 2397 | 2855 | 3257 | 3352 | 3352 |

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**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# WSH

## Reversible water-cooled heat pump, gas side

Cooling capacity 165,8 ÷ 269,7 kW  
Heating capacity 183,3 ÷ 300,3 kW

- Reversing valve
- Optional electronic expansion valve which allows: cooling down to -6 °C
- Modulating capacity control 25-100%



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.

**High-efficiency screw compressors, with silent functioning and with cooling capacity adjustment via continuous modulation from 40 to 100%. (25-100% with electronic valve OPTION which is to be requested when placing the order)**

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

L Standard silenced

### FEATURES

#### Operating field

Full-load operation with the production of chilled water 4-16 °C, and the possibility to produce also negative temperature water down to -6 °C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

#### CONTROL PCO<sub>s</sub>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PRV3:** Allows you to control the chiller at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**AKW:** Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

### ACCESSORIES COMPATIBILITY

| Model            | Ver | 0701 | 0801 | 0901 | 1101 |
|------------------|-----|------|------|------|------|
| AER485P1         | °L  | •    | •    | •    | •    |
| AERBACP          | °L  | •    | •    | •    | •    |
| AERNET           | °L  | •    | •    | •    | •    |
| MULTICHILLER-EVO | °L  | •    | •    | •    | •    |
| PRV3             | °L  | •    | •    | •    | •    |

**Antivibration**

| Ver  | 0701   | 0801   | 0901   | 1101   |
|------|--------|--------|--------|--------|
| °, L | AVX665 | AVX665 | AVX665 | AVX666 |

**Power factor correction**

| Ver  | 0701   | 0801   | 0901   | 1101   |
|------|--------|--------|--------|--------|
| °, L | RIF161 | RIF161 | RIF201 | RIF241 |

A grey background indicates the accessory must be assembled in the factory

**Acoustic kit**

| Ver | 0701    | 0801    | 0901    | 1101    |
|-----|---------|---------|---------|---------|
| L   | AKW (1) | AKW (1) | AKW (1) | AKW (1) |

(1) Available only in low noise version

A grey background indicates the accessory must be assembled in the factory

**CONFIGURATOR**

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>WSH</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502 |
| <b>8</b>       | <b>Operating field</b>  |
| X              | Low temperature electronic thermostatic valve (1)                         |
| °              | Standard mechanic thermostatic valve (2)                                  |
| <b>9</b>       | <b>Model</b>  |
| °              | Reversible heat pump, gas side  |
| <b>10</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (3)  |
| °              | Without heat recovery   |
| <b>11</b>      | <b>Version</b>  |
| °              | Standard  |
| L              | Standard silenced   |
| <b>12</b>      | <b>Condenser</b>  |
| °              | PED regulation  |
| <b>13</b>      | <b>Power supply</b>   |
| 2              | 230V ~ 3 50Hz with fuses  |
| 4              | 230V ~ 3 50Hz with magnet circuit breakers (4)                            |
| 5              | 500V ~ 3 50Hz with fuses  |
| 8              | 400V ~ 3 50Hz with magnet circuit breakers                                |
| 9              | 500V ~ 3 50Hz with magnet circuit breakers                                |
| °              | 400V ~ 3 50Hz   |

(1) Water produced up to +4 °C. For different temperature please contact the factory.

(2) Water produced up to +4 °C

(3) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

(4) Not available for size 2502

## PERFORMANCE SPECIFICATIONS

### WSH - °/L

| Size   |     |     | 0701  | 0801  | 0901  | 1101  |
|--|-----|-----|-------|-------|-------|-------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |     |       |       |       |       |
| Cooling capacity                             | °/L | kW  | 165,8 | 195,7 | 216,7 | 269,7 |
| Input power                                  | °/L | kW  | 37,1  | 42,3  | 48,3  | 58,8  |
| Cooling total input current                  | °/L | A   | 65,0  | 73,0  | 81,0  | 100,0 |
| EER  | °/L | W/W | 4,47  | 4,63  | 4,48  | 4,59  |
| Water flow rate source side                  | °/L | l/h | 34669 | 40687 | 45310 | 56133 |
| Pressure drop source side                    | °/L | kPa | 30    | 31    | 30    | 36    |
| Water flow rate system side                  | °/L | l/h | 28521 | 33675 | 37283 | 46389 |
| Pressure drop system side                    | °/L | kPa | 23    | 24    | 22    | 27    |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |     |       |       |       |       |
| Heating capacity                             | °/L | kW  | 183,3 | 210,3 | 237,3 | 300,3 |
| Input power                                  | °/L | kW  | 45,4  | 51,6  | 58,7  | 74,4  |
| Heating total input current                  | °/L | A   | 81,0  | 91,0  | 101,0 | 131,0 |
| COP  | °/L | W/W | 4,04  | 4,08  | 4,05  | 4,03  |
| Water flow rate source side                  | °/L | l/h | 40419 | 46517 | 52342 | 66297 |
| Pressure drop source side                    | °/L | kPa | 42    | 42    | 39    | 51    |
| Water flow rate system side                  | °/L | l/h | 31805 | 36498 | 41190 | 52140 |
| Pressure drop system side                    | °/L | kPa | 24    | 23    | 23    | 29    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |     |     | 0701   | 0801   | 0901   | 1101   |
|--|-----|-----|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |     |     |        |        |        |        |
| SEER   | °/L | W/W | 5,04   | 5,47   | 5,29   | 5,11   |
| Seasonal efficiency  | °/L | %   | 198,6% | 215,8% | 208,6% | 201,3% |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)</b> |     |     |        |        |        |        |
| Pdesignh   | °/L | kW  | 249    | 285    | 322    | -      |
| SCOP   | °/L | W/W | 4,20   | 4,25   | 4,23   | -      |
| ηsh  | °/L | %   | 160,0% | 162,0% | 161,0% | -      |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

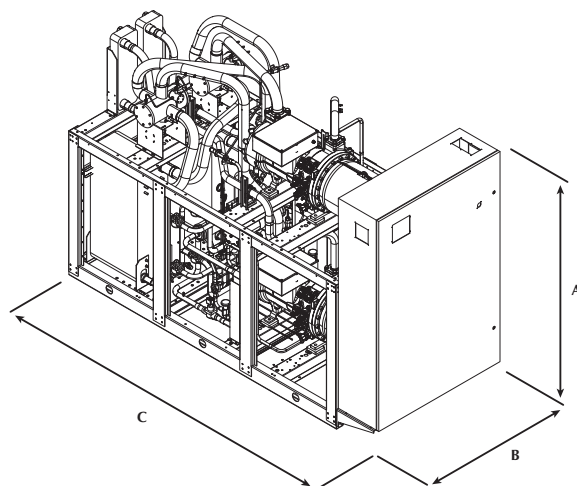
| Size                  |     |   | 0701  | 0801  | 0901  | 1101  |
|-----------------------|-----|---|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |
| Maximum current (FLA) | °/L | A | 124,0 | 144,0 | 162,0 | 182,0 |
| Peak current (LRA)    | °/L | A | 163,0 | 192,0 | 229,0 | 300,0 |

## GENERAL TECHNICAL DATA

| Size   |    |       | 0701 | 0801 | 0901           | 1101 |
|--|----|-------|------|------|----------------|------|
| <b>Compressor</b>                                |    |       |      |      |                |      |
| Type   | °L | type  |      |      | Bi-vite        |      |
| Compressor regulation                            | °L | Type  |      |      | On-Off         |      |
| Number   | °L | no.   | 1    | 1    | 1              | 1    |
| Circuits   | °L | no.   | 1    | 1    | 1              | 1    |
| Refrigerant                                      | °L | type  |      |      | R134a          |      |
| <b>System side heat exchanger</b>                |    |       |      |      |                |      |
| Type   | °L | type  |      |      | Brazed plate   |      |
| Number   | °L | no.   | 1    | 1    | 1              | 1    |
| Connections (in/out)                             | °L | Type  |      |      | Grooved joints |      |
| Sizes (in/out)                                   | °L | Ø     |      |      | 3"             |      |
| <b>Source side heat exchanger</b>                |    |       |      |      |                |      |
| Type   | °L | type  |      |      | Brazed plate   |      |
| Number   | °L | no.   | 1    | 1    | 1              | 1    |
| Connections (in/out)                             | °L | Type  |      |      | Grooved joints |      |
| Sizes (in/out)                                   | °L | Ø     |      |      | 3"             |      |
| <b>Sound data calculated in cooling mode (1)</b> |    |       |      |      |                |      |
| Sound power level                                | °  | dB(A) | 86,0 | 86,0 | 86,0           | 92,0 |
|  | L  | dB(A) | 78,0 | 78,0 | 78,0           | 84,0 |
| Sound pressure level (10 m)                      | °  | dB(A) | 54,1 | 54,1 | 54,1           | 60,1 |
|  | L  | dB(A) | 46,1 | 46,1 | 46,1           | 52,1 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |    |    | 0701 | 0801 | 0901 | 1101 |
|-------------------------------|----|----|------|------|------|------|
| <b>Dimensions and weights</b> |    |    |      |      |      |      |
| A                             | °  | mm | 2050 | 2050 | 2050 | 2050 |
|                               | L  | mm | 2120 | 2120 | 2120 | 2120 |
| B                             | °L | mm | 809  | 809  | 809  | 809  |
| C                             | °L | mm | 2960 | 2960 | 2960 | 3360 |
| Empty weight                  | °  | kg | 1391 | 1443 | 1506 | 1946 |
|                               | L  | kg | 1622 | 1674 | 1737 | 2206 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## WFGI

## Water cooled heat pump reversible water side

Cooling capacity 217 ÷ 1765 kW  
Heating capacity 243 ÷ 1960 kW

- Production of hot water from condenser up to 65° C.
- Production of negative chilled water down to -8° C.



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

### FEATURES

#### Operating field

Production of chilled water up to 20 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 65 °C depending on the model.

**With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.**

#### Mono, bi-tri circuit unit

Unit with 1-2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

All units are equipped with an inverter compressor combined with an on-off compressor (two-circuit sizes) or two on/off compressors (three-circuit sizes), with R1234ze (A2L) refrigerant.

**The R515B refrigerant with this type of gas is also available on the configurator. Performances do not vary when the refrigerant gas available on the configurator varies.**

For further details refer to the technical documentation or to the Magellano selection program.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 4.3" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Adjustment includes complete management of the alarms and their log.

The possibility to control several units in Master - Slave parallel mode up to a maximum of 4 compressors.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**ISG:** Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 2 (1) | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 3 (1) | °A  | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP             | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERSET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO    | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1                | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Version | Set-up | Heat recovery | 1101        | 1251        | 1401        |
|---------|--------|---------------|-------------|-------------|-------------|
| °       | °L     | °D,T          | -           | -           | -           |
| A       | °      | °             | AVX680      | AVX680      | AVX681      |
| A       | L      | °             | AVX681      | AVX681      | AVX681      |
| A       | °L     | D,T           | -           | -           | -           |
| Version | Set-up | Heat recovery | 1601        | 1801        | 2101        |
| °       | °L     | °D,T          | -           | -           | -           |
| A       | °      | °             | AVX687      | AVX687      | AVX682      |
| A       | L      | °             | AVX682      | AVX682      | AVX682      |
| A       | °L     | D,T           | -           | -           | -           |
| Version | Set-up | Heat recovery | 2401        | 2502        | 2801        |
| °       | °L     | °D,T          | -           | -           | -           |
| A       | °      | °             | AVX685      | AVX673      | AVX683      |
| A       | L      | °             | AVX683      | AVX674      | AVX683      |
| A       | °L     | D,T           | -           | AVX674      | -           |
| Version | Set-up | Heat recovery | 2802        | 3201        | 3202        |
| °       | °L     | °D,T          | -           | -           | -           |
| A       | °L     | °             | AVX674      | AVX683      | AVX679      |
| A       | °L     | D,T           | AVX674      | -           | AVX679      |
| Version | Set-up | Heat recovery | 3602        | 4202        | 4802        |
| °       | °L     | °D,T          | -           | -           | -           |
| A       | °      | °D            | AVX679      | AVX679      | AVX678      |
| A       | L      | °             | AVX679      | AVX679      | AVX678      |
| A       | °      | T             | AVX679      | AVX678      | AVX678      |
| A       | L      | D,T           | AVX679      | AVX678      | AVX678      |
| Version | Set-up | Heat recovery | 5602        | 6402        | 6703        |
| °       | °L     | °D,T          | -           | -           | Contact us. |
| A       | °L     | °D,T          | AVX678      | AVX678      | Contact us. |
| Version | Set-up | Heat recovery | 7203        | 8403        | 9603        |
| °       | °L     | °D,T          | Contact us. | Contact us. | Contact us. |
| A       | °L     | °D,T          | Contact us. | Contact us. | Contact us. |

- not available

### Power factor correction

| Ver | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502       | 2801 | 2802       | 3201 |
|-----|------|------|------|------|------|------|------|------------|------|------------|------|
| A   | -    | -    | -    | -    | -    | -    | -    | RIFWF12502 | -    | RIFWF12802 | -    |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

| Ver | 3202       | 3602       | 4202       | 4802       | 5602       | 6402       | 6703       | 7203       | 8403       | 9603       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °   | -          | -          | -          | -          | -          | -          | RIFWF16703 | RIFWF17203 | RIFWF18403 | RIFWF19603 |
| A   | RIFWF13202 | RIFWF13602 | RIFWF14202 | RIFWF14802 | RIFWF15602 | RIFWF16402 | RIFWF16703 | RIFWF17203 | RIFWF18403 | RIFWF19603 |

A grey background indicates the accessory must be assembled in the factory

**For the size of the units with the RIF accessory we ask you to contact the headquarters.**

### Isolating kit

| Ver | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502 | 2801  | 2802 | 3201  |
|-----|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|
| A   | ISG10 | ISG11 | ISG12 | ISG13 | ISG13 | ISG14 | ISG14 | ISG1 | ISG15 | ISG1 | ISG15 |

A grey background indicates the accessory must be assembled in the factory

| Ver | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|-----|------|------|------|------|------|------|------|------|------|------|
| °   | -    | -    | -    | -    | -    | -    | ISG7 | ISG8 | ISG8 | ISG8 |
| A   | ISG2 | ISG2 | ISG2 | ISG3 | ISG3 | ISG3 | ISG7 | ISG8 | ISG8 | ISG8 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3,4</b> | <b>WFGI</b>   |
| <b>5,6,7,8</b> | <b>Size</b><br>1101, 1251, 1401, 1601, 1801, 2101, 2401, 2502, 2801, 2802, 3201, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603 |
| <b>9</b>       | <b>Model</b>  |
| H              | Optimised for high condensation   |
| °              | Standard condensation   |
| <b>10</b>      | <b>Version</b>  |
| °              | Standard (1)  |
| A              | High efficiency   |
| <b>11</b>      | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve   |
| Z              | Double electronic thermostatic for low temperature  |
| <b>12</b>      | <b>Set-up</b>   |
| K              | Super low noise with hood (2)   |
| L              | Silenced with hood  |
| °              | Standard without hood   |

| Field     | Description                                    |
|-----------|--|
| <b>13</b> | <b>Heat recovery</b>                           |
| D         | With desuperheater (3)                         |
| T         | With total recovery (3)                        |
| °         | Without heat recovery                          |
| <b>14</b> | <b>Evaporator</b>                              |
| °         | Standard                                       |
| <b>15</b> | <b>Power supply</b>                            |
| 8         | 400V ~ 3 50Hz with magnet circuit breakers (4) |
| °         | 400V ~ 3 50Hz with fuses                       |
| <b>16</b> | <b>Refrigerant gas (5)</b>                     |
| G         | R515B  |
| °         | R1234ze  |

(1) Only for sizes from 6703 to 9603

(2) Only for units with R515B

(3) Not available for the condenserless "E"

(4) Not available for 1101, 1251, 1401, 1601, 1801, 2101, 2401, 2801, 3201 size

(5) Performances do not vary when the refrigerant gas available on the configurator varies.

## MODEL PERFORMANCE DATA (°) - FOR TEMPERATURES WATER PRODUCED UP TO +55°C

### WFGI 1101 - 3201 - model (°) version A - gas R1234ze

| Size   |     | 1101  | 1251  | 1401  | 1601  | 1801  | 2101   | 2401   | 2801   | 3201   |
|--|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| <b>Model: °</b>                              |     |       |       |       |       |       |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |        |        |        |        |
| Cooling capacity                             | kW  | 216,8 | 255,6 | 285,6 | 324,6 | 366,2 | 407,0  | 484,9  | 545,9  | 586,5  |
| Input power                                  | kW  | 41,8  | 50,3  | 55,3  | 62,1  | 73,8  | 83,3   | 92,6   | 102,6  | 112,2  |
| Cooling total input current                  | A   | 74,0  | 87,0  | 95,0  | 106,0 | 125,0 | 140,0  | 152,0  | 170,0  | 187,0  |
| EER  | W/W | 5,19  | 5,08  | 5,17  | 5,23  | 4,96  | 4,89   | 5,24   | 5,32   | 5,23   |
| Water flow rate source side                  | l/h | 44248 | 52351 | 58332 | 66233 | 75332 | 83987  | 98906  | 111058 | 119737 |
| Pressure drop source side                    | kPa | 30    | 33    | 29    | 26    | 22    | 21     | 24     | 24     | 21     |
| Water flow rate system side                  | l/h | 37296 | 43987 | 49124 | 55816 | 62963 | 69984  | 83363  | 93854  | 100830 |
| Pressure drop system side                    | kPa | 22    | 24    | 24    | 15    | 18    | 13     | 20     | 26     | 14     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |        |        |        |        |
| Heating capacity                             | kW  | 243,2 | 292,8 | 321,7 | 365,6 | 419,7 | 467,2  | 540,0  | 606,5  | 655,5  |
| Input power                                  | kW  | 55,2  | 66,1  | 70,6  | 77,1  | 94,3  | 106,3  | 118,0  | 131,1  | 142,3  |
| Heating total input current                  | A   | 97,0  | 114,0 | 120,0 | 131,0 | 159,0 | 178,0  | 193,0  | 215,0  | 236,0  |
| COP  | W/W | 4,41  | 4,43  | 4,56  | 4,74  | 4,45  | 4,40   | 4,58   | 4,63   | 4,61   |
| Water flow rate system side                  | l/h | 42220 | 50823 | 55848 | 63486 | 72879 | 81140  | 93796  | 105337 | 113866 |
| Pressure drop system side                    | kPa | 27    | 31    | 27    | 23    | 20    | 20     | 22     | 22     | 19     |
| Water flow rate source side                  | l/h | 55079 | 66427 | 73525 | 84200 | 95108 | 105386 | 123347 | 139074 | 149713 |
| Pressure drop source side                    | kPa | 48    | 56    | 54    | 34    | 41    | 29     | 45     | 58     | 32     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C



**WFGI 2502 - 9603 - model (°) version A - gas R1234ze**

| Size   |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>                              |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 506,3  | 571,0  | 664,9  | 737,9  | 869,3  | 989,2  | 1096,6 | 1223,1 | 1323,2 | 1463,2 | 1605,2 | 1765,9 |
| Input power                                  | kW  | 96,8   | 107,6  | 125,2  | 143,4  | 166,7  | 185,8  | 206,7  | 234,8  | 238,3  | 265,7  | 299,4  | 337,5  |
| Cooling total input current                  | A   | 171,0  | 192,0  | 215,0  | 245,0  | 273,0  | 311,0  | 346,0  | 396,0  | 407,0  | 468,0  | 519,0  | 591,0  |
| EER  | W/W | 5,23   | 5,31   | 5,31   | 5,15   | 5,22   | 5,32   | 5,30   | 5,21   | 5,55   | 5,51   | 5,36   | 5,23   |
| Water flow rate source side                  | l/h | 102932 | 115945 | 135099 | 150773 | 177155 | 200809 | 223021 | 249142 | 267794 | 296179 | 326287 | 360505 |
| Pressure drop source side                    | kPa | 61     | 55     | 46     | 30     | 45     | 50     | 36     | 51     | 11     | 24     | 23     | 22     |
| Water flow rate system side                  | l/h | 87066  | 98181  | 114326 | 126885 | 149451 | 170077 | 188509 | 210265 | 227441 | 251516 | 275910 | 303500 |
| Pressure drop system side                    | kPa | 45     | 35     | 33     | 41     | 32     | 44     | 34     | 43     | 26     | 31     | 29     | 17     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 564,4  | 631,4  | 731,6  | 821,0  | 966,2  | 1093,4 | 1212,3 | 1370,1 | 1454,7 | 1611,8 | 1770,0 | 1960,8 |
| Input power                                  | kW  | 124,9  | 136,1  | 155,8  | 181,8  | 211,1  | 235,7  | 260,5  | 299,0  | 300,1  | 334,7  | 374,9  | 420,6  |
| Heating total input current                  | A   | 218,0  | 241,0  | 264,0  | 306,0  | 343,0  | 390,0  | 431,0  | 498,0  | 507,0  | 582,0  | 643,0  | 732,0  |
| COP  | W/W | 4,52   | 4,64   | 4,70   | 4,52   | 4,58   | 4,64   | 4,65   | 4,58   | 4,85   | 4,82   | 4,72   | 4,66   |
| Water flow rate system side                  | l/h | 97998  | 109633 | 127054 | 142602 | 167814 | 189909 | 210585 | 237978 | 252762 | 280014 | 307509 | 340678 |
| Pressure drop system side                    | kPa | 56     | 50     | 41     | 27     | 41     | 45     | 32     | 46     | 10     | 22     | 20     | 20     |
| Water flow rate source side                  | l/h | 129450 | 145407 | 168838 | 187634 | 221376 | 252011 | 278815 | 314719 | 336930 | 373381 | 407768 | 449226 |
| Pressure drop source side                    | kPa | 99     | 76     | 73     | 89     | 70     | 96     | 73     | 96     | 56     | 69     | 63     | 37     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFGI 6703 - 9603 - model (°) version ° - gas R1234ze**

| Size   |     | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|
| <b>Model: °</b>                              |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |
| Cooling capacity                             | kW  | 1309,2 | 1445,9 | 1559,4 | 1729,0 |
| Input power                                  | kW  | 242,2  | 267,6  | 299,6  | 340,9  |
| Cooling total input current                  | A   | 396,0  | 475,0  | 525,0  | 588,0  |
| EER  | W/W | 5,40   | 5,40   | 5,20   | 5,07   |
| Water flow rate source side                  | l/h | 265488 | 293277 | 318297 | 354161 |
| Pressure drop source side                    | kPa | 44     | 39     | 34     | 41     |
| Water flow rate system side                  | l/h | 225045 | 248539 | 268020 | 297184 |
| Pressure drop system side                    | kPa | 27     | 29     | 22     | 26     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |
| Heating capacity                             | kW  | 1443,5 | 1597,2 | 1729,1 | 1928,5 |
| Input power                                  | kW  | 304,0  | 336,2  | 373,6  | 425,5  |
| Heating total input current                  | A   | 493,0  | 592,0  | 650,0  | 729,0  |
| COP  | W/W | 4,75   | 4,75   | 4,63   | 4,53   |
| Water flow rate system side                  | l/h | 250744 | 277455 | 300382 | 335030 |
| Pressure drop system side                    | kPa | 39     | 35     | 30     | 37     |
| Water flow rate source side                  | l/h | 333379 | 368962 | 396107 | 439877 |
| Pressure drop source side                    | kPa | 59     | 64     | 49     | 58     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**Energy indices (Reg. 2016/2281 EU)**

| Size   |     | 1101   | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>                                    |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>              |     |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency                                | %   | 343,60 | 349,90 | 351,60 | 353,90 | 361,00 | 361,00 | 360,80 | 362,20 | 361,40 |
| SEER   | W/W | 8,67   | 8,82   | 8,87   | 8,92   | 9,10   | 9,10   | 9,10   | 9,13   | 9,11   |
| <b>SEPR - (EN 14825:2018) High temperature (2)</b> |     |        |        |        |        |        |        |        |        |        |
| SEPR   | W/W | 9,70   | 9,80   | 9,60   | 9,30   | 9,80   | 9,40   | 9,50   | 9,20   | 9,10   |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>              |     |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency                                | °   | %      | -      | -      | -      | -      | -      | -      | 335.7% | 337.9% |
|  | A   | %      | 340.8% | 345.4% | 342.7% | 347.3% | 346.2% | 347.8% | 355.7% | 349.1% |
| SEER   | °   | W/W    | -      | -      | -      | -      | -      | -      | 8,47   | 8,52   |
|  | A   | W/W    | 8,60   | 8,71   | 8,64   | 8,76   | 8,73   | 8,77   | 8,97   | 8,80   |
| <b>SEPR - (EN 14825:2018) High temperature (2)</b> |     |        |        |        |        |        |        |        |        |        |
| SEPR   | °   | W/W    | -      | -      | -      | -      | -      | -      | 8,80   | 8,70   |
|  | A   | W/W    | 9,30   | 9,40   | 8,90   | 9,00   | 9,10   | 9,10   | 9,20   | 8,90   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.  
(2) Calculation performed with VARIABLE water flow rate.

| Size   |   | 1101 | 1251   | 1401   |
|--|---|------|--------|--------|
| <b>Model: °</b>  |   |      |        |        |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |
| Pdesignh   | ° | kW   | -      | -      |
|  | A | kW   | 300,00 | 399,00 |
| SCOP   | ° | W/W  | -      | -      |
|  | A | W/W  | 5,25   | 5,33   |
| ηsh  | ° | %    | -      | -      |
|  | A | %    | 202,00 | 205,00 |

(1) Efficiencies for average temperature applications (55 °C)

**Electric data**

| Size                  |   | 1101 | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502  | 2801  | 2802  | 3201  | 3202  | 3602  | 4202  | 4802  | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Model: °              |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Electric data         |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 682,4  | 765,6  | 849,2  | 957,6  |
|                       | A | A    | 158,9 | 180,6 | 184,4 | 201,3 | 220,8 | 247,5 | 280,9 | 309,0 | 315,2 | 331,4 | 342,7 | 368,6 | 408,3 | 456,2 | 523,3  | 582,2  | 663,0  | 682,4  | 765,4  | 849,2  |
| Peak current (LRA)    | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 1063,0 | 1177,0 | 1391,0 | 1583,0 |
|                       | A | A    | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 498,0 | 23,0  | 592,0 | 23,0  | 641,0 | 689,0 | 837,0 | 934,0 | 1124,0 | 1287,0 | 1063,0 | 1177,0 | 1391,0 | 1583,0 |

**MODEL PERFORMANCE DATA (H) - FOR TEMPERATURES WATER PRODUCED UP TO +65°C****WFGI 1101 - 3201 - model (H) version A - gas R1234ze**

| Size   |     | 1101  | 1251  | 1401  | 1601  | 1801  | 2101   | 2401   | 2801   | 3201   |
|--|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| <b>Model: H</b>                              |     |       |       |       |       |       |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |        |        |        |        |
| Cooling capacity                             | kW  | 220,0 | 254,8 | 289,6 | 327,4 | 357,5 | 399,0  | 482,6  | 542,2  | 593,6  |
| Input power                                  | kW  | 41,7  | 49,5  | 57,4  | 64,3  | 73,6  | 83,0   | 96,5   | 109,7  | 118,6  |
| Cooling total input current                  | A   | 76,0  | 87,0  | 99,0  | 109,0 | 123,0 | 138,0  | 158,0  | 181,0  | 197,0  |
| EER  | W/W | 5,28  | 5,14  | 5,04  | 5,09  | 4,85  | 4,81   | 5,00   | 4,94   | 5,00   |
| Water flow rate source side                  | l/h | 44780 | 52069 | 59378 | 67087 | 73813 | 82562  | 99166  | 111592 | 122023 |
| Pressure drop source side                    | kPa | 30    | 33    | 29    | 26    | 22    | 21     | 24     | 24     | 21     |
| Water flow rate system side                  | l/h | 37844 | 43840 | 49813 | 56306 | 61471 | 68609  | 82982  | 93228  | 102044 |
| Pressure drop system side                    | kPa | 22    | 24    | 24    | 15    | 18    | 13     | 20     | 26     | 14     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |        |        |        |        |
| Heating capacity                             | kW  | 242,3 | 283,1 | 322,4 | 364,4 | 402,1 | 448,3  | 537,9  | 604,7  | 657,2  |
| Input power                                  | kW  | 50,8  | 60,1  | 69,5  | 77,0  | 88,8  | 100,0  | 114,2  | 129,4  | 134,3  |
| Heating total input current                  | A   | 91,0  | 105,0 | 118,0 | 130,0 | 148,0 | 165,0  | 186,0  | 211,0  | 222,0  |
| COP  | W/W | 4,77  | 4,71  | 4,64  | 4,73  | 4,53  | 4,48   | 4,71   | 4,67   | 4,89   |
| Water flow rate system side                  | l/h | 42056 | 49149 | 55968 | 63270 | 69832 | 77853  | 93424  | 105035 | 114165 |
| Pressure drop system side                    | kPa | 27    | 29    | 26    | 23    | 19    | 19     | 22     | 22     | 19     |
| Water flow rate source side                  | l/h | 55990 | 65269 | 74006 | 83856 | 91549 | 101626 | 123761 | 139042 | 152399 |
| Pressure drop source side                    | kPa | 48    | 54    | 54    | 33    | 40    | 28     | 45     | 59     | 32     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFGI 2502 - 9603 - model (H) version A - gas R1234ze**

| Size   |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>                              |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 511,3  | 581,3  | 664,4  | 741,3  | 869,2  | 988,5  | 1083,6 | 1218,4 | 1312,3 | 1450,5 | 1588,3 | 1759,4 |
| Input power                                  | kW  | 100,0  | 114,5  | 129,9  | 146,9  | 170,3  | 191,3  | 214,6  | 243,5  | 249,2  | 279,2  | 314,2  | 360,4  |
| Cooling total input current                  | A   | 182,0  | 205,0  | 225,0  | 248,0  | 291,0  | 326,0  | 370,0  | 411,0  | 449,0  | 491,0  | 556,0  | 651,0  |
| EER  | W/W | 5,11   | 5,08   | 5,11   | 5,04   | 5,10   | 5,17   | 5,05   | 5,00   | 5,27   | 5,20   | 5,06   | 4,88   |
| Water flow rate source side                  | l/h | 104337 | 118851 | 135775 | 151933 | 177734 | 201586 | 222077 | 249762 | 267707 | 296196 | 325814 | 363151 |
| Pressure drop source side                    | kPa | 61     | 55     | 46     | 30     | 45     | 50     | 36     | 51     | 11     | 24     | 23     | 22     |
| Water flow rate system side                  | l/h | 87940  | 99961  | 114232 | 127463 | 149434 | 169953 | 186288 | 209453 | 225564 | 249326 | 273015 | 302384 |
| Pressure drop system side                    | kPa | 45     | 35     | 33     | 41     | 32     | 44     | 34     | 43     | 26     | 31     | 29     | 17     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 563,1  | 641,8  | 731,2  | 822,8  | 961,9  | 1089,6 | 1200,8 | 1381,7 | 1445,1 | 1599,5 | 1759,3 | 1964,0 |
| Input power                                  | kW  | 120,6  | 137,4  | 154,1  | 177,9  | 203,8  | 229,4  | 255,3  | 289,7  | 297,6  | 333,6  | 372,8  | 425,2  |
| Heating total input current                  | A   | 216,0  | 243,0  | 263,0  | 295,0  | 344,0  | 385,0  | 434,0  | 479,0  | 530,0  | 579,0  | 651,0  | 763,0  |
| COP  | W/W | 4,67   | 4,67   | 4,75   | 4,63   | 4,72   | 4,75   | 4,70   | 4,77   | 4,86   | 4,79   | 4,72   | 4,62   |
| Water flow rate system side                  | l/h | 97770  | 111434 | 126975 | 142910 | 167067 | 189246 | 208586 | 239997 | 251090 | 277882 | 305657 | 341230 |
| Pressure drop system side                    | kPa | 54     | 49     | 41     | 26     | 40     | 44     | 31     | 47     | 10     | 22     | 20     | 20     |
| Water flow rate source side                  | l/h | 130239 | 148043 | 169179 | 189222 | 222144 | 252647 | 276929 | 320765 | 334856 | 370130 | 405298 | 448896 |
| Pressure drop source side                    | kPa | 99     | 76     | 73     | 90     | 70     | 96     | 74     | 100    | 56     | 69     | 64     | 37     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFGI 6703 - 9603 - model (H) version ° - gas R1234ze**

| Size   |     | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|
| <b>Model: H</b>                              |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |
| Cooling capacity                             | kW  | 1298,6 | 1433,8 | 1544,1 | 1739,6 |
| Input power                                  | kW  | 252,7  | 280,5  | 312,9  | 362,4  |
| Cooling total input current                  | A   | 449,0  | 491,0  | 553,0  | 649,0  |
| EER  | W/W | 5,14   | 5,11   | 4,93   | 4,80   |
| Water flow rate source side                  | l/h | 265376 | 293300 | 317856 | 359510 |
| Pressure drop source side                    | kPa | 44     | 39     | 34     | 41     |
| Water flow rate system side                  | l/h | 223228 | 246460 | 265406 | 299001 |
| Pressure drop system side                    | kPa | 27     | 29     | 22     | 26     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |
| Heating capacity                             | kW  | 1433,5 | 1584,7 | 1718,0 | 1945,1 |
| Input power                                  | kW  | 300,7  | 334,3  | 369,6  | 428,4  |
| Heating total input current                  | A   | 530,0  | 579,0  | 649,0  | 761,0  |
| COP  | W/W | 4,77   | 4,74   | 4,65   | 4,54   |
| Water flow rate system side                  | l/h | 249013 | 275290 | 298460 | 337909 |
| Pressure drop system side                    | kPa | 39     | 35     | 30     | 36     |
| Water flow rate source side                  | l/h | 331388 | 365876 | 394002 | 443875 |
| Pressure drop source side                    | kPa | 59     | 64     | 49     | 58     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**Energy indices (Reg. 2016/2281 EU)**

| Size  |     | 1101   | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>                                     |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>               |     |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency                                 | %   | 314,30 | 316,20 | 304,40 | 314,40 | 296,40 | 301,70 | 310,30 | 314,20 | 317,80 |
| SEER  | W/W | 7,93   | 7,98   | 7,69   | 7,94   | 7,49   | 7,62   | 7,83   | 7,93   | 8,02   |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b> |     |        |        |        |        |        |        |        |        |        |
| SEPR  | W/W | 9,10   | 9,00   | 8,70   | 8,90   | 8,40   | 8,40   | 8,80   | 8,60   | 8,90   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.  
(2) Calculation performed with VARIABLE water flow rate.

| Size  |   | 2502 | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>                                     |   |      |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>               |   |      |        |        |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency                                 | ° | %    | -      | -      | -      | -      | -      | -      | -      | 287.7% | 286.9% | 287.6% | 281.6% |
|   | A | %    | 294.9% | 295.7% | 300.5% | 291.4% | 301.0% | 304.5% | 309.3% | 298.9% | 302.4% | 297.7% | 302.9% |
| SEER  | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | 7,27   | 7,25   | 7,27   | 7,12   |
|   | A | W/W  | 7,45   | 7,47   | 7,59   | 7,36   | 7,60   | 7,69   | 7,81   | 7,55   | 7,64   | 7,52   | 7,65   |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |
| SEPR  | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | 8,20   | 8,20   | 8,30   | 8,30   |
|   | A | W/W  | 8,60   | 8,60   | 8,50   | 8,60   | 8,50   | 8,60   | 8,50   | 8,60   | 8,50   | 8,70   | 8,70   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.  
(2) Calculation performed with VARIABLE water flow rate.

| Size   |   | 1101 | 1251   | 1401   |
|--|---|------|--------|--------|
| <b>Model: H</b>  |   |      |        |        |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |
| Pdesignh   | ° | kW   | -      | -      |
|  | A | kW   | 296,00 | 348,00 |
| SCOP   | ° | W/W  | -      | -      |
|  | A | W/W  | 5,45   | 5,43   |
| ηsh  | ° | %    | -      | -      |
|  | A | %    | 210,00 | 209,00 |

(1) Efficiencies for average temperature applications (55 °C)

**Electric data**

| Size                  |   | 1101 | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502  | 2801  | 2802  | 3201  | 3202  | 3602  | 4202  | 4802  | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>       |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| <b>Electric data</b>  |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 853,0  | 939,0  | 1047,0 | 1178,0 |
|                       | A | A    | 155,0 | 177,0 | 201,0 | 222,0 | 262,0 | 296,0 | 349,0 | 343,0 | 390,0 | 389,0 | 415,0 | 422,0 | 488,0 | 559,0 | 644,0  | 719,0  | 797,0  | 853,0  | 939,0  | 1047,0 |
| Peak current (LRA)    | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 1179,0 | 1297,0 | 1527,0 | 1737,0 |
|                       | A | A    | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 494,0 | 23,0  | 545,0 | 23,0  | 661,0 | 730,0 | 885,0 | 1002,0 | 1198,0 | 1357,0 | 1179,0 | 1297,0 | 1527,0 |

## PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

### Model performance data (°) - for condensing temperatures up to 55°C

#### Model output data WFGI° - AE - gas R1234ze

| Size  |     | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2801  | 3201  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Model: °</b>   |     |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |       |       |       |       |       |       |       |
| Cooling capacity  | kW  | 198,0 | 231,1 | 256,8 | 292,1 | 326,6 | 363,6 | 437,8 | 493,2 | 519,6 |
| Input power   | kW  | 51,6  | 61,8  | 66,8  | 75,1  | 88,4  | 100,0 | 109,4 | 123,5 | 136,2 |
| Cooling total input current                               | A   | 92,0  | 108,0 | 115,0 | 128,0 | 151,0 | 168,9 | 184,0 | 206,0 | 227,0 |
| EER   | W/W | 3,83  | 3,74  | 3,85  | 3,89  | 3,69  | 3,64  | 4,00  | 3,99  | 3,82  |
| Evaporator water flow rate                                | l/h | 34021 | 39713 | 44127 | 50189 | 56115 | 62473 | 75211 | 84731 | 89274 |
| Pressure drop evaporator side                             | kPa | 17    | 20    | 19    | 12    | 15    | 11    | 17    | 21    | 12    |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |       |       |       |       |       |       |       |
| Gas line (C1)   | Ø   | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 89,0  | 89,0  | 89,0  |
| Gas line (C2)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Gas line (C3)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Liquid line (C1)  | Ø   | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0  | 54,0  | 54,0  |
| Liquid line (C2)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Liquid line (C3)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  |     | 2502  | 2802  | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>   |     |       |       |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 453,9 | 510,4 | 593,1  | 659,9  | 765,6  | 890,9  | 975,6  | 1082,9 | 1179,9 | 1316,9 | 1449,4 | 1574,0 |
| Input power   | kW  | 116,3 | 128,9 | 149,1  | 172,3  | 195,5  | 215,5  | 242,5  | 277,6  | 290,6  | 321,6  | 361,5  | 409,6  |
| Cooling total input current                               | A   | 207,0 | 229,0 | 256,0  | 293,0  | 327,0  | 370,0  | 411,0  | 471,0  | 488,0  | 555,0  | 616,0  | 700,0  |
| EER   | W/W | 3,90  | 3,96  | 3,98   | 3,83   | 3,92   | 4,13   | 4,02   | 3,90   | 4,06   | 4,09   | 4,01   | 3,84   |
| Evaporator water flow rate                                | l/h | 77982 | 87695 | 101893 | 113381 | 131535 | 153062 | 167617 | 186047 | 202720 | 226251 | 249032 | 270431 |
| Pressure drop evaporator side                             | kPa | 36    | 28    | 26     | 33     | 27     | 35     | 26     | 33     | 20     | 26     | 25     | 14     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | -     | -     | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | -     | -     | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

#### Model output data WFGI° - °E - gas R1234ze

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: °</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |        |        |        |        |
| Cooling capacity  | kW  | 1146,9 | 1278,8 | 1388,3 | 1517,0 |
| Input power   | kW  | 291,2  | 322,2  | 361,3  | 409,8  |
| Cooling total input current                               | A   | 489,0  | 556,0  | 615,0  | 700,0  |
| EER   | W/W | 3,94   | 3,97   | 3,84   | 3,70   |
| Evaporator water flow rate                                | l/h | 197057 | 219704 | 238518 | 260630 |
| Pressure drop evaporator side                             | kPa | 20     | 23     | 17     | 21     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |        |        |        |        |
| Gas line (C1)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

## Model performance data (H) - for condensing temperatures up to 60°C

### Model output data - model WFGIH - AE - gas R1234ze

| Size  |     | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2801  | 3201  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Model: H</b>   |     |       |       |       |       |       |       |       |       |       |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |       |       |       |       |       |       |       |
| Cooling capacity  | kW  | 198,0 | 231,1 | 256,8 | 292,1 | 326,6 | 363,6 | 437,8 | 493,2 | 519,6 |
| Input power   | kW  | 51,6  | 61,8  | 66,8  | 75,1  | 88,4  | 100,0 | 109,4 | 123,5 | 136,2 |
| Cooling total input current                               | A   | 92,0  | 108,0 | 115,0 | 128,0 | 151,0 | 168,9 | 184,0 | 206,0 | 227,0 |
| EER   | W/W | 3,83  | 3,74  | 3,85  | 3,89  | 3,69  | 3,64  | 4,00  | 3,99  | 3,82  |
| Evaporator water flow rate                                | l/h | 34021 | 39713 | 44127 | 50189 | 56115 | 62473 | 75211 | 84731 | 89274 |
| Pressure drop evaporator side                             | kPa | 17    | 20    | 19    | 12    | 15    | 11    | 17    | 21    | 12    |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |       |       |       |       |       |       |       |
| Gas line (C1)   | Ø   | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 89,0  | 89,0  | 89,0  |
| Gas line (C2)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Gas line (C3)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Liquid line (C1)  | Ø   | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0  | 54,0  | 54,0  |
| Liquid line (C2)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Liquid line (C3)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  |     | 2502  | 2802  | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>   |     |       |       |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 453,9 | 510,4 | 593,1  | 659,9  | 765,6  | 890,9  | 975,6  | 1082,9 | 1179,9 | 1316,9 | 1449,4 | 1574,0 |
| Input power   | kW  | 116,3 | 128,9 | 149,1  | 172,3  | 195,5  | 215,5  | 242,5  | 277,6  | 290,6  | 321,6  | 361,5  | 409,6  |
| Cooling total input current                               | A   | 207,0 | 229,0 | 256,0  | 293,0  | 327,0  | 370,0  | 411,0  | 471,0  | 488,0  | 555,0  | 616,0  | 700,0  |
| EER   | W/W | 3,90  | 3,96  | 3,98   | 3,83   | 3,92   | 4,13   | 4,02   | 3,90   | 4,06   | 4,09   | 4,01   | 3,84   |
| Evaporator water flow rate                                | l/h | 77982 | 87695 | 101893 | 113381 | 131535 | 153062 | 167617 | 186047 | 202720 | 226251 | 249032 | 270431 |
| Pressure drop evaporator side                             | kPa | 36    | 28    | 26     | 33     | 27     | 35     | 26     | 33     | 20     | 26     | 25     | 14     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | -     | -     | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | -     | -     | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

### Model output data - model WFGIH - °E - gas R1234ze

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: H</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |        |        |        |        |
| Cooling capacity  | kW  | 1146,9 | 1278,8 | 1388,3 | 1517,0 |
| Input power   | kW  | 291,2  | 322,2  | 361,3  | 409,8  |
| Cooling total input current                               | A   | 489,0  | 556,0  | 615,0  | 700,0  |
| EER   | W/W | 3,94   | 3,97   | 3,84   | 3,70   |
| Evaporator water flow rate                                | l/h | 197057 | 219704 | 238518 | 260630 |
| Pressure drop evaporator side                             | kPa | 20     | 23     | 17     | 21     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |        |        |        |        |
| Gas line (C1)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

## GENERAL TECHNICAL DATA

| Size                           | 1101 1251 1401 1601 1801 2101 2401 2502 2801 2802 3201 3202 3602 4202 4802 5602 6402 6703 7203 8403 9603 |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
|--------------------------------|--|------|----------------|------|------|------|------|------|------|------|-------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Screw          |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Compressor regulation          | °A   | Type | I              | I    | I    | I    | I    | I    | I    | I/1  | I     | I/1  | I     | I/1  | I/1  | I/1  | I/1   | I/1   | I/1   | I/1   | I/1   | I/1   | I/1   |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Circuits                       | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Refrigerant                    | °A   | type | R1234ze        |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Refrigerant load circuit 1 (1) | °  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
|                                | A  | kg   | 59,0           | 57,0 | 72,0 | 66,0 | 61,0 | 85,0 | 81,0 | 50,0 | 110,0 | 53,0 | 104,0 | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
| Refrigerant load circuit 2 (1) | °  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
|                                | A  | kg   | -              | -    | -    | -    | -    | -    | -    | 50,0 | -     | 53,0 | -     | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
| Refrigerant load circuit 3 (1) | °  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
|                                | A  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
| System side heat exchanger     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Shell and tube |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1     | 1    | 1     | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Connections (in/out)           | °A   | Type | Grooved joints |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Source side heat exchanger     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Shell and tube |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Connections (in/out)           | °A   | Type | Grooved joints |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

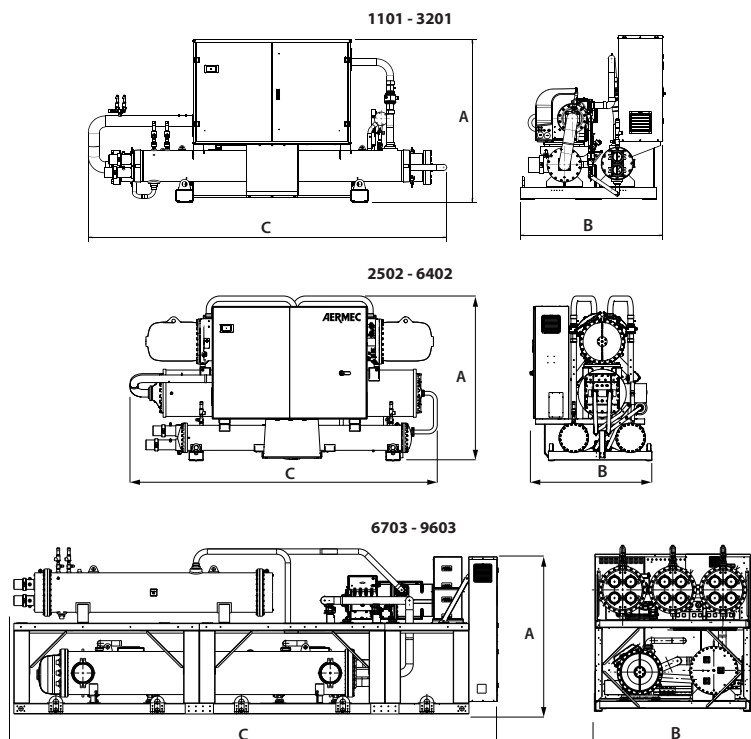
## SOUND DATA

### Sound data calculated with functioning in cooling mode - R1234ze gas

| Size                  |       | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402  | 6703 | 7203  | 8403  | 9603  |
|-----------------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|
| Refrigerant gas: °    |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Standard equipment    |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Sound power level (1) | dB(A) | 94,0 | 95,8 | 96,1 | 97,0 | 97,1 | 97,2 | 97,3 | 97,3 | 97,3 | 97,7 | 98,0 | 98,8 | 98,8 | 98,9 | 98,9 | 99,3 | 100,0 | 99,5 | 100,6 | 101,0 | 102,0 |
| Silenced equipment    |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Sound power level (1) | dB(A) | 90,0 | 91,8 | 92,1 | 93,0 | 93,1 | 93,2 | 93,3 | 93,3 | 93,3 | 93,7 | 94,0 | 94,8 | 94,8 | 94,9 | 94,9 | 95,3 | 96,0  | 95,5 | 96,6  | 97,0  | 98,0  |

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

## DIMENSIONS



| Size  |   |    | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703  | 7203  | 8403  | 9603  |
|---|---|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|
| Model: H, °                                     |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |
| Dimensions and weights - standard configuration |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |
| A   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2250  | 2250  | 2250  | 2250  |
|   | A | mm | 1720 | 1790 | 1865 | 1865 | 1865 | 1887 | 1887 | 2131 | 1920 | 2131 | 1920 | 2195 | 2195 | 2340 | 2455 | 2440 | 2432 | 2250  | 2250  | 2250  | 2250  |
| B   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2200  | 2200  | 2200  | 2200  |
|   | A | mm | 1510 | 1560 | 1610 | 1610 | 1610 | 1610 | 1610 | 1645 | 1630 | 1645 | 1630 | 1675 | 1675 | 1685 | 1875 | 1875 | 2000 | 2200  | 2200  | 2200  | 2200  |
| C   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 5650  | 5650  | 5650  | 5650  |
|   | A | mm | 3460 | 3463 | 3585 | 4100 | 4100 | 4140 | 4240 | 4320 | 4290 | 4345 | 4290 | 4380 | 4380 | 4395 | 4500 | 4580 | 4580 | 5650  | 5650  | 5650  | 5650  |
| Empty weight                                    | ° | kg | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 8740  | 9680  | 9900  | 10000 |
|   | A | kg | 2020 | 2030 | 2230 | 2410 | 2450 | 2670 | 3090 | 3710 | 3530 | 3980 | 3570 | 5160 | 5220 | 5710 | 6440 | 6680 | 6770 | 9730  | 11440 | 11980 | 12060 |
| Dimensions and weights - quiet configuration    |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |
| A   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2250  | 2250  | 2250  | 2250  |
|   | A | mm | 1720 | 1790 | 1865 | 1865 | 1865 | 1887 | 1887 | 2131 | 1920 | 2131 | 1920 | 2195 | 2195 | 2340 | 2455 | 2440 | 2432 | 2250  | 2250  | 2250  | 2250  |
| B   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2200  | 2200  | 2200  | 2200  |
|   | A | mm | 1525 | 1560 | 1610 | 1610 | 1610 | 1615 | 1615 | 1645 | 1630 | 1645 | 1630 | 1675 | 1675 | 1685 | 1875 | 1875 | 2000 | 2200  | 2200  | 2200  | 2200  |
| C   | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 5650  | 5650  | 5650  | 5650  |
|   | A | mm | 3460 | 3463 | 3585 | 4100 | 4100 | 4140 | 4240 | 4320 | 4290 | 4345 | 4290 | 4630 | 4630 | 4600 | 5015 | 5060 | 5060 | 5650  | 6840  | 6840  | 6840  |
| Empty weight                                    | ° | kg | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 9270  | 10240 | 10510 | 10610 |
|   | A | kg | 2180 | 2190 | 2390 | 2570 | 2610 | 2830 | 3280 | 4020 | 3720 | 4290 | 3760 | 5500 | 5560 | 6050 | 6810 | 7080 | 7170 | 10260 | 12000 | 12590 | 12670 |

■ For the sizes of D-T-E versions please contact the factory.

Aermec reserves the right to make any modifications deemed necessary.  
 All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WFGN

## Water cooled heat pump reversible water side

Cooling capacity 136 ÷ 1727 kW  
Heating capacity 153 ÷ 1921 kW

- Production of hot water up to 55°C.
- Production of negative chilled water down to -8°C.



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

### FEATURES

#### Operating field

Production of chilled water up to 16 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 55 °C.

**With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.**

#### Mono, bi-tri circuit unit

Unit with 1-2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

They are equipped with screw compressors and system and source side shell and tube heat exchangers dedicated to use of the new HFO R1234ze gas (A2L).

**The R515B refrigerant with this type of gas is also available on the configurator. Performances do not vary when the refrigerant gas available on the configurator varies.**

For further details refer to the technical documentation or to the Magellano selection program.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 4.3" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Adjustment includes complete management of the alarms and their log.

The possibility to control several units in Master - Slave parallel mode up to a maximum of 4 compressors.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for BACnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**AERSET:** It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.



## FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**ISG:** Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 2 (1) | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 3 (1) | °A  | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP             | °   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP             | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET              | °   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERSET              | °   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERSET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO    | °   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO    | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1                | °   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1                | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

(1) x Indicates the quantity of accessories to match.

### Antivibration

| Version | Set-up | Heat recovery | 0701        | 0801        | 0901        | 1101        | 1251   |
|---------|--------|---------------|-------------|-------------|-------------|-------------|--------|
| °       | °,L    | °,D,T         | -           | -           | -           | -           | -      |
| A       | °,L    | °             | AVX680      | AVX680      | AVX680      | AVX681      | AVX681 |
| A       | °,L    | D,T           | -           | -           | -           | -           | -      |
| Version | Set-up | Heat recovery | 1401        | 1601        | 1801        | 2101        | 2401   |
| °       | °,L    | °,D,T         | -           | -           | -           | -           | -      |
| A       | °      | °             | AVX681      | AVX682      | AVX682      | AVX683      | AVX683 |
| A       | L      | °             | AVX681      | AVX682      | AVX685      | AVX683      | AVX683 |
| A       | °,L    | D,T           | -           | -           | -           | -           | -      |
| Version | Set-up | Heat recovery | 2502        | 2801        | 2802        | 3201        | 3202   |
| °       | °,L    | °,D,T         | -           | -           | -           | -           | -      |
| A       | °      | °             | AVX673      | AVX683      | AVX674      | AVX683      | AVX679 |
| A       | L      | °             | AVX674      | AVX683      | AVX674      | AVX683      | AVX678 |
| A       | °      | D             | AVX674      | -           | AVX674      | -           | AVX679 |
| A       | °      | T             | AVX674      | -           | AVX674      | -           | AVX678 |
| A       | L      | D,T           | AVX674      | -           | AVX674      | -           | AVX678 |
| Version | Set-up | Heat recovery | 3602        | 4202        | 4802        | 5602        | 6402   |
| °       | °,L    | °,D,T         | -           | -           | -           | -           | -      |
| A       | °      | °,D           | AVX679      | AVX678      | AVX678      | AVX678      | AVX678 |
| A       | °      | T             | AVX678      | AVX678      | AVX678      | AVX678      | AVX678 |
| A       | L      | °,D           | AVX678      | AVX678      | AVX678      | AVX678      | AVX678 |
| A       | L      | T             | AVX678      | AVX678      | AVX676      | AVX676      | AVX676 |
| Version | Set-up | Heat recovery | 6703        | 7203        | 8403        | 9603        |        |
| °       | °,L    | °,D,T         | Contact us. | Contact us. | Contact us. | Contact us. |        |
| A       | °,L    | °,D,T         | Contact us. | Contact us. | Contact us. | Contact us. |        |

### Power factor correction

| Ver | 0701       | 0801       | 0901       | 1101       | 1251       | 1401       | 1601       | 1801       | 2101       | 2401       | 2502       | 2801       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A   | RIFWFN0701 | RIFWFN0801 | RIFWFN0901 | RIFWFN1101 | RIFWFN1251 | RIFWFN1401 | RIFWFN1601 | RIFWFN1801 | RIFWFN2101 | RIFWFN2401 | RIFWFN2502 | RIFWFN2801 |
| Ver | 2802       | 3201       | 3202       | 3602       | 4202       | 4802       | 5602       | 6402       | 6703       | 7203       | 8403       | 9603       |
| °   | -          | -          | -          | -          | -          | -          | -          | -          | RIFWFN6703 | RIFWFN7203 | RIFWFN8403 | RIFWFN9603 |
| A   | RIFWFN2802 | RIFWFN3201 | RIFWFN3202 | RIFWFN3602 | RIFWFN4202 | RIFWFN4802 | RIFWFN5602 | RIFWFN6402 | RIFWFN6703 | RIFWFN7203 | RIFWFN8403 | RIFWFN9603 |

For the size of the units with the RIF accessory we ask you to contact the headquarters.

### Isolating kit

| Ver | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502 | 2801  |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| A   | ISG10 | ISG10 | ISG10 | ISG10 | ISG11 | ISG12 | ISG13 | ISG13 | ISG14 | ISG14 | ISG1 | ISG15 |
| Ver | 2802  | 3201  | 3202  | 3602  | 4202  | 4802  | 5602  | 6402  | 6703  | 7203  | 8403 | 9603  |
| °   | -     | -     | -     | -     | -     | -     | -     | -     | ISG5  | ISG5  | ISG6 | ISG6  |
| A   | ISG1  | ISG15 | ISG2  | ISG2  | ISG2  | ISG3  | ISG3  | ISG3  | ISG7  | ISG8  | ISG8 | ISG8  |

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3,4 | WFGN   |
| 5,6,7,8 | Size<br>0701, 0801, 0901, 1101, 1251, 1401, 1601, 1801, 2101, 2401, 2502, 2801, 2802, 3201, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603 |
| 9       | Model  |
| °       | Heat pump reversible on the water side   |
| 10      | Version  |
| °       | Standard (1)   |
| A       | High efficiency  |
| 11      | Operating field  |
| X       | Electronic thermostatic expansion valve  |
| Z       | Double electronic thermostatic for low temperature   |
| 12      | Set-up   |
| K       | Super low noise with hood (2)  |
| L       | Silenced with hood   |
| °       | Standard   |
| 13      | Heat recovery  |
| D       | With desuperheater (3)   |
| T       | With total recovery (3)  |
| °       | Without heat recovery  |
| 14      | Evaporator   |
| E       | Evaporating unit   |
| °       | Standard   |
| 15      | Power supply   |
| 2       | 230V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (4)   |
| 4       | 230V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (4)  |
| 5       | 500V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (4)   |
| 8       | 400V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit  |
| 9       | 500V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (4)  |
| °       | 400V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit   |
| 16      | Refrigerant gas (5)  |
| G       | R515B  |
| °       | R1234ze  |

(1) Only for sizes from 6703 to 9603

(2) Only for units with R515B

(3) Not available for the condenserless "E"

(4) The 230V and 500V power supplies are only available for sizes 0701 - 0801 - 0901 - 1101 - 1251 - 1401 - 2502 - 2802

(5) Performances do not vary when the refrigerant gas available on the configurator varies.

## PERFORMANCE SPECIFICATIONS

## WFGN 0701-3201 - version A - gas R1234ze

| Size   |     | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101   | 2401   | 2801   | 3201   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |       |       |        |        |        |        |
| Cooling capacity                             | kW  | 136,1 | 154,8 | 173,8 | 221,3 | 239,8 | 272,3 | 335,7 | 370,1 | 434,3  | 490,7  | 545,3  | 596,9  |
| Input power                                  | kW  | 26,0  | 29,7  | 33,8  | 41,4  | 45,0  | 51,2  | 61,5  | 69,0  | 78,1   | 88,5   | 100,0  | 109,9  |
| Cooling total input current                  | A   | 52,0  | 57,0  | 63,0  | 70,0  | 83,0  | 96,0  | 107,0 | 119,0 | 130,0  | 156,0  | 173,0  | 193,0  |
| EER  | W/W | 5,24  | 5,21  | 5,15  | 5,35  | 5,33  | 5,32  | 5,46  | 5,37  | 5,56   | 5,55   | 5,45   | 5,43   |
| Water flow rate system side                  | l/h | 23410 | 26632 | 29906 | 38077 | 41247 | 46844 | 57740 | 63636 | 74675  | 84359  | 93748  | 102619 |
| Pressure drop system side                    | kPa | 22    | 25    | 24    | 22    | 21    | 22    | 16    | 20    | 15     | 21     | 25     | 15     |
| Water flow rate source side                  | l/h | 27751 | 31586 | 35551 | 44983 | 48779 | 55416 | 68103 | 75234 | 87855  | 99259  | 110576 | 121174 |
| Pressure drop source side                    | kPa | 21    | 20    | 19    | 24    | 21    | 18    | 18    | 18    | 19     | 19     | 19     | 18     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |
| Heating capacity                             | kW  | 153,1 | 172,4 | 196,2 | 245,2 | 267,2 | 303,2 | 369,1 | 408,3 | 478,4  | 547,5  | 601,0  | 663,0  |
| Input power                                  | kW  | 32,6  | 37,2  | 42,4  | 51,8  | 56,4  | 64,2  | 76,0  | 85,4  | 96,3   | 109,6  | 123,2  | 137,5  |
| Heating total input current                  | A   | 64,0  | 71,0  | 79,0  | 87,0  | 103,0 | 119,0 | 131,0 | 146,0 | 160,0  | 191,0  | 210,0  | 240,0  |
| COP  | W/W | 4,69  | 4,63  | 4,63  | 4,74  | 4,73  | 4,73  | 4,86  | 4,78  | 4,97   | 4,99   | 4,88   | 4,82   |
| Water flow rate system side                  | l/h | 26569 | 29919 | 34065 | 42555 | 46384 | 52636 | 64078 | 70908 | 83096  | 95098  | 104400 | 115170 |
| Pressure drop system side                    | kPa | 20    | 18    | 17    | 22    | 19    | 16    | 16    | 16    | 17     | 18     | 17     | 17     |
| Water flow rate source side                  | l/h | 35233 | 39544 | 45008 | 56537 | 61580 | 69831 | 85443 | 94274 | 111358 | 127787 | 139586 | 153205 |
| Pressure drop source side                    | kPa | 49    | 55    | 55    | 48    | 47    | 48    | 34    | 44    | 34     | 48     | 57     | 34     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFGN 2502-9603 - version A - gas R1234ze**

| Size   |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 489,1  | 556,6  | 675,8  | 750,2  | 879,3  | 995,4  | 1100,3 | 1217,3 | 1315,3 | 1454,9 | 1594,7 | 1727,0 |
| Input power                                  | kW  | 91,4   | 103,5  | 125,1  | 138,3  | 159,8  | 180,3  | 202,1  | 225,0  | 236,7  | 262,9  | 296,7  | 326,6  |
| Cooling total input current                  | A   | 166,0  | 192,0  | 214,0  | 237,0  | 261,0  | 312,0  | 346,0  | 388,0  | 386,0  | 466,0  | 515,0  | 577,0  |
| EER  | W/W | 5,35   | 5,38   | 5,40   | 5,42   | 5,50   | 5,52   | 5,45   | 5,41   | 5,56   | 5,53   | 5,38   | 5,29   |
| Water flow rate system side                  | l/h | 84115  | 95704  | 116204 | 128995 | 151168 | 171142 | 189154 | 209277 | 226089 | 250084 | 274117 | 296820 |
| Pressure drop system side                    | kPa | 42     | 33     | 34     | 42     | 35     | 44     | 33     | 41     | 25     | 31     | 30     | 17     |
| Water flow rate source side                  | l/h | 99161  | 112842 | 136932 | 152026 | 177654 | 200961 | 222817 | 246414 | 266044 | 294386 | 324122 | 352026 |
| Pressure drop source side                    | kPa | 53     | 50     | 49     | 31     | 51     | 51     | 42     | 62     | 19     | 18     | 18     | 21     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 545,1  | 618,4  | 747,2  | 833,5  | 967,0  | 1093,6 | 1204,7 | 1333,7 | 1457,0 | 1601,3 | 1761,4 | 1921,0 |
| Input power                                  | kW  | 116,1  | 130,9  | 155,9  | 173,0  | 198,3  | 224,8  | 248,9  | 277,7  | 293,3  | 326,6  | 365,9  | 400,0  |
| Heating total input current                  | A   | 208,0  | 240,0  | 264,0  | 291,0  | 320,0  | 383,0  | 421,0  | 473,0  | 473,0  | 571,0  | 627,0  | 702,0  |
| COP  | W/W | 4,70   | 4,73   | 4,79   | 4,82   | 4,88   | 4,87   | 4,84   | 4,80   | 4,97   | 4,90   | 4,81   | 4,80   |
| Water flow rate system side                  | l/h | 94650  | 107376 | 129767 | 144768 | 167936 | 189943 | 209256 | 231650 | 253135 | 278220 | 306025 | 333765 |
| Pressure drop system side                    | kPa | 49     | 45     | 44     | 28     | 45     | 46     | 37     | 55     | 17     | 16     | 16     | 19     |
| Water flow rate source side                  | l/h | 126174 | 143007 | 173413 | 193793 | 225352 | 255129 | 279883 | 310087 | 339613 | 372508 | 407744 | 443369 |
| Pressure drop source side                    | kPa | 95     | 74     | 77     | 96     | 79     | 98     | 73     | 91     | 56     | 70     | 66     | 37     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFGN 6703-9603 - version ° - gas R1234ze**

| Size   |     | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |
| Cooling capacity                             | kW  | 1300,7 | 1439,0 | 1554,8 | 1692,4 |
| Input power                                  | kW  | 239,3  | 265,4  | 297,1  | 329,6  |
| Cooling total input current                  | A   | 396,0  | 475,0  | 525,0  | 588,0  |
| EER  | W/W | 5,44   | 5,42   | 5,23   | 5,13   |
| Water flow rate system side                  | l/h | 223578 | 247357 | 267235 | 290895 |
| Pressure drop system side                    | kPa | 26     | 29     | 22     | 26     |
| Water flow rate source side                  | l/h | 263609 | 291721 | 317119 | 346049 |
| Pressure drop source side                    | kPa | 39     | 39     | 33     | 39     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |
| Heating capacity                             | kW  | 1444,7 | 1588,0 | 1725,3 | 1890,3 |
| Input power                                  | kW  | 296,0  | 328,4  | 364,3  | 404,7  |
| Heating total input current                  | A   | 485,0  | 583,0  | 639,0  | 716,0  |
| COP  | W/W | 4,88   | 4,83   | 4,74   | 4,67   |
| Water flow rate system side                  | l/h | 250963 | 275857 | 299728 | 328385 |
| Pressure drop system side                    | kPa | 36     | 35     | 29     | 35     |
| Water flow rate source side                  | l/h | 335840 | 368447 | 397507 | 434518 |
| Pressure drop source side                    | kPa | 59     | 65     | 48     | 58     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size  |     | 0701   | 0801   | 0901   | 1101   | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2801   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>              |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER  | W/W | 6,71   | 6,96   | 6,87   | 6,43   | 6,80   | 6,79   | 6,69   | 6,69   | 7,01   | 6,99   | 6,58   |
| Seasonal efficiency                                 | %   | 265,30 | 275,30 | 271,70 | 254,00 | 269,00 | 268,40 | 264,60 | 264,70 | 277,20 | 276,70 | 260,30 |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |
| SEPR  | W/W | 8,20   | 8,00   | 8,20   | 8,00   | 8,00   | 8,00   | 8,00   | 7,90   | 8,10   | 8,10   | 8,10   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with VARIABLE water flow rate.

| Size  |    | 6703 | 7203   | 8403   | 9603   |
|---|----|------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>              |    |      |        |        |        |
| SEER  | °A | W/W  | 7,11   | 7,14   | 7,03   |
| Seasonal efficiency                                 | °A | %    | 281,30 | 282,50 | 278,30 |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b> |    |      |        |        |        |
| SEPR  | °A | W/W  | 8,10   | 8,20   | 8,20   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with VARIABLE water flow rate.

| Size   |   | 0701 | 0801   | 0901   | 1101   | 1251   | 1401   |
|--|---|------|--------|--------|--------|--------|--------|
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |        |        |        |
| Pdesignh   | ° | kW   | -      | -      | -      | -      | -      |
|  | A | kW   | 197,00 | 219,00 | 253,00 | 312,00 | 384,00 |
| SCOP   | ° | W/W  | -      | -      | -      | -      | -      |
|  | A | W/W  | 4,65   | 4,70   | 4,65   | 4,75   | 5,00   |
| ηsh  | ° | %    | -      | -      | -      | -      | -      |
|  | A | %    | 178,00 | 180,00 | 178,00 | 182,00 | 192,00 |

(1) Efficiencies for average temperature applications (55 °C)

## PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

### WFGN - version AE - gas R1234ze

| Size  |     | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2801   | 3201  |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| <b>Evaporator: E</b>                                      |     |       |       |       |       |       |       |       |       |       |       |        |       |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |       |       |       |       |       |       |       |       |        |       |
| Cooling capacity  | kW  | 121,0 | 137,5 | 154,5 | 196,6 | 214,1 | 243,2 | 297,4 | 329,0 | 390,9 | 442,4 | 480,9  | 529,0 |
| Input power   | kW  | 31,4  | 35,9  | 40,9  | 50,0  | 54,7  | 62,2  | 74,1  | 83,1  | 93,9  | 106,2 | 119,1  | 131,5 |
| Cooling total input current                               | A   | 58,0  | 65,0  | 73,0  | 83,0  | 97,0  | 111,0 | 125,0 | 140,0 | 154,0 | 183,0 | 203,0  | 226,0 |
| EER   | W/W | 3,85  | 3,83  | 3,77  | 3,93  | 3,92  | 3,91  | 4,02  | 3,96  | 4,16  | 4,17  | 4,04   | 4,02  |
| Evaporator water flow rate                                | l/h | 20792 | 23621 | 26548 | 33776 | 36780 | 41778 | 51103 | 56534 | 67168 | 76005 | 110092 | 90893 |
| Pressure drop evaporator side                             | kPa | 31    | 35    | 35    | 31    | 31    | 32    | 22    | 29    | 22    | 30    | 35     | 21    |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |       |       |       |       |       |       |       |       |        |       |
| Gas line (C1)   | Ø   | 42,0  | 54,0  | 54,0  | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 89,0  | 89,0   | 89,0  |
| Gas line (C2)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -     |
| Gas line (C3)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -     |
| Liquid line (C1)  | Ø   | 28,0  | 35,0  | 35,0  | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0  | 54,0   | 54,0  |
| Liquid line (C2)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -     |
| Liquid line (C3)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -     |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  |     | 2502  | 2802  | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Evaporator: E</b>                                      |     |       |       |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 435,2 | 495,4 | 598,4  | 665,6  | 796,3  | 895,9  | 964,3  | 1068,0 | 1165,6 | 1325,4 | 1443,9 | 1565,4 |
| Input power   | kW  | 109,2 | 124,2 | 148,1  | 164,9  | 188,7  | 212,3  | 238,2  | 262,9  | 279,7  | 316,3  | 354,8  | 392,2  |
| Cooling total input current                               | A   | 193,0 | 222,0 | 250,0  | 279,0  | 310,0  | 365,0  | 405,0  | 451,0  | 459,0  | 545,0  | 603,0  | 673,0  |
| EER   | W/W | 3,99  | 3,99  | 4,04   | 4,04   | 4,22   | 4,22   | 4,05   | 4,06   | 4,17   | 4,19   | 4,07   | 3,99   |
| Evaporator water flow rate                                | l/h | 74770 | 85110 | 102813 | 114362 | 136819 | 153933 | 165685 | 183500 | 200259 | 227721 | 248077 | 268953 |
| Pressure drop evaporator side                             | kPa | 60    | 48    | 49     | 63     | 50     | 63     | 45     | 56     | 34     | 46     | 43     | 24     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |       |       |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 67,0  | 67,0  | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | -     | -     | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 42,0  | 42,0  | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | -     | -     | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

### WFGN - version °E - gas R1234ze

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Evaporator: E</b>                                      |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R1234ze (1)</b> |     |        |        |        |        |
| Cooling capacity  | kW  | 1129,2 | 1283,0 | 1378,4 | 1504,1 |
| Input power   | kW  | 282,3  | 319,1  | 356,8  | 394,8  |
| Cooling total input current                               | A   | 463,0  | 549,0  | 606,0  | 676,0  |
| EER   | W/W | 4,00   | 4,02   | 3,86   | 3,81   |
| Evaporator water flow rate                                | l/h | 194017 | 220439 | 236821 | 258428 |
| Pressure drop evaporator side                             | kPa | 35     | 41     | 30     | 36     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>       |     |        |        |        |        |
| Gas line (C1)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

## ELECTRIC DATA

| Size                  |    | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502   | 2801  | 2802  | 3201  | 3202  | 3602   | 4202  | 4802  | 5602  | 6402  |        |  |
|-----------------------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|--|
| Electric data         |    |       |       |       |       |       |       |       |       |       |       |        |       |       |       |       |        |       |       |       |       |        |  |
| Maximum current (FLA) | A  | 106,0 | 119,0 | 136,0 | 162,0 | 183,0 | 208,0 | 243,0 | 275,0 | 305,0 | 350,0 | 365,0  | 389,0 | 416,0 | 427,0 | 486,0 | 549,0  | 609,0 | 700,0 | 777,0 | 854,0 |        |  |
| Peak current (LRA)    | A  | 163   | 192   | 229   | 300   | 314   | 341   | 436   | 465   | 586   | 650   | 440    | 805   | 486   | 917   | 601   | 650    | 792   | 890   | 1070  | 1210  |        |  |
|                       |    |       |       |       |       |       |       |       |       |       |       |        |       |       |       |       |        |       |       |       |       |        |  |
| Size                  |    | 6703  |       |       |       |       | 7203  |       |       |       |       | 8403   |       |       |       |       | 9603   |       |       |       |       |        |  |
| Electric data         |    |       |       |       |       |       |       |       |       |       |       |        |       |       |       |       |        |       |       |       |       |        |  |
| Maximum current (FLA) | °A | A     |       |       |       |       | 913,0 |       |       |       |       | 1050,0 |       |       |       |       | 1166,0 |       |       |       |       | 1281,0 |  |
| Peak current (LRA)    | °A | A     |       |       |       |       | 998   |       |       |       |       | 1129   |       |       |       |       | 1334   |       |       |       |       | 1502   |  |

## GENERAL TECHNICAL DATA

| Size                              |    |      | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801  | 2802 | 3201  |
|-----------------------------------|----|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|
| <b>Compressor</b>                 |    |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Type                              | °A | type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Compressor regulation             | °A | Type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Number                            | °A | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     |
| Circuits                          | °A | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     |
| Refrigerant                       | °A | type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     |
| Refrigerant load circuit 1 (1)    | A  | kg   | 41,0 | 41,0 | 38,0 | 59,0 | 57,0 | 72,0 | 66,0 | 61,0 | 85,0 | 81,0 | 50,0 | 110,0 | 53,0 | 104,0 |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     |
| Refrigerant load circuit 2 (1)    | A  | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 50,0 | -     | 53,0 | -     |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     |
| Refrigerant load circuit 3 (1)    | °A | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     |
| <b>System side heat exchanger</b> |    |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Type                              | °A | type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Number                            | °A | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1     | 1    | 1     |
| Connections (in/out)              | °A | Type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| <b>Source side heat exchanger</b> |    |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Type                              | °A | type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |
| Number                            | °A | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     |
| Connections (in/out)              | °A | Type |      |      |      |      |      |      |      |      |      |      |      |       |      |       |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |    |      | 3202 | 3602 | 4202 | 4802  | 5602  | 6402  | 6703  | 7203  | 8403  | 9603  |
|-----------------------------------|----|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Compressor</b>                 |    |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |       |       |       |       |       |       |       |
| Compressor regulation             | °A | Type |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Circuits                          | °A | no.  | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Refrigerant                       | °A | type |      |      |      |       |       |       |       |       |       |       |
|                                   | °  | kg   | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
| Refrigerant load circuit 1 (1)    | A  | kg   | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
|                                   | °  | kg   | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
| Refrigerant load circuit 2 (1)    | A  | kg   | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
|                                   | °  | kg   | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
| Refrigerant load circuit 3 (1)    | A  | kg   | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
| <b>System side heat exchanger</b> |    |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Connections (in/out)              | °A | Type |      |      |      |       |       |       |       |       |       |       |
| <b>Source side heat exchanger</b> |    |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Connections (in/out)              | °A | Type |      |      |      |       |       |       |       |       |       |       |

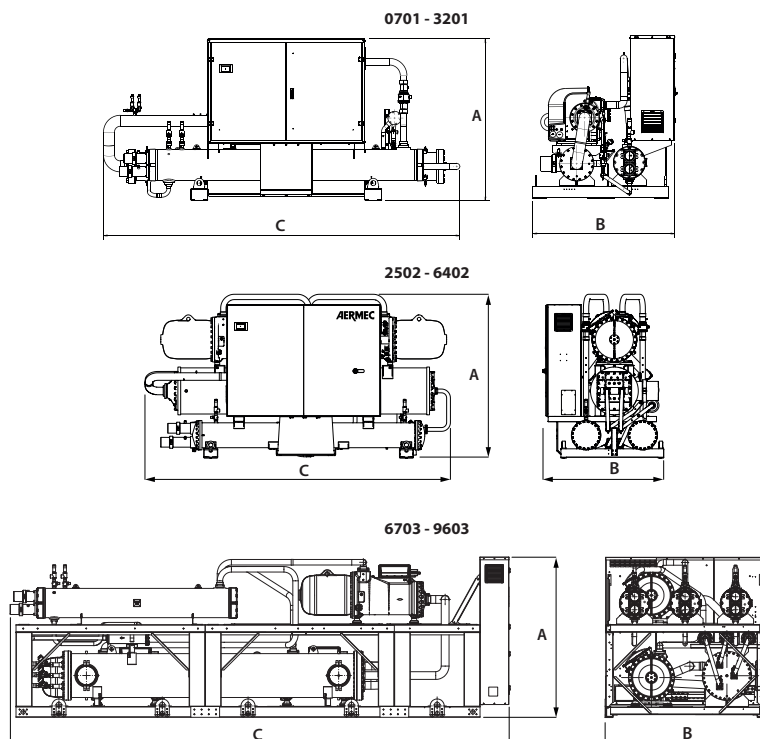
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## SOUND DATA

| Size                      |   |       | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603  |
|---------------------------|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| <b>Refrigerant gas: °</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
| <b>Standard equipment</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
|                           | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 97,0 | 97,2 | 99,5 | 100,0 |
| Sound power level (1)     | A | dB(A) | 87,7 | 88,0 | 87,7 | 89,1 | 90,3 | 91,3 | 90,5 | 90,7 | 93,2 | 92,5 | 93,5 | 94,8 | 94,0 | 94,2 | 94,0 | 94,5 | 95,0 | 95,5 | 97,5 | 98,0 | 97,0 | 97,2 | 99,5 | 100,0 |
| <b>Silenced equipment</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
|                           | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 93,0 | 93,2 | 95,5 | 96,0  |
| Sound power level (1)     | A | dB(A) | 83,7 | 84,0 | 83,7 | 85,1 | 86,3 | 87,3 | 86,5 | 86,7 | 89,2 | 88,5 | 89,5 | 90,8 | 90,0 | 90,2 | 90,0 | 90,5 | 91,0 | 91,5 | 93,5 | 94,0 | 93,0 | 93,2 | 95,5 | 96,0  |

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

## DIMENSIONS



| Size                   |    | 0701 | 0801 | 0901 | 1101 | 1251 | 1401  | 1601 | 1801 | 2101 | 2401 | 2502  | 2801 | 2802 | 3201 | 3202 | 3602  | 4202 | 4802 | 5602 | 6402 |
|------------------------|----|------|------|------|------|------|-------|------|------|------|------|-------|------|------|------|------|-------|------|------|------|------|
| Set-up: L              |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| Dimensions and weights |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| A                      | mm | 1720 | 1720 | 1720 | 1720 | 1790 | 1865  | 1865 | 1865 | 1887 | 1887 | 2000  | 1920 | 2075 | 1920 | 2195 | 2195  | 2340 | 2432 | 2440 | 2432 |
| B                      | mm | 1450 | 1450 | 1450 | 1540 | 1600 | 1610  | 1610 | 1610 | 1630 | 1630 | 1500  | 1645 | 1500 | 1645 | 1575 | 1575  | 1585 | 1775 | 1775 | 1820 |
| C                      | mm | 3480 | 3480 | 3480 | 3470 | 3445 | 3560  | 4100 | 4100 | 4140 | 4252 | 4320  | 4290 | 4345 | 4290 | 4650 | 4650  | 4600 | 5015 | 5150 | 5150 |
| Empty weight           | kg | 1770 | 1790 | 1790 | 2280 | 2290 | 2510  | 3120 | 3170 | 3450 | 3510 | 4120  | 4030 | 4410 | 4080 | 6050 | 6120  | 6670 | 7040 | 7420 | 7490 |
| Size                   |    | 0701 | 0801 | 0901 | 1101 | 1251 | 1401  | 1601 | 1801 | 2101 | 2401 | 2502  | 2801 | 2802 | 3201 | 3202 | 3602  | 4202 | 4802 | 5602 | 6402 |
| Set-up: °              |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| Dimensions and weights |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| A                      | mm | 1720 | 1720 | 1720 | 1720 | 1790 | 1865  | 1865 | 1865 | 1887 | 1887 | 2000  | 1920 | 2075 | 1920 | 2195 | 2195  | 2340 | 2432 | 2440 | 2432 |
| B                      | mm | 1450 | 1450 | 1450 | 1510 | 1550 | 1610  | 1610 | 1610 | 1610 | 1610 | 1500  | 1630 | 1500 | 1630 | 1575 | 1575  | 1585 | 1775 | 1775 | 1820 |
| C                      | mm | 3480 | 3480 | 3480 | 3470 | 3445 | 3560  | 4100 | 4100 | 4140 | 4252 | 4320  | 4290 | 4345 | 4290 | 4380 | 4380  | 4395 | 4535 | 4605 | 4605 |
| Empty weight           | kg | 1610 | 1630 | 1630 | 2120 | 2130 | 2350  | 2940 | 2980 | 3260 | 3320 | 3810  | 3820 | 4100 | 3870 | 5690 | 5750  | 6300 | 6670 | 6970 | 7070 |
| Size                   |    | 6703 |      |      |      |      | 7203  |      |      |      |      | 8403  |      |      |      |      | 9603  |      |      |      |      |
| Set-up: L              |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| Dimensions and weights |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| A                      | °A | mm   |      |      |      |      | 2250  |      |      |      |      | 2250  |      |      |      |      | 2250  |      |      |      |      |
| B                      | °A | mm   |      |      |      |      | 2200  |      |      |      |      | 2200  |      |      |      |      | 2200  |      |      |      |      |
| C                      | °  | mm   |      |      |      |      | 5650  |      |      |      |      | 5650  |      |      |      |      | 5650  |      |      |      |      |
|                        | A  | mm   |      |      |      |      | 6840  |      |      |      |      | 6840  |      |      |      |      | 6840  |      |      |      |      |
| Empty weight           | °  | kg   |      |      |      |      | 9890  |      |      |      |      | 10470 |      |      |      |      | 10760 |      |      |      |      |
|                        | A  | kg   |      |      |      |      | 10880 |      |      |      |      | 12230 |      |      |      |      | 12950 |      |      |      |      |
| Size                   |    | 6703 |      |      |      |      | 7203  |      |      |      |      | 8403  |      |      |      |      | 9603  |      |      |      |      |
| Set-up: °              |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| Dimensions and weights |    |      |      |      |      |      |       |      |      |      |      |       |      |      |      |      |       |      |      |      |      |
| A                      | °A | mm   |      |      |      |      | 2250  |      |      |      |      | 2250  |      |      |      |      | 2250  |      |      |      |      |
| B                      | °A | mm   |      |      |      |      | 2200  |      |      |      |      | 2200  |      |      |      |      | 2200  |      |      |      |      |
| C                      | °  | mm   |      |      |      |      | 5650  |      |      |      |      | 5650  |      |      |      |      | 5650  |      |      |      |      |
|                        | A  | mm   |      |      |      |      | 6840  |      |      |      |      | 6840  |      |      |      |      | 6840  |      |      |      |      |
| Empty weight           | °  | kg   |      |      |      |      | 9330  |      |      |      |      | 9910  |      |      |      |      | 10130 |      |      |      |      |
|                        | A  | ka   |      |      |      |      | 10320 |      |      |      |      | 11670 |      |      |      |      | 12270 |      |      |      |      |

■ For the sizes of D-T-E versions please contact the factory.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## WFI

## Water cooled heat pump reversible water side

Cooling capacity 291 ÷ 2406 kW  
Heating capacity 326 ÷ 2664 kW

- Condenser side hot water production up to 60°C.
- Production of negative chilled water down to -8°C.
- Available also with R513A refrigerant



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

### FEATURES

#### Operating field

Production of chilled water up to 16°C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 60°C depending on the model.

**With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.**

#### Mono, bi-tri circuit unit

Unit with 1-2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

All units are equipped with an inverter compressor combined with an on-off compressor (two-circuit sizes) or two on/off compressors (three-circuit sizes) with R134a refrigerant.

**The R513A (XP10) refrigerant with this type of gas is also available on the configurator. On average, the units have a yield > 2% and an EER < 3% compared to the same size with R134a.**

For further details refer to the technical documentation or to the Magellano selection program.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 4.3" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Adjustment includes complete management of the alarms and their log.

The possibility to control several units in Master - Slave parallel mode up to a maximum of 4 compressors.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**ISG:** Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1            | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER48SP1 x n° 2 (1) | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER48SP1 x n° 3 (1) | °A  | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP             | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO    | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1                | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

(1) x Indicates the quantity of accessories to match.

## Antivibration

| Version | Set-up | Heat recovery | 1101        | 1251        | 1401        |
|---------|--------|---------------|-------------|-------------|-------------|
| °       | °K, L  | °D, T         | -           | -           | -           |
| A       | °      | °             | AVX680      | AVX680      | AVX681      |
| A       | K      | °             | AVX681      | AVX681      | AVX688      |
| A       | L      | °             | AVX681      | AVX681      | AVX681      |
| A       | °K, L  | D, T          | -           | -           | -           |
| Version | Set-up | Heat recovery | 1601        | 1801        | 2101        |
| °       | °K, L  | °D, T         | -           | -           | -           |
| A       | °      | °             | AVX687      | AVX687      | AVX682      |
| A       | K      | °             | AVX682      | AVX682      | AVX685      |
| A       | L      | °             | AVX682      | AVX682      | AVX682      |
| A       | °K, L  | D, T          | -           | -           | -           |
| Version | Set-up | Heat recovery | 2401        | 2502        | 2801        |
| °       | °K, L  | °D, T         | -           | -           | -           |
| A       | °      | °             | AVX685      | AVX673      | AVX683      |
| A       | K      | °             | AVX683      | Contact us. | AVX683      |
| A       | L      | °             | AVX683      | AVX674      | AVX683      |
| A       | °L     | D, T          | -           | AVX674      | -           |
| A       | K      | D, T          | -           | Contact us. | -           |
| Version | Set-up | Heat recovery | 2802        | 3201        | 3202        |
| °       | °K, L  | °D, T         | -           | -           | -           |
| A       | °L     | °             | AVX674      | AVX683      | AVX679      |
| A       | K      | °             | Contact us. | AVX683      | Contact us. |
| A       | °L     | D, T          | AVX674      | -           | AVX679      |
| A       | K      | D, T          | Contact us. | -           | Contact us. |
| Version | Set-up | Heat recovery | 3602        | 4202        | 4802        |
| °       | °K, L  | °D, T         | -           | -           | -           |
| A       | °      | °D            | AVX679      | AVX679      | AVX678      |
| A       | L      | °             | AVX679      | AVX679      | AVX678      |
| A       | K      | °D, T         | Contact us. | Contact us. | Contact us. |
| A       | °      | T             | AVX679      | AVX678      | AVX678      |
| A       | L      | D, T          | AVX679      | AVX678      | AVX678      |
| Version | Set-up | Heat recovery | 5602        | 6402        | 6703        |
| °       | °K, L  | °D, T         | -           | -           | Contact us. |
| A       | °L     | °D, T         | AVX678      | AVX678      | Contact us. |
| A       | K      | °D, T         | Contact us. | Contact us. | Contact us. |
| Version | Set-up | Heat recovery | 7203        | 8403        | 9603        |
| °       | °K, L  | °D, T         | Contact us. | Contact us. | Contact us. |
| A       | °K, L  | °D, T         | Contact us. | Contact us. | Contact us. |

- not available

## Power factor correction

| Ver | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502       | 2801 | 2802       | 3201 |
|-----|------|------|------|------|------|------|------|------------|------|------------|------|
| A   | -    | -    | -    | -    | -    | -    | -    | RIFWFI2502 | -    | RIFWFI2802 | -    |

The accessory cannot be fitted on the configurations indicated with -  
A grey background indicates the accessory must be assembled in the factory

| Ver | 3202       | 3602       | 4202       | 4802       | 5602       | 6402       | 6703       | 7203       | 8403       | 9603       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °   | -          | -          | -          | -          | -          | -          | RIFWFI6703 | RIFWFI7203 | RIFWFI8403 | RIFWFI9603 |
| A   | RIFWFI3202 | RIFWFI3602 | RIFWFI4202 | RIFWFI4802 | RIFWFI5602 | RIFWFI6402 | RIFWFI6703 | RIFWFI7203 | RIFWFI8403 | RIFWFI9603 |

A grey background indicates the accessory must be assembled in the factory



For the size of the units with the RIF accessory we ask you to contact the headquarters.

#### Isolating kit

| Ver | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502 | 2801  | 2802 | 3201  |
|-----|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|
| A   | ISG10 | ISG11 | ISG12 | ISG13 | ISG13 | ISG14 | ISG14 | ISG1 | ISG15 | ISG1 | ISG15 |

A grey background indicates the accessory must be assembled in the factory

| Ver | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|-----|------|------|------|------|------|------|------|------|------|------|
| °   | -    | -    | -    | -    | -    | -    | ISG5 | ISG5 | ISG6 | ISG6 |
| A   | ISG2 | ISG2 | ISG2 | ISG3 | ISG3 | ISG3 | ISG7 | ISG8 | ISG8 | ISG8 |

A grey background indicates the accessory must be assembled in the factory

### CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WFI  |
| 4,5,6,7 | Size<br>1101, 1251, 1401, 1601, 1801, 2101, 2401, 2502, 2801, 2802, 3201, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603 |
| 8       | Model  |
| H       | Optimised for high condensation  |
| °       | Standard condensation  |
| 9       | Version  |
| °       | Standard (1)   |
| A       | High efficiency  |
| 10      | Operating field  |
| X       | Electronic thermostatic expansion valve (2)  |
| Z       | Double electronic thermostatic for low temperature (3)   |
| 11      | Set-up   |
| K       | Super silenced   |
| L       | Silenced with hood   |
| °       | Standard without hood  |
| 12      | Heat recovery  |
| D       | With desuperheater (4)   |
| T       | With total recovery (4)  |
| °       | Without heat recovery  |
| 13      | Evaporator   |
| °       | Standard   |
| 14      | Power supply   |
| 8       | 400V ~ 3 50Hz with magnet circuit breakers (5)   |
| °       | 400V ~ 3 50Hz with fuses   |
| 15      | Refrigerant gas  |
| G       | R513A (XP10) (6)   |
| °       | R134a  |

(1) Only for sizes from 6703 to 9603

(2) Water produced from 0 °C ÷ 16 °C

(3) Water produced from -8 °C up to 10 °C

(4) Not available for the condenserless "E"

(5) Not available for 1101, 1251, 1401, 1601, 1801, 2101, 2401, 2801, 3201 size

(6) For further details refer to the technical documentation or to the Magellano selection program.

### MODEL PERFORMANCE DATA (°) - FOR TEMPERATURES WATER PRODUCED UP TO +55°C

#### WFI 1101 - 3201 - model (°) version A - gas R134a

| Size     | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2801 | 3201 |
|----------|------|------|------|------|------|------|------|------|------|
| Model: ° |      |      |      |      |      |      |      |      |      |

#### Cooling performance 12 °C / 7 °C - gas R134a (1)

|                             |     |       |       |       |       |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 291,4 | 339,7 | 388,2 | 433,5 | 496,2  | 552,0  | 635,3  | 714,7  | 783,3  |
| Input power                 | kW  | 55,9  | 66,5  | 75,6  | 85,1  | 98,6   | 111,6  | 122,5  | 138,9  | 148,8  |
| Cooling total input current | A   | 95,0  | 111,0 | 125,0 | 140,0 | 161,0  | 181,0  | 199,0  | 223,0  | 241,0  |
| EER                         | W/W | 5,21  | 5,11  | 5,13  | 5,09  | 5,03   | 4,95   | 5,19   | 5,15   | 5,26   |
| Water flow rate source side | l/h | 59350 | 69394 | 79271 | 88730 | 101760 | 113566 | 129637 | 145972 | 159590 |
| Pressure drop source side   | kPa | 42    | 41    | 36    | 32    | 30     | 30     | 33     | 33     | 31     |
| Water flow rate system side | l/h | 50123 | 58428 | 66772 | 74535 | 85331  | 94907  | 109229 | 122894 | 134668 |
| Pressure drop system side   | kPa | 38    | 43    | 45    | 27    | 32     | 24     | 35     | 45     | 26     |

#### Heating performances 40 °C / 45 °C - gas R134a (2)

|                             |     |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Heating capacity            | kW  | 326,0 | 387,7 | 437,0 | 490,2  | 566,3  | 631,1  | 707,9  | 798,2  | 873,1  |
| Input power                 | kW  | 74,3  | 88,1  | 97,5  | 106,3  | 126,9  | 143,0  | 156,9  | 178,5  | 189,7  |
| Heating total input current | A   | 125,0 | 144,0 | 158,0 | 173,0  | 204,0  | 230,0  | 251,0  | 281,0  | 305,0  |
| COP                         | W/W | 4,39  | 4,40  | 4,48  | 4,61   | 4,46   | 4,41   | 4,51   | 4,47   | 4,60   |
| Water flow rate system side | l/h | 56587 | 67319 | 75890 | 85131  | 98344  | 109614 | 122953 | 138630 | 151661 |
| Pressure drop system side   | kPa | 39    | 39    | 33    | 29     | 28     | 28     | 30     | 29     | 28     |
| Water flow rate source side | l/h | 74024 | 88235 | 99938 | 112439 | 128897 | 142918 | 161620 | 182106 | 199956 |
| Pressure drop source side   | kPa | 83    | 98    | 101   | 61     | 74     | 54     | 76     | 98     | 57     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFI 2502 - 9603 - model (°) version A - gas R134a**

| Size  |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 670,0  | 757,4  | 889,1  | 1002,3 | 1143,6 | 1304,6 | 1441,8 | 1621,2 | 1771,2 | 1940,6 | 2167,0 | 2406,5 |
| Input power   | kW  | 127,4  | 144,9  | 168,9  | 192,8  | 218,4  | 244,5  | 275,3  | 309,9  | 327,6  | 362,0  | 410,0  | 458,2  |
| Cooling total input current                               | A   | 214,0  | 244,0  | 277,0  | 315,0  | 351,0  | 399,0  | 446,0  | 497,0  | 527,0  | 597,0  | 667,0  | 751,0  |
| EER   | W/W | 5,26   | 5,23   | 5,26   | 5,20   | 5,24   | 5,34   | 5,24   | 5,23   | 5,41   | 5,36   | 5,29   | 5,25   |
| Water flow rate source side                               | l/h | 136129 | 154084 | 180866 | 204404 | 232973 | 264813 | 293658 | 330152 | 359034 | 393872 | 440716 | 490182 |
| Pressure drop source side                                 | kPa | 55     | 58     | 48     | 46     | 44     | 47     | 48     | 48     | 38     | 31     | 32     | 40     |
| Water flow rate system side                               | l/h | 115215 | 130225 | 152866 | 172295 | 196591 | 224275 | 247834 | 278670 | 304461 | 333577 | 372486 | 413608 |
| Pressure drop system side                                 | kPa | 53     | 43     | 38     | 27     | 31     | 44     | 31     | 39     | 45     | 54     | 57     | 33     |
| <b>Heating performances 40 °C / 45 °C - gas R134a (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity  | kW  | 746,2  | 839,5  | 979,7  | 1112,5 | 1270,4 | 1441,8 | 1597,0 | 1815,3 | 1951,6 | 2145,2 | 2391,0 | 2664,3 |
| Input power   | kW  | 165,1  | 183,8  | 210,4  | 242,5  | 276,5  | 310,2  | 346,1  | 394,1  | 414,4  | 459,6  | 518,3  | 573,6  |
| Heating total input current                               | A   | 273,0  | 305,0  | 341,0  | 394,0  | 441,0  | 499,0  | 556,0  | 624,0  | 656,0  | 743,0  | 826,0  | 931,0  |
| COP   | W/W | 4,52   | 4,57   | 4,66   | 4,59   | 4,59   | 4,65   | 4,61   | 4,61   | 4,71   | 4,67   | 4,61   | 4,64   |
| Water flow rate system side                               | l/h | 129578 | 145788 | 170162 | 193225 | 220670 | 250442 | 277422 | 315345 | 339051 | 372698 | 415418 | 462891 |
| Pressure drop system side                                 | kPa | 50     | 51     | 42     | 41     | 40     | 42     | 43     | 44     | 34     | 28     | 28     | 36     |
| Water flow rate source side                               | l/h | 171302 | 192864 | 225753 | 254786 | 291203 | 332319 | 366559 | 417106 | 451025 | 495203 | 550498 | 612203 |
| Pressure drop source side                                 | kPa | 118    | 95     | 82     | 60     | 67     | 97     | 69     | 88     | 98     | 118    | 125    | 73     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFI 6703 - 9603 - model (°) version ° - gas R134a**

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: °</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b>   |     |        |        |        |        |
| Cooling capacity  | kW  | 1723,4 | 1905,7 | 2114,5 | 2327,9 |
| Input power   | kW  | 331,7  | 366,9  | 409,8  | 463,6  |
| Cooling total input current                               | A   | 522,0  | 592,0  | 659,0  | 744,0  |
| EER   | W/W | 5,20   | 5,19   | 5,16   | 5,02   |
| Water flow rate source side                               | l/h | 350768 | 387913 | 431371 | 476493 |
| Pressure drop source side                                 | kPa | 73     | 69     | 58     | 71     |
| Water flow rate system side                               | l/h | 296246 | 327572 | 363441 | 400118 |
| Pressure drop system side                                 | kPa | 47     | 51     | 39     | 46     |
| <b>Heating performances 40 °C / 45 °C - gas R134a (2)</b> |     |        |        |        |        |
| Heating capacity  | kW  | 1909,4 | 2114,9 | 2342,8 | 2593,9 |
| Input power   | kW  | 418,2  | 463,2  | 513,0  | 581,3  |
| Heating total input current                               | A   | 651,0  | 737,0  | 817,0  | 922,0  |
| COP   | W/W | 4,57   | 4,57   | 4,57   | 4,46   |
| Water flow rate system side                               | l/h | 331680 | 367403 | 407019 | 450652 |
| Pressure drop system side                                 | kPa | 65     | 62     | 52     | 63     |
| Water flow rate source side                               | l/h | 438855 | 486287 | 537130 | 592236 |
| Pressure drop source side                                 | kPa | 103    | 112    | 85     | 102    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C  
(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**Energy indices (Reg. 2016/2281 EU)**

| Size  |   | 1101 | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2502   | 2801   | 2802   | 3201   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |        |
|---|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)</b>              |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency   | ° | %    | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 319,80 | 319,20 | 318,20 | 313,60 |
|   | A | %    | 337,10 | 343,20 | 342,80 | 348,90 | 348,20 | 350,10 | 347,00 | 339,20 | 351,20 | 340,00 | 355,00 | 341,70 | 340,20 | 337,90 | 340,30 | 343,50 | 344,30 | 343,10 | 341,00 | 340,50 | 342,50 |
| SEER  | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 8,07   | 8,06   | 8,03   | 7,92   |
|   | A | W/W  | 8,50   | 8,66   | 8,65   | 8,80   | 8,78   | 8,83   | 8,75   | 8,56   | 8,86   | 8,58   | 8,95   | 8,62   | 8,58   | 8,52   | 8,58   | 8,66   | 8,68   | 8,65   | 8,60   | 8,59   | 8,64   |
| <b>SEPR - (EN 14825: 2018) High temperature - refrigerant gas R134a (2)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR  | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 8,60   | 8,60   | 8,40   | 8,40   |
|   | A | W/W  | 9,40   | 9,40   | 9,30   | 8,70   | 9,30   | 8,90   | 9,10   | 9,10   | 9,00   | 9,00   | 8,90   | 8,90   | 8,80   | 8,90   | 8,80   | 8,90   | 8,90   | 9,00   | 8,80   | 8,60   | 8,80   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.  
(2) Calculation performed with VARIABLE water flow rate.

**Electric data**

| Size                  |   | 1101 | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502  | 2801  | 2802  | 3201  | 3202  | 3602  | 4202  | 4802  | 5602  | 6402   | 6703   | 7203   | 8403   | 9603   |
|-----------------------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| <b>Model: °</b>       |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| <b>Gas R134a</b>      |   |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |
| Maximum current (FLA) | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | 862,9  | 965,5  | 1077,5 | 1211,4 |
|                       | A | A    | 163,0 | 189,0 | 206,0 | 226,0 | 262,0 | 300,0 | 329,0 | 354,5 | 371,0 | 395,1 | 405,0 | 447,5 | 511,1 | 576,7 | 647,2 | 724,3  | 824,0  | 862,9  | 965,5  | 1077,5 |
| Peak current (LRA)    | ° | A    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | 1176,0 | 1301,0 | 1533,0 | 1744,0 |
|                       | A | A    | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 506,0 | 23,0  | 550,0 | 23,0  | 666,0 | 730,0 | 889,0 | 982,0 | 1179,0 | 1355,0 | 1176,0 | 1301,0 | 1533,0 |

## MODEL PERFORMANCE DATA (H) - FOR TEMPERATURES WATER PRODUCED UP TO +60°C

### WFI 1101 - 3201 - model (H) version A - gas R134a

| Size  |     | 1101  | 1251  | 1401  | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|---|-----|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>   |     |       |       |       |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b>   |     |       |       |       |        |        |        |        |        |        |
| Cooling capacity  | kW  | 294,7 | 338,4 | 389,7 | 436,1  | 479,8  | 540,5  | 637,9  | 703,6  | 781,8  |
| Input power   | kW  | 57,3  | 67,1  | 79,0  | 87,4   | 98,3   | 110,3  | 127,2  | 142,1  | 162,7  |
| Cooling total input current                               | A   | 98,0  | 112,0 | 129,0 | 143,0  | 159,0  | 177,0  | 206,0  | 228,0  | 262,0  |
| EER   | W/W | 5,15  | 5,05  | 4,94  | 4,99   | 4,88   | 4,90   | 5,02   | 4,95   | 4,80   |
| Water flow rate source side                               | l/h | 60130 | 69281 | 80074 | 89564  | 98879  | 111372 | 130851 | 144597 | 161585 |
| Pressure drop source side                                 | kPa | 44    | 41    | 37    | 32     | 30     | 30     | 33     | 32     | 33     |
| Water flow rate system side                               | l/h | 50692 | 58217 | 67029 | 74994  | 82505  | 92934  | 109677 | 120988 | 134409 |
| Pressure drop system side                                 | kPa | 39    | 44    | 46    | 26     | 32     | 24     | 35     | 43     | 27     |
| <b>Heating performances 40 °C / 45 °C - gas R134a (2)</b> |     |       |       |       |        |        |        |        |        |        |
| Heating capacity  | kW  | 325,5 | 376,9 | 434,9 | 486,7  | 538,4  | 604,0  | 709,5  | 783,3  | 871,3  |
| Input power   | kW  | 70,4  | 82,2  | 96,5  | 105,2  | 119,3  | 133,5  | 151,5  | 168,8  | 185,2  |
| Heating total input current                               | A   | 118,0 | 135,0 | 155,0 | 170,0  | 190,0  | 212,0  | 241,0  | 265,0  | 295,0  |
| COP   | W/W | 4,63  | 4,58  | 4,51  | 4,63   | 4,51   | 4,52   | 4,68   | 4,64   | 4,71   |
| Water flow rate system side                               | l/h | 56513 | 65431 | 75521 | 84523  | 93497  | 104898 | 123224 | 136049 | 151346 |
| Pressure drop system side                                 | kPa | 39    | 37    | 33    | 29     | 27     | 27     | 29     | 29     | 29     |
| Water flow rate source side                               | l/h | 74998 | 86674 | 99584 | 111688 | 122874 | 137657 | 163575 | 180444 | 200734 |
| Pressure drop source side                                 | kPa | 86    | 97    | 100   | 58     | 71     | 52     | 78     | 97     | 59     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

### WFI 2502 - 9603 - model (H) version A - gas R134a

| Size  |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 672,4  | 770,8  | 886,7  | 999,1  | 1145,7 | 1305,1 | 1454,0 | 1620,1 | 1770,6 | 1939,2 | 2161,5 | 2375,7 |
| Input power   | kW  | 132,4  | 153,1  | 173,5  | 195,9  | 224,6  | 254,6  | 288,9  | 327,3  | 340,1  | 376,7  | 435,1  | 482,5  |
| Cooling total input current                               | A   | 226,0  | 257,0  | 285,0  | 316,0  | 364,0  | 415,0  | 475,0  | 543,0  | 567,0  | 621,0  | 715,0  | 806,0  |
| EER   | W/W | 5,08   | 5,04   | 5,11   | 5,10   | 5,10   | 5,13   | 5,03   | 4,95   | 5,21   | 5,15   | 4,97   | 4,92   |
| Water flow rate source side                               | l/h | 137384 | 157768 | 181226 | 204349 | 234273 | 266548 | 297970 | 332858 | 360998 | 396033 | 443977 | 488997 |
| Pressure drop source side                                 | kPa | 53     | 55     | 48     | 48     | 49     | 48     | 50     | 46     | 36     | 32     | 32     | 38     |
| Water flow rate system side                               | l/h | 115641 | 132532 | 152452 | 171756 | 196959 | 224366 | 249941 | 278496 | 304349 | 333335 | 371531 | 408313 |
| Pressure drop system side                                 | kPa | 54     | 44     | 36     | 27     | 32     | 44     | 32     | 40     | 46     | 54     | 51     | 30     |
| <b>Heating performances 40 °C / 45 °C - gas R134a (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity  | kW  | 741,6  | 852,1  | 975,8  | 1106,1 | 1267,8 | 1441,2 | 1611,1 | 1842,1 | 1948,7 | 2138,6 | 2398,1 | 2642,8 |
| Input power   | kW  | 160,3  | 184,4  | 206,0  | 235,2  | 268,6  | 305,3  | 343,0  | 388,6  | 408,5  | 453,9  | 520,2  | 571,4  |
| Heating total input current                               | A   | 268,0  | 305,0  | 334,0  | 376,0  | 431,0  | 490,0  | 558,0  | 633,0  | 669,0  | 732,0  | 838,0  | 945,0  |
| COP   | W/W | 4,63   | 4,62   | 4,74   | 4,70   | 4,72   | 4,72   | 4,70   | 4,74   | 4,77   | 4,71   | 4,61   | 4,62   |
| Water flow rate system side                               | l/h | 128783 | 147970 | 169486 | 192116 | 220216 | 250335 | 279872 | 320004 | 338539 | 371554 | 416652 | 459154 |
| Pressure drop system side                                 | kPa | 47     | 48     | 42     | 42     | 44     | 43     | 44     | 42     | 32     | 28     | 29     | 33     |
| Water flow rate source side                               | l/h | 171266 | 196282 | 225782 | 254976 | 292792 | 333536 | 371554 | 426498 | 451814 | 494844 | 551546 | 606152 |
| Pressure drop source side                                 | kPa | 118    | 96     | 80     | 60     | 71     | 97     | 71     | 93     | 101    | 118    | 113    | 66     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

### WFI 6703 - 9603 - model (H) version ° - gas R134a

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: H</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b>   |     |        |        |        |        |
| Cooling capacity  | kW  | 1706,6 | 1904,2 | 2109,2 | 2298,6 |
| Input power   | kW  | 343,5  | 381,7  | 434,3  | 486,5  |
| Cooling total input current                               | A   | 561,0  | 616,0  | 705,0  | 796,0  |
| EER   | W/W | 4,97   | 4,99   | 4,86   | 4,72   |
| Water flow rate source side                               | l/h | 349811 | 390073 | 434460 | 475234 |
| Pressure drop source side                                 | kPa | 73     | 70     | 59     | 70     |
| Water flow rate system side                               | l/h | 293360 | 327313 | 362530 | 395080 |
| Pressure drop system side                                 | kPa | 47     | 51     | 38     | 46     |
| <b>Heating performances 40 °C / 45 °C - gas R134a (2)</b> |     |        |        |        |        |
| Heating capacity  | kW  | 1891,1 | 2108,3 | 2348,6 | 2571,3 |
| Input power   | kW  | 411,1  | 457,6  | 515,2  | 578,0  |
| Heating total input current                               | A   | 662,0  | 727,0  | 826,0  | 933,0  |
| COP   | W/W | 4,60   | 4,61   | 4,56   | 4,45   |
| Water flow rate system side                               | l/h | 328503 | 366257 | 408016 | 446727 |
| Pressure drop system side                                 | kPa | 64     | 62     | 52     | 62     |
| Water flow rate source side                               | l/h | 435501 | 485905 | 538185 | 586506 |
| Pressure drop source side                                 | kPa | 104    | 112    | 85     | 101    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## Energy indices (Reg. 2016/2281 EU)

| Size  |   |     | 1101   | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2502   | 2801   | 2802   | 3201   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>   |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)</b>              |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Seasonal efficiency   | ° | %   | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 279,70 | 281,00 | 284,80 | 278,60 |
|   | A | %   | 306,80 | 310,90 | 296,50 | 309,10 | 297,30 | 306,60 | 308,50 | 298,00 | 314,60 | 297,10 | 315,60 | 301,30 | 295,40 | 301,80 | 303,60 | 307,30 | 298,00 | 297,80 | 295,60 | 296,90 | 297,50 |
| SEER  | ° | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 7,07   | 7,10   | 7,20   | 7,04   |
|   | A | W/W | 7,75   | 7,85   | 7,49   | 7,80   | 7,51   | 7,74   | 7,79   | 7,53   | 7,94   | 7,50   | 7,97   | 7,61   | 7,46   | 7,62   | 7,67   | 7,76   | 7,53   | 7,52   | 7,47   | 7,50   | 7,51   |
| <b>SEPR - (EN 14825: 2018) High temperature - refrigerant gas R134a (2)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR  | ° | W/W | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | 8,40   | 8,30   | 8,20   | 8,10   |
|   | A | W/W | 9,20   | 9,10   | 9,10   | 8,50   | 9,00   | 8,60   | 8,80   | 8,80   | 8,80   | 8,80   | 8,70   | 8,60   | 8,40   | 8,60   | 8,50   | 8,60   | 8,60   | 8,70   | 8,60   | 8,40   | 8,50   |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with VARIABLE water flow rate.

## Electric data

| Size                  | 1101 1251 1401 1601 1801 2101 2401 2502 2801 2802 3201 3202 3602 4202 4802 5602 6402 6703 7203 8403 9603 |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
|-----------------------|--|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Model: H              |  |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Gas R134a             |  |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | °  | A | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 954,0  | 1052,0 | 1180,0 | 1290,0 |
|                       | A  | A | 165,0 | 190,0 | 216,0 | 237,0 | 274,0 | 308,0 | 356,0 | 378,0 | 387,0 | 428,0 | 418,0 | 473,0 | 535,0 | 616,0 | 704,0  | 787,0  | 864,0  | 954,0  | 1357,0 | 1180,0 |
| Peak current (LRA)    | °  | A | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | 1234,0 | 1357,0 | 1595,0 | 1784,0 |
|                       | A  | A | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 23,0  | 507,0 | 23,0  | 560,0 | 23,0  | 676,0 | 742,0 | 897,0 | 1009,0 | 1203,0 | 1359,0 | 1234,0 | 1052,0 | 1595,0 |

## PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

### Model performance data (°) - for condensing temperatures up to 55°C

#### Model output data - model WFI° - AE - gas R134a

| Size  | 1101 | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2801  | 3201   |
|---|------|-------|-------|-------|-------|-------|-------|-------|--------|
| <b>Model: °</b>   |      |       |       |       |       |       |       |       |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |      |       |       |       |       |       |       |       |        |
| Cooling capacity  | kW   | 261,4 | 307,5 | 351,6 | 393,3 | 441,4 | 493,3 | 571,6 | 642,9  |
| Input power   | kW   | 68,4  | 80,8  | 90,0  | 100,3 | 117,7 | 133,8 | 145,8 | 164,9  |
| Cooling total input current                             | A    | 119,0 | 139,0 | 152,0 | 168,0 | 197,0 | 222,0 | 240,0 | 269,0  |
| EER   | W/W  | 3,82  | 3,81  | 3,91  | 3,92  | 3,75  | 3,69  | 3,92  | 3,90   |
| Evaporator water flow rate                              | l/h  | 44906 | 52830 | 60402 | 67574 | 75833 | 84756 | 98206 | 110455 |
| Pressure drop evaporator side                           | kPa  | 31    | 36    | 37    | 21    | 27    | 20    | 28    | 36     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |      |       |       |       |       |       |       |       |        |
| Gas line (C1)   | Ø    | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 89,0  | 89,0   |
| Gas line (C2)   | Ø    | -     | -     | -     | -     | -     | -     | -     | -      |
| Gas line (C3)   | Ø    | -     | -     | -     | -     | -     | -     | -     | -      |
| Liquid line (C1)  | Ø    | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0  | 54,0   |
| Liquid line (C2)  | Ø    | -     | -     | -     | -     | -     | -     | -     | -      |
| Liquid line (C3)  | Ø    | -     | -     | -     | -     | -     | -     | -     | -      |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  | 2502 | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: °</b>   |      |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |      |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW   | 603,1  | 688,5  | 797,4  | 899,3  | 1008,4 | 1169,8 | 1287,8 | 1439,2 | 1558,1 | 1742,4 | 1896,4 |
| Input power   | kW   | 152,9  | 171,4  | 198,1  | 229,9  | 259,8  | 287,4  | 323,9  | 364,6  | 386,3  | 431,2  | 481,0  |
| Cooling total input current                             | A    | 261,4  | 292,5  | 330,2  | 380,6  | 424,7  | 476,4  | 532,4  | 600,3  | 631,3  | 709,7  | 792,6  |
| EER   | W/W  | 3,94   | 4,02   | 4,03   | 3,91   | 3,88   | 4,07   | 3,98   | 3,95   | 4,03   | 4,04   | 3,94   |
| Evaporator water flow rate                              | l/h  | 103615 | 118287 | 137003 | 154508 | 173247 | 200980 | 221262 | 247268 | 267705 | 299365 | 325826 |
| Pressure drop evaporator side                           | kPa  | 43     | 35     | 29     | 22     | 25     | 35     | 25     | 31     | 35     | 43     | 39     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |      |        |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø    | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   |
| Gas line (C2)   | Ø    | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   |
| Gas line (C3)   | Ø    | -      | -      | -      | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   |
| Liquid line (C1)  | Ø    | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø    | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø    | -      | -      | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**Model output data - model WFI° - °E - gas R134a**

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: °</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |        |        |        |        |
| Cooling capacity  | kW  | 1515,4 | 1689,7 | 1833,1 | 2021,9 |
| Input power   | kW  | 387,7  | 429,0  | 481,0  | 541,3  |
| Cooling total input current                             | A   | 633,0  | 713,0  | 793,0  | 893,0  |
| EER   | W/W | 3,91   | 3,94   | 3,81   | 3,74   |
| Evaporator water flow rate                              | l/h | 260358 | 290307 | 314947 | 347392 |
| Pressure drop evaporator side                           | kPa | 37     | 40     | 29     | 35     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |        |        |        |        |
| Gas line (C1)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**Model performance data (H) - for condensing temperatures up to 60 °C**
**Model output data - model WFIH - AE - gas R134a**

| Size  |     | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2801   | 3201   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Model: H</b>   |     |       |       |       |       |       |       |       |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |       |       |       |       |       |       |       |        |        |
| Cooling capacity  | kW  | 260,1 | 304,6 | 351,5 | 393,7 | 432,7 | 485,1 | 579,1 | 638,3  | 697,1  |
| Input power   | kW  | 65,4  | 76,0  | 88,4  | 97,7  | 111,1 | 123,1 | 143,8 | 158,6  | 176,5  |
| Cooling total input current                             | A   | 113,0 | 129,0 | 148,0 | 162,0 | 180,0 | 200,0 | 235,0 | 257,0  | 290,0  |
| EER   | W/W | 3,98  | 4,01  | 3,98  | 4,03  | 3,89  | 3,94  | 4,03  | 4,02   | 3,95   |
| Evaporator water flow rate                              | l/h | 44694 | 52328 | 60399 | 67637 | 74335 | 83339 | 99495 | 109670 | 119762 |
| Pressure drop evaporator side                           | kPa | 31    | 35    | 37    | 21    | 26    | 19    | 29    | 36     | 21     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |       |       |       |       |       |       |       |        |        |
| Gas line (C1)   | Ø   | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 88,9  | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -      | -      |
| Gas line (C3)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -      | -      |
| Liquid line (C1)  | Ø   | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0  | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -      | -      |
| Liquid line (C3)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -      | -      |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Model: H</b>   |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 602,3  | 690,5  | 794,5  | 897,8  | 1009,4 | 1177,8 | 1297,5 | 1436,1 | 1566,5 | 1750,8 | 1908,3 | 2101,3 |
| Input power   | kW  | 147,9  | 170,4  | 193,3  | 218,4  | 248,4  | 284,6  | 324,0  | 361,7  | 383,8  | 424,1  | 485,5  | 536,4  |
| Cooling total input current                             | A   | 256,5  | 291,2  | 322,9  | 358,5  | 412,8  | 473,1  | 536,1  | 602,7  | 646,0  | 707,3  | 806,6  | 899,1  |
| EER   | W/W | 4,07   | 4,05   | 4,11   | 4,11   | 4,06   | 4,14   | 4,01   | 3,97   | 4,08   | 4,13   | 3,93   | 3,92   |
| Evaporator water flow rate                              | l/h | 103477 | 118635 | 136501 | 154254 | 173418 | 202354 | 222930 | 246737 | 269151 | 300804 | 327864 | 361031 |
| Pressure drop evaporator side                           | kPa | 43     | 35     | 29     | 22     | 25     | 36     | 26     | 31     | 36     | 44     | 40     | 24     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø   | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | -      | -      | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | -      | -      | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**Model output data - model WFIH - °E - gas R134a**

| Size  |     | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|
| <b>Model: H</b>   |     |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |        |        |        |        |
| Cooling capacity  | kW  | 1524,4 | 1698,4 | 1844,7 | 2016,4 |
| Input power   | kW  | 383,7  | 425,2  | 483,3  | 533,7  |
| Cooling total input current                             | A   | 645,8  | 709,0  | 803,3  | 895,1  |
| EER   | W/W | 3,97   | 3,99   | 3,82   | 3,78   |
| Evaporator water flow rate                              | l/h | 261912 | 291802 | 316947 | 346444 |
| Pressure drop evaporator side                           | kPa | 38     | 40     | 29     | 35     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |        |        |        |        |
| Gas line (C1)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**GENERAL TECHNICAL DATA**

| Size                           | 1101 1251 1401 1601 1801 2101 2401 2502 2801 2802 3201 3202 3602 4202 4802 5602 6402 6703 7203 8403 9603 |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
|--------------------------------|--|------|----------------|------|------|------|------|------|------|------|-------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| Compressor                     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Screw          |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Compressor regulation          | °A   | Type | I              | I    | I    | I    | I    | I    | I    | I+1  | I     | I+1  | I     | I+1  | I+1  | I+1  | I+1   | I+1   | I+1   | 2+I   | 2+I   | 2+I   | 2+I   |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Circuits                       | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Refrigerant                    | °A   | type | R134a          |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Refrigerant load circuit 1 (1) | °  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
|                                | A  | kg   | 59,0           | 57,0 | 72,0 | 66,0 | 61,0 | 85,0 | 81,0 | 50,0 | 110,0 | 53,0 | 104,0 | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
| Refrigerant load circuit 2 (1) | °  | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
|                                | A  | kg   | -              | -    | -    | -    | -    | -    | -    | 50,0 | -     | 53,0 | -     | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
| Refrigerant load circuit 3 (1) | °A   | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -     | -    | -     | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
| System side heat exchanger     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Shell and tube |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1     | 1    | 1     | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Connections (in/out)           | °A   | Type | Grooved joints |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Source side heat exchanger     |  |      |                |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Type                           | °A   | type | Shell and tube |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |
| Number                         | °A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1     | 2    | 1     | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Connections (in/out)           | °A   | Type | Grooved joints |      |      |      |      |      |      |      |       |      |       |      |      |      |       |       |       |       |       |       |       |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

**SOUND DATA****Sound data calculated with functioning in cooling mode - R134a gas**

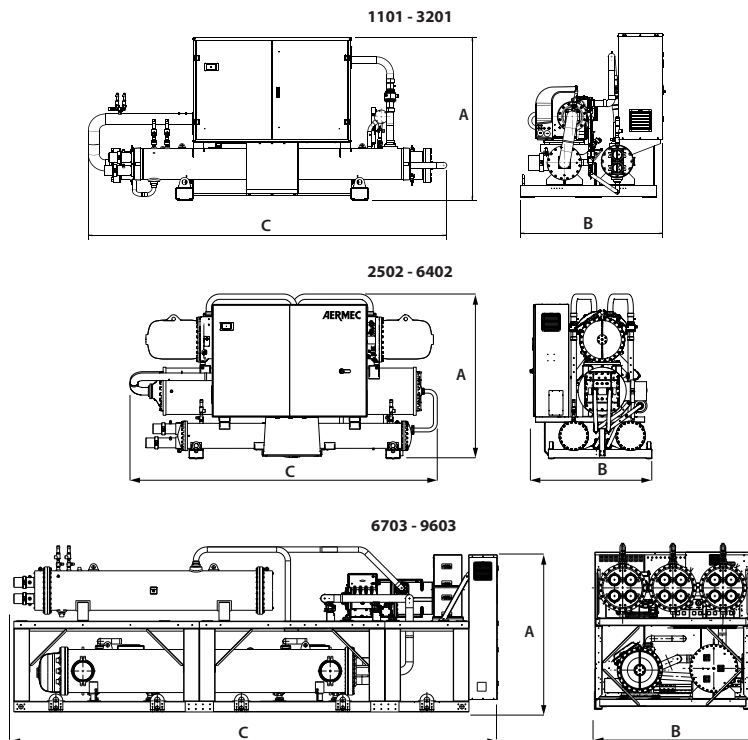
| Size                            |         | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402  | 6703 | 7203  | 8403  | 9603  |
|---------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|
| <b>Model: H</b>                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| <b>Standard equipment</b>       |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | 99,5 | 100,6 | 101,0 | 102,0 |
|                                 | A dB(A) | 94,0 | 95,8 | 96,1 | 97,0 | 97,1 | 97,2 | 97,3 | 97,3 | 97,3 | 97,7 | 98,0 | 98,8 | 98,8 | 98,9 | 98,9 | 99,3 | 100,0 | 99,5 | 100,6 | 101,0 | 102,0 |
| <b>Silenced equipment</b>       |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | 94,4 | 94,6  | 94,6  | 94,9  |
|                                 | A dB(A) | 86,1 | 88,0 | 88,2 | 89,1 | 89,2 | 89,3 | 89,3 | 89,5 | 89,3 | 90,0 | 89,8 | 91,6 | 91,9 | 92,7 | 92,4 | 92,5 | 92,6  | 94,4 | 94,6  | 94,6  | 94,9  |
| <b>Super silenced equipment</b> |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |      |       |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | 91,5 | 91,6  | 91,6  | 91,9  |
|                                 | A dB(A) | 83,1 | 85,0 | 85,3 | 86,2 | 86,3 | 86,4 | 86,3 | 86,5 | 86,4 | 87,0 | 86,8 | 88,6 | 89,0 | 89,7 | 89,5 | 89,6 | 90,0  | 91,5 | 91,6  | 91,6  | 91,9  |

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

| Size                            |         | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403  | 9603  |
|---------------------------------|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| <b>Model: °</b>                 |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| <b>Standard equipment</b>       |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 99,2 | 98,9 | 100,0 | 100,5 |
|                                 | A dB(A) | 94,0 | 95,8 | 96,1 | 97,0 | 97,1 | 97,2 | 97,3 | 96,9 | 97,3 | 97,4 | 98,0 | 97,9 | 98,0 | 98,8 | 98,8 | 98,6 | 98,9 | 99,2 | 98,9 | 100,0 | 100,5 |
| <b>Silenced equipment</b>       |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 92,3 | 91,3 | 92,8  | 93,0  |
|                                 | A dB(A) | 86,1 | 88,0 | 88,2 | 89,1 | 89,2 | 89,3 | 89,3 | 89,3 | 89,3 | 89,6 | 89,8 | 90,3 | 90,5 | 91,5 | 91,1 | 91,2 | 91,3 | 92,3 | 91,3 | 92,8  | 93,0  |
| <b>Super silenced equipment</b> |         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |
| Sound power level (1)           | ° dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 89,4 | 88,4 | 89,8  | 90,0  |
|                                 | A dB(A) | 83,1 | 85,0 | 85,3 | 86,2 | 86,3 | 86,4 | 86,3 | 86,3 | 86,4 | 86,7 | 86,8 | 87,4 | 87,5 | 88,5 | 88,1 | 88,2 | 88,8 | 89,4 | 88,4 | 89,8  | 90,0  |

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

## DIMENSIONS



### Unit dimensions and weights °/H in standard configuration

| Size   | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603  |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| <b>Model: H, °</b>                                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
| <b>Dimensions and weights - standard configuration</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |
| A  | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2250 | 2250 | 2250 | 2250  |
|  | A    | mm   | 1720 | 1790 | 1865 | 1865 | 1865 | 1887 | 1887 | 2131 | 1920 | 2131 | 1920 | 2195 | 2195 | 2340 | 2455 | 2440 | 2432 | 2250 | 2250  |
| B  | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2200 | 2200 | 2200 | 2200  |
|  | A    | mm   | 1510 | 1560 | 1610 | 1610 | 1610 | 1610 | 1610 | 1645 | 1630 | 1600 | 1630 | 1675 | 1675 | 1685 | 1875 | 1900 | 1950 | 2200 | 2200  |
| C  | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 5650 | 5650 | 5650 | 5650  |
|  | A    | mm   | 3460 | 3463 | 3585 | 4100 | 4100 | 4140 | 4240 | 4320 | 4290 | 4345 | 4290 | 4380 | 4380 | 4395 | 4500 | 4580 | 4580 | 5650 | 5650  |
| Empty weight   | °    | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 8740 | 9680 | 9900 | 10000 |
|  | A    | kg   | 2020 | 2030 | 2230 | 2410 | 2450 | 2670 | 3090 | 3710 | 3530 | 3980 | 3570 | 5160 | 5220 | 5710 | 6440 | 6680 | 6770 | 9730 | 11440 |

### Unit dimensions and weights °/H in silenced configuration

| Size  | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203  | 8403  | 9603  |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| <b>Model: H, °</b>                                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| <b>Dimensions and weights - quiet configuration</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
| A   | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2250 | 2250  | 2250  | 2250  |
|   | A    | mm   | 1720 | 1790 | 1865 | 1865 | 1865 | 1887 | 1887 | 2131 | 1920 | 2131 | 1920 | 2195 | 2195 | 2340 | 2455 | 2440 | 2432  | 2250  | 2250  |
| B   | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2200 | 2200  | 2200  | 2200  |
|   | A    | mm   | 1525 | 1560 | 1610 | 1610 | 1610 | 1615 | 1615 | 1645 | 1630 | 1600 | 1630 | 1675 | 1675 | 1685 | 1875 | 1900 | 1950  | 2200  | 2200  |
| C   | °    | mm   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 5650 | 5650  | 5650  | 5650  |
|   | A    | mm   | 3460 | 3463 | 3585 | 4100 | 4100 | 4140 | 4240 | 4320 | 4290 | 4345 | 4290 | 4630 | 4630 | 4600 | 5015 | 5060 | 5060  | 5650  | 6840  |
| Empty weight  | °    | kg   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 9270 | 10240 | 10510 | 10610 |
|   | A    | kg   | 2180 | 2190 | 2390 | 2570 | 2610 | 2830 | 3280 | 4020 | 3720 | 4290 | 3760 | 5500 | 5560 | 6050 | 6810 | 7080 | 7170  | 10260 | 12000 |

### Super silenced equipment dimensions and weights

|              |   |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |
|--------------|---|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| A            | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2250 | 2250  | 2250  | 2250  |
|              | A | mm | 1720 | 1790 | 1865 | 1865 | 1865 | 1887 | 1887 | 2131 | 1920 | 2131 | 1920 | 2195 | 2195 | 2340 | 2455 | 2440 | 2432  | 2250  | 2250  |
| B            | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 2200 | 2200  | 2200  | 2200  |
|              | A | mm | 1525 | 1560 | 1610 | 1610 | 1610 | 1615 | 1615 | 1645 | 1630 | 1600 | 1630 | 1675 | 1675 | 1685 | 1875 | 1900 | 1950  | 2200  | 2200  |
| C            | ° | mm | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 5650 | 5650  | 5650  | 5650  |
|              | A | mm | 3460 | 3463 | 3585 | 4100 | 4100 | 4140 | 4240 | 4320 | 4290 | 4345 | 4290 | 4630 | 4630 | 4600 | 5015 | 5060 | 5060  | 5650  | 5650  |
| Empty weight | ° | kg | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 9890 | 10890 | 11230 | 11330 |
|              | A | kg | 2370 | 2380 | 2580 | 2760 | 2800 | 3020 | 3500 | 4400 | 3940 | 4670 | 3980 | 5910 | 5970 | 6460 | 7240 | 7550 | 7640  | 10880 | 12650 |

■ For the sizes of D-T-E versions please contact the factory.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

#### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## WFN

## Water cooled heat pump reversible water side

Cooling capacity 182 ÷ 2349 kW  
Heating capacity 205 ÷ 2610 kW

- Production of hot water up to 55°C.
- Production of negative chilled water down to -8°C.



### DESCRIPTION

Units for internal installation offering chilled/hot water, designed to meet air conditioning needs in residential/commercial complexes or industrial applications.

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

° Standard

A High efficiency

### FEATURES

#### Operating field

Production of chilled water up to 16 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 55 °C.

**With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.**

#### Mono, bi-tri circuit unit

Unit with 2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

They are equipped with screw compressors and system and source side shell and tube heat exchangers with R134a refrigerant.

**The R513A (XP10) refrigerant with this type of gas is also available on the configurator. On average, the units have a yield > 2% and an EER < 3% compared to the same size with R134a.**

For further details refer to the technical documentation or to the Magellano selection program.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

### CONTROL PCO<sub>5</sub>

Microprocessor adjustment, with 4.3" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

Adjustment includes complete management of the alarms and their log.

The possibility to control several units in Master - Slave parallel mode up to a maximum of 4 compressors.

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 2:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AER485P1 x n° 3:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.



**ISG:** Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

## ACCESSORIES COMPATIBILITY

| Model               | Ver | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2502 | 2801 | 2802 | 3201 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1            | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 2 (1) | A   |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AER485P1 x n° 3 (1) | °A  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |
| AERBACP             | °   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |
| AERBACP             | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP             | °   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |
| AERNET              | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET              | °   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |
| MULTICHILLER-EVO    | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO    | °   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |
| PGD1                | A   | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1                | °   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | .    | .    | .    | .    |

(1) x Indicates the quantity of accessories to match.

## Antivibration

| Version | Set-up  | Heat recovery | 0701        | 0801        | 0901        | 1101        | 1251        |
|---------|---------|---------------|-------------|-------------|-------------|-------------|-------------|
| °       | °, K, L | °, D, T       | -           | -           | -           | -           | -           |
| A       | °, K, L | °             | AVX680      | AVX680      | AVX680      | AVX681      | AVX681      |
| A       | °, K, L | D, T          | -           | -           | -           | -           | -           |
| Version | Set-up  | Heat recovery | 1401        | 1601        | 1801        | 2101        | 2401        |
| °       | °, K, L | °, D, T       | -           | -           | -           | -           | -           |
| A       | °       | °             | AVX681      | AVX682      | AVX682      | AVX683      | AVX683      |
| A       | K       | °             | AVX688      | AVX683      | AVX683      | AVX683      | AVX683      |
| A       | L       | °             | AVX681      | AVX682      | AVX685      | AVX683      | AVX683      |
| A       | °, K, L | D, T          | -           | -           | -           | -           | -           |
| Version | Set-up  | Heat recovery | 2502        | 2801        | 2802        | 3201        | 3202        |
| °       | °, K, L | °, D, T       | -           | -           | -           | -           | -           |
| A       | °       | °             | AVX673      | AVX683      | AVX674      | AVX683      | AVX679      |
| A       | K       | °             | Contact us. | AVX686      | Contact us. | AVX686      | Contact us. |
| A       | L       | °             | AVX674      | AVX683      | AVX674      | AVX683      | AVX678      |
| A       | °       | D             | AVX674      | -           | AVX674      | -           | AVX679      |
| A       | °       | T             | AVX674      | -           | AVX674      | -           | AVX678      |
| A       | L       | D, T          | AVX674      | -           | AVX674      | -           | AVX678      |
| A       | K       | D, T          | Contact us. | -           | Contact us. | -           | Contact us. |
| Version | Set-up  | Heat recovery | 3602        | 4202        | 4802        | 5602        | 6402        |
| °       | °, K, L | °, D, T       | -           | -           | -           | -           | -           |
| A       | °       | °, D          | AVX679      | AVX678      | AVX678      | AVX678      | AVX678      |
| A       | K       | °, D, T       | Contact us. | Contact us. | Contact us. | Contact us. | Contact us. |
| A       | °       | T             | AVX678      | AVX678      | AVX678      | AVX678      | AVX678      |
| A       | L       | °, D          | AVX678      | AVX678      | AVX678      | AVX678      | AVX678      |
| A       | L       | T             | AVX678      | AVX678      | AVX676      | AVX676      | AVX676      |
| Version | Set-up  | Heat recovery | 6703        | 7203        | 8403        | 9603        |             |
| °       | °, K, L | °, D, T       | Contact us. | Contact us. | Contact us. | Contact us. |             |
| A       | °, K, L | °, D, T       | Contact us. | Contact us. | Contact us. | Contact us. |             |

- not available

## Power factor correction

| Ver | 0701       | 0801       | 0901       | 1101       | 1251       | 1401       | 1601       | 1801       | 2101       | 2401       | 2502       | 2801       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A   | RIFWFN0701 | RIFWFN0801 | RIFWFN0901 | RIFWFN1101 | RIFWFN1251 | RIFWFN1401 | RIFWFN1601 | RIFWFN1801 | RIFWFN2101 | RIFWFN2401 | RIFWFN2502 | RIFWFN2801 |

A grey background indicates the accessory must be assembled in the factory

| Ver | 2802       | 3201       | 3202       | 3602       | 4202       | 4802       | 5602       | 6402       | 6703       | 7203       | 8403       | 9603       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| °   | -          | -          | -          | -          | -          | -          | -          | -          | RIFWFN6703 | RIFWFN7203 | RIFWFN8403 | RIFWFN9603 |
| A   | RIFWFN2802 | RIFWFN3201 | RIFWFN3202 | RIFWFN3602 | RIFWFN4202 | RIFWFN4802 | RIFWFN5602 | RIFWFN6402 | RIFWFN6703 | RIFWFN7203 | RIFWFN8403 | RIFWFN9603 |

A grey background indicates the accessory must be assembled in the factory

## Isolating kit

| Ver | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401  | 2502 | 2801  | 2802 | 3201  | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|------|------|------|------|------|------|------|------|------|------|
| °   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -    | -     | -    | -     | -    | -    | -    | -    | -    | -    | ISG5 | ISG5 | ISG6 | ISG6 |
| A   | ISG10 | ISG10 | ISG10 | ISG10 | ISG11 | ISG12 | ISG13 | ISG13 | ISG14 | ISG14 | ISG1 | ISG15 | ISG1 | ISG15 | ISG2 | ISG2 | ISG2 | ISG3 | ISG3 | ISG3 | ISG7 | ISG8 | ISG8 | ISG8 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>WFN</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0701, 0801, 0901, 1101, 1251, 1401, 1601, 1801, 2101, 2401, 2502, 2801, 2802, 3201, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603 |
| <b>8</b>       | <b>Model</b>  |
| °              | Heat pump reversible on the water side  |
| <b>9</b>       | <b>Version</b>  |
| °              | Standard (1)  |
| A              | High efficiency   |
| <b>10</b>      | <b>Operating field</b>  |
| X              | Electronic thermostatic expansion valve (2)   |
| Z              | Double electronic thermostatic for low temperature (3)  |
| <b>11</b>      | <b>Set-up</b>   |
| K              | Super silenced  |
| L              | Silenced with hood  |
| °              | Standard  |
| <b>12</b>      | <b>Heat recovery</b>  |
| D              | With desuperheater (4)  |
| T              | With total recovery (4)   |
| °              | Without heat recovery   |

| Field     | Description  |
|-----------|--|
| <b>13</b> | <b>Evaporator</b>  |
| E         | Evaporating unit   |
| °         | Standard   |
| <b>14</b> | <b>Power supply</b>  |
| 2         | 230V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (5) |
| 4         | 230V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (5)          |
| 5         | 500V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit     |
| 8         | 400V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit              |
| 9         | 500V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (5)          |
| °         | 400V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (5) |
| <b>15</b> | <b>Refrigerant gas</b>   |
| G         | R513A (XP10)   |
| °         | R134a  |

(1) Only for sizes from 6703 to 9603

(2) Water produced from 0 °C ÷ 16 °C

(3) Water produced from -8 °C up to 10 °C

(4) Not available for the condenserless "E"

(5) The 230V and 500V power supplies are only available for sizes 0701 - 0801 - 0901 - 1101 - 1251 - 1401 - 2502 - 2802

## PERFORMANCE SPECIFICATIONS

## WFN 0701 - 3201 - version A - gas R134a

| Size   |     | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|--|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |       |       |       |       |       |       |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 182,1 | 207,2 | 232,9 | 295,9 | 322,1 | 370,3 | 448,8  | 504,1  | 579,3  | 655,9  | 719,6  | 788,4  |
| Input power                                  | kW  | 35,2  | 40,2  | 45,6  | 55,9  | 60,5  | 68,8  | 83,9   | 95,0   | 106,4  | 120,6  | 136,6  | 149,7  |
| Cooling total input current                  | A   | 63,0  | 71,0  | 79,0  | 91,0  | 104,0 | 120,0 | 138,0  | 156,0  | 170,0  | 200,0  | 223,0  | 248,0  |
| EER  | W/W | 5,18  | 5,16  | 5,11  | 5,30  | 5,32  | 5,38  | 5,35   | 5,31   | 5,45   | 5,44   | 5,27   | 5,27   |
| Water flow rate system side                  | l/h | 31347 | 35658 | 40063 | 50900 | 55401 | 63688 | 77171  | 86683  | 99596  | 112777 | 123733 | 135542 |
| Pressure drop system side                    | kPa | 40    | 46    | 46    | 40    | 40    | 41    | 28     | 35     | 27     | 37     | 45     | 27     |
| Water flow rate source side                  | l/h | 37125 | 42261 | 47577 | 60109 | 65418 | 75101 | 91161  | 102491 | 117368 | 132862 | 146434 | 160587 |
| Pressure drop source side                    | kPa | 37    | 37    | 34    | 44    | 37    | 33    | 33     | 33     | 33     | 34     | 33     | 32     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |       |       |       |       |       |       |        |        |        |        |        |        |
| Heating capacity                             | kW  | 204,8 | 230,6 | 262,5 | 327,5 | 358,1 | 410,4 | 494,2  | 556,2  | 639,5  | 733,2  | 796,8  | 879,7  |
| Input power                                  | kW  | 44,4  | 50,8  | 57,8  | 70,4  | 76,6  | 87,1  | 104,0  | 118,2  | 131,8  | 150,4  | 169,5  | 188,1  |
| Heating total input current                  | A   | 78,0  | 88,0  | 98,0  | 113,0 | 130,0 | 149,0 | 170,0  | 191,0  | 209,0  | 246,0  | 272,0  | 308,0  |
| COP  | W/W | 4,61  | 4,54  | 4,54  | 4,65  | 4,68  | 4,71  | 4,75   | 4,70   | 4,85   | 4,87   | 4,70   | 4,68   |
| Water flow rate system side                  | l/h | 35533 | 40021 | 45575 | 56858 | 62177 | 71260 | 85815  | 96600  | 111065 | 127339 | 138391 | 152791 |
| Pressure drop system side                    | kPa | 34    | 33    | 31    | 40    | 33    | 29    | 30     | 29     | 30     | 31     | 29     | 29     |
| Water flow rate source side                  | l/h | 47178 | 52944 | 60295 | 75577 | 82711 | 94940 | 114197 | 128417 | 148521 | 170834 | 184231 | 202358 |
| Pressure drop source side                    | kPa | 90    | 101   | 103   | 88    | 89    | 91    | 61     | 78     | 61     | 85     | 101    | 60     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

## WFN 2502 - 9603 - version A - gas R134a

| Size   |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity                             | kW  | 652,3  | 746,8  | 905,7  | 1024,5 | 1164,3 | 1325,5 | 1446,9 | 1589,7 | 1721,1 | 1960,7 | 2149,5 | 2349,3 |
| Input power                                  | kW  | 121,4  | 137,8  | 167,7  | 189,5  | 213,7  | 242,9  | 270,4  | 296,6  | 317,6  | 359,9  | 406,3  | 445,4  |
| Cooling total input current                  | A   | 208,0  | 239,0  | 275,0  | 310,0  | 341,0  | 401,0  | 447,0  | 493,0  | 509,0  | 598,0  | 667,0  | 739,0  |
| EER  | W/W | 5,37   | 5,42   | 5,40   | 5,41   | 5,45   | 5,46   | 5,35   | 5,36   | 5,42   | 5,45   | 5,29   | 5,28   |
| Water flow rate system side                  | l/h | 112179 | 128411 | 155723 | 176117 | 200144 | 227870 | 248717 | 273259 | 295856 | 337027 | 369472 | 403784 |
| Pressure drop system side                    | kPa | 51     | 41     | 38     | 29     | 33     | 45     | 32     | 38     | 83     | 55     | 51     | 30     |
| Water flow rate source side                  | l/h | 132175 | 151199 | 183520 | 207646 | 235653 | 268115 | 293728 | 322600 | 348857 | 396964 | 437212 | 478412 |
| Pressure drop source side                    | kPa | 49     | 50     | 49     | 49     | 50     | 49     | 48     | 46     | 34     | 32     | 32     | 36     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Heating capacity                             | kW  | 726,4  | 828,1  | 1001,4 | 1138,6 | 1283,2 | 1459,8 | 1589,2 | 1809,3 | 1911,8 | 2159,8 | 2376,5 | 2610,0 |
| Input power                                  | kW  | 154,8  | 174,8  | 209,3  | 234,9  | 264,8  | 302,9  | 332,5  | 371,1  | 396,0  | 450,7  | 504,3  | 547,7  |
| Heating total input current                  | A   | 260,0  | 298,0  | 339,0  | 381,0  | 418,0  | 492,0  | 545,0  | 606,0  | 624,0  | 733,0  | 812,0  | 900,0  |
| COP  | W/W | 4,69   | 4,74   | 4,78   | 4,85   | 4,85   | 4,82   | 4,78   | 4,88   | 4,83   | 4,79   | 4,71   | 4,77   |
| Water flow rate system side                  | l/h | 126142 | 143812 | 173923 | 197757 | 222889 | 253571 | 276062 | 314312 | 332129 | 375231 | 412895 | 453465 |
| Pressure drop system side                    | kPa | 45     | 45     | 44     | 45     | 45     | 44     | 43     | 44     | 31     | 28     | 28     | 32     |
| Water flow rate source side                  | l/h | 168271 | 191878 | 232387 | 264585 | 298364 | 339696 | 368017 | 421779 | 444410 | 502013 | 549582 | 603144 |
| Pressure drop source side                    | kPa | 114    | 92     | 85     | 65     | 73     | 101    | 70     | 91     | 97     | 122    | 112    | 66     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**WFN 6703 - 9603 - version ° - gas R134a**

| Size   |     | 6703   | 7203   | 8403   | 9603   |
|--|-----|--------|--------|--------|--------|
| <b>Cooling performance 12 °C / 7 °C (1)</b>  |     |        |        |        |        |
| Cooling capacity                             | kW  | 1691,1 | 1925,6 | 2120,1 | 2310,0 |
| Input power                                  | kW  | 322,4  | 364,9  | 407,2  | 452,6  |
| Cooling total input current                  | A   | 505,0  | 594,0  | 660,0  | 733,0  |
| EER  | W/W | 5,00   | 5,00   | 5,00   | 5,00   |
| Water flow rate system side                  | l/h | 290696 | 330989 | 364406 | 397041 |
| Pressure drop system side                    | kPa | 46     | 52     | 39     | 46     |
| Water flow rate source side                  | l/h | 343740 | 390980 | 431894 | 471655 |
| Pressure drop source side                    | kPa | 70     | 70     | 58     | 69     |
| <b>Heating performance 40 °C / 45 °C (2)</b> |     |        |        |        |        |
| Heating capacity                             | kW  | 1885,5 | 2129,2 | 2348,8 | 2575,2 |
| Input power                                  | kW  | 401,0  | 454,4  | 501,6  | 558,6  |
| Heating total input current                  | A   | 619,0  | 728,0  | 803,0  | 893,0  |
| COP  | W/W | 5,00   | 5,00   | 5,00   | 5,00   |
| Water flow rate system side                  | l/h | 327527 | 369895 | 408061 | 447398 |
| Pressure drop system side                    | kPa | 64     | 63     | 52     | 62     |
| Water flow rate source side                  | l/h | 436659 | 493020 | 542047 | 593071 |
| Pressure drop source side                    | kPa | 105    | 115    | 86     | 103    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

**ENERGY INDICES (REG. 2016/2281 EU)**

| Size   |   | 0701 | 0801   | 0901   | 1101   | 1251   | 1401   | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Refrigerant gas: °</b>                                      |   |      |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|  | A | W/W  | 6,64   | 6,87   | 6,80   | 6,55   | 6,76   | 6,83   | 6,79   | 6,85   | 6,94   | 6,94   | 6,62   |
| Seasonal efficiency  | ° | %    | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|  | A | %    | 262,60 | 271,70 | 269,00 | 259,00 | 267,50 | 270,00 | 268,40 | 270,90 | 274,50 | 274,50 | 261,70 |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

| Size   |   | 2502 | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Refrigerant gas: °</b>                                      |   |      |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | ° | W/W  | -      | -      | -      | -      | -      | -      | -      | 6,85   | 7,02   | 6,98   | 6,88   |
|  | A | W/W  | 7,06   | 7,19   | 7,07   | 7,23   | 7,24   | 7,18   | 7,01   | 7,14   | 7,37   | 7,44   | 7,31   |
| Seasonal efficiency  | ° | %    | -      | -      | -      | -      | -      | -      | -      | 270,8% | 277,7% | 276,2% | 272,3% |
|  | A | %    | 279,5% | 284,6% | 279,8% | 296,3% | 286,5% | 284,3% | 277,3% | 282,4% | 291,9% | 294,5% | 289,5% |

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

| Size  |   |     | 0701   | 0801   | 0901   | 1101   |
|---|---|-----|--------|--------|--------|--------|
| Refrigerant gas: °  |   |     |        |        |        |        |
| UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1) |   |     |        |        |        |        |
| Pdesignh  | ° | kW  | -      | -      | -      | -      |
|   | A | kW  | 264,00 | 294,00 | 339,00 | 417,00 |
| SCOP  | ° | W/W | -      | -      | -      | -      |
|   | A | W/W | 4,58   | 4,63   | 4,55   | 4,73   |
| ηsh   | ° | %   | -      | -      | -      | -      |
|   | A | %   | 175,00 | 177,00 | 174,00 | 181,00 |

(1) Efficiencies for average temperature applications (55 °C)

**PERFORMANCE SPECIFICATIONS EVAPORATING UNITS**
**WFN - AE- gas R134a**

| Size  |     | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601  | 1801  | 2101  | 2401   | 2801   | 3201   |
|---|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| <b>Evaporator: E</b>                                    |     |       |       |       |       |       |       |       |       |       |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |
| Cooling capacity  | kW  | 162,7 | 185,3 | 208,6 | 264,5 | 289,4 | 331,9 | 398,9 | 449,2 | 519,2 | 588,2  | 640,8  | 701,8  |
| Input power   | kW  | 41,4  | 47,2  | 53,8  | 65,8  | 71,8  | 81,7  | 98,8  | 111,7 | 125,2 | 141,5  | 158,8  | 175,4  |
| Cooling total input current                             | A   | 74,0  | 83,0  | 94,0  | 109,0 | 124,0 | 141,0 | 164,0 | 185,0 | 203,0 | 236,0  | 263,0  | 290,0  |
| EER   | W/W | 3,93  | 3,92  | 3,88  | 4,02  | 4,03  | 4,06  | 4,04  | 4,02  | 4,15  | 4,16   | 4,03   | 4,00   |
| Evaporator water flow rate                              | l/h | 27948 | 31843 | 35845 | 45444 | 49721 | 57032 | 68528 | 77175 | 89209 | 101057 | 110092 | 120581 |
| Pressure drop evaporator side                           | kPa | 32    | 36    | 37    | 32    | 32    | 33    | 22    | 28    | 22    | 30     | 36     | 21     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |       |       |       |       |       |       |       |       |       |        |        |        |
| Gas line (C1)   | Ø   | 42,0  | 54,0  | 54,0  | 54,0  | 67,0  | 67,0  | 67,0  | 76,0  | 76,0  | 89,0   | 89,0   | 89,0   |
| Gas line (C2)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      |
| Gas line (C3)   | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      |
| Liquid line (C1)  | Ø   | 28,0  | 35,0  | 35,0  | 35,0  | 42,0  | 42,0  | 42,0  | 42,0  | 54,0  | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      |
| Liquid line (C3)  | Ø   | -     | -     | -     | -     | -     | -     | -     | -     | -     | -      | -      | -      |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

| Size  |     | 2502   | 2802   | 3202   | 3602   | 4202   | 4802   | 5602   | 6402   | 6703   | 7203   | 8403   | 9603   |
|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Evaporator: E</b>                                    |     |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Cooling capacity  | kW  | 584,6  | 668,6  | 803,3  | 911,8  | 1043,5 | 1186,8 | 1284,6 | 1414,9 | 1544,3 | 1758,8 | 1912,5 | 2076,9 |
| Input power   | kW  | 143,3  | 163,2  | 196,5  | 222,8  | 249,8  | 283,2  | 317,9  | 349,1  | 373,7  | 422,6  | 474,7  | 523,3  |
| Cooling total input current                             | A   | 246,7  | 282,2  | 326,3  | 368,7  | 405,5  | 472,6  | 525,9  | 578,3  | 606,7  | 705,8  | 785,6  | 867,1  |
| EER   | W/W | 4,08   | 4,10   | 4,09   | 4,09   | 4,18   | 4,19   | 4,04   | 4,05   | 4,13   | 4,16   | 4,03   | 3,97   |
| Evaporator water flow rate                              | l/h | 100443 | 114870 | 138020 | 156649 | 179280 | 203906 | 220716 | 243093 | 265322 | 302189 | 328596 | 356829 |
| Pressure drop evaporator side                           | kPa | 41     | 33     | 30     | 23     | 27     | 36     | 25     | 30     | 35     | 44     | 40     | 23     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |        |        |        |        |        |        |        |        |        |        |        |        |
| Gas line (C1)   | Ø   | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C2)   | Ø   | 67,0   | 67,0   | 67,0   | 76,0   | 76,0   | 88,9   | 88,9   | 88,9   | 76,0   | 88,9   | 88,9   | 88,9   |
| Gas line (C3)   | Ø   | -      | -      | -      | -      | -      | -      | -      | 42,0   | 76,0   | 88,9   | 88,9   | 88,9   |
| Liquid line (C1)  | Ø   | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C2)  | Ø   | 42,0   | 42,0   | 42,0   | 42,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   | 54,0   |
| Liquid line (C3)  | Ø   | -      | -      | -      | -      | -      | -      | -      | -      | 54,0   | 54,0   | 54,0   | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**WFN - °E - gas R134a**

| Size  |     |  | 6703   |  | 7203   |  | 8403   |  | 9603   |
|---|-----|--|--------|--|--------|--|--------|--|--------|
| <b>Evaporator: E</b>                                    |     |  |        |  |        |  |        |  |        |
| <b>Cooling performance 12 °C / 7 °C - gas R134a (1)</b> |     |  |        |  |        |  |        |  |        |
| Cooling capacity  | kW  |  | 1500,1 |  | 1704,7 |  | 1830,1 |  | 1998,5 |
| Input power   | kW  |  | 375,4  |  | 424,4  |  | 474,7  |  | 524,9  |
| Cooling total input current                             | A   |  | 609,0  |  | 708,0  |  | 786,0  |  | 869,0  |
| EER   | W/W |  | 4,00   |  | 4,02   |  | 3,86   |  | 3,81   |
| Evaporator water flow rate                              | l/h |  | 257735 |  | 292888 |  | 314432 |  | 343357 |
| Pressure drop evaporator side                           | kPa |  | 36     |  | 41     |  | 29     |  | 35     |
| <b>Length of refrigerant lines from/to 0 - 10 m</b>     |     |  |        |  |        |  |        |  |        |
| Gas line (C1)   | Ø   |  | 76,0   |  | 88,9   |  | 88,9   |  | 88,9   |
| Gas line (C2)   | Ø   |  | 76,0   |  | 88,9   |  | 88,9   |  | 88,9   |
| Gas line (C3)   | Ø   |  | 76,0   |  | 88,9   |  | 88,9   |  | 88,9   |
| Liquid line (C1)  | Ø   |  | 54,0   |  | 54,0   |  | 54,0   |  | 54,0   |
| Liquid line (C2)  | Ø   |  | 54,0   |  | 54,0   |  | 54,0   |  | 54,0   |
| Liquid line (C3)  | Ø   |  | 54,0   |  | 54,0   |  | 54,0   |  | 54,0   |

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

**ELECTRIC DATA**

| Size                  |   | 0701  | 0801  | 0901  | 1101  | 1251  | 1401  | 1601   | 1801   | 2101   | 2401   | 2801   | 3201   |
|-----------------------|---|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |   |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | A | 106,0 | 119,0 | 136,0 | 162,0 | 183,0 | 208,0 | 243,0  | 275,0  | 305,0  | 350,0  | 389,0  | 427,0  |
| Peak current (LRA)    | A | 166,0 | 195,0 | 232,0 | 303,0 | 317,0 | 344,0 | 439,0  | 468,0  | 589,0  | 653,0  | 808,0  | 920,0  |
| <b>Electric data</b>  |   |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | ° | A     | -     | -     | -     | -     | -     | -      | -      | 913,0  | 1050,0 | 1166,0 | 1281,0 |
|                       | A | A     | 365,0 | 416,0 | 486,0 | 549,0 | 609,0 | 700,0  | 777,0  | 854,0  | 913,0  | 1050,0 | 1166,0 |
| Peak current (LRA)    | ° | A     | -     | -     | -     | -     | -     | -      | -      | 1198,0 | 1353,0 | 1585,0 | 1774,0 |
|                       | A | A     | 500,0 | 552,0 | 682,0 | 743,0 | 894,0 | 1003,0 | 1197,0 | 1347,0 | 1198,0 | 1353,0 | 1585,0 |

**GENERAL TECHNICAL DATA****WFN - A**

| Size                              |      | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601           | 1801 | 2101 | 2401 | 2801  | 3201  |
|-----------------------------------|------|------|------|------|------|------|------|----------------|------|------|------|-------|-------|
| <b>Compressor</b>                 |      |      |      |      |      |      |      |                |      |      |      |       |       |
| Type                              | type |      |      |      |      |      |      | Screw          |      |      |      |       |       |
| Compressor regulation             | Type |      |      |      |      |      |      | On-Off         |      |      |      |       |       |
| Number                            | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1     | 1     |
| Circuits                          | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1     | 1     |
| Refrigerant                       | type |      |      |      |      |      |      | R134a          |      |      |      |       |       |
| Refrigerant load circuit 1 (1)    | kg   | 41,0 | 41,0 | 38,0 | 59,0 | 57,0 | 72,0 | 66,0           | 61,0 | 85,0 | 81,0 | 110,0 | 104,0 |
| <b>System side heat exchanger</b> |      |      |      |      |      |      |      |                |      |      |      |       |       |
| Type                              | type |      |      |      |      |      |      | Shell and tube |      |      |      |       |       |
| Number                            | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1     | 1     |
| Connections (in/out)              | Type |      |      |      |      |      |      | Grooved joints |      |      |      |       |       |
| Sizes (in/out)                    | Ø    | 4"   | 4"   | 4"   | 4"   | 5"   | 6"   | 6"             | 6"   | 6"   | 6"   | 8"    | 8"    |
| <b>Source side heat exchanger</b> |      |      |      |      |      |      |      |                |      |      |      |       |       |
| Type                              | type |      |      |      |      |      |      | Shell and tube |      |      |      |       |       |
| Number                            | no.  | 1    | 1    | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1     | 1     |
| Connections (in/out)              | Type |      |      |      |      |      |      | Grooved joints |      |      |      |       |       |
| Sizes (in/out)                    | Ø    | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"             | 4"   | 5"   | 5"   | 6"    | 6"    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

| Size                              |    |      | 2502 | 2802 | 3202 | 3602 | 4202 | 4802  | 5602  | 6402  | 6703  | 7203  | 8403  | 9603  |
|-----------------------------------|----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|
| <b>Compressor</b>                 |    |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |      |      |       |       |       |       |       |       |       |
| Compressor regulation             | °A | Type |      |      |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Circuits                          | °A | no.  | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Refrigerant                       | °A | type |      |      |      |      |      |       |       |       |       |       |       |       |
|                                   | °  |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Refrigerant load circuit 1 (1)    | A  | kg   | -    | -    | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
| Refrigerant load circuit 2 (1)    | A  | kg   | 50,0 | 53,0 | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
| Refrigerant load circuit 3 (1)    | A  | kg   | 50,0 | 53,0 | 81,0 | 71,0 | 70,0 | 123,0 | 124,0 | 121,0 | 106,0 | 104,0 | 110,0 | 120,0 |
|                                   | °  | kg   | -    | -    | -    | -    | -    | -     | -     | -     | 107,0 | 115,0 | 136,0 | 157,0 |
|                                   | A  | kg   | -    | -    | -    | -    | -    | -     | -     | -     | 106,0 | 104,0 | 110,0 | 120,0 |
| <b>System side heat exchanger</b> |    |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 1    | 1    | 1    | 1    | 1    | 1     | 1     | 1     | 1     | 1     | 1     | 1     |
| Connections (in/out)              | °A | Type |      |      |      |      |      |       |       |       |       |       |       |       |
| Sizes (in/out)                    | °A | Ø    | 8"   | 8"   | 8"   | 8"   | 10"  | 10"   | 10"   | 10"   | 10"   | 10"   | 10"   | 10"   |
| <b>Source side heat exchanger</b> |    |      |      |      |      |      |      |       |       |       |       |       |       |       |
| Type                              | °A | type |      |      |      |      |      |       |       |       |       |       |       |       |
| Number                            | °A | no.  | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2     | 3     | 3     | 3     | 3     |
| Connections (in/out)              | °A | Type |      |      |      |      |      |       |       |       |       |       |       |       |
| Sizes (in/out)                    | °  | Ø    | -    | -    | -    | -    | -    | -     | -     | -     | 5"    | 5"    | 6"    | 6"    |
|                                   | A  | Ø    | 4"   | 4"   | 4"   | 4"   | 5"   | 6"    | 6"    | 6"    | -     | -     | -     | -     |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

## SOUND DATA

### Sound data calculated with functioning in cooling mode - R134a gas

| Size   |   |       | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2801 | 3201 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Set-up: K</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | A | dB(A) | 78,0 | 78,2 | 77,9 | 79,8 | 80,4 | 80,9 | 81,1 | 81,5 | 84,3 | 82,6 | 85,1 | 84,5 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |   |       | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2801 | 3201 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Set-up: L</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | A | dB(A) | 81,0 | 81,2 | 80,9 | 82,8 | 83,4 | 83,9 | 84,1 | 84,5 | 87,3 | 85,5 | 88,1 | 87,5 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |   |       | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101 | 2401 | 2801 | 3201 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Set-up: °</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|  | A | dB(A) | 87,7 | 88,0 | 87,7 | 89,1 | 90,3 | 91,3 | 90,5 | 90,7 | 93,2 | 92,5 | 87,4 | 84,9 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |   |       | 2502 | 2802 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Set-up: K</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | 88,1 | 87,3 | 89,8 | 90,3 |
|  | A | dB(A) | 83,6 | 83,6 | 84,5 | 85,2 | 86,1 | 85,6 | 87,8 | 88,3 | 88,1 | 87,3 | 89,8 | 90,3 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

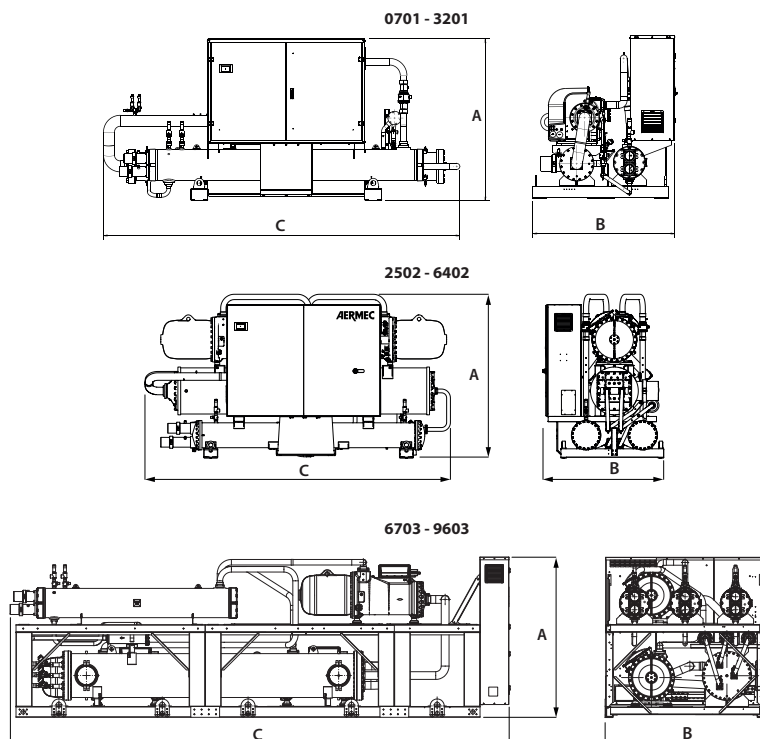
| Size   |   |       | 2502 | 2802 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Set-up: L</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | 91,1 | 90,2 | 92,8 | 93,3 |
|  | A | dB(A) | 86,6 | 86,6 | 87,5 | 88,2 | 89,1 | 88,5 | 90,8 | 91,3 | 91,1 | 90,2 | 92,8 | 93,3 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |   |       | 2502 | 2802 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703 | 7203 | 8403 | 9603  |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
| <b>Set-up: °</b>                                 |   |       |      |      |      |      |      |      |      |      |      |      |      |       |
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |       |
| Sound power level                                | ° | dB(A) | -    | -    | -    | -    | -    | -    | -    | -    | 97,0 | 97,2 | 99,5 | 100,0 |
|  | A | dB(A) | 93,5 | 94,0 | 94,0 | 94,5 | 95,0 | 95,5 | 97,5 | 98,0 | 97,0 | 97,2 | 99,5 | 100,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



### WFN 0701-9603 ver. A

| Size   |    | 0701 | 0801 | 0901 | 1101 | 1251 | 1401 | 1601 | 1801 | 2101  | 2401  | 2801  | 3201  |
|--|----|------|------|------|------|------|------|------|------|-------|-------|-------|-------|
| <b>Dimensions and weights - standard configuration</b> |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 1720 | 1720 | 1720 | 1720 | 1790 | 1865 | 1865 | 1865 | 1887  | 1887  | 1920  | 1920  |
| B  | mm | 1450 | 1450 | 1450 | 1510 | 1550 | 1610 | 1610 | 1610 | 1610  | 1610  | 1630  | 1630  |
| C  | mm | 3480 | 3480 | 3480 | 3470 | 3445 | 3560 | 4100 | 4100 | 4140  | 4252  | 4290  | 4290  |
| Empty weight   | kg | 1610 | 1630 | 1630 | 2120 | 2130 | 2350 | 2940 | 2980 | 3260  | 3320  | 3820  | 3870  |
| <b>Dimensions and weights - quiet configuration</b>    |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 1720 | 1720 | 1720 | 1720 | 1790 | 1865 | 1865 | 1865 | 1887  | 1887  | 1920  | 1920  |
| B  | mm | 1450 | 1450 | 1450 | 1540 | 1600 | 1610 | 1610 | 1610 | 1630  | 1630  | 1645  | 1645  |
| C  | mm | 3480 | 3480 | 3480 | 3470 | 3445 | 3560 | 4100 | 4100 | 4140  | 4252  | 4290  | 4290  |
| Empty weight   | kg | 1770 | 1790 | 1790 | 2280 | 2290 | 2510 | 3120 | 3170 | 3450  | 3510  | 4030  | 4080  |
| <b>Super silenced equipment dimensions and weights</b> |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 1720 | 1720 | 1720 | 1720 | 1790 | 1865 | 1865 | 1865 | 1887  | 1887  | 1920  | 1920  |
| B  | mm | 1450 | 1450 | 1450 | 1540 | 1600 | 1610 | 1610 | 1610 | 1630  | 1630  | 1645  | 1645  |
| C  | mm | 3480 | 3480 | 3480 | 3470 | 3445 | 3560 | 4100 | 4100 | 4140  | 4252  | 4290  | 4290  |
| Empty weight   | kg | 1960 | 1980 | 1980 | 2470 | 2480 | 2700 | 3340 | 3390 | 3670  | 3730  | 4280  | 4330  |
| Size   |    | 2502 | 2802 | 3202 | 3602 | 4202 | 4802 | 5602 | 6402 | 6703  | 7203  | 8403  | 9603  |
| <b>Dimensions and weights - standard configuration</b> |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 2000 | 2075 | 2195 | 2195 | 2340 | 2432 | 2440 | 2432 | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 1500 | 1500 | 1575 | 1575 | 1585 | 1845 | 1800 | 1800 | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 4320 | 4345 | 4380 | 4380 | 4395 | 4535 | 4605 | 4605 | 6840  | 6840  | 6840  | 6840  |
| Empty weight   | kg | 3810 | 4100 | 5690 | 5750 | 6300 | 6670 | 6970 | 7070 | 10320 | 11670 | 12270 | 12360 |
| <b>Dimensions and weights - quiet configuration</b>    |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 2000 | 2075 | 2195 | 2195 | 2340 | 2432 | 2440 | 2432 | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 1500 | 1500 | 1575 | 1575 | 1585 | 1845 | 1800 | 1800 | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 4320 | 4345 | 4650 | 4650 | 4600 | 5015 | 5150 | 5150 | 6840  | 6840  | 6840  | 6840  |
| Empty weight   | kg | 4120 | 4410 | 6050 | 6120 | 6670 | 7040 | 7420 | 7490 | 10880 | 12230 | 12950 | 12990 |
| <b>Super silenced equipment dimensions and weights</b> |    |      |      |      |      |      |      |      |      |       |       |       |       |
| A  | mm | 2000 | 2075 | 2195 | 2195 | 2340 | 2432 | 2440 | 2432 | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 1500 | 1500 | 1575 | 1575 | 1585 | 1845 | 1800 | 1800 | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 4320 | 4345 | 4650 | 4650 | 4600 | 5015 | 5150 | 5150 | 6840  | 6840  | 6840  | 6840  |
| Empty weight   | kg | 4500 | 4790 | 6480 | 6550 | 7100 | 7470 | 7890 | 7990 | 11530 | 12880 | 13650 | 13740 |

**WFN 6703-9603 ver. °**

| Size   |    | 6703  | 7203  | 8403  | 9603  |
|--|----|-------|-------|-------|-------|
| <b>Dimensions and weights - standard configuration</b> |    |       |       |       |       |
| A  | mm | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 5650  | 5650  | 5650  | 5650  |
| Empty weight   | kg | 9330  | 9910  | 10130 | 10200 |
| <b>Dimensions and weights - quiet configuration</b>    |    |       |       |       |       |
| A  | mm | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 5650  | 5650  | 5650  | 5650  |
| Empty weight   | kg | 9890  | 10470 | 10760 | 10830 |
| <b>Super silenced equipment dimensions and weights</b> |    |       |       |       |       |
| A  | mm | 2250  | 2250  | 2250  | 2250  |
| B  | mm | 2200  | 2200  | 2200  | 2200  |
| C  | mm | 5650  | 5650  | 5650  | 5650  |
| Empty weight   | kg | 10540 | 11120 | 11510 | 11580 |

■ For the sizes of D-T-E versions please contact the factory.

■ For the size of the units with the RIF accessory we ask you to contact the headquarters.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WMX

## Water-water chiller

Cooling capacity 280,1 ÷ 324,2 kW



- High efficiency also at partial loads  
ESEER 8,4
- Compact design
- Extremely flexible and reliable



### DESCRIPTION

Indoor unit for the production of chilled water, equipped with magnetic levitation centrifugal compressors and system side, flooded source heat exchangers that guarantee a 50% reduction of the refrigerant load in comparison to conventional flooded heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

The technological choices made, always oriented to the highest quality and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent).

### EFFICIENCY

**A** High efficiency

**U** Very high efficiency

**Both units can be silenced.**

### FEATURES

- 5 times lighter than an equivalent screw compressor.
- Extremely compact wide to allow access through a standard doorway.
- High efficiency with generously sizes heat exchanger.

### Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.

Provided with inverter technology that permits capacity modulation down to 30% A version.

**Built-in device to reduce starting current (only 6 Amps!)**

### Operating field

Water produced from 20 °C up to 45 °C on Condenser side and from 5 °C up to 20 °C on Evaporator side.

### Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the

operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.



## CONFIGURATOR

| Field | Description     |
|-------|-----------------|
| 1,2,3 | WMX             |
| 4,5,6 | Size<br>300     |
| 7     | Efficiency      |
| A     | High efficiency |

| Field | Description          |
|-------|----------------------|
| U     | Very high efficiency |
| 8     | Version              |
| °     | Standard             |
| L     | Silenced             |

## PERFORMANCE SPECIFICATIONS

|                                      |     |     |       |
|--------------------------------------|-----|-----|-------|
| Size                                 | 300 |     |       |
| Efficiency: A                        |     |     |       |
| Cooling performance 12 °C / 7 °C (1) |     |     |       |
| Cooling capacity                     | °L  | kW  | 324,2 |
| Input power                          | °L  | kW  | 60,3  |
| Cooling total input current          | °L  | A   | 94,0  |
| EER                                  | °L  | W/W | 5,37  |
| Water flow rate system side          | °L  | l/h | 55761 |
| Pressure drop system side            | °L  | kPa | 34    |
| Water flow rate source side          | °L  | l/h | 65750 |
| Pressure drop source side            | °L  | kPa | 41    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

|                                      |     |     |       |
|--------------------------------------|-----|-----|-------|
| Size                                 | 300 |     |       |
| Efficiency: U                        |     |     |       |
| Cooling performance 12 °C / 7 °C (1) |     |     |       |
| Cooling capacity                     | °L  | kW  | 280,1 |
| Input power                          | °L  | kW  | 48,9  |
| Cooling total input current          | °L  | A   | 78,0  |
| EER                                  | °L  | W/W | 5,72  |
| Water flow rate system side          | °L  | l/h | 48180 |
| Pressure drop system side            | °L  | kPa | 25    |
| Water flow rate source side          | °L  | l/h | 56338 |
| Pressure drop source side            | °L  | kPa | 30    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size  |   |     | 300    |
|---|---|-----|--------|
| SEER - 12/7 (EN14825:2018) (1)              |   |     |        |
| SEER  | A | W/W | 8,99   |
|   | U | W/W | 9,04   |
| Seasonal efficiency                         | A | %   | 356,6% |
|   | U | %   | 358,5% |
| SEPR - (EN 14825:2018) High temperature (2) |   |     |        |
| SEPR  | A | W/W | 9,70   |
|   | U | W/W | 10.35  |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

|                       |    |   |       |
|-----------------------|----|---|-------|
| Size                  |    |   | 300   |
| Efficiency: A, U      |    |   |       |
| Electric data         |    |   |       |
| Maximum current (FLA) | °L | A | 135,0 |
| Peak current (LRA)    | °L | A | 6,0   |

## GENERAL TECHNICAL DATA

| Size                       |    |      | 300  |
|----------------------------|----|------|--|
| Efficiency: A, U           |    |      |  |
| Compressor                 |    |      |  |
| Type                       | °L | type | Centrifugal  |
| Compressor regulation      | °L | Type | Inverter   |
| Number                     | °L | no.  | 1  |
| Circuits                   | °L | no.  | 1  |
| Refrigerant                | °L | type | R134a  |
| Source side heat exchanger |    |      |  |
| Type                       | °L | type | Shell and tube - flooded compact                   |
| Number                     | °L | no.  | 1  |
| Connections (in/out)       | °L | Type | Grooved joints                                     |
| Sizes (in/out)             | °L | Ø    | 4"   |
| System side heat exchanger |    |      |  |
| Type                       | °L | type | Shell and tube - flooded compact with Spray system |
| Number                     | °L | no.  | 1  |
| Connections (in/out)       | °L | Type | Grooved joints                                     |
| Sizes (in/out)             | °L | Ø    | 4"   |

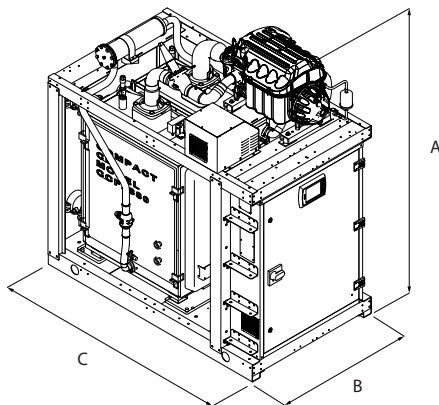
|   |   |            |
|---|---|------------|
| Size                                      |   | 300        |
| Efficiency: A                             |   |            |
| Sound data calculated in cooling mode (1) |   |            |
| Sound power level                         | ° | dB(A) 90,0 |
|   | L | dB(A) 84,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

|   |   |            |
|---|---|------------|
| Size                                      |   | 300        |
| Efficiency: U                             |   |            |
| Sound data calculated in cooling mode (1) |   |            |
| Sound power level                         | ° | dB(A) 85,0 |
|   | L | dB(A) 78,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                   |    |    | 300  |
|------------------------|----|----|------|
| Efficiency: A, U       |    |    |      |
| Dimensions and weights |    |    |      |
| A                      | °  | mm | 1905 |
|                        | L  | mm | 1942 |
| B                      | °L | mm | 1041 |
| C                      | °L | mm | 1770 |
| Empty weight           | °  | kg | 2025 |
|                        | L  | kg | 2210 |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# WMG

## Water-water chiller

Cooling capacity 282,3 ÷ 312,4 kW

- High efficiency also at partial loads ESEER 8,4
- Compact design
- Extremely flexible and reliable



### DESCRIPTION

Indoor unit for the production of chilled water, equipped with magnetic levitation centrifugal compressors and system side, flooded source heat exchangers that guarantee a 50% reduction of the refrigerant load in comparison to conventional flooded heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

The technological choices made, always oriented to the highest quality and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent).

### EFFICIENCY

**A** High efficiency

**U** Very high efficiency

**Both units can be silenced.**

### FEATURES

- 5 times lighter than an equivalent screw compressor.
- Extremely compact wide to allow access through a standard doorway.
- High efficiency with generously sizes heat exchanger.

### HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

**da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;** with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

### Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.

Provided with inverter technology that permits capacity modulation down to 30% A version.

**Built-in device to reduce starting current (only 6 Amps!)**

### Operating field

Water produced from 20 °C up to 55 °C on Condenser side and from 5 °C up to 20 °C on Evaporator side.

### Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

## CONFIGURATOR

| Field | Description     |
|-------|-----------------|
| 1,2,3 | WMG             |
| 4,5,6 | Size<br>300     |
| 7     | Efficiency      |
| A     | High efficiency |

| Field | Description          |
|-------|----------------------|
| U     | Very high efficiency |
| 8     | Version              |
| °     | Standard             |
| L     | Silenced             |

## PERFORMANCE SPECIFICATIONS

|                                      |     |     |       |
|--------------------------------------|-----|-----|-------|
| Size                                 | 300 |     |       |
| Efficiency: A                        |     |     |       |
| Cooling performance 12 °C / 7 °C (1) |     |     |       |
| Cooling capacity                     | °L  | kW  | 312,4 |
| Input power                          | °L  | kW  | 57,6  |
| Cooling total input current          | °L  | A   | 85,0  |
| EER                                  | °L  | W/W | 5,42  |
| Water flow rate system side          | °L  | l/h | 53731 |
| Pressure drop system side            | °L  | kPa | 31    |
| Water flow rate source side          | °L  | l/h | 63303 |
| Pressure drop source side            | °L  | kPa | 36    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

|                                      |     |     |       |
|--------------------------------------|-----|-----|-------|
| Size                                 | 300 |     |       |
| Efficiency: U                        |     |     |       |
| Cooling performance 12 °C / 7 °C (1) |     |     |       |
| Cooling capacity                     | °L  | kW  | 282,3 |
| Input power                          | °L  | kW  | 49,1  |
| Cooling total input current          | °L  | A   | 74,0  |
| EER                                  | °L  | W/W | 5,75  |
| Water flow rate system side          | °L  | l/h | 48548 |
| Pressure drop system side            | °L  | kPa | 25    |
| Water flow rate source side          | °L  | l/h | 56739 |
| Pressure drop source side            | °L  | kPa | 29    |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

|   |   |     |        |
|---|---|-----|--------|
| Size  |   |     | 300    |
| SEER - 12/7 (EN14825:2018) (1)              |   |     |        |
| SEER  | A | W/W | 8,88   |
|   | U | W/W | 8,91   |
| Seasonal efficiency                         | A | %   | 352,0% |
|   | U | %   | 353,4% |
| SEPR - (EN 14825:2018) High temperature (2) |   |     |        |
| SEPR  | A | W/W | 9,96   |
|   | U | W/W | 10,37  |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

|                       |    |   |       |
|-----------------------|----|---|-------|
| Size                  |    |   | 300   |
| Efficiency: A, U      |    |   |       |
| Electric data         |    |   |       |
| Maximum current (FLA) | °L | A | 150,0 |
| Peak current (LRA)    | °L | A | 6,0   |

## GENERAL TECHNICAL DATA

|                                   |    |   |
|-----------------------------------|----|---|
| <b>Size</b>                       |    | <b>300</b>  |
| <b>Efficiency: A, U</b>           |    |   |
| <b>Compressor</b>                 |    |   |
| Type                              | °L | type Centrifugal  |
| Compressor regulation             | °L | Type Inverter   |
| Number                            | °L | no. 1   |
| Circuits                          | °L | no. 1   |
| Refrigerant                       | °L | type R1234ze  |
| <b>Source side heat exchanger</b> |    |   |
| Type                              | °L | type Shell and tube - flooded compact                   |
| Number                            | °L | no. 1   |
| Connections (in/out)              | °L | Type Grooved joints                                     |
| Sizes (in/out)                    | °L | Ø 4"  |
| <b>System side heat exchanger</b> |    |   |
| Type                              | °L | type Shell and tube - flooded compact with Spray system |
| Number                            | °L | no. 1   |
| Connections (in/out)              | °L | Type Grooved joints                                     |
| Sizes (in/out)                    | °L | Ø 4"  |

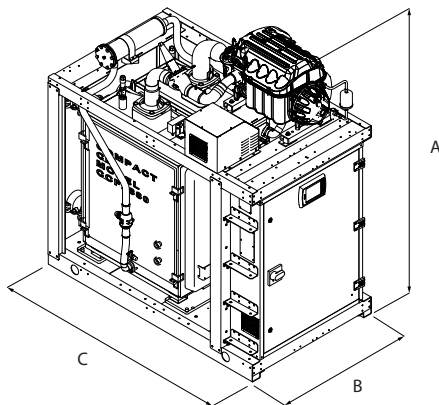
|  |   |            |
|--|---|------------|
| <b>Size</b>                                      |   | <b>300</b> |
| <b>Efficiency: A</b>                             |   |            |
| <b>Sound data calculated in cooling mode (1)</b> |   |            |
| Sound power level                                | ° | dB(A) 90,0 |
|  | L | dB(A) 85,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

|  |   |            |
|--|---|------------|
| <b>Size</b>                                      |   | <b>300</b> |
| <b>Efficiency: U</b>                             |   |            |
| <b>Sound data calculated in cooling mode (1)</b> |   |            |
| Sound power level                                | ° | dB(A) 84,0 |
|  | L | dB(A) 78,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



|                               |    |            |
|-------------------------------|----|------------|
| <b>Size</b>                   |    | <b>300</b> |
| <b>Efficiency: A, U</b>       |    |            |
| <b>Dimensions and weights</b> |    |            |
| A                             | °  | mm 1905    |
|                               | L  | mm 1942    |
| B                             | °L | mm 1041    |
|                               | °L | mm 1770    |
| Empty weight                  | °  | kg 2065    |
|                               | L  | kg 2250    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## WTX

## Water-water chiller

Cooling capacity 222,9 ÷ 1958,4 kW

- High efficiency ESEER up to 9
- Extended operating range
- Possibility of selecting between heat exchangers with 1 or 2 passes on water side



### DESCRIPTION

Indoor unit producing chilled water equipped with magnetic levitation centrifugal compressors and shell & tube heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

### EFFICIENCY

**A** High efficiency

**U** Very high efficiency

**Both units can be silenced.**

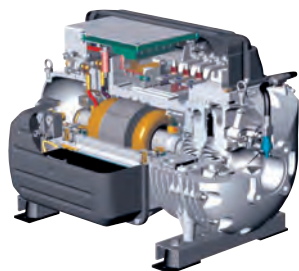
### FEATURES

#### Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.

The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%).

**Built-in device to reduce starting current (only 6 Amps!)**



### Operating field

Water produced from 15 °C up to 50 °C on Condenser side and from 5 °C up to 25 °C on Evaporator side.

### Flooded Evaporator with subcooler

#### Subcooler effect

- Superheats compressor gas intake;
- Subcools thermostatic valve fluid intake;
- Increases chiller yield and ensures gas suction from compressor.

#### Condenser

- With refrigerant on shell side and water on pipe side

#### Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------------------|-----|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |

■ With the MULTICHILLER\_EVO accessory, it is necessary to add AER485P1 for each connected unit.

## Antivibration

| Ver  | 1300     | 1350     | 2300     | 2350     | 3300     | 3325     | 3350     | 4325     | 4350     |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WTX  |
| 4,5,6,7 | Size<br>1300, 1350, 2300, 2350, 3300, 3325, 3350, 4325, 4350 |
| 8       | Efficiency   |
| A       | High efficiency  |
| U       | Very high efficiency   |
| 9       | Exchanger  |
| 1       | One pass on water side (1)                                   |

| Field | Description  |
|-------|--|
| 2     | Two passes on water side   |
| 10    | Version  |
| °     | Standard   |
| L     | Silenced   |
| 11    | Power supply   |
| °     | 400V ~ 3 50Hz with circuit breakers on compressors and auxiliary circuit |

(1) Option available only for size from 3300 to 4350.

## EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

**Flooded evaporator:** with level adjustment through an electronic valve controlled by a level sensor.

**Backflow condenser:** with refrigerant on shell side and water on tube side.

■ From size 1300 to 2350, heat exchangers have 2 passes on the water side

**Starting from size WTX 3300, heat exchangers are available as versions with one or two passes on the water side**, to meet any plant installation requirement. **The dimensions of the two configurations ensure similar performances** (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



## PERFORMANCE SPECIFICATIONS

### WTX - A

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

#### Exchanger: 1

##### Cooling performance 12 °C / 7 °C (1)

|                             |     |   |   |   |   |        |        |        |            |            |
|-----------------------------|-----|---|---|---|---|--------|--------|--------|------------|------------|
| Cooling capacity            | kW  | - | - | - | - | 1054,4 | 1214,3 | 1466,1 | 1716,2 (2) | 1955,0 (2) |
| Input power                 | kW  | - | - | - | - | 211,4  | 219,9  | 281,6  | 315,3      | 375,1      |
| Cooling total input current | A   | - | - | - | - | 317,0  | 356,0  | 435,0  | 503,0      | 580,0      |
| EER                         | W/W | - | - | - | - | 4,99   | 5,52   | 5,21   | 5,44       | 5,21       |
| Water flow rate system side | l/h | - | - | - | - | 181266 | 208751 | 252017 | 294970     | 336022     |
| Pressure drop system side   | kPa | - | - | - | - | 32     | 39     | 31     | 24         | 31         |
| Water flow rate source side | l/h | - | - | - | - | 218376 | 247239 | 301544 | 350417     | 402059     |
| Pressure drop source side   | kPa | - | - | - | - | 31     | 38     | 31     | 42         | 31         |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Sizes 4325 and 4350 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

#### Exchanger: 2

##### Cooling performance 12 °C / 7 °C (1)

|                             |     |       |        |        |        |        |        |        |            |            |
|-----------------------------|-----|-------|--------|--------|--------|--------|--------|--------|------------|------------|
| Cooling capacity            | kW  | 351,3 | 488,5  | 702,8  | 899,4  | 1054,3 | 1215,9 | 1466,0 | 1715,9 (2) | 1958,4 (2) |
| Input power                 | kW  | 70,8  | 94,3   | 141,8  | 164,1  | 212,6  | 220,6  | 283,8  | 318,8      | 380,0      |
| Cooling total input current | A   | 106,0 | 145,0  | 212,0  | 255,0  | 317,0  | 356,0  | 435,0  | 503,0      | 580,0      |
| EER                         | W/W | 4,96  | 5,18   | 4,96   | 5,48   | 4,96   | 5,51   | 5,17   | 5,38       | 5,15       |
| Water flow rate system side | l/h | 60422 | 84006  | 120844 | 154630 | 181266 | 209053 | 252017 | 294970     | 336647     |
| Pressure drop system side   | kPa | 32    | 30     | 40     | 33     | 54     | 77     | 54     | 60         | 82         |
| Water flow rate source side | l/h | 72792 | 100515 | 145584 | 183481 | 218376 | 247235 | 301544 | 350417     | 402062     |
| Pressure drop source side   | kPa | 31    | 33     | 35     | 28     | 28     | 35     | 33     | 41         | 53         |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Sizes 4325 and 4350 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

### WTX - U

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

#### Exchanger: 1

##### Cooling performance 12 °C / 7 °C (1)

|                             |     |   |   |   |   |        |        |        |        |        |
|-----------------------------|-----|---|---|---|---|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | - | - | - | - | 669,0  | 869,6  | 1002,7 | 1179,6 | 1336,9 |
| Input power                 | kW  | - | - | - | - | 112,2  | 144,9  | 166,9  | 195,3  | 222,3  |
| Cooling total input current | A   | - | - | - | - | 180,0  | 237,0  | 273,0  | 316,0  | 364,0  |
| EER                         | W/W | - | - | - | - | 5,96   | 6,00   | 6,01   | 6,04   | 6,01   |
| Water flow rate system side | l/h | - | - | - | - | 115004 | 149476 | 172333 | 202737 | 229777 |
| Pressure drop system side   | kPa | - | - | - | - | 12     | 18     | 14     | 10     | 14     |
| Water flow rate source side | l/h | - | - | - | - | 135049 | 175273 | 202156 | 237660 | 269542 |
| Pressure drop source side   | kPa | - | - | - | - | 12     | 17     | 13     | 17     | 13     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

#### Exchanger: 2

##### Cooling performance 12 °C / 7 °C (1)

|                             |     |       |       |       |        |        |        |        |        |        |
|-----------------------------|-----|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Cooling capacity            | kW  | 222,9 | 334,1 | 445,9 | 559,7  | 669,0  | 840,1  | 1006,1 | 1191,4 | 1342,6 |
| Input power                 | kW  | 37,5  | 55,9  | 75,1  | 94,3   | 112,5  | 140,7  | 167,2  | 198,4  | 223,4  |
| Cooling total input current | A   | 60,0  | 91,0  | 120,0 | 158,0  | 180,0  | 237,0  | 273,0  | 316,0  | 364,0  |
| EER                         | W/W | 5,95  | 5,98  | 5,94  | 5,93   | 5,95   | 5,97   | 6,02   | 6,01   | 6,01   |
| Water flow rate system side | l/h | 38335 | 57444 | 76669 | 96214  | 115004 | 144425 | 172942 | 204799 | 230804 |
| Pressure drop system side   | kPa | 12    | 13    | 16    | 12     | 21     | 32     | 24     | 26     | 37     |
| Water flow rate source side | l/h | 45016 | 67385 | 90033 | 113067 | 135049 | 169344 | 202690 | 240041 | 270255 |
| Pressure drop source side   | kPa | 12    | 14    | 13    | 10     | 10     | 15     | 14     | 18     | 23     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

## ENERGY INDICES (REG. 2016/2281 EU)

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

#### Exchanger: 1

##### SEER - 12/7 (EN14825: 2018) (1)

|                     |   |     |   |   |   |   |        |        |        |        |        |
|---------------------|---|-----|---|---|---|---|--------|--------|--------|--------|--------|
| SEER                | A | W/W | - | - | - | - | 8,25   | 8,64   | 8,78   | 8,76   | 8,95   |
|                     | U | W/W | - | - | - | - | 9,70   | 9,54   | 9,85   | 9,59   | 9,92   |
| Seasonal efficiency | A | %   | - | - | - | - | 326,8% | 342,6% | 348,2% | 347,2% | 354,8% |
|                     | U | %   | - | - | - | - | 384,8% | 378,4% | 390,8% | 380,6% | 393,7% |

##### SEPR - (EN 14825: 2018) High temperature (2)

|      |   |     |   |   |   |   |       |       |       |       |       |
|------|---|-----|---|---|---|---|-------|-------|-------|-------|-------|
| SEPR | A | W/W | - | - | - | - | 8,75  | 9,92  | 9,33  | 9,71  | 9,35  |
|      | U | W/W | - | - | - | - | 11,80 | 11,36 | 11,44 | 11,49 | 11,47 |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.



| Size  |   |     | 1300   | 1350   | 2300   | 2350   | 3300   | 3325   | 3350   | 4325   | 4350   |
|---|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Exchanger: 2</b>                                 |   |     |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>              |   |     |        |        |        |        |        |        |        |        |        |
| SEER  | A | W/W | 8,40   | 8,59   | 8,19   | 8,76   | 8,03   | 8,34   | 8,45   | 8,32   | 8,39   |
|   | U | W/W | 9,69   | 9,07   | 9,47   | 9,73   | 9,54   | 9,31   | 9,66   | 9,28   | 9,60   |
| Seasonal efficiency                                 | A | %   | 332,9% | 340,6% | 324,5% | 347,3% | 318,1% | 330,4% | 334,9% | 329,8% | 332,6% |
|   | U | %   | 384,4% | 359,9% | 375,6% | 386,3% | 378,6% | 369,5% | 383,5% | 368,1% | 380,8% |
| <b>SEPR - (EN 14825: 2018) High temperature (2)</b> |   |     |        |        |        |        |        |        |        |        |        |
| SEPR  | A | W/W | 8,26   | 9,17   | 8,25   | 9,70   | 8,64   | 9,75   | 9,17   | 9,48   | 9,08   |
|   | U | W/W | 11,65  | 11,34  | 11,62  | 11,17  | 11,70  | 11,20  | 11,37  | 11,30  | 11,31  |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

## ELECTRIC DATA

| Size                  |     |   | 1300  | 1350  | 2300  | 2350  | 3300  | 3325  | 3350  | 4325  | 4350  |
|-----------------------|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |   |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,U | A | 135,0 | 210,0 | 270,0 | 420,0 | 405,0 | 405,0 | 630,0 | 630,0 | 630,0 |
| Peak current (LRA)    | A,U | A | 6,0   | 6,0   | 141,0 | 216,0 | 276,0 | 276,0 | 426,0 | 426,0 | 426,0 |

## GENERAL TECHNICAL DATA

| Size                  |     |      | 1300 | 1350 | 2300 | 2350 | 3300                   | 3325 | 3350 | 4325 | 4350 |
|-----------------------|-----|------|------|------|------|------|------------------------|------|------|------|------|
| <b>Compressor</b>     |     |      |      |      |      |      |                        |      |      |      |      |
| Type                  | A,U | type |      |      |      |      | Centrifugal - Oil Free |      |      |      |      |
| Compressor regulation | A,U | Type |      |      |      |      | Inverter               |      |      |      |      |
| Number                | A,U | no.  | 1    | 1    | 2    | 2    | 3                      | 3    | 3    | 4    | 4    |
| Circuits              | A,U | no.  | 1    | 1    | 1    | 1    | 1                      | 1    | 1    | 1    | 1    |
| Refrigerant           | A,U | type |      |      |      |      | R134a                  |      |      |      |      |

| Size |  |  | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|--|--|------|------|------|------|------|------|------|------|------|
|------|--|--|------|------|------|------|------|------|------|------|------|

### Exchanger: 1

#### System side heat exchanger

|                      |     |      |   |   |   |   |                |                |                |                |                |
|----------------------|-----|------|---|---|---|---|----------------|----------------|----------------|----------------|----------------|
| Type                 | A,U | type | - | - | - | - | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number               | A,U | no.  | - | - | - | - | 1              | 1              | 1              | 1              | 1              |
| Connections (in/out) | A,U | Type | - | - | - | - | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)       | A,U | Ø    | - | - | - | - | 6"             | 10"            | 10"            | 6"             | 8"             |

#### Source side heat exchanger

|                      |     |      |   |   |   |   |                |                |                |                |                |
|----------------------|-----|------|---|---|---|---|----------------|----------------|----------------|----------------|----------------|
| Type                 | A,U | type | - | - | - | - | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number               | A,U | no.  | - | - | - | - | 1              | 1              | 1              | 1              | 1              |
| Connections (in/out) | A,U | Type | - | - | - | - | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)       | A,U | Ø    | - | - | - | - | 6"             | 6"             | 10"            | 8"             | 8"             |

| Size |  |  | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|--|--|------|------|------|------|------|------|------|------|------|
|------|--|--|------|------|------|------|------|------|------|------|------|

### Exchanger: 2

#### System side heat exchanger

|                      |     |      |                |                |                |                |                |                |                |                |                |
|----------------------|-----|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Type                 | A,U | type | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number               | A,U | no.  | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              |
| Connections (in/out) | A,U | Type | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)       | A,U | Ø    | 5"             | 5"             | 5"             | 6"             | 6"             | 10"            | 6"             | 8"             | 8"             |

#### Source side heat exchanger

|                      |     |      |                |                |                |                |                |                |                |                |                |
|----------------------|-----|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Type                 | A,U | type | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number               | A,U | no.  | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              | 1              |
| Connections (in/out) | A,U | Type | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints | Grooved joints |
| Sizes (in/out)       | A,U | Ø    | 5"             | 5"             | 6"             | 6"             | 6"             | 6"             | 8"             | 8"             | 8"             |

## SOUND DATA

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Efficiency: A

#### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |      |      |      |      |       |
|-------------------|---|-------|------|------|------|------|------|------|------|------|-------|
| Sound power level | ° | dB(A) | 90,0 | 91,0 | 93,0 | 93,5 | 96,0 | 95,5 | 97,0 | 98,5 | 100,0 |
|                   | L | dB(A) | 84,0 | 85,0 | 87,0 | 87,5 | 90,0 | 89,5 | 91,0 | 92,5 | 94,0  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Efficiency: U

#### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |      |      |      |      |      |
|-------------------|---|-------|------|------|------|------|------|------|------|------|------|
| Sound power level | ° | dB(A) | 87,0 | 88,0 | 90,0 | 88,0 | 90,0 | 91,0 | 94,0 | 94,0 | 97,0 |
|                   | L | dB(A) | 81,0 | 82,0 | 84,0 | 82,0 | 84,0 | 85,0 | 88,0 | 88,0 | 91,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Efficiency: A

#### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |      |      |      |      |       |
|-------------------|---|-------|------|------|------|------|------|------|------|------|-------|
| Sound power level | ° | dB(A) | 90,0 | 91,0 | 93,0 | 93,5 | 96,0 | 95,5 | 97,0 | 98,5 | 100,0 |
|                   | L | dB(A) | 84,0 | 85,0 | 87,0 | 87,5 | 90,0 | 89,5 | 91,0 | 92,5 | 94,0  |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Efficiency: U

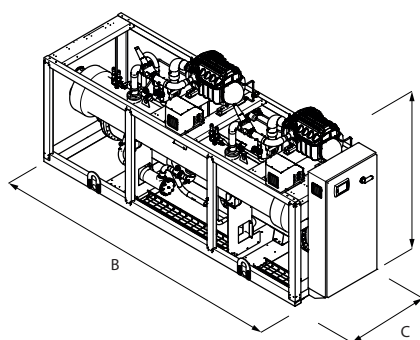
#### Sound data calculated in cooling mode (1)

|                   |   |       |      |      |      |      |      |      |      |      |      |
|-------------------|---|-------|------|------|------|------|------|------|------|------|------|
| Sound power level | ° | dB(A) | 87,0 | 88,0 | 90,0 | 88,0 | 90,0 | 91,0 | 94,0 | 94,0 | 97,0 |
|                   | L | dB(A) | 81,0 | 82,0 | 84,0 | 82,0 | 84,0 | 85,0 | 88,0 | 88,0 | 91,0 |

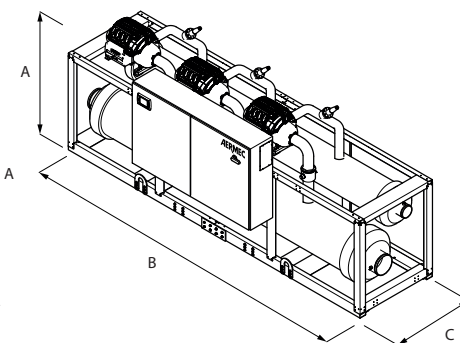
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS

WTX 1300 - 2350



WTX 3300 - 4350



| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Exchanger: 1

#### Dimensions and weights

|                    |     |    |   |   |   |      |      |      |      |      |
|--------------------|-----|----|---|---|---|------|------|------|------|------|
| A                  | A,U | mm | - | - | - | 1970 | 2010 | 2010 | 2010 | 2280 |
| B                  | A,U | mm | - | - | - | 4966 | 4966 | 4966 | 4966 | 4966 |
| C                  | A,U | mm | - | - | - | 1640 | 1640 | 1640 | 1640 | 1732 |
| Empty weight       | A,U | kg | - | - | - | 4090 | 4430 | 5120 | 5690 | 6640 |
| Weight functioning | A,U | kg | - | - | - | 4430 | 4810 | 5620 | 6250 | 7450 |

| Size | 1300 | 1350 | 2300 | 2350 | 3300 | 3325 | 3350 | 4325 | 4350 |
|------|------|------|------|------|------|------|------|------|------|
|------|------|------|------|------|------|------|------|------|------|

### Exchanger: 2

#### Dimensions and weights

|                    |     |    |      |      |      |      |      |      |      |      |
|--------------------|-----|----|------|------|------|------|------|------|------|------|
| A                  | A,U | mm | 1850 | 1950 | 1970 | 2010 | 2240 | 2280 | 2280 | 2280 |
| B                  | A,U | mm | 3040 | 3040 | 3340 | 3440 | 3990 | 3990 | 3990 | 4966 |
| C                  | A,U | mm | 1000 | 1000 | 1240 | 1240 | 1732 | 1732 | 1836 | 1836 |
| Empty weight       | A,U | kg | 2190 | 2370 | 2770 | 3390 | 5440 | 5730 | 6630 | 7380 |
| Weight functioning | A,U | kg | 2350 | 2560 | 3010 | 3740 | 6170 | 6480 | 7540 | 8400 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## WTG

## Water-water chiller

Cooling capacity 246,6 ÷ 1959,4 kW

- **Extended operating range**
- **Possibility of selecting between heat exchangers with 1 or 2 passes on water side**



### DESCRIPTION

Indoor unit producing chilled water equipped with magnetic levitation centrifugal compressors and shell & tube heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

### EFFICIENCY

**A** High efficiency

**U** Very high efficiency

**Both units can be silenced.**

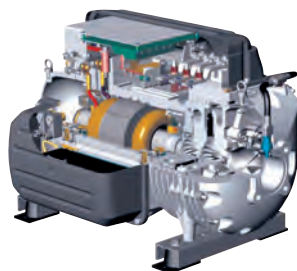
### FEATURES

#### Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.

The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%).

**Built-in device to reduce starting current (only 6 Amps!)**



### Operating field

Water produced from 15 °C up to 50 °C on Condenser side and from 5 °C up to 25 °C on Evaporator side.

### Flooded Evaporator

#### Evaporator

— Low charge content

#### Condenser

— With refrigerant on shell side and water on pipe side

### Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

### CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 1310 | 1490 | 2310 | 2490 | 3310 | 3400 | 3490 | 4400 | 4490 |
|------------------|-----|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A,U | *    | *    | *    | *    | *    | *    | *    | *    | *    |

■ With the MULTICHILLER\_EVO accessory, it is necessary to add AER485P1 for each connected unit.

## Antivibration

| Ver  | 1310     | 1490     | 2310     | 2490     | 3310     | 3400     | 3490     | 4400     | 4490     |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| A, U | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) | AVX. (1) |

(1) Contact us.

## CONFIGURATOR

| Field   | Description  |
|---------|--|
| 1,2,3   | WTG  |
| 4,5,6,7 | Size<br>1310, 1490, 2310, 2490, 3310, 3400, 3490, 4400, 4490 |
| 8       | Version  |
| A       | High efficiency  |
| U       | Very high efficiency   |
| 9       | Exchanger  |
| 1       | One pass on water side                                       |

| Field | Description  |
|-------|--|
| 2     | Two passes on water side   |
| 10    | Set-up   |
| L     | Silenced   |
| °     | Standard   |
| 11    | Power supply   |
| °     | 400V ~ 3 50Hz with circuit breakers on compressors and auxiliary circuit |
| 12    | Refrigerant gas  |
| °     | R1234ze  |

## EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

**Flooded evaporator:** with level adjustment through an electronic valve controlled by a level sensor.

**Backflow condenser:** with refrigerant on shell side and water on tube side.

■ From size 1310 to 2490, heat exchangers have 2 passes on the water side

Starting from size WTG 3310, heat exchangers are available as versions with one or two passes on the water side, to meet any plant installation requirement. The dimensions of the two configurations ensure similar performances (same approach to heat exchangers). The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



## PERFORMANCE SPECIFICATIONS

### WTG - A

| Size  |     | 1310 | 1490 | 2310 | 2490 | 3310   | 3400   | 3490   | 4400       | 4490       |
|---|-----|------|------|------|------|--------|--------|--------|------------|------------|
| <b>Exchanger: 1</b>                         |     |      |      |      |      |        |        |        |            |            |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |        |        |        |            |            |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 1049,5 | 1199,4 | 1409,4 | 1679,3 (2) | 1955,0 (2) |
| Input power                                 | kW  | -    | -    | -    | -    | 194,3  | 202,4  | 245,0  | 286,4      | 334,3      |
| Cooling total input current                 | A   | -    | -    | -    | -    | 310,0  | 324,0  | 389,0  | 457,0      | 532,0      |
| EER   | W/W | -    | -    | -    | -    | 5,40   | 5,93   | 5,75   | 5,86       | 5,85       |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 180402 | 206174 | 242254 | 288643     | 336022     |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 24     | 32     | 27     | 29         | 28         |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | 213103 | 240238 | 283553 | 336857     | 392518     |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | 23     | 23     | 24     | 27         | 19         |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Sizes 4400 and 4490 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

| Size  |     | 1310  | 1490  | 2310   | 2490   | 3310   | 3400   | 3490   | 4400       | 4490       |
|---|-----|-------|-------|--------|--------|--------|--------|--------|------------|------------|
| <b>Exchanger: 2</b>                         |     |       |       |        |        |        |        |        |            |            |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |        |        |        |        |        |            |            |
| Cooling capacity                            | kW  | 349,7 | 469,7 | 699,6  | 899,3  | 1049,3 | 1199,2 | 1409,2 | 1679,2 (2) | 1958,5 (2) |
| Input power                                 | kW  | 66,4  | 81,4  | 132,2  | 158,8  | 196,5  | 204,4  | 248,0  | 290,2      | 339,1      |
| Cooling total input current                 | A   | 106,0 | 130,0 | 211,0  | 250,0  | 310,0  | 324,0  | 389,0  | 457,0      | 532,0      |
| EER   | W/W | 5,27  | 5,77  | 5,29   | 5,66   | 5,34   | 5,87   | 5,68   | 5,79       | 5,78       |
| Water flow rate system side                 | l/h | 60134 | 80751 | 120268 | 154630 | 180402 | 206174 | 242254 | 288643     | 336647     |
| Pressure drop system side                   | kPa | 24    | 14    | 22     | 50     | 45     | 49     | 40     | 44         | 46         |
| Water flow rate source side                 | l/h | 71250 | 94518 | 142500 | 181033 | 213103 | 240238 | 283553 | 336857     | 393148     |
| Pressure drop source side                   | kPa | 23    | 18    | 23     | 32     | 33     | 32     | 42     | 47         | 39         |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

(2) Sizes 4400 and 4490 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

### WTG - U

| Size  |     | 1310 | 1490 | 2310 | 2490 | 3310   | 3400   | 3490   | 4400   | 4490   |
|---|-----|------|------|------|------|--------|--------|--------|--------|--------|
| <b>Exchanger: 1</b>                         |     |      |      |      |      |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |      |      |      |      |        |        |        |        |        |
| Cooling capacity                            | kW  | -    | -    | -    | -    | 736,7  | 869,6  | 999,1  | 1159,6 | 1336,9 |
| Input power                                 | kW  | -    | -    | -    | -    | 120,2  | 140,2  | 153,5  | 186,2  | 211,9  |
| Cooling total input current                 | A   | -    | -    | -    | -    | 205,0  | 233,0  | 254,0  | 311,0  | 349,0  |
| EER   | W/W | -    | -    | -    | -    | 6,13   | 6,20   | 6,51   | 6,23   | 6,31   |
| Water flow rate system side                 | l/h | -    | -    | -    | -    | 126626 | 149476 | 171729 | 199301 | 229777 |
| Pressure drop system side                   | kPa | -    | -    | -    | -    | 12     | 17     | 14     | 14     | 13     |
| Water flow rate source side                 | l/h | -    | -    | -    | -    | 147066 | 173222 | 197868 | 230962 | 265867 |
| Pressure drop source side                   | kPa | -    | -    | -    | -    | 16     | 22     | 18     | 19     | 18     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

| Size  |     | 1310  | 1490  | 2310  | 2490   | 3310   | 3400   | 3490   | 4400   | 4490   |
|---|-----|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Exchanger: 2</b>                         |     |       |       |       |        |        |        |        |        |        |
| <b>Cooling performance 12 °C / 7 °C (1)</b> |     |       |       |       |        |        |        |        |        |        |
| Cooling capacity                            | kW  | 246,4 | 334,3 | 492,9 | 669,8  | 736,6  | 869,5  | 999,1  | 1159,5 | 1342,8 |
| Input power                                 | kW  | 40,1  | 50,9  | 80,1  | 105,5  | 120,7  | 140,3  | 154,1  | 187,0  | 212,7  |
| Cooling total input current                 | A   | 69,0  | 85,0  | 137,0 | 173,0  | 205,0  | 233,0  | 254,0  | 311,0  | 349,0  |
| EER   | W/W | 6,15  | 6,57  | 6,16  | 6,35   | 6,10   | 6,20   | 6,48   | 6,20   | 6,31   |
| Water flow rate system side                 | l/h | 42371 | 57462 | 84741 | 115160 | 126626 | 149476 | 171729 | 199301 | 230804 |
| Pressure drop system side                   | kPa | 12    | 7     | 11    | 28     | 22     | 26     | 20     | 21     | 22     |
| Water flow rate source side                 | l/h | 49186 | 66178 | 98371 | 132989 | 147066 | 173222 | 197868 | 230962 | 266902 |
| Pressure drop source side                   | kPa | 11    | 9     | 11    | 17     | 16     | 16     | 20     | 22     | 18     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

## ELECTRIC DATA

| Size                  |     | 1310 | 1490  | 2310  | 2490  | 3310  | 3400  | 3490  | 4400  | 4490  |
|-----------------------|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |     |      |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A,U | A    | 150,0 | 217,0 | 300,0 | 434,0 | 450,0 | 651,0 | 651,0 | 868,0 |
| Peak current (LRA)    | A,U | A    | 6,0   | 6,0   | 156,0 | 223,0 | 306,0 | 440,0 | 440,0 | 657,0 |

## GENERAL TECHNICAL DATA

| Size                  |     |      | 1310 | 1490 | 2310 | 2490 | 3310                   | 3400 | 3490 | 4400 | 4490 |
|-----------------------|-----|------|------|------|------|------|------------------------|------|------|------|------|
| Compressor            |     |      |      |      |      |      |                        |      |      |      |      |
| Type                  | A,U | type |      |      |      |      | Centrifugal - Oil Free |      |      |      |      |
| Compressor regulation | A,U | Type |      |      |      |      | Inverter               |      |      |      |      |
| Number                | A,U | no.  | 1    | 1    | 2    | 2    | 3                      | 3    | 4    | 4    |      |
| Circuits              | A,U | no.  | 1    | 1    | 1    | 1    | 1                      | 1    | 1    | 1    | 1    |
| Refrigerant           | A,U | type |      |      |      |      | R1234ze                |      |      |      |      |

| Size                              |     |      | 1310 | 1490 | 2310 | 2490 | 3310           | 3400           | 3490           | 4400           | 4490           |
|-----------------------------------|-----|------|------|------|------|------|----------------|----------------|----------------|----------------|----------------|
| <b>Exchanger: 1</b>               |     |      |      |      |      |      |                |                |                |                |                |
| <b>System side heat exchanger</b> |     |      |      |      |      |      |                |                |                |                |                |
| Type                              | A,U | type | -    | -    | -    | -    | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number                            | A,U | no.  | -    | -    | -    | -    | 1              | 1              | 1              | 1              | 1              |
| <b>Source side heat exchanger</b> |     |      |      |      |      |      |                |                |                |                |                |
| Type                              | A,U | type | -    | -    | -    | -    | Shell and tube | Shell and tube | Shell and tube | Shell and tube | Shell and tube |
| Number                            | A,U | no.  | -    | -    | -    | -    | 1              | 1              | 1              | 1              | 1              |

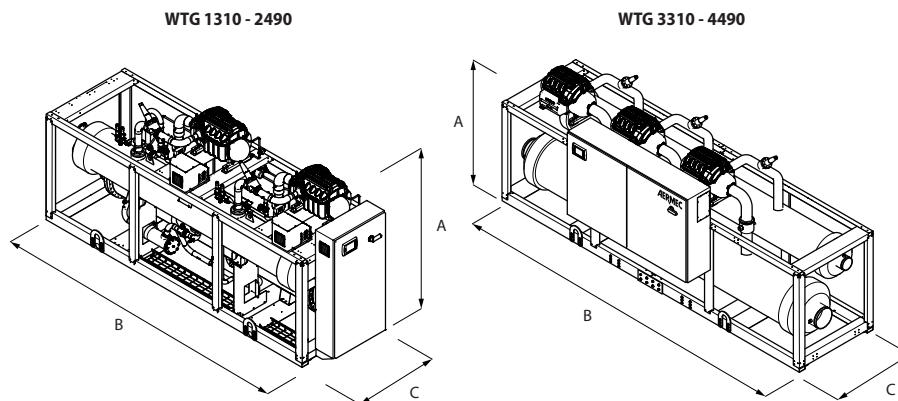
| Size                              |     |      | 1310 | 1490 | 2310 | 2490 | 3310           | 3400 | 3490 | 4400 | 4490 |
|-----------------------------------|-----|------|------|------|------|------|----------------|------|------|------|------|
| <b>Exchanger: 2</b>               |     |      |      |      |      |      |                |      |      |      |      |
| <b>System side heat exchanger</b> |     |      |      |      |      |      |                |      |      |      |      |
| Type                              | A,U | type |      |      |      |      | Shell and tube |      |      |      |      |
| Number                            | A,U | no.  | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    |
| <b>Source side heat exchanger</b> |     |      |      |      |      |      |                |      |      |      |      |
| Type                              | A,U | type |      |      |      |      | Shell and tube |      |      |      |      |
| Number                            | A,U | no.  | 1    | 1    | 1    | 1    | 1              | 1    | 1    | 1    | 1    |

## SOUND DATA

| Size                                      |   |       | 1310 | 1490 | 2310 | 2490 | 3310 | 3400 | 3490 | 4400 | 4490 |
|---|---|-------|------|------|------|------|------|------|------|------|------|
| Set-up: °                                 |   |       |      |      |      |      |      |      |      |      |      |
| Sound data calculated in cooling mode (1) |   |       |      |      |      |      |      |      |      |      |      |
| Sound power level                         | A | dB(A) | 89,0 | 91,0 | 92,0 | 94,0 | 94,0 | 93,0 | 96,0 | 94,0 | 97,0 |
|   | U | dB(A) | 86,0 | 88,0 | 89,0 | 91,0 | 91,0 | 93,0 | 93,0 | 94,0 | 94,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                   |     |    | 1310 | 1490 | 2310 | 2490 | 3310 | 3400 | 3490 | 4400 | 4490 |
|------------------------|-----|----|------|------|------|------|------|------|------|------|------|
| Exchanger: 1           |     |    |      |      |      |      |      |      |      |      |      |
| Dimensions and weights |     |    |      |      |      |      |      |      |      |      |      |
| A                      | A,U | mm | -    | -    | -    | -    | 2010 | 2010 | 2010 | 2280 | 2280 |
| B                      | A,U | mm | -    | -    | -    | -    | 4966 | 4966 | 4966 | 4966 | 4966 |
| C                      | A,U | mm | -    | -    | -    | -    | 1640 | 1640 | 1640 | 1732 | 1732 |
|                        |     |    |      |      |      |      |      |      |      |      |      |
| Size                   |     |    | 1310 | 1490 | 2310 | 2490 | 3310 | 3400 | 3490 | 4400 | 4490 |
| Exchanger: 2           |     |    |      |      |      |      |      |      |      |      |      |
| Dimensions and weights |     |    |      |      |      |      |      |      |      |      |      |
| A                      | A,U | mm | 1850 | 1970 | 2010 | 2280 | 2280 | 2280 | 2280 | 2280 | 2280 |
| B                      | A,U | mm | 3040 | 3040 | 3340 | 4390 | 3990 | 3990 | 4966 | 4966 | 4966 |
| C                      | A,U | mm | 1000 | 1240 | 1240 | 1332 | 1732 | 1836 | 1836 | 1836 | 1836 |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**

Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## MULTI-PURPOSE

Thanks to the special architecture of the refrigerant circuit and advanced control logic, the multi-purpose heat pump is able to simultaneously satisfy different installation requirements and to independently modulate the power delivered on each of them.

The ability to simultaneously meet the demand of the hot and cold circuit, whatever the proportion of the load on the two circuits may be, derives from the capacity of its control to switch the operation between the various possible modes.

## MULTI-PURPOSE

|                      |   | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|----------------------|---|--------------------------------------|--------------------|--------------------|------|
| <b>NRP 0200-0750</b> | Air-water multipurpose (plate heat exchanger)                 | -                                    | 43-185             | 46-205             | 858  |
| <b>NRP 0804-2406</b> | Air-water multipurpose (plate heat exchanger)                 | -                                    | 207-639            | 208-662            | 865  |
| <b>NPG 0800-3600</b> | Air-water multipurpose (plate heat exchanger)                 | -                                    | 206,5-657,8        | 212,0-670,8        | 872  |
| <b>CPS</b>           | Multifunction unit with multiple temperature level capability | -                                    | 164-491            | 176-505            | 882  |
| <b>NXP 0500-1650</b> | Water-water multipurpose (plate heat exchanger)               | -                                    | 108-502            | 122-549            | 887  |



# NRP 0200-0750

## Air-water multipurpose

Cooling capacity 43 ÷ 185 kW  
Heating capacity 46 ÷ 205 kW

- High efficiency also at partial loads
- Units designed for 2 or 4-pipe systems
- Simultaneous and independent production of hot and chilled water
- Compact dimensions



### DESCRIPTION

Multipurpose external units designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 46 °C in summer. Hot water production up to 55 °C (for more details refer to the selection software and technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Option integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

#### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**GP:** Anti-intrusion grid.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | A   |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | A   |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | A   |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A   |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | A   |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Anti-intrusion grid

| Ver | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500        | 0550        | 0600        | 0650        | 0700        | 0750         |
|-----|------|------|------|------|------|------|-------------|-------------|-------------|-------------|-------------|--------------|
| A   | -    | -    | -    | -    | -    | -    | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP10 x 3 (1) |
| E   | GP3  | GP3  | GP3  | GP4  | GP4  | GP4  | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 2 (1) | GP2 x 3 (1) | GP10 x 3 (1) |

(1) x \_ indicates the quantity to buy

## Antivibration

| Version | System side - pumps            | Recovery side - pumps | 0200 | 0240 | 0280 |
|---------|--------------------------------|-----------------------|------|------|------|
| A       | 00                             | 00, R1, R2, R3, R4    | -    | -    | -    |
| A       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | -    | -    | -    |
| A       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | -    | -    | -    |
| E       | 00, P1, P2, P3, P4             | 00, R1, R2, R3, R4    | VT17 | VT17 | VT17 |
| E       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT13 | VT13 | VT13 |
| Version | System side - pumps            | Recovery side - pumps | 0300 | 0330 | 0350 |
| A       | 00                             | 00, R1, R2, R3, R4    | -    | -    | -    |
| A       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | -    | -    | -    |
| A       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | -    | -    | -    |
| E       | 00, P1, P2, P3, P4             | 00, R1, R2, R3, R4    | VT17 | VT17 | VT17 |
| E       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT13 | VT13 | VT13 |
| Version | System side - pumps            | Recovery side - pumps | 0500 | 0550 | 0600 |
| A       | 00                             | 00, R1, R2, R3, R4    | VT11 | VT11 | VT11 |
| A       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT11 | VT11 | VT11 |
| A       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | VT11 | VT11 | VT11 |
| E       | 00                             | 00, R1, R2, R3, R4    | VT11 | VT11 | VT11 |
| E       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT11 | VT11 | VT11 |
| E       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | VT11 | VT11 | VT11 |
| Version | System side - pumps            | Recovery side - pumps | 0650 | 0700 | 0750 |
| A       | 00                             | 00, R1, R2, R3, R4    | VT11 | VT22 | VT23 |
| A       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT11 | VT22 | VT23 |
| A       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | VT11 | VT22 | VT23 |
| E       | 00                             | 00, R1, R2, R3, R4    | VT11 | VT22 | VT23 |
| E       | 01, 02, 03, 04, 05, 06, 07, 08 | 00                    | VT11 | VT22 | VT23 |
| E       | P1, P2, P3, P4                 | 00, R1, R2, R3, R4    | VT11 | VT22 | VT23 |

- not available

## Device for peak current reduction

| Ver             | 0200       | 0240       | 0280       | 0300       | 0330       | 0350       | 0500       | 0550       | 0600       | 0650       | 0700       | 0750       |
|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Power supply: ° |            |            |            |            |            |            |            |            |            |            |            |            |
| A               | -          | -          | -          | -          | -          | -          | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) | DRE751 (1) |
| E               | DRE281 (1) | DRE281 (1) | DRE281 (1) | DRE301 (1) | DRE331 (1) | DRE351 (1) | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) | DRE751 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

## Power factor correction

| Ver | 0200  | 0240  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A   | -     | -     | -     | -     | -     | -     | RIF52 | RIF52 | RIF53 | RIF53 | RIF53 | RIF53 |
| E   | RIF54 | RIF54 | RIF50 | RIF50 | RIF50 | RIF51 | RIF52 | RIF52 | RIF53 | RIF53 | RIF53 | RIF53 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRP</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0200, 0240, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750 |
| <b>8</b>       | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency (1)  |
| <b>9</b>       | <b>System type</b>  |
| 2              | 2-pipe system   |
| 4              | 4-pipe system   |
| <b>10</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>11</b>      | <b>Fans</b>   |
| J              | Inverter (2)  |
| M              | Oversized (3)   |
| °              | Standard (4)  |
| <b>12</b>      | <b>Power supply</b>   |
| 1              | 220V ~ 3 50Hz with magnet circuit breakers (5)  |
| °              | 400V ~ 3N 50Hz with magnet circuit breakers   |
| <b>13,14</b>   | <b>System side - pumps</b>  |
| 00             | Without hydronic kit  |
| 01             | Storage tank with low head pump   |
| 02             | Storage tank with low head pump + stand-by pump                                       |
| 03             | Storage tank with high head pump  |
| 04             | Storage tank with high head pump + stand-by pump                                      |
| 05             | Storage tank with holes for heaters and single low head pump (6)                      |
| 06             | Storage tank with holes for heaters and pump low head + stand-by pump (6)             |
| 07             | Storage tank with holes for heaters and single high head pump (6)                     |
| 08             | Storage tank with holes for heaters and pump high head + stand-by pump (6)            |
| P1             | Single pump low head  |
| P2             | Pump low head + stand-by pump   |
| P3             | Single pump high head   |
| P4             | Pump high head + stand-by pump  |
| <b>15,16</b>   | <b>Recovery side - pumps</b>  |
| 00             | Without hydronic kit  |
| R1             | Single pump low head  |
| R2             | Pump low head + stand-by pump   |
| R3             | Single pump high head   |
| R4             | Pump high head + stand-by pump  |

(1) The size up 0200 to 0350 are only available in the silenced versions (E)

(2) Standard for size from 0200 to 0350 without useful static pressure, option for other sizes

(3) Available only for size from 0200 to 0350

(4) As standard in sizes from 0500 to 0750

(5) Not available for size 0750

(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

## PERFORMANCE SPECIFICATIONS

### NRP - 2-pipe system version A

| Size   |     | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|--|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Cooling system side 2-pipe system (1)</b>                   |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity   | kW  | -    | -    | -    | -    | -    | -    | 99,8  | 103,7 | 123,7 | 140,7 | 159,7 | 184,6 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 32,4  | 36,0  | 44,1  | 50,5  | 55,2  | 64,6  |
| Cooling total input current                                    | A   | -    | -    | -    | -    | -    | -    | 55,0  | 59,0  | 72,0  | 82,0  | 88,0  | 113,0 |
| EER  | W/W | -    | -    | -    | -    | -    | -    | 3,08  | 2,89  | 2,80  | 2,79  | 2,89  | 2,86  |
| Water flow rate system side                                    | l/h | -    | -    | -    | -    | -    | -    | 17181 | 17868 | 21305 | 24225 | 27490 | 31785 |
| Pressure drop system side                                      | kPa | -    | -    | -    | -    | -    | -    | 37    | 39    | 37    | 48    | 56    | 67    |
| <b>Heating system side 2-pipe system (2)</b>                   |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Heating capacity   | kW  | -    | -    | -    | -    | -    | -    | 106,3 | 112,3 | 137,3 | 152,3 | 173,3 | 205,4 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 32,6  | 35,1  | 41,3  | 45,8  | 53,8  | 62,8  |
| Heating total input current                                    | A   | -    | -    | -    | -    | -    | -    | 55,0  | 59,0  | 72,0  | 82,0  | 88,0  | 113,0 |
| COP  | W/W | -    | -    | -    | -    | -    | -    | 3,26  | 3,20  | 3,33  | 3,33  | 3,22  | 3,27  |
| Water flow rate system side                                    | l/h | -    | -    | -    | -    | -    | -    | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop system side                                      | kPa | -    | -    | -    | -    | -    | -    | 43    | 46    | 46    | 57    | 67    | 84    |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Heating capacity   | kW  | -    | -    | -    | -    | -    | -    | 106,2 | 112,2 | 137,3 | 152,3 | 173,4 | 205,3 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 32,5  | 34,9  | 41,3  | 45,7  | 53,5  | 62,3  |
| Heating total input current                                    | A   | -    | -    | -    | -    | -    | -    | 55,0  | 59,0  | 72,0  | 82,0  | 88,0  | 113,0 |
| COP  | W/W | -    | -    | -    | -    | -    | -    | 3,27  | 3,21  | 3,32  | 3,34  | 3,24  | 3,29  |
| Water flow rate domestic hot water side                        | l/h | -    | -    | -    | -    | -    | -    | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop domestic hot water side                          | kPa | -    | -    | -    | -    | -    | -    | 30    | 34    | 51    | 48    | 35    | 49    |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity   | kW  | -    | -    | -    | -    | -    | -    | 103,3 | 111,3 | 133,8 | 148,5 | 169,2 | 202,7 |
| Recovered heating power  | kW  | -    | -    | -    | -    | -    | -    | 132,2 | 142,2 | 174,3 | 193,3 | 218,4 | 261,3 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 30,8  | 32,9  | 43,2  | 48,0  | 52,5  | 63,0  |
| Water flow rate system side                                    | l/h | -    | -    | -    | -    | -    | -    | 17181 | 17868 | 21305 | 24225 | 27490 | 31785 |
| Pressure drop system side                                      | kPa | -    | -    | -    | -    | -    | -    | 37    | 39    | 37    | 48    | 56    | 67    |
| Water flow rate domestic hot water side                        | l/h | -    | -    | -    | -    | -    | -    | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop domestic hot water side                          | kPa | -    | -    | -    | -    | -    | -    | 30    | 34    | 51    | 48    | 35    | 49    |

(1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified

(2) Data 14511:2022; System side water heat exchanger 40 °C/45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side 40 °C/45 °C;

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

### NRP - 2-pipe system version E

| Size   |     | 0200 | 0240 | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|--|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling system side 2-pipe system (1)</b>                   |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity   | kW  | 42,9 | 49,9 | 55,9  | 63,9  | 67,9  | 79,8  | 94,8  | 98,8  | 115,8 | 130,7 | 152,7 | 178,7 |
| Input power  | kW  | 13,9 | 16,5 | 18,9  | 20,8  | 23,2  | 27,0  | 35,2  | 38,9  | 48,3  | 55,5  | 61,9  | 70,6  |
| Cooling total input current                                    | A   | 28,0 | 33,0 | 38,0  | 41,0  | 45,0  | 52,0  | 60,0  | 64,0  | 79,0  | 91,0  | 99,0  | 120,0 |
| EER  | W/W | 3,08 | 3,02 | 2,97  | 3,07  | 2,93  | 2,96  | 2,70  | 2,54  | 2,40  | 2,35  | 2,47  | 2,53  |
| Water flow rate system side                                    | l/h | 7388 | 8591 | 9621  | 10996 | 11683 | 13745 | 16322 | 17009 | 19930 | 22507 | 26287 | 30754 |
| Pressure drop system side                                      | kPa | 26   | 37   | 22    | 29    | 22    | 31    | 34    | 35    | 32    | 41    | 51    | 63    |
| <b>Heating system side 2-pipe system (2)</b>                   |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Heating capacity   | kW  | 46,1 | 53,2 | 60,1  | 75,2  | 80,2  | 84,2  | 106,3 | 112,3 | 137,3 | 152,3 | 173,3 | 205,4 |
| Input power  | kW  | 13,3 | 15,6 | 17,7  | 22,4  | 23,9  | 25,6  | 32,6  | 35,1  | 41,3  | 45,7  | 53,8  | 62,8  |
| Heating total input current                                    | A   | 28,0 | 33,0 | 38,0  | 41,0  | 45,0  | 52,0  | 60,0  | 64,0  | 79,0  | 91,0  | 99,0  | 120,0 |
| COP  | W/W | 3,47 | 3,42 | 3,40  | 3,36  | 3,36  | 3,28  | 3,26  | 3,20  | 3,33  | 3,33  | 3,22  | 3,27  |
| Water flow rate system side                                    | l/h | 7995 | 9211 | 10428 | 13035 | 13904 | 14599 | 18423 | 19466 | 23812 | 26417 | 30067 | 35629 |
| Pressure drop system side                                      | kPa | 30   | 43   | 26    | 41    | 31    | 35    | 43    | 46    | 46    | 56    | 67    | 85    |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Heating capacity   | kW  | 46,1 | 53,1 | 60,1  | 75,2  | 80,2  | 84,1  | 106,2 | 112,2 | 137,3 | 152,3 | 173,4 | 205,3 |
| Input power  | kW  | 13,2 | 15,4 | 17,7  | 22,3  | 24,0  | 25,5  | 32,5  | 34,9  | 41,3  | 45,7  | 53,5  | 62,3  |
| Heating total input current                                    | A   | 28,0 | 33,0 | 38,0  | 41,0  | 45,0  | 52,0  | 60,0  | 64,0  | 79,0  | 91,0  | 99,0  | 120,0 |
| COP  | W/W | 3,49 | 3,44 | 3,40  | 3,37  | 3,35  | 3,30  | 3,27  | 3,21  | 3,32  | 3,34  | 3,24  | 3,29  |
| Water flow rate domestic hot water side                        | l/h | 7995 | 9211 | 10428 | 13035 | 13904 | 14599 | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop domestic hot water side                          | kPa | 13   | 17   | 21    | 33    | 38    | 19    | 30    | 34    | 51    | 48    | 35    | 49    |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity   | kW  | 45,6 | 52,4 | 58,3  | 68,9  | 74,0  | 87,1  | 103,3 | 111,4 | 133,9 | 148,5 | 169,2 | 202,7 |
| Recovered heating power  | kW  | 58,1 | 67,1 | 75,1  | 88,2  | 95,2  | 111,1 | 132,2 | 142,2 | 174,3 | 193,3 | 218,4 | 261,3 |
| Input power  | kW  | 13,2 | 15,5 | 17,8  | 20,5  | 22,5  | 25,5  | 30,7  | 32,8  | 43,1  | 47,9  | 52,5  | 62,9  |
| Water flow rate system side                                    | l/h | 7388 | 8591 | 9621  | 10996 | 11683 | 13745 | 16322 | 17009 | 19930 | 22507 | 26287 | 30754 |
| Pressure drop system side                                      | kPa | 26   | 37   | 22    | 29    | 22    | 31    | 34    | 35    | 32    | 41    | 51    | 63    |
| Water flow rate domestic hot water side                        | l/h | 7995 | 9211 | 10428 | 13035 | 13904 | 14599 | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop domestic hot water side                          | kPa | 13   | 17   | 21    | 33    | 38    | 19    | 30    | 34    | 51    | 48    | 35    | 49    |

(1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified

(2) Data 14511:2022; System side water heat exchanger 40 °C/45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side 40 °C/45 °C;

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

## NRP - 4-pipe system version A

| Size   |     | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|--|-----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Cooling system side 4-pipe system (1)</b>                   |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity   | kW  | -    | -    | -    | -    | -    | -    | 99,8  | 103,7 | 123,7 | 140,7 | 159,7 | 184,6 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 32,4  | 36,0  | 44,1  | 50,5  | 55,2  | 64,6  |
| Cooling total input current                                    | A   | -    | -    | -    | -    | -    | -    | 55,0  | 59,0  | 72,0  | 82,0  | 88,0  | 113,0 |
| EER  | W/W | -    | -    | -    | -    | -    | -    | 3,08  | 2,89  | 2,80  | 2,79  | 2,89  | 2,86  |
| Water flow rate system side                                    | l/h | -    | -    | -    | -    | -    | -    | 17181 | 17868 | 21305 | 24225 | 27490 | 31785 |
| Pressure drop system side                                      | kPa | -    | -    | -    | -    | -    | -    | 37    | 39    | 37    | 48    | 56    | 67    |
| <b>Heating system side 4-pipe system (2)</b>                   |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Heating capacity   | kW  | -    | -    | -    | -    | -    | -    | 106,2 | 112,2 | 137,3 | 152,3 | 173,4 | 205,3 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 32,5  | 39,9  | 41,3  | 45,7  | 53,5  | 62,3  |
| Heating total input current                                    | A   | -    | -    | -    | -    | -    | -    | 55,0  | 59,0  | 72,0  | 82,0  | 88,0  | 113,0 |
| COP  | W/W | -    | -    | -    | -    | -    | -    | 3,27  | 3,21  | 3,32  | 3,34  | 3,24  | 3,29  |
| Water flow rate system side                                    | l/h | -    | -    | -    | -    | -    | -    | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop system side                                      | kPa | -    | -    | -    | -    | -    | -    | 30    | 34    | 51    | 48    | 35    | 49    |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |      |      |      |      |      |      |       |       |       |       |       |       |
| Cooling capacity   | kW  | -    | -    | -    | -    | -    | -    | 103,3 | 111,3 | 133,8 | 148,5 | 169,2 | 202,7 |
| Recovered heating power  | kW  | -    | -    | -    | -    | -    | -    | 132,2 | 142,2 | 174,3 | 193,3 | 218,4 | 261,3 |
| Input power  | kW  | -    | -    | -    | -    | -    | -    | 30,8  | 32,9  | 43,2  | 48,0  | 52,5  | 63,0  |
| Water flow rate cold side                                      | l/h | -    | -    | -    | -    | -    | -    | 17181 | 17868 | 21305 | 24225 | 27490 | 31785 |
| Pressure drop cold side  | kPa | -    | -    | -    | -    | -    | -    | 37    | 39    | 37    | 48    | 56    | 67    |
| Water flow rate hot side                                       | l/h | -    | -    | -    | -    | -    | -    | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop hot side   | kPa | -    | -    | -    | -    | -    | -    | 30    | 34    | 51    | 48    | 35    | 49    |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

## NRP - 4-pipe system version E

| Size   |     | 0200 | 0240 | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|--|-----|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Cooling system side 4-pipe system (1)</b>                   |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity   | kW  | 42,9 | 49,9 | 55,9  | 63,9  | 67,9  | 79,8  | 94,8  | 98,8  | 115,8 | 130,7 | 152,7 | 178,7 |
| Input power  | kW  | 13,9 | 16,5 | 18,9  | 20,8  | 23,2  | 27,0  | 35,2  | 38,9  | 48,3  | 55,5  | 61,9  | 70,6  |
| Cooling total input current                                    | A   | 28,0 | 33,0 | 38,0  | 41,0  | 45,0  | 52,0  | 60,0  | 64,0  | 79,0  | 91,0  | 99,0  | 120,0 |
| EER  | W/W | 3,08 | 3,02 | 2,97  | 3,07  | 2,93  | 2,96  | 2,70  | 2,54  | 2,40  | 2,35  | 2,47  | 2,53  |
| Water flow rate system side                                    | l/h | 7388 | 8591 | 9621  | 10996 | 11683 | 13745 | 16322 | 17009 | 19930 | 22507 | 26287 | 30754 |
| Pressure drop system side                                      | kPa | 26   | 37   | 22    | 29    | 22    | 31    | 34    | 35    | 32    | 41    | 51    | 63    |
| <b>Heating system side 4-pipe system (2)</b>                   |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Heating capacity   | kW  | 46,1 | 53,1 | 60,1  | 75,2  | 80,2  | 84,1  | 106,2 | 112,2 | 137,3 | 152,3 | 173,4 | 205,3 |
| Input power  | kW  | 13,2 | 15,4 | 17,7  | 22,3  | 24,0  | 25,5  | 32,5  | 34,9  | 41,3  | 45,7  | 53,5  | 62,3  |
| Heating total input current                                    | A   | 28,0 | 33,0 | 38,0  | 41,0  | 45,0  | 52,0  | 60,0  | 64,0  | 79,0  | 91,0  | 99,0  | 120,0 |
| COP  | W/W | 3,49 | 3,44 | 3,40  | 3,37  | 3,35  | 3,30  | 3,27  | 3,21  | 3,32  | 3,34  | 3,24  | 3,29  |
| Water flow rate system side                                    | l/h | 7995 | 9211 | 10428 | 13035 | 13904 | 14599 | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop system side                                      | kPa | 13   | 17   | 21    | 33    | 38    | 19    | 30    | 34    | 51    | 48    | 35    | 49    |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |      |      |       |       |       |       |       |       |       |       |       |       |
| Cooling capacity   | kW  | 45,6 | 52,4 | 58,3  | 68,9  | 74,0  | 87,1  | 103,3 | 111,4 | 133,9 | 148,5 | 169,2 | 202,7 |
| Recovered heating power  | kW  | 58,1 | 67,1 | 75,1  | 88,2  | 95,2  | 111,1 | 132,2 | 142,2 | 174,3 | 193,3 | 218,4 | 261,3 |
| Input power  | kW  | 13,2 | 15,5 | 17,8  | 20,5  | 22,5  | 25,5  | 30,7  | 32,8  | 43,1  | 47,9  | 52,5  | 62,9  |
| Water flow rate cold side                                      | l/h | 7388 | 8591 | 9621  | 10996 | 11683 | 13745 | 16322 | 17009 | 19930 | 22507 | 26287 | 30754 |
| Pressure drop cold side  | kPa | 26   | 37   | 22    | 29    | 22    | 31    | 34    | 35    | 32    | 41    | 51    | 63    |
| Water flow rate hot side                                       | l/h | 7995 | 9211 | 10428 | 13035 | 13904 | 14599 | 18423 | 19466 | 23810 | 26417 | 30067 | 35629 |
| Pressure drop hot side   | kPa | 13   | 17   | 21    | 33    | 38    | 19    | 30    | 34    | 51    | 48    | 35    | 49    |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

## ENERGY DATA

| Size   |   | 0200 | 0240   | 0280   | 0300   | 0330   | 0350   | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                  |   |      |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W  | -      | -      | -      | -      | -      | 3,62   | 3,34   | 3,78   | 3,83   | 3,86   | 3,92   |
|  | E | W/W  | 3,78   | 3,74   | 3,77   | 3,70   | 3,74   | 4,00   | 3,53   | 3,29   | 3,67   | 3,72   | 3,76   |
| η <sub>sc</sub>  | A | %    | -      | -      | -      | -      | -      | 141,60 | 130,60 | 148,00 | 150,10 | 151,30 | 153,70 |
|  | E | %    | 148,20 | 146,50 | 147,70 | 145,00 | 146,50 | 157,10 | 138,10 | 128,50 | 143,60 | 145,70 | 147,50 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | A | kW   | -      | -      | -      | -      | -      | 90,00  | 95,00  | 116,00 | 129,00 | 147,00 | 174,00 |
|  | E | kW   | 39,00  | 45,00  | 51,00  | 64,00  | 68,00  | 71,00  | 90,00  | 95,00  | 116,00 | 129,00 | 174,00 |
| SCOP   | A | W/W  | -      | -      | -      | -      | -      | 3,53   | 3,50   | 3,60   | 3,68   | 3,55   | 3,60   |
|  | E | W/W  | 3,60   | 3,53   | 3,55   | 3,50   | 3,50   | 3,43   | 3,53   | 3,50   | 3,70   | 3,68   | 3,55   |
| η <sub>sh</sub>  | A | %    | -      | -      | -      | -      | -      | 138,00 | 137,00 | 145,00 | 144,00 | 139,00 | 141,00 |
|  | E | %    | 141,00 | 138,00 | 139,00 | 137,00 | 137,00 | 134,00 | 138,00 | 137,00 | 145,00 | 144,00 | 141,00 |

(1) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |   |   | 0200  | 0240  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A | -     | -     | -     | -     | -     | -     | 76,0  | 81,0  | 100,0 | 112,0 | 122,0 | 144,0 |
|                       | E | A | 36,0  | 41,0  | 46,0  | 53,0  | 58,0  | 63,0  | 76,0  | 81,0  | 100,0 | 112,0 | 122,0 | 144,0 |
| Peak current (LRA)    | A | A | -     | -     | -     | -     | -     | -     | 214,0 | 220,0 | 232,0 | 243,0 | 261,0 | 320,0 |
|                       | E | A | 119,0 | 150,0 | 155,0 | 184,0 | 190,0 | 200,0 | 214,0 | 220,0 | 232,0 | 243,0 | 261,0 | 320,0 |

## GENERAL TECHNICAL DATA

| Size   |     |      | 0200   | 0240   | 0280   | 0300   | 0330   | 0350   | 0500         | 0550         | 0600         | 0650         | 0700         | 0750         |
|--|-----|------|--------|--------|--------|--------|--------|--------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Compressor</b>  |     |      |        |        |        |        |        |        |              |              |              |              |              |              |
| Type   | A   | type | -      | -      | -      | -      | -      | -      | Scroll       | Scroll       | Scroll       | Scroll       | Scroll       | Scroll       |
|  | E   | type | -      | -      | -      | -      | -      | -      | Scroll       | Scroll       | Scroll       | Scroll       | Scroll       | Scroll       |
| Number   | A   | no.  | -      | -      | -      | -      | -      | -      | 3            | 3            | 4            | 4            | 4            | 4            |
|  | E   | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 3            | 3            | 4            | 4            | 4            | 4            |
| Circuits   | A   | no.  | -      | -      | -      | -      | -      | -      | 2            | 2            | 2            | 2            | 2            | 2            |
|  | E   | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2            | 2            | 2            | 2            | 2            | 2            |
| Refrigerant  | A,E | type | -      | -      | -      | -      | -      | -      | R410A        | R410A        | R410A        | R410A        | R410A        | R410A        |
| Refrigerant charge (1)   | A   | kg   | -      | -      | -      | -      | -      | -      | 33,0         | 33,0         | 40,0         | 40,0         | 48,0         | 72,0         |
|  | E   | kg   | 16,0   | 16,0   | 16,0   | 20,0   | 20,0   | 20,0   | 33,0         | 33,0         | 40,0         | 40,0         | 48,0         | 72,0         |
| <b>2-pipe system - System side heat exchanger (hot/cold)</b>             |     |      |        |        |        |        |        |        |              |              |              |              |              |              |
| Type   | A   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
|  | E   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
| Number   | A   | no.  | -      | -      | -      | -      | -      | -      | 1            | 1            | 1            | 1            | 1            | 1            |
|  | E   | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1            | 1            | 1            | 1            | 1            | 1            |
| Connections (in/out)   | A   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
|  | E   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
| Size (in)  | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| Size (out)   | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| <b>2-pipe system - Recovery side heat exchanger (domestic hot water)</b> |     |      |        |        |        |        |        |        |              |              |              |              |              |              |
| Type   | A   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
|  | E   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
| Number   | A   | no.  | -      | -      | -      | -      | -      | -      | 2            | 2            | 2            | 2            | 2            | 2            |
|  | E   | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2            | 2            | 2            | 2            | 2            | 2            |
| Manifold connection (in/out)   | A   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
|  | E   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
| Manifold diameter (in)   | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| Manifold diameter (out)  | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| <b>4-pipe system - System side heat exchanger (cold side)</b>            |     |      |        |        |        |        |        |        |              |              |              |              |              |              |
| Type   | A   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
|  | E   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
| Number   | A   | no.  | -      | -      | -      | -      | -      | -      | 1            | 1            | 1            | 1            | 1            | 1            |
|  | E   | no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1            | 1            | 1            | 1            | 1            | 1            |
| Connections (in/out)   | A   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
|  | E   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
| Size (in)  | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| Size (out)   | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| <b>4-pipe system - Recovery side heat exchanger (hot side)</b>           |     |      |        |        |        |        |        |        |              |              |              |              |              |              |
| Type   | A   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
|  | E   | type | -      | -      | -      | -      | -      | -      | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate | Brazed plate |
| Number   | A   | no.  | -      | -      | -      | -      | -      | -      | 2            | 2            | 2            | 2            | 2            | 2            |
|  | E   | no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2            | 2            | 2            | 2            | 2            | 2            |
| Manifold connection (in/out)   | A   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
|  | E   | Type | -      | -      | -      | -      | -      | -      | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         | G.s.         |
| Manifold diameter (in)   | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
| Manifold diameter (out)  | A   | Ø    | -      | -      | -      | -      | -      | -      | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |
|  | E   | Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 2" 1/2       | 3"           |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

G.s. = Grooved joints

## FANS DATA

| Size                       |     |                   | 0200  | 0240  | 0280  | 0300  | 0330  | 0350  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  |
|----------------------------|-----|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans</b>                |     |                   |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                       | A   | type              | -     | -     | -     | -     | -     | -     | Axial | Axial | Axial | Axial | Axial | Axial |
|                            | E   | type              | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number                     | A   | no.               | -     | -     | -     | -     | -     | -     | 2     | 2     | 2     | 2     | 3     | 3     |
|                            | E   | no.               | 6     | 6     | 6     | 8     | 8     | 8     | 2     | 2     | 2     | 2     | 3     | 3     |
| Air flow rate cooling mode | A,E | m <sup>3</sup> /h | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Air flow rate heating mode | A,E | m <sup>3</sup> /h | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

| Size |  |  | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 |
|------|--|--|------|------|------|------|------|------|------|------|------|------|------|------|
|------|--|--|------|------|------|------|------|------|------|------|------|------|------|------|

### Fans: J

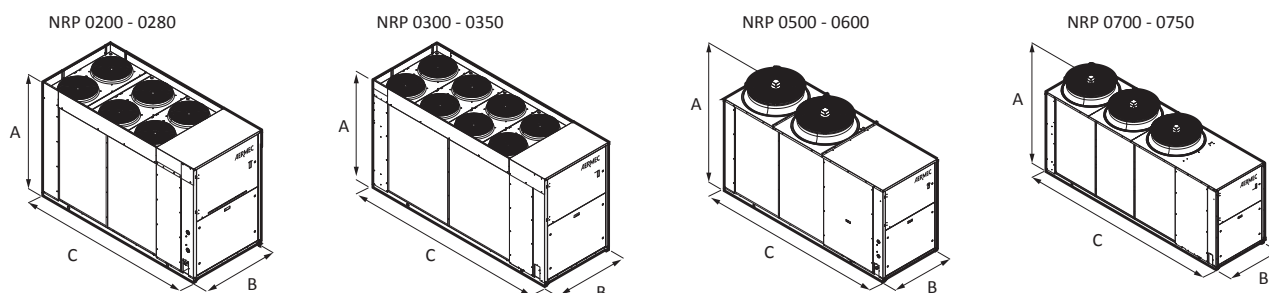
|                            |   |                   |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------|---|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Fans</b>                |   |                   |       |       |       |       |       |       |       |       |       |       |       |       |
| Type                       | A | type              | -     | -     | -     | -     | -     | -     | Axial | Axial | Axial | Axial | Axial | Axial |
|                            | E | type              | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial | Axial |
| Number                     | A | no.               | -     | -     | -     | -     | -     | -     | 2     | 2     | 2     | 2     | 3     | 3     |
|                            | E | no.               | 6     | 6     | 6     | 8     | 8     | 8     | 2     | 2     | 2     | 2     | 3     | 3     |
| Air flow rate cooling mode | A | m <sup>3</sup> /h | -     | -     | -     | -     | -     | -     | 37000 | 37000 | 36500 | 36500 | 58000 | 48000 |
|                            | E | m <sup>3</sup> /h | 20000 | 20000 | 20000 | 26000 | 26000 | 26000 | 20200 | 21100 | 21400 | 22400 | 31900 | 34600 |
| Air flow rate heating mode | A | m <sup>3</sup> /h | -     | -     | -     | -     | -     | -     | 37000 | 37000 | 36500 | 36500 | 58000 | 48000 |
|                            | E | m <sup>3</sup> /h | 20000 | 20000 | 20000 | 26000 | 26000 | 26000 | 37000 | 37000 | 36500 | 36500 | 58000 | 48000 |

## SOUND DATA

| Size   |   |       | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 |
|--|---|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Sound data calculated in cooling mode (1)</b> |   |       |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level                                | A | dB(A) | -    | -    | -    | -    | -    | -    | 82,0 | 82,0 | 82,0 | 83,0 | 85,0 | 85,0 |
|  | E | dB(A) | 74,0 | 74,0 | 74,0 | 75,0 | 75,0 | 76,0 | 74,0 | 74,0 | 74,0 | 75,0 | 77,0 | 77,0 |
| Sound pressure level (10 m)                      | A | dB(A) | -    | -    | -    | -    | -    | -    | 50,0 | 50,0 | 50,0 | 51,0 | 53,0 | 53,0 |
|  | E | dB(A) | 42,0 | 42,0 | 42,0 | 43,0 | 43,0 | 44,0 | 42,0 | 42,0 | 42,0 | 43,0 | 45,0 | 45,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |   |    | 0200 | 0240 | 0280 | 0300 | 0330 | 0350 | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 |
|-------------------------------|---|----|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |   |    |      |      |      |      |      |      |      |      |      |      |      |      |
| A                             | A | mm | -    | -    | -    | -    | -    | -    | 1875 | 1875 | 1875 | 1875 | 1875 | 1975 |
|                               | E | mm | 1606 | 1606 | 1606 | 1606 | 1606 | 1606 | 1875 | 1875 | 1875 | 1875 | 1875 | 1975 |
| B                             | A | mm | -    | -    | -    | -    | -    | -    | 1100 | 1100 | 1100 | 1100 | 1100 | 1500 |
|                               | E | mm | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1500 |
| C                             | A | mm | -    | -    | -    | -    | -    | -    | 3342 | 3342 | 3342 | 3342 | 4342 | 4350 |
|                               | E | mm | 2700 | 2700 | 2700 | 3200 | 3200 | 3200 | 3342 | 3342 | 3342 | 3342 | 4342 | 4350 |
| Empty weight                  | A | kg | -    | -    | -    | -    | -    | -    | 1233 | 1237 | 1359 | 1378 | 1591 | 1939 |
|                               | E | kg | 788  | 790  | 792  | 862  | 872  | 894  | 1233 | 1237 | 1359 | 1378 | 1591 | 1939 |

■ The weights are for standard units with plate heat exchangers and no hydronic kit.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# NRP 0804-2406

## Air-water multipurpose

Cooling capacity 207 ÷ 639 kW  
Heating capacity 208 ÷ 662 kW

- Units designed for 2 or 4-pipe systems
- High efficiency also at partial loads
- Simultaneous and independent production of hot and chilled water
- Also available with Shell and tube heat exchanger



### DESCRIPTION

Multipurpose external units designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C (for more details refer to the selection software and technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Exchangers

All the units have plate heat exchangers on service and recovery as standard but, upon request, they can be supplied with a shell & tube heat exchanger as well.

**If the customer chooses a unit with tube core exchangers, it is not possible to add a hydronic kit.**

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Option integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

- *The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.*

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.



**GP\_:** Anti-intrusion grid kit

**BRC1:** Condensate drip tray. Consider 1 for each V-block.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0804 | 0904 | 1004 | 1104 | 1204 | 1414 | 1604 | 1805 | 2006 | 2206 | 2406 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|
| AER48SP1         | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERBACP          | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| AERNET           | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| FL               | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| MULTICHILLER-EVO | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |
| PGD1             | A,E | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    | .    |

|   |         |         | 0804   | 0904   | 1004   | 1104   | 1204   | 1414   |
|---|---------|---------|--------|--------|--------|--------|--------|--------|
| A | IDR IMP | IDR REC |        |        |        |        |        |        |
|   | 00      | 00      | AVX882 | AVX887 | AVX887 | AVX887 | AVX887 | AVX871 |
|   | PA-DJ   | 00      | AVX886 | AVX887 | AVX887 | AVX887 | AVX887 | AVX872 |
|   | 00      | RA-SJ   | AVX886 | AVX887 | AVX887 | AVX887 | AVX883 | AVX873 |
|   | PA-DJ   | RA-SJ   | AVX870 | AVX883 | AVX883 | AVX883 | AVX883 | AVX874 |
| E | 00      | 00      | AVX886 | AVX871 | AVX871 | AVX871 | AVX871 | AVX875 |
|   | PA-DJ   | 00      | AVX886 | AVX872 | AVX872 | AVX872 | AVX872 | AVX875 |
|   | 00      | RA-SJ   | AVX870 | AVX873 | AVX873 | AVX873 | AVX873 | AVX876 |
|   | PA-DJ   | RA-SJ   | AVX870 | AVX874 | AVX874 | AVX874 | AVX874 | AVX876 |

|   |         |         | 1604   | 1805   | 2006   | 2206   | 2406   |
|---|---------|---------|--------|--------|--------|--------|--------|
| A | IDR IMP | IDR REC |        |        |        |        |        |
|   | 00      | 00      | AVX871 | AVX875 | AVX875 | AVX877 | AVX877 |
|   | PA-DJ   | 00      | AVX872 | AVX875 | AVX884 | AVX877 | AVX885 |
|   | 00      | RA-SJ   | AVX873 | AVX876 | AVX876 | AVX885 | AVX885 |
|   | PA-DJ   | RA-SJ   | AVX874 | AVX876 | AVX884 | AVX885 | AVX885 |
| E | 00      | 00      | AVX877 | AVX878 | AVX878 | AVX866 | AVX866 |
|   | PA-DJ   | 00      | AVX877 | AVX878 | AVX865 | AVX866 | AVX866 |
|   | 00      | RA-SJ   | AVX877 | AVX865 | AVX865 | AVX867 | AVX867 |
|   | PA-DJ   | RA-SJ   | AVX877 | AVX879 | AVX865 | AVX867 | AVX867 |

## Device for peak current reduction

| Ver  | 0804       | 0904       | 1004       | 1104       | 1204           | 1414           |
|------|------------|------------|------------|------------|----------------|----------------|
| A, E | DRENRP0804 | DRENRP0904 | DRENRP1004 | DRENRP1104 | DRENRP1204 (1) | DRENRP1404 (2) |

(1) Only for power supply 400V 3N ~ 50Hz e 400V 3 ~ 50Hz.

(2) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1604           | 1805       | 2006       | 2206       | 2406       |
|------|----------------|------------|------------|------------|------------|
| A, E | DRENRP1604 (1) | DRENRP1805 | DRENRP2006 | DRENRP2206 | DRENRP2406 |

(1) Only for power supply 400V 3N ~ 50Hz e 400V 3 ~ 50Hz.

A grey background indicates the accessory must be assembled in the factory

## Power factor correction

| Ver | 0804        | 0904        | 1004        | 1104        | 1204        | 1414       |
|-----|-------------|-------------|-------------|-------------|-------------|------------|
| A   | RIFNRP0804A | RIFNRP0904A | RIFNRP1004A | RIFNRP1104A | RIFNRP1204A | RIFNRP1404 |
| E   | RIFNRP0804E | RIFNRP0904E | RIFNRP1004E | RIFNRP1104E | RIFNRP1204E | RIFNRP1404 |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1604       | 1805       | 2006       | 2206       | 2406       |
|------|------------|------------|------------|------------|------------|
| A, E | RIFNRP1604 | RIFNRP1805 | RIFNRP2006 | RIFNRP2206 | RIFNRP2406 |

A grey background indicates the accessory must be assembled in the factory

## Anti-intrusion grid

| Ver | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  |
|-----|-------|-------|-------|-------|-------|-------|
| A   | GP2VN | GP3VN | GP3VN | GP3VN | GP3VN | GP4VN |
| E   | GP3VN | GP4VN | GP4VN | GP4VN | GP4VN | GP5VN |

A grey background indicates the accessory must be assembled in the factory

| Ver | 1604  | 1805  | 2006 | 2206 | 2406 |
|-----|-------|-------|------|------|------|
| A   | GP4VN | GP5VN | GP5G | GP6V | GP6V |
| E   | GP6V  | GP7V  | GP7V | GP8V | GP8V |

A grey background indicates the accessory must be assembled in the factory

| Ver  | 0804     | 0904     | 1004     | 1104     | 1204     | 1414     |
|------|----------|----------|----------|----------|----------|----------|
| A, E | BRC1 (1) | BRC1 (1) | BRC1 (1) | BRC1 (1) | BRC1 (1) | BRC1 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

| Ver  | 1604     | 1805     | 2006     | 2206     | 2406     |
|------|----------|----------|----------|----------|----------|
| A, E | BRC1 (1) | BRC1 (1) | BRC1 (1) | BRC1 (1) | BRC1 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NRP</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0804, 0904, 1004, 1104, 1204, 1414, 1604, 1805, 2006, 2206, 2406 |
| <b>8</b>       | <b>Version</b>  |
| A              | High efficiency (1)   |
| E              | Silenced high efficiency  |
| <b>9</b>       | <b>System type</b>  |
| 2              | 2-pipe system   |
| 4              | 4-pipe system   |
| <b>10</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>11</b>      | <b>Fans</b>   |
| J              | EC Inverter motors  |
| °              | AC standard   |
| <b>12</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers                                      |
| <b>13,14</b>   | <b>System side - pumps</b>  |
| 00             | Without hydronic kit  |
| DA             | Pump A + stand-by pump  |
| DB             | Pump B + stand-by pump  |
| DC             | Pump C + stand-by pump  |
| DD             | Pump D + stand-by pump  |
| DE             | Pump E + stand-by pump  |
| DF             | Pump F + stand-by pump  |
| DG             | Pump G + stand-by pump  |
| DH             | Pump H + stand-by pump  |
| DI             | Pump I + stand-by pump  |

| Field        | Description                  |
|--------------|------------------------------|
| PA           | Pump A                       |
| PB           | Pump B                       |
| PC           | Pump C                       |
| PD           | Pump D                       |
| PE           | Pump E                       |
| PF           | Pump F                       |
| PG           | Pump G                       |
| PH           | Pump H                       |
| PI           | Pump I                       |
| <b>15,16</b> | <b>Recovery side - pumps</b> |
| 00           | Without hydronic kit         |
| RA           | Pump A                       |
| RB           | Pump B                       |
| RC           | Pump C                       |
| RD           | Pump D                       |
| RE           | Pump E                       |
| RF           | Pump F                       |
| RG           | Pump G                       |
| RH           | Pump H                       |
| RI           | Pump I                       |
| SA           | Pump A + stand-by pump       |
| SB           | Pump B + stand-by pump       |
| SC           | Pump C + stand-by pump       |
| SD           | Pump D + stand-by pump       |
| SE           | Pump E + stand-by pump       |
| SF           | Pump F + stand-by pump       |
| SG           | Pump G + stand-by pump       |
| SH           | Pump H + stand-by pump       |
| SI           | Pump I + stand-by pump       |

(1) Unit 804 version A cannot be configured with a twin pump on both the system side and the recovery side.

## PERFORMANCE SPECIFICATIONS

### NRP - 2-pipe system version A

| Size   |     | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  | 1604  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 2-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 206,7 | 230,6 | 259,2 | 299,6 | 332,2 | 386,3 | 426,2 | 490,5 | 544,3 | 598,2  | 638,8  |
| Input power  | kW  | 69,4  | 76,3  | 86,1  | 99,5  | 116,2 | 128,1 | 146,7 | 165,5 | 189,8 | 202,0  | 220,3  |
| Cooling total input current                                    | A   | 124,0 | 138,0 | 155,0 | 172,0 | 195,0 | 218,0 | 247,0 | 280,0 | 319,0 | 341,0  | 371,0  |
| EER  | W/W | 2,98  | 3,02  | 3,01  | 3,01  | 2,86  | 3,02  | 2,91  | 2,96  | 2,87  | 2,96   | 2,90   |
| Water flow rate system side                                    | l/h | 35565 | 39671 | 44593 | 51536 | 57151 | 66430 | 73295 | 84370 | 93611 | 102896 | 109845 |
| Pressure drop system side                                      | kPa | 24    | 33    | 34    | 42    | 43    | 36    | 36    | 49    | 54    | 64     | 47     |
| <b>Heating system side 2-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 209,9 | 246,0 | 272,7 | 306,2 | 340,5 | 396,2 | 437,6 | 504,8 | 562,7 | 618,6  | 660,8  |
| Input power  | kW  | 66,8  | 79,6  | 85,5  | 95,7  | 107,8 | 125,7 | 136,8 | 159,6 | 180,8 | 199,7  | 209,7  |
| Heating total input current                                    | A   | 120,0 | 143,0 | 154,0 | 166,0 | 183,0 | 214,0 | 233,0 | 272,0 | 306,0 | 337,0  | 356,0  |
| COP  | W/W | 3,14  | 3,09  | 3,19  | 3,20  | 3,16  | 3,15  | 3,20  | 3,16  | 3,11  | 3,10   | 3,15   |
| Water flow rate system side                                    | l/h | 36426 | 42701 | 47339 | 53155 | 59117 | 68781 | 75976 | 87653 | 97701 | 107407 | 114743 |
| Pressure drop system side                                      | kPa | 25    | 34    | 39    | 50    | 41    | 52    | 35    | 47    | 51    | 62     | 47     |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 209,9 | 246,0 | 272,7 | 306,2 | 340,6 | 396,2 | 437,6 | 504,9 | 562,7 | 618,7  | 660,8  |
| Input power  | kW  | 66,9  | 79,8  | 85,6  | 95,7  | 108,3 | 125,4 | 137,0 | 159,8 | 180,9 | 199,9  | 209,9  |
| Heating total input current                                    | A   | 120,0 | 143,0 | 154,0 | 166,0 | 183,0 | 214,0 | 233,0 | 272,0 | 306,0 | 337,0  | 356,0  |
| COP  | W/W | 3,14  | 3,08  | 3,19  | 3,20  | 3,15  | 3,16  | 3,19  | 3,16  | 3,11  | 3,10   | 3,15   |
| Water flow rate domestic hot water side                        | l/h | 36426 | 42701 | 47339 | 53155 | 59117 | 68781 | 75976 | 87653 | 97701 | 107407 | 114743 |
| Pressure drop domestic hot water side                          | kPa | 34    | 47    | 39    | 49    | 61    | 42    | 44    | 53    | 55    | 66     | 50     |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 211,2 | 236,7 | 258,2 | 306,9 | 350,5 | 398,0 | 446,2 | 510,6 | 584,4 | 630,2  | 680,0  |
| Recovered heating power  | kW  | 270,3 | 304,4 | 331,0 | 392,1 | 448,5 | 510,5 | 570,1 | 653,9 | 749,6 | 810,9  | 871,0  |
| Input power  | kW  | 62,8  | 72,4  | 77,7  | 91,3  | 105,2 | 120,2 | 132,4 | 153,7 | 177,2 | 194,7  | 204,6  |
| TER  | W/W | 7,67  | 7,48  | 7,58  | 7,66  | 7,60  | 7,56  | 7,68  | 7,58  | 7,53  | 7,40   | 7,58   |
| Water flow rate system side                                    | l/h | 35565 | 39671 | 44593 | 51536 | 57151 | 66430 | 73295 | 84370 | 93611 | 102896 | 109845 |
| Pressure drop system side                                      | kPa | 24    | 33    | 34    | 42    | 43    | 36    | 36    | 49    | 54    | 64     | 47     |
| Water flow rate domestic hot water side                        | l/h | 36426 | 42701 | 47339 | 53155 | 59117 | 68781 | 75976 | 87653 | 97701 | 107407 | 114743 |
| Pressure drop domestic hot water side                          | kPa | 34    | 47    | 39    | 49    | 61    | 42    | 44    | 53    | 55    | 66     | 50     |

(1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified

(2) Data 14511:2022; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side 40 °C / 45 °C;

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

### NRP - 2-pipe system version E

| Size   |     | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  | 1604  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 2-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 200,7 | 225,7 | 255,3 | 296,9 | 332,7 | 382,2 | 427,0 | 487,6 | 549,9 | 598,5  | 639,4  |
| Input power  | kW  | 66,0  | 73,4  | 83,2  | 96,4  | 113,0 | 125,6 | 139,1 | 159,0 | 182,6 | 195,9  | 214,0  |
| Cooling total input current                                    | A   | 113,0 | 125,0 | 142,0 | 159,0 | 182,0 | 203,0 | 225,0 | 256,0 | 294,0 | 315,0  | 344,0  |
| EER  | W/W | 3,04  | 3,07  | 3,07  | 3,08  | 2,94  | 3,04  | 3,07  | 3,07  | 3,01  | 3,05   | 2,99   |
| Water flow rate system side                                    | l/h | 34534 | 38826 | 43915 | 51070 | 57226 | 65736 | 73434 | 83856 | 94585 | 102947 | 109954 |
| Pressure drop system side                                      | kPa | 25    | 33    | 34    | 43    | 44    | 37    | 38    | 49    | 54    | 64     | 48     |
| <b>Heating system side 2-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 207,4 | 240,7 | 262,4 | 300,7 | 338,4 | 389,4 | 436,7 | 503,3 | 567,2 | 618,5  | 661,8  |
| Input power  | kW  | 63,8  | 74,6  | 80,5  | 92,8  | 104,9 | 121,1 | 134,3 | 155,5 | 181,7 | 199,3  | 209,7  |
| Heating total input current                                    | A   | 109,0 | 126,0 | 136,0 | 153,0 | 170,0 | 195,0 | 217,0 | 250,0 | 293,0 | 320,0  | 338,0  |
| COP  | W/W | 3,25  | 3,22  | 3,26  | 3,24  | 3,23  | 3,22  | 3,25  | 3,24  | 3,12  | 3,10   | 3,16   |
| Water flow rate system side                                    | l/h | 35981 | 41776 | 45554 | 52195 | 58753 | 67603 | 75830 | 87384 | 98488 | 107379 | 114913 |
| Pressure drop system side                                      | kPa | 25    | 33    | 37    | 48    | 40    | 50    | 35    | 46    | 52    | 62     | 47     |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 207,3 | 240,7 | 262,4 | 300,7 | 338,5 | 389,4 | 436,8 | 503,3 | 567,3 | 618,5  | 661,8  |
| Input power  | kW  | 64,0  | 74,8  | 80,5  | 92,8  | 105,4 | 120,8 | 134,6 | 155,7 | 181,9 | 199,5  | 209,9  |
| Heating total input current                                    | A   | 109,0 | 126,0 | 136,0 | 153,0 | 170,0 | 195,0 | 217,0 | 250,0 | 293,0 | 320,0  | 338,0  |
| COP  | W/W | 3,24  | 3,22  | 3,26  | 3,24  | 3,21  | 3,22  | 3,24  | 3,23  | 3,12  | 3,10   | 3,15   |
| Water flow rate domestic hot water side                        | l/h | 35981 | 41776 | 45554 | 52195 | 58753 | 67603 | 75830 | 87384 | 98488 | 107379 | 114913 |
| Pressure drop domestic hot water side                          | kPa | 34    | 45    | 38    | 48    | 60    | 41    | 44    | 53    | 55    | 66     | 50     |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 211,0 | 236,8 | 258,3 | 306,6 | 350,0 | 397,8 | 445,0 | 509,9 | 583,9 | 630,2  | 679,9  |
| Recovered heating power  | kW  | 270,0 | 304,5 | 331,0 | 391,9 | 448,2 | 510,5 | 569,2 | 653,4 | 749,1 | 810,9  | 871,0  |
| Input power  | kW  | 62,8  | 72,3  | 77,6  | 91,4  | 105,3 | 120,3 | 132,7 | 153,9 | 177,3 | 194,7  | 204,7  |
| TER  | W/W | 7,66  | 7,49  | 7,59  | 7,64  | 7,58  | 7,55  | 7,64  | 7,56  | 7,52  | 7,40   | 7,58   |
| Water flow rate system side                                    | l/h | 34534 | 38826 | 43915 | 51070 | 57226 | 65736 | 73434 | 83856 | 94585 | 102947 | 109954 |
| Pressure drop system side                                      | kPa | 25    | 33    | 34    | 43    | 44    | 37    | 38    | 49    | 54    | 64     | 48     |
| Water flow rate domestic hot water side                        | l/h | 35981 | 41776 | 45554 | 52195 | 58753 | 67603 | 75830 | 87384 | 98488 | 107379 | 114913 |
| Pressure drop domestic hot water side                          | kPa | 34    | 45    | 38    | 48    | 60    | 41    | 44    | 53    | 55    | 66     | 50     |

(1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified

(2) Data 14511:2022; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side 40 °C / 45 °C;

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**NRP - 4-pipe system version A**

| Size   |     | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  | 1604  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 4-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 206,7 | 230,6 | 259,2 | 299,6 | 332,2 | 386,3 | 426,2 | 490,5 | 544,3 | 598,2  | 638,8  |
| Input power  | kW  | 69,4  | 76,3  | 86,1  | 99,5  | 116,2 | 128,1 | 146,7 | 165,5 | 189,8 | 202,0  | 220,3  |
| Cooling total input current                                    | A   | 124,0 | 138,0 | 155,0 | 172,0 | 195,0 | 218,0 | 247,0 | 280,0 | 319,0 | 341,0  | 371,0  |
| EER  | W/W | 2,98  | 3,02  | 3,01  | 3,01  | 2,86  | 3,02  | 2,91  | 2,96  | 2,87  | 2,96   | 2,90   |
| Water flow rate system side                                    | l/h | 35565 | 39671 | 44593 | 51536 | 57151 | 66430 | 73295 | 84370 | 93611 | 102896 | 109845 |
| Pressure drop system side                                      | kPa | 24    | 33    | 34    | 42    | 43    | 36    | 36    | 49    | 54    | 64     | 47     |
| <b>Heating system side 4-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 209,9 | 246,0 | 272,7 | 306,2 | 340,6 | 396,2 | 437,6 | 504,9 | 562,7 | 618,7  | 660,8  |
| Input power  | kW  | 66,9  | 79,8  | 85,6  | 95,7  | 108,3 | 125,4 | 137,0 | 159,8 | 180,9 | 199,9  | 209,9  |
| Heating total input current                                    | A   | 120,0 | 143,0 | 154,0 | 166,0 | 183,0 | 214,0 | 233,0 | 272,0 | 306,0 | 337,0  | 356,0  |
| COP  | W/W | 3,14  | 3,08  | 3,19  | 3,20  | 3,15  | 3,16  | 3,19  | 3,16  | 3,11  | 3,10   | 3,15   |
| Water flow rate system side                                    | l/h | 36426 | 42701 | 47339 | 53155 | 59117 | 68781 | 75976 | 87653 | 97701 | 107407 | 114743 |
| Pressure drop system side                                      | kPa | 34    | 47    | 39    | 49    | 61    | 42    | 44    | 53    | 55    | 66     | 50     |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 211,2 | 236,7 | 258,2 | 306,9 | 350,5 | 398,0 | 446,2 | 510,6 | 584,4 | 630,2  | 680,0  |
| Recovered heating power  | kW  | 270,3 | 304,4 | 331,0 | 392,1 | 448,5 | 510,5 | 570,1 | 653,9 | 749,6 | 810,9  | 871,0  |
| Input power  | kW  | 62,8  | 72,4  | 77,7  | 91,3  | 105,2 | 120,2 | 132,4 | 153,7 | 177,2 | 194,7  | 204,6  |
| TER  | W/W | 7,67  | 7,48  | 7,58  | 7,66  | 7,60  | 7,56  | 7,68  | 7,58  | 7,53  | 7,40   | 7,58   |
| Water flow rate cold side                                      | l/h | 35565 | 39671 | 44593 | 51536 | 57151 | 66430 | 73295 | 84370 | 93611 | 102896 | 109845 |
| Pressure drop cold side  | kPa | 24    | 33    | 34    | 42    | 43    | 36    | 36    | 49    | 54    | 64     | 47     |
| Water flow rate hot side                                       | l/h | 36426 | 42701 | 47339 | 53155 | 59117 | 68781 | 75976 | 87653 | 97701 | 107407 | 114743 |
| Pressure drop hot side   | kPa | 34    | 47    | 39    | 49    | 61    | 42    | 44    | 53    | 55    | 66     | 50     |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**NRP - 4-pipe system version E**

| Size   |     | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  | 1604  | 1805  | 2006  | 2206   | 2406   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 4-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 200,7 | 225,7 | 255,3 | 296,9 | 332,7 | 382,2 | 427,0 | 487,6 | 549,9 | 598,5  | 639,4  |
| Input power  | kW  | 66,0  | 73,4  | 83,2  | 96,4  | 113,0 | 125,6 | 139,1 | 159,0 | 182,6 | 195,9  | 214,0  |
| Cooling total input current                                    | A   | 113,0 | 125,0 | 142,0 | 159,0 | 182,0 | 203,0 | 225,0 | 256,0 | 294,0 | 315,0  | 344,0  |
| EER  | W/W | 3,04  | 3,07  | 3,07  | 3,08  | 2,94  | 3,04  | 3,07  | 3,07  | 3,01  | 3,05   | 2,99   |
| Water flow rate system side                                    | l/h | 34534 | 38826 | 43915 | 51070 | 57226 | 65736 | 73434 | 83856 | 94585 | 102947 | 109954 |
| Pressure drop system side                                      | kPa | 25    | 33    | 34    | 43    | 44    | 37    | 38    | 49    | 54    | 64     | 48     |
| <b>Heating system side 4-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 207,3 | 240,7 | 262,4 | 300,7 | 338,5 | 389,4 | 436,8 | 503,3 | 567,3 | 618,5  | 661,8  |
| Input power  | kW  | 64,0  | 74,8  | 80,5  | 92,8  | 105,4 | 120,8 | 134,6 | 155,7 | 181,9 | 199,5  | 209,9  |
| Heating total input current                                    | A   | 109,0 | 126,0 | 136,0 | 153,0 | 170,0 | 195,0 | 217,0 | 250,0 | 293,0 | 320,0  | 338,0  |
| COP  | W/W | 3,24  | 3,22  | 3,26  | 3,24  | 3,21  | 3,22  | 3,24  | 3,23  | 3,12  | 3,10   | 3,15   |
| Water flow rate system side                                    | l/h | 35981 | 41776 | 45554 | 52195 | 58753 | 67603 | 75830 | 87384 | 98488 | 107379 | 114913 |
| Pressure drop system side                                      | kPa | 34    | 45    | 38    | 48    | 60    | 41    | 44    | 53    | 55    | 66     | 50     |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 211,0 | 236,8 | 258,3 | 306,6 | 350,0 | 397,8 | 445,0 | 509,9 | 583,9 | 630,2  | 679,9  |
| Recovered heating power  | kW  | 270,0 | 304,5 | 331,0 | 391,9 | 448,2 | 510,5 | 569,2 | 653,4 | 749,1 | 810,9  | 871,0  |
| Input power  | kW  | 62,8  | 72,3  | 77,6  | 91,4  | 105,3 | 120,3 | 132,7 | 153,9 | 177,3 | 194,7  | 204,7  |
| TER  | W/W | 7,66  | 7,49  | 7,59  | 7,64  | 7,58  | 7,55  | 7,64  | 7,56  | 7,52  | 7,40   | 7,58   |
| Water flow rate cold side                                      | l/h | 34534 | 38826 | 43915 | 51070 | 57226 | 65736 | 73434 | 83856 | 94585 | 102947 | 109954 |
| Pressure drop cold side  | kPa | 25    | 33    | 34    | 43    | 44    | 37    | 38    | 49    | 54    | 64     | 48     |
| Water flow rate hot side                                       | l/h | 35981 | 41776 | 45554 | 52195 | 58753 | 67603 | 75830 | 87384 | 98488 | 107379 | 114913 |
| Pressure drop hot side   | kPa | 34    | 45    | 38    | 48    | 60    | 41    | 44    | 53    | 55    | 66     | 50     |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**ENERGY DATA**

| Size   |   | 0804 | 0904   | 1004   | 1104   | 1204   | 1414   | 1604   | 1805   | 2006   | 2206   | 2406   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |   |      |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                  |   |      |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W  | 4,25   | 4,36   | 4,32   | 4,21   | 4,35   | 4,47   | 4,55   | 4,56   | 4,58   | 4,59   |
|  | E | W/W  | 4,56   | 4,64   | 4,55   | 4,40   | 4,45   | 4,59   | 4,58   | 4,62   | 4,62   | 4,62   |
| η <sub>sc</sub>  | A | %    | 167,20 | 171,40 | 169,70 | 165,20 | 171,10 | 175,80 | 179,00 | 179,50 | 180,10 | 180,40 |
|  | E | %    | 179,50 | 182,80 | 178,80 | 173,10 | 174,90 | 180,60 | 180,30 | 181,80 | 181,50 | 181,70 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |   |      |        |        |        |        |        |        |        |        |        |        |
| SCOP   | A | W/W  | 3,53   | 3,27   | 3,44   | 3,49   | 3,60   | 3,53   | 3,66   | -      | -      | -      |
|  | E | W/W  | 3,71   | 3,59   | 3,69   | 3,70   | 3,82   | 3,70   | 3,75   | -      | -      | -      |
| η <sub>sh</sub>  | A | %    | 138,30 | 127,70 | 134,50 | 136,70 | 140,90 | 138,40 | 143,60 | -      | -      | -      |
|  | E | %    | 145,50 | 140,60 | 144,70 | 144,90 | 149,70 | 145,20 | 147,20 | -      | -      | -      |

(1) Efficiencies for low temperature applications (35 °C)

| Size   |   |     | 0804   | 0904   | 1004   | 1104   | 1204   | 1414   | 1604   | 1805   | 2006   | 2206   | 2406   |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: °</b>   |   |     |        |        |        |        |        |        |        |        |        |        |        |
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>                                  |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W | 3,94   | 4,04   | 4,00   | 3,89   | 4,03   | 4,14   | 4,21   | 4,23   | 4,24   | 4,24   | 4,25   |
|  | E | W/W | 4,22   | 4,30   | 4,21   | 4,08   | 4,12   | 4,25   | 4,24   | 4,28   | 4,27   | 4,28   | 4,28   |
| η <sub>sc</sub>  | A | %   | 154,60 | 158,50 | 156,90 | 152,80 | 158,20 | 162,50 | 165,50 | 166,00 | 166,60 | 166,60 | 166,80 |
|  | E | %   | 166,00 | 169,00 | 165,40 | 160,10 | 161,70 | 167,00 | 166,80 | 168,20 | 167,80 | 168,20 | 168,00 |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |
| SCOP   | A | W/W | 3,53   | 3,27   | 3,44   | 3,49   | 3,60   | 3,53   | 3,66   | -      | -      | -      | -      |
|  | E | W/W | 3,71   | 3,59   | 3,69   | 3,70   | 3,82   | 3,70   | 3,75   | -      | -      | -      | -      |
| η <sub>sh</sub>  | A | %   | 138,30 | 127,70 | 134,50 | 136,70 | 140,90 | 138,40 | 143,60 | -      | -      | -      | -      |
|  | E | %   | 145,50 | 140,60 | 144,70 | 144,90 | 149,70 | 145,20 | 147,20 | -      | -      | -      | -      |

(1) Efficiencies for low temperature applications (35 °C)

## ELECTRIC DATA

| Size                  |   |   | 0804  | 0904  | 1004  | 1104  | 1204  | 1414  | 1604  | 1805  | 2006  | 2206  | 2406  |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | A | A | 163,0 | 188,0 | 205,0 | 233,0 | 261,0 | 303,0 | 337,0 | 386,0 | 427,0 | 468,0 | 502,0 |
|                       | E | A | 170,0 | 196,0 | 213,0 | 241,0 | 269,0 | 311,0 | 352,0 | 401,0 | 442,0 | 484,0 | 518,0 |
| Peak current (LRA)    | A | A | 368,0 | 431,0 | 449,0 | 485,0 | 513,0 | 636,0 | 670,0 | 638,0 | 679,0 | 801,0 | 835,0 |
|                       | E | A | 376,0 | 439,0 | 456,0 | 493,0 | 521,0 | 644,0 | 685,0 | 653,0 | 694,0 | 817,0 | 851,0 |

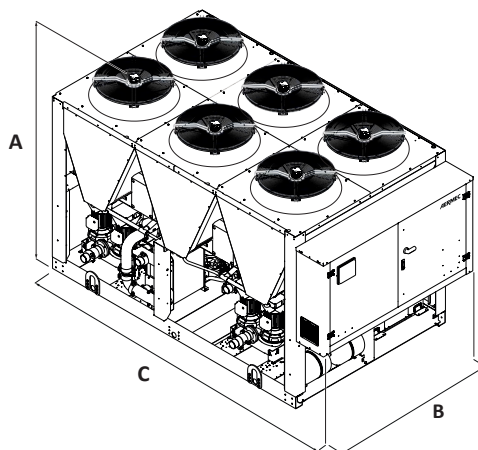
## GENERAL TECHNICAL DATA

| Size   |     |                   | 0804                     | 0904   | 1004   | 1104   | 1204   | 1414   | 1604   | 1805   | 2006   | 2206   | 2406   |
|--|-----|-------------------|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Compressor</b>  |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Scroll                   |        |        |        |        |        |        |        |        |        |        |
| Number   | A,E | no.               | 4                        | 4      | 4      | 4      | 4      | 4      | 4      | 5      | 6      | 6      | 6      |
| Circuits   | A,E | no.               | 2                        | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Refrigerant  | A,E | type              | R410A                    |        |        |        |        |        |        |        |        |        |        |
| Potential global heating   | A,E | GWP               | 2088kgCO <sub>2</sub> eq |        |        |        |        |        |        |        |        |        |        |
| Refrigerant charge (1)   | A   | kg                | 41,1                     | 61,0   | 61,4   | 62,7   | 62,8   | 83,6   | 83,6   | 106,1  | 107,6  | 129,2  | 129,2  |
|  | E   | kg                | 61,0                     | 80,8   | 81,2   | 82,9   | 83,0   | 103,9  | 124,1  | 147,2  | 149,3  | 170,9  | 170,9  |
| <b>2-pipe system - System side heat exchanger (hot/cold)</b>             |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Braze plate              |        |        |        |        |        |        |        |        |        |        |
| Number   | A,E | no.               | 1                        | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Connections (in/out)   | A,E | Type              | Grooved joints           |        |        |        |        |        |        |        |        |        |        |
| Size (in)  | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| Size (out)   | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| <b>2-pipe system - Recovery side heat exchanger (domestic hot water)</b> |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Braze plate              |        |        |        |        |        |        |        |        |        |        |
| Number   | A,E | no.               | 2                        | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Manifold connection (in/out)   | A,E | Type              | G.S.                     |        |        |        |        |        |        |        |        |        |        |
| Manifold diameter (in)   | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| Manifold diameter (out)  | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| <b>4-pipe system - System side heat exchanger (cold side)</b>            |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Braze plate              |        |        |        |        |        |        |        |        |        |        |
| Number   | A,E | no.               | 1                        | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Connections (in/out)   | A,E | Type              | Grooved joints           |        |        |        |        |        |        |        |        |        |        |
| Size (in)  | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| Size (out)   | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| <b>4-pipe system - Recovery side heat exchanger (hot side)</b>           |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Braze plate              |        |        |        |        |        |        |        |        |        |        |
| Number   | A,E | no.               | 2                        | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Manifold connection (in/out)   | A,E | Type              | Grooved joints           |        |        |        |        |        |        |        |        |        |        |
| Manifold diameter (in)   | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| Manifold diameter (out)  | A,E | Ø                 | 3"                       | 3"     | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 4"     | 4"     | 5"     |
| <b>Fan</b>   |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Type   | A,E | type              | Axial                    |        |        |        |        |        |        |        |        |        |        |
| Fan motor  | A,E | type              | On-Off                   |        |        |        |        |        |        |        |        |        |        |
| Number   | A   | no.               | 4                        | 6      | 6      | 6      | 6      | 8      | 8      | 10     | 10     | 12     | 12     |
|  | E   | no.               | 6                        | 8      | 8      | 8      | 8      | 10     | 12     | 14     | 14     | 16     | 16     |
| Air flow rate  | A   | m <sup>3</sup> /h | 80000                    | 120000 | 120000 | 120000 | 120000 | 160000 | 160000 | 200000 | 200000 | 240000 | 240000 |
|  | E   | m <sup>3</sup> /h | 80000                    | 110000 | 110000 | 110000 | 110000 | 130000 | 160000 | 180000 | 180000 | 210000 | 210000 |
| <b>Sound data calculated in cooling mode (2)</b>                         |     |                   |                          |        |        |        |        |        |        |        |        |        |        |
| Sound power level  | A   | dB(A)             | 89,5                     | 91,6   | 91,6   | 91,6   | 91,6   | 93,1   | 93,1   | 94,2   | 94,2   | 95,1   | 95,1   |
|  | E   | dB(A)             | 84,6                     | 86,1   | 86,1   | 86,1   | 86,1   | 87,2   | 88,2   | 89,4   | 89,9   | 91,1   | 91,6   |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                          |     |    | 0804 | 0904 | 1004 | 1104 | 1204 | 1414 | 1604 | 1805 | 2006 | 2206 | 2406 |
|-------------------------------|-----|----|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b> |     |    |      |      |      |      |      |      |      |      |      |      |      |
| A                             | A,E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 |
| B                             | A,E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 |
| C                             | A   | mm | 2780 | 3970 | 3970 | 3970 | 3970 | 4760 | 4760 | 5950 | 6350 | 7140 | 7140 |
|                               | E   | mm | 3970 | 4760 | 4760 | 4760 | 4760 | 5950 | 7140 | 8330 | 8330 | 9520 | 9520 |
| Size                          |     |    | 0804 | 0904 | 1004 | 1104 | 1204 | 1414 | 1604 | 1805 | 2006 | 2206 | 2406 |
| <b>System type: 2</b>         |     |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                |     |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                  | A   | kg | 2642 | 3152 | 3262 | 3452 | 3722 | 4409 | 4569 | 5419 | 5829 | 6479 | 6756 |
|                               | E   | kg | 3072 | 3712 | 3822 | 4012 | 4282 | 4879 | 5449 | 6359 | 6789 | 7469 | 7736 |
| Size                          |     |    | 0804 | 0904 | 1004 | 1104 | 1204 | 1414 | 1604 | 1805 | 2006 | 2206 | 2406 |
| <b>System type: 4</b>         |     |    |      |      |      |      |      |      |      |      |      |      |      |
| <b>Weights</b>                |     |    |      |      |      |      |      |      |      |      |      |      |      |
| Empty weight                  | A   | kg | 2632 | 3132 | 3252 | 3442 | 3692 | 4379 | 4539 | 5389 | 5799 | 6449 | 6716 |
|                               | E   | kg | 3052 | 3692 | 3812 | 4002 | 4252 | 4849 | 5419 | 6319 | 6759 | 7429 | 7706 |

■ The weights are for standard units with plate heat exchangers and no hydronic kit.

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NPG 0800-3600

## Air-water multipurpose

Cooling capacity 206,8 ÷ 937,3 kW  
Heating capacity 211,7 ÷ 977,6 kW

- Units designed for 2 or 4-pipe systems
- High efficiency also at partial loads
- Simultaneous and independent production of hot and chilled water



### DESCRIPTION

Multipurpose external units designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- A** High efficiency
- E** Silenced high efficiency

### FEATURES

#### Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49,0 °C in summer. Hot water production up to 60,0 °C (for more information refer to the selection program Magellano or dedicated documentations).

#### Refrigerant HFC R32

**Use refrigerant fluid R32, whose classification according to ISO 817 is A2L (non-toxic, odourless and slightly flammable refrigerant).**

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant. Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO<sub>2</sub> values.

- *Refrigerant gas detector is supplied as per standard.*

#### Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

#### Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

- *Sizes 2600 to 3600 are available with a standard J fan.*

### Option integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

- *The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.*

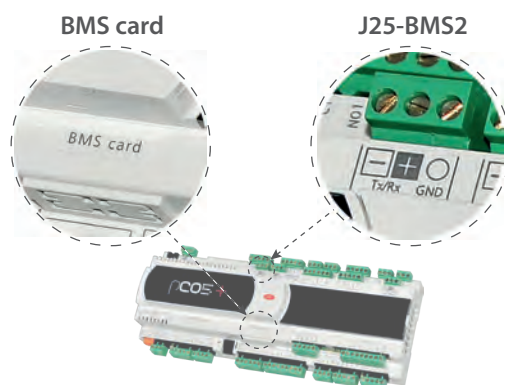
### CONTROL PCO<sub>5</sub>

**The units from size 0800 to 2400 have 1 control card, while the units from size 2600 to 3600 have 2 control cards.**

Microprocessor adjustment, with 7", touch screen keyboard which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the ad adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **"EASYLOG" data logger as per standard:** allows all operating data read by the pCO<sub>5</sub> to be stored on an SD card.
- **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater acoustic comfort but always guarantees performance even at peak load times.
- Possibility to control two units in a Master-Slave configuration (from size 0800 to 2400)





In the 'BMS card' port, the compatible accessories are:

- AER485P1
- AERBACP
- MULTICHILLER-EVO + AER485P1

In the 'J25-BMS2' port, the compatible accessories are:

- AERNET

■ **Note:**

- "BMS card" and "J25-BMS2" are two ports on the unit's control board. Only one accessory can be connected to each port.

- An 'EASYLOG' diagnostic device may be present in port 'J25-BMS2', possibly disconnect it to connect the accessory AERNET.
- **For other requirements, please contact the company.**

## ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**AVX:** Spring anti-vibration supports.

## FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

**GP\_:** Anti-intrusion grid kit

**BRC1:** Condensate drip tray. Consider 1 for each V-block.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AER485P1 x no. 2 | A   |      |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    |
|                  | E   |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERBACP          | A,E | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | A   |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERBACP x no. 2  | E   |      |      |      |      |      |      |      |      |      |      |      | *    | *    | *    | *    | *    | *    |
| AERNET           | A   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | A   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | A   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
|                  | E   | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

## Antivibration

| Version | System side - pumps  | Recovery side - pumps  | 0800    | 0900    | 1000    | 1100    | 1200    | 1400    |
|---------|--|--|---------|---------|---------|---------|---------|---------|
| A       | 00   | 00   | AVX1210 | AVX1212 | AVX1212 | AVX1212 | AVX1214 | AVX1214 |
| A       | 00   | MA, MB, MC, MD, ME, MF, MG, MH, MI, NA, NB, NC, ND, NE, NF, NG, NH, NI, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ     | AVX1211 | AVX1213 | AVX1213 | AVX1213 | AVX1215 | AVX1215 |
| A       | DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ | 00, MA, MB, MC, MD, ME, MF, MG, MH, MI, NA, NB, NC, ND, NE, NF, NG, NH, NI, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ | AVX1211 | AVX1213 | AVX1213 | AVX1213 | AVX1215 | AVX1215 |
| E       | 00   | 00   | AVX1212 | AVX1214 | AVX1214 | AVX1214 | AVX1217 | AVX1217 |
| E       | 00   | MA, MB, MC, MD, ME, MF, MG, MH, MI, NA, NB, NC, ND, NE, NF, NG, NH, NI, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ     | AVX1213 | AVX1215 | AVX1215 | AVX1215 | AVX1219 | AVX1219 |
| E       | DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, JA, JB, JC, JD, JE, JF, JG, JH, JI, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ | 00, MA, MB, MC, MD, ME, MF, MG, MH, MI, NA, NB, NC, ND, NE, NF, NG, NH, NI, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ | AVX1213 | AVX1215 | AVX1215 | AVX1215 | AVX1219 | AVX1219 |



| Version | System side - pumps   | Recovery side - pumps   | 1600    | 1800    | 2000    | 2200    | 2400    | 2600    |
|---------|---|---|---------|---------|---------|---------|---------|---------|
| A       | 00  | 00  | AVX1216 | AVX1217 | AVX1217 | AVX1219 | AVX1219 | AVX1270 |
| A       | 00  | MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB,<br>NC, ND, NE, NF, NG, NH,<br>NI, RA, RB, RC, RD, RE, RF,<br>RG, RH, RI, RJ, SA, SB, SC,<br>SD, SE, SF, SG, SH, SI, SJ     | AVX1215 | AVX1219 | AVX1219 | AVX1219 | AVX1219 | AVX1271 |
| A       | DA, DB, DC, DD, DE, DF,<br>DG, DH, DI, DJ, IA, IB, IC,<br>ID, IE, IF, IG, IH, II, JA, JB,<br>JC, JD, JE, JF, JG, JH, JI,<br>PA, PB, PC, PD, PE, PF, PG,<br>PH, PI, PJ | 00, MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB,<br>NC, ND, NE, NF, NG, NH,<br>NI, RA, RB, RC, RD, RE, RF,<br>RG, RH, RI, RJ, SA, SB, SC,<br>SD, SE, SF, SG, SH, SI, SJ | AVX1215 | AVX1219 | AVX1219 | AVX1219 | AVX1219 | AVX1271 |
| E       | 00  | 00  | AVX1219 | AVX1220 | AVX1220 | AVX1222 | AVX1222 | AVX1274 |
| E       | 00  | MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB,<br>NC, ND, NE, NF, NG, NH,<br>NI, RA, RB, RC, RD, RE, RF,<br>RG, RH, RI, RJ, SA, SB, SC,<br>SD, SE, SF, SG, SH, SI, SJ     | AVX1219 | AVX1221 | AVX1221 | AVX1222 | AVX1222 | AVX1275 |
| E       | DA, DB, DC, DD, DE, DF,<br>DG, DH, DI, DJ, IA, IB, IC,<br>ID, IE, IF, IG, IH, II, JA, JB,<br>JC, JD, JE, JF, JG, JH, JI,<br>PA, PB, PC, PD, PE, PF, PG,<br>PH, PI, PJ | 00, MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB,<br>NC, ND, NE, NF, NG, NH,<br>NI, RA, RB, RC, RD, RE, RF,<br>RG, RH, RI, RJ, SA, SB, SC,<br>SD, SE, SF, SG, SH, SI, SJ | AVX1219 | AVX1221 | AVX1221 | AVX1222 | AVX1222 | AVX1275 |

| Version | System side - pumps  | Recovery side - pumps   | 2800    | 3000    | 3200    | 3400    | 3600    |
|---------|--|---|---------|---------|---------|---------|---------|
| A       | 00   | 00  | AVX1272 | AVX1272 | AVX1272 | AVX1274 | AVX1274 |
| A       | 00   | MA, MB, MC, MD, ME, MF,<br>MG, MH, MI, NA, NB, NC, ND,<br>NE, NF, NG, NH, NI, RA, RB,<br>RC, RD, RE, RF, RG, RH, RI,<br>RJ, SA, SB, SC, SD, SE, SF, SG,<br>SH, SI, SJ     | AVX1273 | AVX1273 | AVX1273 | AVX1275 | AVX1275 |
| A       | DA, DB, DC, DD, DE, DF, DG,<br>DH, DI, DJ, IA, IB, IC, ID, IE, IF,<br>IG, IH, II, JA, JB, JC, JD, JE, JF,<br>JG, JH, JI, PA, PB, PC, PD, PE,<br>PF, PG, PH, PI, PJ     | 00, MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB, NC,<br>ND, NE, NF, NG, NH, NI, RA,<br>RB, RC, RD, RE, RF, RG, RH,<br>RI, RJ, SA, SB, SC, SD, SE, SF,<br>SG, SH, SI, SJ | AVX1273 | AVX1273 | AVX1273 | AVX1275 | AVX1275 |
| E       | 00, DA, DB, DC, DD, DE, DF,<br>DG, DH, DI, DJ, IA, IB, IC, ID,<br>IE, IF, IG, IH, II, JA, JB, JC, JD,<br>JE, JF, JG, JH, JI, PA, PB, PC,<br>PD, PE, PF, PG, PH, PI, PJ | 00, MA, MB, MC, MD, ME,<br>MF, MG, MH, MI, NA, NB, NC,<br>ND, NE, NF, NG, NH, NI, RA,<br>RB, RC, RD, RE, RF, RG, RH,<br>RI, RJ, SA, SB, SC, SD, SE, SF,<br>SG, SH, SI, SJ | AVX1276 | AVX1276 | AVX1276 | -       | -       |

- not available

#### Device for peak current reduction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A, E | DRENPG0800 | DRENPG0900 | DRENPG1000 | DRENPG1100 | DRENPG1200 | DRENPG1400 | DRENPG1600 | DRENPG1800 | DRENPG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|
| A   | DRENPG2200 | DRENPG2400 | DRENPG2600 | DRENPG2800 | DRENPG3000 | DRENPG3200 | DRENPG3400 | DRENPG3600 |
| E   | DRENPG2200 | DRENPG2400 | DRENPG2600 | DRENPG2800 | DRENPG3000 | DRENPG3200 | -          | -          |

A grey background indicates the accessory must be assembled in the factory

#### Power factor correction

| Ver  | 0800       | 0900       | 1000       | 1100       | 1200       | 1400       | 1600       | 1800       | 2000       |
|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| A, E | RIFNPG0800 | RIFNPG0900 | RIFNPG1000 | RIFNPG1100 | RIFNPG1200 | RIFNPG1400 | RIFNPG1600 | RIFNPG1800 | RIFNPG2000 |

A grey background indicates the accessory must be assembled in the factory

| Ver | 2200       | 2400       | 2600       | 2800       | 3000       | 3200       | 3400       | 3600       |
|-----|------------|------------|------------|------------|------------|------------|------------|------------|
| A   | RIFNPG2200 | RIFNPG2400 | RIFNPG2600 | RIFNPG2800 | RIFNPG3000 | RIFNPG3200 | RIFNPG3400 | RIFNPG3600 |
| E   | RIFNPG2200 | RIFNPG2400 | RIFNPG2600 | RIFNPG2800 | RIFNPG3000 | RIFNPG3200 | -          | -          |

A grey background indicates the accessory must be assembled in the factory

#### Anti-intrusion grid

| Ver | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800 | 2000 |
|-----|-------|-------|-------|-------|-------|-------|-------|------|------|
| A   | GP2VN | GP3G  | GP3G  | GP3G  | GP4GM | GP4GM | GP4GM | GP5G | GP5G |
| E   | GP3G  | GP4GM | GP4GM | GP4GM | GP5GM | GP5GM | GP6G  | GP7G | GP7G |

A grey background indicates the accessory must be assembled in the factory

| Ver | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|-----|------|------|-------|-------|-------|-------|-------|-------|
| A   | GP6G | GP6G | GP16G | GP17G | GP17G | GP17G | GP18G | GP18G |
| E   | GP8G | GP8G | GP18G | GP19G | GP19G | GP19G | -     | -     |

A grey background indicates the accessory must be assembled in the factory

**GP2VN becomes GP2VNA if configured with a hydronic kit for size 0800 A**

#### Condensate drip.

| Ver | 0800         | 0900         | 1000         | 1100         | 1200         | 1400         | 1600         | 1800         | 2000         |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| A   | BRC1 x 2 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 3 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 5 (1) | BRC1 x 5 (1) |
| E   | BRC1 x 3 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 4 (1) | BRC1 x 5 (1) | BRC1 x 5 (1) | BRC1 x 6 (1) | BRC1 x 7 (1) | BRC1 x 7 (1) |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

| Ver | 2200         | 2400         | 2600         | 2800          | 3000          | 3200          | 3400         | 3600         |
|-----|--------------|--------------|--------------|---------------|---------------|---------------|--------------|--------------|
| A   | BRC1 x 6 (1) | BRC1 x 6 (1) | BRC1 x 7 (1) | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 8 (1)  | BRC1 x 9 (1) | BRC1 x 9 (1) |
| E   | BRC1 x 8 (1) | BRC1 x 8 (1) | BRC1 x 9 (1) | BRC1 x 10 (1) | BRC1 x 10 (1) | BRC1 x 10 (1) | -            | -            |

(1) Condensate drip tray. Consider 1 for each V-block.

A grey background indicates the accessory must be assembled in the factory

### CONFIGURATOR

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NPG</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400, 2600, 2800, 3000, 3200, 3400, 3600 |
| <b>8</b>       | <b>Version</b>  |
| A              | High efficiency   |
| E              | Silenced high efficiency (1)  |
| <b>9</b>       | <b>System type</b>  |
| 2              | 2-pipe system   |
| 4              | 4-pipe system   |
| <b>10</b>      | <b>Coils</b>  |
| R              | Copper pipes-copper fins  |
| S              | Copper pipes-Tinned copper fins   |
| V              | Copper pipes-Coated aluminium fins  |
| °              | Copper-aluminium  |
| <b>11</b>      | <b>Fans</b>   |
| J              | Inverter  |
| °              | Standard with DCPX (2)  |
| <b>12</b>      | <b>Power supply</b>   |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>13,14</b>   | <b>System side - pumps</b>  |
| 00             | Without hydronic kit  |
|                | <b>Pump n° 1 pump + stand-by pump</b>   |
| DA             | Pump A + stand-by pump (2)  |
| DB             | Pump B + stand-by pump (2)  |
| DC             | Pump C + stand-by pump (2)  |
| DD             | Pump D + stand-by pump (2)  |
| DE             | Pump E + stand-by pump (2)  |
| DF             | Pump F + stand-by pump  |
| DG             | Pump G + stand-by pump  |
| DH             | Pump H + stand-by pump  |
| DI             | Pump I + stand-by pump  |
| DJ             | Pump J + stand-by pump (3)  |
|                | <b>Kit with n° 1 inverter pump to fixed speed</b>   |
| IA             | Pump A equipped with inverter device to work at fixed speed (2)   |
| IB             | Pump B equipped with inverter device to work at fixed speed (2)   |
| IC             | Pump C equipped with inverter device to work at fixed speed (2)   |
| ID             | Pump D equipped with inverter device to work at fixed speed (2)   |
| IE             | Pump E equipped with inverter device to work at fixed speed (2)   |
| IF             | Pump F equipped with inverter device to work at fixed speed (4)   |
| IG             | Pump G equipped with inverter device to work at fixed speed (4)   |
| IH             | Pump H equipped with inverter device to work at fixed speed (4)   |
| II             | Pump I equipped with inverter device to work at fixed speed (4)   |
|                | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>   |
| JA             | Pump A+stand-by pump, both equipped with inverter to work at fixed speed (2)  |
| JB             | Pump B+stand-by pump, both equipped with inverter to work at fixed speed (2)  |
| JC             | Pump C+stand-by pump, both equipped with inverter to work at fixed speed (2)  |
| JD             | Pump D+stand-by pump, both equipped with inverter to work at fixed speed (2)  |
| JE             | Pump E+stand-by pump, both equipped with inverter to work at fixed speed (2)  |
| JF             | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
| JG             | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (5)  |
| JH             | Pump H+stand-by pump, both equipped with inverter to work at fixed speed (5)  |

| Field        | Description  |
|--------------|--|
| JL           | Pump I+stand-by pump, both equipped with inverter to work at fixed speed (5) |
|              | <b>Kit with n° 1 pump</b>  |
| PA           | Pump A (2)   |
| PB           | Pump B (2)   |
| PC           | Pump C (2)   |
| PD           | Pump D (2)   |
| PE           | Pump E (2)   |
| PF           | Pump F   |
| PG           | Pump G   |
| PH           | Pump H   |
| PI           | Pump I   |
| PJ           | Pump J (3)   |
| <b>15,16</b> | <b>Recovery side - pumps</b>   |
| 00           | Without hydronic kit   |
|              | <b>Kit with n° 1 inverter pump to fixed speed</b>                            |
| MA           | Pump A equipped with inverter device to work at fixed speed (2)              |
| MB           | Pump B equipped with inverter device to work at fixed speed (2)              |
| MC           | Pump C equipped with inverter device to work at fixed speed (2)              |
| MD           | Pump D equipped with inverter device to work at fixed speed (2)              |
| ME           | Pump E equipped with inverter device to work at fixed speed (2)              |
| MF           | Pump F equipped with inverter device to work at fixed speed (4)              |
| MG           | Pump G equipped with inverter device to work at fixed speed (4)              |
| MH           | Pump H equipped with inverter device to work at fixed speed (4)              |
| MI           | Pump I equipped with inverter device to work at fixed speed (4)              |
|              | <b>Kit with n° 1 inverter pump + stand-by pump to fixed speed</b>            |
| NA           | Pump A+stand-by pump, both equipped with inverter to work at fixed speed (2) |
| NB           | Pump B+stand-by pump, both equipped with inverter to work at fixed speed (2) |
| NC           | Pump C+stand-by pump, both equipped with inverter to work at fixed speed (2) |
| ND           | Pump D+stand-by pump, both equipped with inverter to work at fixed speed (2) |
| NE           | Pump E+stand-by pump, both equipped with inverter to work at fixed speed (2) |
| NF           | Pump F+stand-by pump, both equipped with inverter to work at fixed speed (5) |
| NG           | Pump G+stand-by pump, both equipped with inverter to work at fixed speed (5) |
| NH           | Pump H+stand-by pump, both equipped with inverter to work at fixed speed (5) |
| NI           | Pump I+stand-by pump, both equipped with inverter to work at fixed speed (5) |
|              | <b>Kit with n° 1 pump</b>  |
| RA           | Pump A (2)   |
| RB           | Pump B (2)   |
| RC           | Pump C (2)   |
| RD           | Pump D (2)   |
| RE           | Pump E (2)   |
| RF           | Pump F   |
| RG           | Pump G   |
| RH           | Pump H   |
| RI           | Pump I   |
| RJ           | Pump J (3)   |
|              | <b>Pump n° 1 pump + stand-by pump</b>  |
| SA           | Pump A + stand-by pump (2)   |
| SB           | Pump B + stand-by pump (2)   |
| SC           | Pump C + stand-by pump (2)   |
| SD           | Pump D + stand-by pump (2)   |
| SE           | Pump E + stand-by pump (2)   |

| Field | Description                |
|-------|----------------------------|
| SF    | Pump F + stand-by pump     |
| SG    | Pump G + stand-by pump     |
| SH    | Pump H + stand-by pump     |
| SI    | Pump I + stand-by pump     |
| SJ    | Pump J + stand-by pump (3) |

- (1) Not available for sizes 3400-3600.  
(2) Not available for the sizes 2600-3600.  
(3) Contact the factory  
(4) Hydronic kit not available with sizes 0800-1600 version A, 0800-1100 version E.  
(5) Hydronic kit not compatible with machines 0800-2000 version A, 0800-1400 version E. Not compatible with sizes 2600-3600.

## PERFORMANCE SPECIFICATIONS

### NPG - 2 TUBI - version A

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| <b>Cooling system side 2-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity   | kW  | 206,5 | 238,8 | 262,1 | 298,1 | 349,6 | 385,1 | 424,0 | 492,6 | 549,2 | 601,9  | 634,7  | 692,2  | 759,1  | 828,4  | 864,7  | 900,0  | 936,4  |
| Input power  | kW  | 72,5  | 78,2  | 87,8  | 105,5 | 116,8 | 134,0 | 151,5 | 172,2 | 199,9 | 209,9  | 227,0  | 248,1  | 269,1  | 297,2  | 315,4  | 326,0  | 342,9  |
| Cooling total input current                                    | A   | 128,2 | 142,2 | 158,3 | 183,6 | 202,9 | 228,0 | 254,2 | 291,8 | 337,3 | 355,1  | 381,1  | 409,6  | 446,6  | 492,8  | 513,9  | 527,0  | 553,0  |
| EER  | W/W | 2,85  | 3,06  | 2,98  | 2,83  | 2,99  | 2,87  | 2,80  | 2,86  | 2,75  | 2,87   | 2,80   | 2,79   | 2,82   | 2,79   | 2,74   | 2,76   | 2,73   |
| Water flow rate system side                                    | l/h | 35537 | 41084 | 45096 | 51279 | 60134 | 66248 | 72915 | 84728 | 94449 | 103520 | 109133 | 119060 | 130559 | 142477 | 148710 | 154781 | 161041 |
| Pressure drop system side                                      | kPa | 30    | 41    | 37    | 43    | 47    | 48    | 38    | 47    | 51    | 50     | 36     | 81     | 92     | 97     | 105    | 116    | 102    |
| <b>Heating system side 2-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity   | kW  | 212,0 | 246,3 | 270,7 | 308,5 | 363,1 | 401,6 | 436,7 | 507,2 | 565,1 | 617,3  | 654,9  | 714,1  | 787,0  | 840,5  | 877,7  | 928,9  | 965,9  |
| Input power  | kW  | 67,3  | 79,4  | 86,7  | 99,8  | 116,0 | 129,1 | 138,3 | 161,0 | 179,3 | 195,0  | 208,9  | 230,5  | 253,2  | 270,9  | 284,3  | 301,4  | 315,6  |
| Heating total input current                                    | A   | 121,0 | 142,8 | 155,8 | 175,1 | 201,1 | 221,1 | 235,4 | 275,9 | 307,8 | 334,6  | 355,0  | 379,9  | 419,2  | 450,0  | 468,6  | 494,3  | 515,3  |
| COP  | W/W | 3,15  | 3,10  | 3,12  | 3,09  | 3,13  | 3,11  | 3,16  | 3,15  | 3,15  | 3,17   | 3,13   | 3,10   | 3,11   | 3,10   | 3,09   | 3,08   | 3,06   |
| Water flow rate system side                                    | l/h | 36787 | 42745 | 46996 | 53553 | 63027 | 69719 | 75833 | 88058 | 98099 | 107197 | 113726 | 124010 | 136667 | 145942 | 152400 | 161305 | 167715 |
| Pressure drop system side                                      | kPa | 26    | 35    | 35    | 45    | 56    | 39    | 35    | 47    | 61    | 37     | 42     | 46     | 55     | 63     | 68     | 77     | 83     |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity   | kW  | 212,6 | 247,4 | 272,1 | 309,6 | 361,5 | 399,4 | 433,8 | 508,6 | 565,9 | 607,8  | 644,6  | 719,4  | 796,4  | 850,0  | 888,2  | 941,1  | 978,5  |
| Input power  | kW  | 64,9  | 76,7  | 83,1  | 95,4  | 110,8 | 123,0 | 132,9 | 156,0 | 175,8 | 186,5  | 198,8  | 223,5  | 246,9  | 265,2  | 278,3  | 295,8  | 309,0  |
| Heating total input current                                    | A   | 118,5 | 140,0 | 152,0 | 169,7 | 194,2 | 213,0 | 227,9 | 269,1 | 303,2 | 323,1  | 340,9  | 370,5  | 411,8  | 443,0  | 461,1  | 487,7  | 506,7  |
| COP  | W/W | 3,28  | 3,22  | 3,28  | 3,25  | 3,26  | 3,25  | 3,26  | 3,26  | 3,22  | 3,26   | 3,24   | 3,22   | 3,23   | 3,21   | 3,19   | 3,18   | 3,17   |
| Water flow rate domestic hot water side                        | l/h | 36883 | 42934 | 47229 | 53737 | 62755 | 69347 | 75327 | 88302 | 98238 | 105551 | 111934 | 124931 | 138301 | 147604 | 154236 | 163411 | 169910 |
| Pressure drop domestic hot water side                          | kPa | 26    | 35    | 35    | 45    | 55    | 38    | 35    | 47    | 62    | 36     | 40     | 47     | 56     | 64     | 70     | 79     | 85     |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity   | kW  | 203,7 | 225,7 | 253,7 | 292,1 | 337,7 | 374,2 | 424,7 | 483,4 | 547,9 | 592,0  | 631,0  | 693,6  | 751,5  | 821,0  | 858,1  | 897,7  | 935,3  |
| Recovered heating power  | kW  | 261,4 | 290,8 | 325,1 | 376,1 | 432,7 | 481,8 | 541,8 | 619,8 | 703,9 | 754,4  | 805,3  | 889,8  | 967,1  | 1054,8 | 1104,6 | 1157,1 | 1207,4 |
| Input power  | kW  | 61,2  | 69,7  | 76,2  | 90,0  | 102,1 | 115,2 | 125,0 | 146,2 | 167,7 | 173,9  | 186,2  | 211,5  | 233,3  | 253,6  | 268,0  | 282,9  | 296,2  |
| Water flow rate system side                                    | l/h | 35537 | 41084 | 45096 | 51279 | 60134 | 66248 | 72915 | 84728 | 94449 | 103520 | 109133 | 119060 | 130559 | 142477 | 148710 | 154781 | 161041 |
| Pressure drop system side                                      | kPa | 30    | 41    | 37    | 43    | 47    | 48    | 38    | 47    | 51    | 50     | 36     | 81     | 92     | 97     | 105    | 116    | 102    |
| Water flow rate domestic hot water side                        | l/h | 36883 | 42934 | 47229 | 53737 | 62755 | 69347 | 75327 | 88302 | 98238 | 105551 | 111934 | 124931 | 138301 | 147604 | 154236 | 163411 | 169910 |
| Pressure drop domestic hot water side                          | kPa | 26    | 35    | 35    | 45    | 55    | 38    | 35    | 47    | 62    | 36     | 40     | 47     | 56     | 64     | 70     | 79     | 85     |
| TER  | W/W | 7,60  | 7,41  | 7,59  | 7,42  | 7,55  | 7,43  | 7,73  | 7,55  | 7,46  | 7,74   | 7,71   | 7,49   | 7,37   | 7,40   | 7,32   | 7,26   | 7,23   |

- (1) Data 14511:2022; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified  
(2) Data 14511:2022; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.  
(3) Water exchanger to the total recovery side 40 °C / 45 °C;  
(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**With the fan option ° the data are equivalent and available from size 0800 to 2400.**

**NPG - 4 TUBI - version A**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| <b>Cooling system side 4-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity   | kW  | 206,5 | 238,8 | 262,1 | 298,1 | 349,6 | 385,1 | 424,0 | 492,6 | 549,2 | 601,9  | 634,7  | 692,2  | 759,1  | 828,4  | 864,7  | 900,0  | 936,4  |
| Input power  | kW  | 72,5  | 78,2  | 87,8  | 105,5 | 116,8 | 134,0 | 151,5 | 172,2 | 199,9 | 209,9  | 227,0  | 248,1  | 269,1  | 297,2  | 315,4  | 326,0  | 342,9  |
| Cooling total input current                                    | A   | 128,2 | 142,2 | 158,3 | 183,6 | 202,9 | 228,0 | 254,2 | 291,8 | 337,3 | 355,1  | 381,1  | 409,6  | 446,6  | 492,8  | 513,9  | 527,0  | 553,0  |
| EER  | W/W | 2,85  | 3,06  | 2,98  | 2,83  | 2,99  | 2,87  | 2,80  | 2,86  | 2,75  | 2,87   | 2,80   | 2,79   | 2,82   | 2,79   | 2,74   | 2,76   | 2,73   |
| Water flow rate system side                                    | l/h | 35537 | 41084 | 45096 | 51279 | 60134 | 66248 | 72915 | 84728 | 94449 | 103520 | 109133 | 119060 | 130559 | 142477 | 148710 | 154781 | 161041 |
| Pressure drop system side                                      | kPa | 30    | 41    | 37    | 43    | 47    | 48    | 38    | 47    | 51    | 50     | 36     | 81     | 92     | 97     | 105    | 116    | 102    |
| <b>Heating system side 4-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Heating capacity   | kW  | 212,6 | 247,4 | 272,1 | 309,6 | 361,5 | 399,4 | 433,8 | 508,6 | 565,9 | 607,8  | 644,6  | 719,4  | 796,4  | 850,0  | 888,2  | 941,1  | 978,5  |
| Input power  | kW  | 64,9  | 76,7  | 83,1  | 95,4  | 110,8 | 123,0 | 132,9 | 156,0 | 175,8 | 186,5  | 198,8  | 223,5  | 246,9  | 265,2  | 278,3  | 295,8  | 309,0  |
| Heating total input current                                    | A   | 118,5 | 140,0 | 152,0 | 169,7 | 194,2 | 213,0 | 227,9 | 269,1 | 303,2 | 323,1  | 340,9  | 370,5  | 411,8  | 443,0  | 461,1  | 487,7  | 506,7  |
| COP  | W/W | 3,28  | 3,22  | 3,28  | 3,25  | 3,26  | 3,25  | 3,26  | 3,26  | 3,22  | 3,26   | 3,24   | 3,22   | 3,23   | 3,21   | 3,19   | 3,18   | 3,17   |
| Water flow rate system side                                    | l/h | 36883 | 42934 | 47229 | 53737 | 62755 | 69347 | 75327 | 88302 | 98238 | 105551 | 111934 | 124931 | 138301 | 147604 | 154236 | 163411 | 169910 |
| Pressure drop system side                                      | kPa | 26    | 35    | 35    | 45    | 55    | 38    | 35    | 47    | 62    | 36     | 40     | 47     | 56     | 64     | 70     | 79     | 85     |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |        |
| Cooling capacity   | kW  | 203,7 | 225,7 | 253,7 | 292,1 | 337,7 | 374,2 | 424,7 | 483,4 | 547,9 | 592,0  | 631,0  | 693,6  | 751,5  | 821,0  | 858,1  | 897,7  | 935,3  |
| Recovered heating power  | kW  | 261,4 | 290,8 | 325,1 | 376,1 | 432,7 | 481,8 | 541,8 | 619,8 | 703,9 | 754,4  | 805,3  | 889,8  | 967,1  | 1054,8 | 1104,6 | 1157,1 | 1207,4 |
| Input power  | kW  | 61,2  | 69,7  | 76,2  | 90,0  | 102,1 | 115,2 | 125,0 | 146,2 | 167,7 | 173,9  | 186,2  | 211,5  | 233,3  | 253,6  | 268,0  | 282,9  | 296,2  |
| TER  | W/W | 7,60  | 7,41  | 7,59  | 7,42  | 7,55  | 7,43  | 7,73  | 7,55  | 7,46  | 7,74   | 7,71   | 7,49   | 7,37   | 7,40   | 7,32   | 7,26   | 7,23   |
| Water flow rate cold side                                      | l/h | 35537 | 41084 | 45096 | 51279 | 60134 | 66248 | 72915 | 84728 | 94449 | 103520 | 109133 | 119060 | 130559 | 142477 | 148710 | 154781 | 161041 |
| Pressure drop cold side  | kPa | 30    | 41    | 37    | 43    | 47    | 48    | 38    | 47    | 51    | 50     | 36     | 81     | 92     | 97     | 105    | 116    | 102    |
| Water flow rate hot side                                       | l/h | 36883 | 42934 | 47229 | 53737 | 62755 | 69347 | 75327 | 88302 | 98238 | 105551 | 111934 | 124931 | 138301 | 147604 | 154236 | 163411 | 169910 |
| Pressure drop hot side   | kPa | 26    | 35    | 35    | 45    | 55    | 38    | 35    | 47    | 62    | 36     | 40     | 47     | 56     | 64     | 70     | 79     | 85     |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**With the fan option ° the data are equivalent and available from size 0800 to 2400.**

**NPG - 2 TUBI - version E**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400 | 3600 |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Fans: J</b>   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| <b>Cooling system side 2-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Cooling capacity   | kW  | 213,9 | 243,4 | 269,6 | 308,8 | 360,8 | 398,4 | 444,6 | 512,8 | 573,9  | 620,0  | 657,8  | 715,9  | 784,5  | 846,1  | 890,0  | -    | -    |
| Input power  | kW  | 68,7  | 76,3  | 85,4  | 101,5 | 114,3 | 130,4 | 142,5 | 165,0 | 189,3  | 201,0  | 217,2  | 234,8  | 256,9  | 281,9  | 301,5  | -    | -    |
| Cooling total input current                                    | A   | 121,3 | 136,1 | 151,3 | 174,3 | 193,9 | 217,6 | 235,7 | 274,9 | 315,6  | 334,8  | 358,6  | 373,4  | 414,8  | 455,7  | 474,9  | -    | -    |
| EER  | W/W | 3,11  | 3,19  | 3,16  | 3,04  | 3,16  | 3,06  | 3,12  | 3,11  | 3,03   | 3,08   | 3,03   | 3,05   | 3,05   | 3,00   | 2,95   | -    | -    |
| Water flow rate system side                                    | l/h | 36805 | 41878 | 46384 | 53119 | 62049 | 68513 | 76468 | 88195 | 98704  | 106600 | 113102 | 123130 | 134927 | 145513 | 153075 | -    | -    |
| Pressure drop system side                                      | kPa | 33    | 33    | 36    | 41    | 38    | 34    | 42    | 44    | 53     | 34     | 33     | 85     | 90     | 100    | 108    | -    | -    |
| <b>Heating system side 2-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Heating capacity   | kW  | 221,1 | 252,2 | 275,3 | 315,3 | 365,1 | 404,5 | 453,0 | 521,7 | 583,4  | 630,5  | 670,8  | 745,3  | 797,0  | 858,1  | 910,4  | -    | -    |
| Input power  | kW  | 68,9  | 79,7  | 87,0  | 99,8  | 112,1 | 124,1 | 140,1 | 160,5 | 179,3  | 196,0  | 207,7  | 234,3  | 247,8  | 266,5  | 289,1  | -    | -    |
| Heating total input current                                    | A   | 121,1 | 139,7 | 152,7 | 171,4 | 190,6 | 209,0 | 233,3 | 269,1 | 301,7  | 328,3  | 345,4  | 368,2  | 401,5  | 433,9  | 452,1  | -    | -    |
| COP  | W/W | 3,21  | 3,16  | 3,16  | 3,16  | 3,26  | 3,26  | 3,23  | 3,25  | 3,25   | 3,22   | 3,23   | 3,18   | 3,22   | 3,22   | 3,15   | -    | -    |
| Water flow rate system side                                    | l/h | 38375 | 43773 | 47791 | 54724 | 63379 | 70236 | 78653 | 90570 | 101283 | 109498 | 116479 | 129407 | 138396 | 148991 | 158070 | -    | -    |
| Pressure drop system side                                      | kPa | 28    | 37    | 36    | 47    | 57    | 39    | 38    | 50    | 65     | 39     | 44     | 60     | 67     | 79     | 88     | -    | -    |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Heating capacity   | kW  | 220,1 | 250,9 | 276,7 | 316,4 | 365,5 | 404,7 | 450,0 | 522,2 | 583,4  | 621,2  | 660,2  | 710,9  | 783,6  | 843,4  | 882,8  | -    | -    |
| Input power  | kW  | 66,3  | 77,1  | 83,5  | 96,3  | 110,8 | 123,1 | 136,1 | 158,5 | 178,5  | 188,1  | 200,4  | 218,3  | 240,4  | 259,0  | 272,2  | -    | -    |
| Heating total input current                                    | A   | 117,9 | 136,5 | 148,4 | 166,9 | 188,7 | 207,4 | 227,5 | 266,1 | 300,3  | 317,3  | 335,1  | 362,1  | 401,1  | 432,5  | 450,6  | -    | -    |
| COP  | W/W | 3,32  | 3,25  | 3,31  | 3,28  | 3,30  | 3,29  | 3,31  | 3,29  | 3,27   | 3,30   | 3,29   | 3,26   | 3,26   | 3,26   | 3,24   | -    | -    |
| Water flow rate domestic hot water side                        | l/h | 38186 | 43543 | 48035 | 54917 | 63434 | 70267 | 78140 | 90658 | 101283 | 107870 | 114640 | 123441 | 136056 | 146449 | 153287 | -    | -    |
| Pressure drop domestic hot water side                          | kPa | 28    | 36    | 36    | 47    | 57    | 39    | 38    | 50    | 65     | 37     | 42     | 54     | 65     | 76     | 83     | -    | -    |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Cooling capacity   | kW  | 203,9 | 227,9 | 255,4 | 294,4 | 344,0 | 380,9 | 424,9 | 491,4 | 550,4  | 595,8  | 637,5  | 700,1  | 766,3  | 831,0  | 872,5  | -    | -    |
| Recovered heating power  | kW  | 261,2 | 292,9 | 326,5 | 378,1 | 438,7 | 488,2 | 541,4 | 627,4 | 705,8  | 757,3  | 811,0  | 895,4  | 981,2  | 1063,9 | 1118,1 | -    | -    |
| Input power  | kW  | 61,0  | 69,3  | 75,9  | 89,7  | 101,7 | 114,6 | 124,7 | 145,9 | 167,3  | 172,6  | 185,4  | 211,1  | 233,0  | 253,4  | 267,8  | -    | -    |
| Water flow rate system side                                    | l/h | 36805 | 41878 | 46384 | 53119 | 62049 | 68513 | 76468 | 88195 | 98704  | 106600 | 113102 | 123130 | 134927 | 145513 | 153075 | -    | -    |
| Pressure drop system side                                      | kPa | 33    | 33    | 36    | 41    | 38    | 34    | 42    | 44    | 53     | 34     | 33     | 85     | 90     | 100    | 108    | -    | -    |
| Water flow rate domestic hot water side                        | l/h | 38186 | 43543 | 48035 | 54917 | 63434 | 70267 | 78140 | 90658 | 101283 | 107870 | 114640 | 123441 | 136056 | 146449 | 153287 | -    | -    |
| Pressure drop domestic hot water side                          | kPa | 28    | 36    | 36    | 47    | 57    | 39    | 38    | 50    | 65     | 37     | 42     | 54     | 65     | 76     | 83     | -    | -    |
| TER  | W/W | 7,63  | 7,51  | 7,66  | 7,49  | 7,70  | 7,59  | 7,75  | 7,67  | 7,51   | 7,84   | 7,81   | 7,56   | 7,50   | 7,48   | 7,43   | -    | -    |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C; All units are Eurovent certified

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side 40 °C / 45 °C;

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**With the fan option ° the data are equivalent and available from size 0800 to 2400.**

**NPG - 4 TUBI - version E**

| Size   |     | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400 | 3600 |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|------|------|
| <b>Fans: J</b>   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| <b>Cooling system side 4-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Cooling capacity   | kW  | 213,9 | 243,4 | 269,6 | 308,8 | 360,8 | 398,4 | 444,6 | 512,8 | 573,9  | 620,0  | 657,8  | 715,9  | 784,5  | 846,1  | 890,0  | -    | -    |
| Input power  | kW  | 68,7  | 76,3  | 85,4  | 101,5 | 114,3 | 130,4 | 142,5 | 165,0 | 189,3  | 201,0  | 217,2  | 234,8  | 256,9  | 281,9  | 301,5  | -    | -    |
| Cooling total input current                                    | A   | 121,3 | 136,1 | 151,3 | 174,3 | 193,9 | 217,6 | 235,7 | 274,9 | 315,6  | 334,8  | 358,6  | 373,4  | 414,8  | 455,7  | 474,9  | -    | -    |
| EER  | W/W | 3,11  | 3,19  | 3,16  | 3,04  | 3,16  | 3,06  | 3,12  | 3,11  | 3,03   | 3,08   | 3,03   | 3,05   | 3,05   | 3,00   | 2,95   | -    | -    |
| Water flow rate system side                                    | l/h | 36805 | 41878 | 46384 | 53119 | 62049 | 68513 | 76468 | 88195 | 98704  | 106600 | 113102 | 123130 | 134927 | 145513 | 153075 | -    | -    |
| Pressure drop system side                                      | kPa | 33    | 33    | 36    | 41    | 38    | 34    | 42    | 44    | 53     | 34     | 33     | 85     | 90     | 100    | 108    | -    | -    |
| <b>Heating system side 4-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Heating capacity   | kW  | 220,1 | 250,9 | 276,7 | 316,4 | 365,5 | 404,7 | 450,0 | 522,2 | 583,4  | 621,2  | 660,2  | 710,9  | 783,6  | 843,4  | 882,8  | -    | -    |
| Input power  | kW  | 66,3  | 77,1  | 83,5  | 96,3  | 110,8 | 123,1 | 136,1 | 158,5 | 178,5  | 188,1  | 200,4  | 218,3  | 240,4  | 259,0  | 272,2  | -    | -    |
| Heating total input current                                    | A   | 117,9 | 136,5 | 148,4 | 166,9 | 188,7 | 207,4 | 227,5 | 266,1 | 300,3  | 317,3  | 335,1  | 362,1  | 401,1  | 432,5  | 450,6  | -    | -    |
| COP  | W/W | 3,32  | 3,25  | 3,31  | 3,28  | 3,30  | 3,29  | 3,31  | 3,29  | 3,27   | 3,30   | 3,29   | 3,26   | 3,26   | 3,26   | 3,24   | -    | -    |
| Water flow rate system side                                    | l/h | 38186 | 43543 | 48035 | 54917 | 63434 | 70267 | 78140 | 90658 | 101283 | 107870 | 114640 | 123441 | 136056 | 146449 | 153287 | -    | -    |
| Pressure drop system side                                      | kPa | 28    | 36    | 36    | 47    | 57    | 39    | 38    | 50    | 65     | 37     | 42     | 54     | 65     | 76     | 83     | -    | -    |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |       |       |       |       |       |       |       |       |        |        |        |        |        |        |        |      |      |
| Cooling capacity   | kW  | 203,9 | 227,9 | 255,4 | 294,4 | 344,0 | 380,9 | 424,9 | 491,4 | 550,4  | 595,8  | 637,5  | 700,1  | 766,3  | 831,0  | 872,5  | -    | -    |
| Recovered heating power  | kW  | 261,2 | 292,9 | 326,5 | 378,1 | 438,7 | 488,2 | 541,4 | 627,4 | 705,8  | 757,3  | 811,0  | 895,4  | 981,2  | 1063,9 | 1118,1 | -    | -    |
| Input power  | kW  | 61,0  | 69,3  | 75,9  | 89,7  | 101,7 | 114,6 | 124,7 | 145,9 | 167,3  | 172,6  | 185,4  | 211,1  | 233,0  | 253,4  | 267,8  | -    | -    |
| TER  | W/W | 7,63  | 7,51  | 7,66  | 7,49  | 7,70  | 7,59  | 7,75  | 7,67  | 7,51   | 7,84   | 7,81   | 7,56   | 7,50   | 7,48   | 7,43   | -    | -    |
| Water flow rate cold side                                      | l/h | 36805 | 41878 | 46384 | 53119 | 62049 | 68513 | 76468 | 88195 | 98704  | 106600 | 113102 | 123130 | 134927 | 145513 | 153075 | -    | -    |
| Pressure drop cold side  | kPa | 33    | 33    | 36    | 41    | 38    | 34    | 42    | 44    | 53     | 34     | 33     | 85     | 90     | 100    | 108    | -    | -    |
| Water flow rate hot side                                       | l/h | 38186 | 43543 | 48035 | 54917 | 63434 | 70267 | 78140 | 90658 | 101283 | 107870 | 114640 | 123441 | 136056 | 146449 | 153287 | -    | -    |
| Pressure drop hot side   | kPa | 28    | 36    | 36    | 47    | 57    | 39    | 38    | 50    | 65     | 37     | 42     | 54     | 65     | 76     | 83     | -    | -    |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

**With the fan option ° the data are equivalent and available from size 0800 to 2400.**

**ENERGY DATA**

| Size   |   | 0800 | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|--|---|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W  | 4,20   | 4,40   | 4,29   | 4,19   | 4,41   | 4,29   | 4,43   | 4,49   | 4,47   | 4,56   | 4,56   | 4,59   | 4,56   | 4,57   | 4,57   | 4,56   |
|  | E | W/W  | 4,57   | 4,65   | 4,63   | 4,55   | 4,70   | 4,60   | 4,71   | 4,73   | 4,68   | 4,76   | 4,67   | 4,65   | 4,66   | 4,61   | 4,59   | -      |
| Seasonal efficiency  | A | %    | 165,03 | 172,97 | 168,76 | 164,40 | 173,36 | 168,76 | 174,26 | 176,46 | 175,86 | 179,30 | 179,22 | 179,43 | 180,62 | 179,36 | 179,90 | 179,63 |
|  | E | %    | 179,65 | 183,16 | 182,27 | 179,15 | 185,06 | 181,08 | 185,47 | 186,03 | 184,37 | 187,25 | 183,96 | 183,11 | 183,49 | 181,33 | 180,56 | -      |
| <b>SEER - 23/18 (EN14825:2018) (2)</b>   |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | A | W/W  | 4,89   | 5,03   | 4,96   | 4,79   | 4,97   | 4,86   | 5,01   | 5,07   | 5,08   | 5,13   | 5,19   | 4,84   | 5,04   | 5,00   | 4,98   | 4,97   |
|  | E | W/W  | 5,28   | 5,36   | 5,28   | 5,20   | 5,32   | 5,26   | 5,30   | 5,33   | 5,23   | 5,42   | 5,34   | 5,06   | 5,13   | 5,02   | 4,96   | -      |
| Seasonal efficiency  | A | %    | 192,45 | 198,11 | 195,26 | 188,53 | 195,85 | 191,60 | 197,44 | 199,91 | 200,14 | 202,39 | 204,66 | 190,78 | 198,71 | 196,88 | 196,19 | 195,61 |
|  | E | %    | 208,28 | 211,38 | 208,24 | 205,01 | 209,61 | 207,42 | 208,88 | 210,16 | 203,23 | 213,78 | 210,79 | 199,57 | 202,26 | 197,68 | 195,39 | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | A | kW   | 186,20 | 213,96 | 236,22 | 271,27 | 315,32 | 351,43 | 382,83 | 446,83 | 497,81 | 534,41 | 569,02 | 608,69 | 665,85 | 715,17 | 748,86 | 791,03 |
|  | E | kW   | 190,10 | 215,96 | 238,70 | 275,27 | 316,62 | 353,47 | 392,97 | 454,77 | 508,34 | 542,88 | 578,33 | 613,29 | 668,22 | 719,87 | 752,39 | -      |
| SCOP   | A | W/W  | 3,87   | 3,63   | 3,78   | 3,76   | 3,69   | 3,83   | 3,95   | 3,93   | 3,94   | 4,00   | 4,04   | 4,00   | 4,01   | 3,94   | 3,90   | 3,82   |
|  | E | W/W  | 3,77   | 3,62   | 3,70   | 3,79   | 3,66   | 3,77   | 3,88   | 3,85   | 3,86   | 3,97   | 3,99   | 3,99   | 3,95   | 3,88   | 3,85   | -      |
| ηsh  | A | %    | 151,87 | 142,21 | 148,35 | 147,20 | 144,52 | 150,05 | 154,81 | 154,14 | 154,62 | 157,05 | 158,56 | 157,04 | 157,40 | 154,48 | 153,03 | 149,67 |
|  | E | %    | 147,93 | 141,65 | 145,12 | 148,62 | 143,52 | 147,88 | 152,37 | 150,92 | 151,58 | 155,88 | 156,50 | 156,42 | 154,93 | 152,14 | 150,89 | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (4)</b> |   |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | A | kW   | 185,78 | 212,98 | 235,97 | 271,79 | 313,94 | 350,10 | 381,59 | 387,17 | 392,43 | 532,03 | 567,53 | 602,48 | 658,22 | 708,61 | 742,95 | 782,40 |
|  | E | kW   | 189,21 | 214,50 | 237,49 | 274,43 | 314,36 | 350,59 | 388,48 | 390,59 | 396,25 | 537,99 | 573,77 | 604,91 | 658,86 | 710,94 | 744,60 | -      |
| SCOP   | A | W/W  | 3,16   | 3,03   | 3,14   | 3,10   | 3,05   | 3,08   | 3,13   | 3,22   | 3,13   | 3,23   | 3,25   | 3,23   | 3,37   | 3,37   | 3,34   | 3,32   |
|  | E | W/W  | 3,14   | 3,03   | 3,08   | 3,14   | 3,07   | 3,07   | 3,12   | 3,18   | 3,07   | 3,24   | 3,24   | 3,26   | 3,34   | 3,35   | 3,33   | -      |
| ηsh  | A | %    | 123,43 | 118,15 | 122,48 | 120,99 | 119,19 | 120,37 | 122,24 | 125,88 | 122,33 | 126,23 | 126,91 | 126,16 | 131,68 | 131,69 | 130,60 | 129,69 |
|  | E | %    | 122,51 | 118,32 | 120,32 | 122,74 | 119,65 | 119,67 | 121,63 | 124,10 | 119,81 | 126,61 | 126,64 | 127,26 | 130,52 | 130,96 | 130,03 | -      |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for low temperature applications (35 °C)

(4) Efficiencies for average temperature applications (55 °C)

| Size   |   |     | 0800   | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|--|---|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|
| <b>Fans: °</b>   |   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |      |      |      |      |
| <b>SEER - 12/7 (EN14825: 2018) (1)</b>   |   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |      |      |      |      |
| SEER   | A | W/W | 3,91   | 4,19   | 4,10   | 4,02   | 4,24   | 4,11   | 4,20   | 4,23   | 4,17   | -(2)   | -(2)   | -    | -    | -    | -    | -    | -    |
|  | E | W/W | 4,28   | 4,43   | 4,45   | 4,37   | 4,51   | 4,39   | 4,53   | 4,50   | 4,38   | 4,56   | -(2)   | -    | -    | -    | -    | -    | -    |
| Seasonal efficiency  | A | %   | 153,42 | 164,55 | 160,94 | 157,62 | 166,50 | 161,53 | 165,09 | 166,23 | 163,91 | -(2)   | -(2)   | -    | -    | -    | -    | -    | -    |
|  | E | %   | 168,35 | 174,04 | 174,86 | 171,66 | 177,32 | 172,45 | 178,03 | 176,91 | 172,17 | 179,53 | -(2)   | -    | -    | -    | -    | -    | -    |
| <b>SEER - 23/18 (EN14825: 2018) (3)</b>  |   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |      |      |      |      |
| SEER   | A | W/W | 4,55   | 4,79   | 4,75   | 4,59   | 4,77   | 4,67   | 4,76   | 4,80   | 4,74   | 4,79   | 4,83   | -    | -    | -    | -    | -    | -    |
|  | E | W/W | 4,97   | 5,10   | 5,07   | 4,98   | 5,08   | 5,02   | 5,10   | 5,09   | 4,93   | 5,22   | 5,12   | -    | -    | -    | -    | -    | -    |
| Seasonal efficiency  | A | %   | 179,15 | 188,60 | 186,82 | 180,78 | 187,65 | 183,75 | 187,30 | 188,88 | 186,64 | 188,56 | 190,36 | -    | -    | -    | -    | -    | -    |
|  | E | %   | 195,67 | 201,20 | 199,97 | 196,33 | 200,32 | 197,97 | 200,81 | 200,73 | 194,03 | 205,60 | 201,99 | -    | -    | -    | -    | -    | -    |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (4)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |      |      |      |      |
| Pdesignh   | A | kW  | 186,20 | 213,96 | 236,22 | 271,27 | 315,32 | 351,43 | 382,83 | 387,17 | 392,43 | 534,41 | 569,02 | -    | -    | -    | -    | -    | -    |
|  | E | kW  | 190,10 | 215,96 | 238,70 | 275,27 | 316,62 | 353,47 | 392,97 | 390,59 | 396,25 | 542,88 | 578,33 | -    | -    | -    | -    | -    | -    |
| SCOP   | A | W/W | 3,75   | 3,52   | 3,68   | 3,66   | 3,60   | 3,75   | 3,86   | 3,82   | 3,87   | 3,90   | 3,94   | -    | -    | -    | -    | -    | -    |
|  | E | W/W | 3,65   | 3,51   | 3,61   | 3,70   | 3,57   | 3,64   | 3,79   | 3,71   | 3,77   | 3,85   | 3,88   | -    | -    | -    | -    | -    | -    |
| ηsh  | A | %   | 147,08 | 137,96 | 144,14 | 143,49 | 141,02 | 146,85 | 151,49 | 149,87 | 151,80 | 153,02 | 154,74 | -    | -    | -    | -    | -    | -    |
|  | E | %   | 143,08 | 137,31 | 141,51 | 144,82 | 139,84 | 142,66 | 148,63 | 145,46 | 147,80 | 151,00 | 152,20 | -    | -    | -    | -    | -    | -    |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (5)</b> |   |     |        |        |        |        |        |        |        |        |        |        |        |      |      |      |      |      |      |
| Pdesignh   | A | kW  | 185,78 | 212,98 | 235,97 | 271,79 | 313,94 | 350,10 | 381,59 | 387,17 | 392,43 | 532,03 | 567,53 | -    | -    | -    | -    | -    | -    |
|  | E | kW  | 189,21 | 214,50 | 237,49 | 274,43 | 314,36 | 350,59 | 388,48 | 390,59 | 396,25 | 537,99 | 573,77 | -    | -    | -    | -    | -    | -    |
| SCOP   | A | W/W | 3,06   | 2,94   | 3,05   | 3,02   | 2,98   | 3,02   | 3,06   | 3,12   | 3,13   | 3,15   | 3,17   | -    | -    | -    | -    | -    | -    |
|  | E | W/W | 3,03   | 2,94   | 3,01   | 3,06   | 2,99   | 2,96   | 3,04   | 3,05   | 3,07   | 3,14   | 3,15   | -    | -    | -    | -    | -    | -    |
| ηsh  | A | %   | 119,46 | 114,54 | 118,93 | 117,87 | 116,20 | 117,74 | 119,57 | 121,93 | 122,33 | 122,86 | 123,75 | -    | -    | -    | -    | -    | -    |
|  | E | %   | 118,39 | 114,59 | 117,24 | 119,51 | 116,46 | 115,34 | 118,58 | 119,01 | 119,81 | 122,48 | 123,02 | -    | -    | -    | -    | -    | -    |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C

(3) Calculation performed with FIXED water flow rate.

(4) Efficiencies for low temperature applications (35 °C)

(5) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

| Size                  |   |   | 0800  | 0900  | 1000  | 1100  | 1200  | 1400  | 1600  | 1800  | 2000  | 2200  | 2400  | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|-----------------------|---|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>Electric data</b>  |   |   |       |       |       |       |       |       |       |       |       |       |       |        |        |        |        |        |        |
| Maximum current (FLA) | A | A | 158,8 | 185,4 | 204,2 | 232,0 | 267,6 | 295,4 | 323,2 | 376,2 | 421,4 | 457,0 | 484,8 | 542,5  | 596,1  | 641,9  | 669,8  | 705,5  | 733,3  |
|                       | E | A | 166,6 | 193,2 | 212,0 | 239,8 | 275,4 | 303,2 | 338,8 | 391,8 | 437,0 | 472,6 | 500,4 | 558,1  | 611,7  | 657,5  | 685,4  | -      | -      |
| Peak current (LRA)    | A | A | 363,0 | 427,2 | 446,0 | 695,0 | 730,6 | 758,4 | 786,2 | 839,2 | 884,4 | 920,0 | 947,8 | 1004,8 | 1058,4 | 1104,2 | 1132,1 | 1167,8 | 1195,6 |
|                       | E | A | 370,8 | 435,0 | 453,8 | 702,8 | 738,4 | 766,2 | 801,8 | 854,8 | 900,0 | 935,6 | 963,4 | 1020,4 | 1074,0 | 1119,8 | 1147,7 | -      | -      |

## GENERAL TECHNICAL DATA

| Size   |     |      | 0800           | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|--|-----|------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Compressor</b>  |     |      |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | A,E | type | Scroll         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Compressor regulation  | A,E | Type | On-Off         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | A   | no.  | 4              | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    | 7    | 8    | 9    | 9    | 9    | 9    |
|  | E   | no.  | 4              | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 6    | 6    | 6    | 7    | 8    | 9    | 9    | -    | -    |
| Circuits   | A   | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    |
|  | E   | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | -    | -    |
| Refrigerant  | A,E | type | R32            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Refrigerant load circuit 1 (1)   | A   | kg   | 14,5           | 19,7 | 24,6 | 22,5 | 29,0 | 28,0 | 32,0 | 38,6 | 40,9 | 42,6 | 43,7 | 32,0 | 48,3 | 51,1 | 51,1 | 53,2 | 54,6 |
|  | E   | kg   | 16,0           | 28,5 | 29,3 | 29,7 | 31,9 | 30,8 | 35,2 | 40,8 | 42,9 | 45,0 | 41,4 | 35,2 | 60,2 | 67,6 | 67,6 | -    | -    |
| Refrigerant load circuit 2 (1)   | A   | kg   | 15,0           | 19,7 | 24,6 | 23,0 | 30,0 | 28,0 | 32,0 | 38,6 | 40,9 | 42,6 | 43,7 | 32,0 | 48,3 | 51,1 | 51,1 | 53,2 | 54,6 |
|  | E   | kg   | 16,5           | 28,5 | 29,3 | 29,3 | 33,0 | 30,8 | 35,2 | 40,8 | 42,9 | 45,0 | 41,4 | 35,2 | 60,2 | 67,6 | 67,6 | -    | -    |
| Refrigerant load circuit 3 (1)   | A   | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 44,0 | 44,0 | 44,0 | 44,0 | 44,0 | 44,0 |
|  | E   | kg   | -              | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 44,0 | 44,0 | 44,0 | 44,0 | -    | -    |
| <b>2-pipe system - System side heat exchanger (hot/cold)</b>             |     |      |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | A,E | type | Braze plate    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | A   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    |
|  | E   | no.  | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | -    | -    |
| Connections (in/out)   | A,E | Type | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)   | A   | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   |
|  | E   | Ø    | 3"             | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | -    | -    |
| <b>2-pipe system - Recovery side heat exchanger (domestic hot water)</b> |     |      |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | A,E | type | Braze plate    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | A   | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    |
|  | E   | no.  | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | -    | -    |
| Connections (in/out)   | A,E | Type | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)   | A   | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   |
|  | E   | Ø    | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | -    | -    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

| Size   |     |       | 0800           | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 | 3200 | 3400 | 3600 |
|--|-----|-------|----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>4-pipe system - System side heat exchanger (cold side)</b>  |     |       |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | A,E | type  | Brazen plate   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | A   | no.   | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    |
|  | E   | no.   | 1              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | -    | -    |
| Connections (in/out)   | A,E | Type  | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)   | A   | Ø     | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   |
|  | E   | Ø     | 3"             | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | -    | -    |
| <b>4-pipe system - Recovery side heat exchanger (hot side)</b> |     |       |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Type   | A,E | type  | Brazen plate   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Number   | A   | no.   | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    |
|  | E   | no.   | 2              | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | -    | -    |
| Connections (in/out)   | A,E | Type  | Grooved joints |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sizes (in/out)   | A   | Ø     | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   |
|  | E   | Ø     | 3"             | 3"   | 3"   | 3"   | 3"   | 4"   | 4"   | 4"   | 4"   | 5"   | 5"   | 5"   | 5"   | 5"   | 5"   | -    | -    |
| <b>Sound data calculated in cooling mode (2)</b>               |     |       |                |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Sound power level  | A   | dB(A) | 90,5           | 92,2 | 92,2 | 92,3 | 93,6 | 93,6 | 93,7 | 94,6 | 94,7 | 95,4 | 95,5 | 95,6 | 96,1 | 96,1 | 96,2 | 96,7 | 96,8 |
|  | E   | dB(A) | 85,2           | 86,2 | 86,2 | 87,0 | 88,3 | 88,8 | 89,7 | 90,1 | 90,2 | 90,9 | 91,2 | 92,2 | 92,5 | 92,6 | 92,8 | -    | -    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

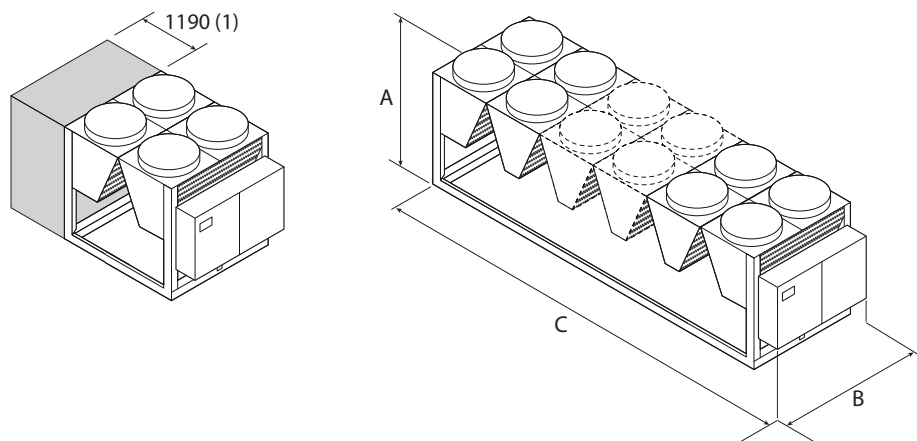
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## FANS DATA

| Size           |     |      | 0800     | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
|----------------|-----|------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Fans: J</b> |     |      |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>     |     |      |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type           | A,E | type | Axial    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Fan motor      | A,E | type | Inverter |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Number         | A   | no.  | 4        | 6      | 6      | 6      | 8      | 8      | 8      | 10     | 10     | 12     | 12     | 14     | 16     | 16     | 16     | 18     | 18     |
|                | E   | no.  | 6        | 8      | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     | 16     | 18     | 20     | 20     | 20     | -      | -      |
| Air flow rate  | A   | m³/h | 82403    | 123609 | 123609 | 123605 | 164779 | 164779 | 164779 | 205996 | 205998 | 247152 | 247152 | 289826 | 331230 | 331230 | 331230 | 372633 | 372633 |
|                | E   | m³/h | 102378   | 136491 | 136491 | 136491 | 170613 | 170613 | 204757 | 238871 | 238871 | 272982 | 272982 | 305065 | 338981 | 338961 | 338960 | -      | -      |
| Size           |     |      | 0800     | 0900   | 1000   | 1100   | 1200   | 1400   | 1600   | 1800   | 2000   | 2200   | 2400   | 2600   | 2800   | 3000   | 3200   | 3400   | 3600   |
| <b>Fans: °</b> |     |      |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| <b>Fan</b>     |     |      |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Type           | A,E | type | Axial    | Axial  | Axial  | Axial  | Axial  | Axial  | Axial  | Axial  | Axial  | Axial  | Axial  | -      | -      | -      | -      | -      | -      |
| Fan motor      | A,E | type | -(1)     | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -(1)   | -      | -      | -      | -      | -      | -      |
| Number         | A   | no.  | 4        | 6      | 6      | 6      | 8      | 8      | 8      | 10     | 10     | 12     | 12     | -      | -      | -      | -      | -      | -      |
|                | E   | no.  | 6        | 8      | 8      | 8      | 10     | 10     | 12     | 14     | 14     | 16     | 16     | -      | -      | -      | -      | -      | -      |
| Air flow rate  | A   | m³/h | 82403    | 123609 | 123609 | 123605 | 164779 | 164779 | 164779 | 205996 | 205998 | 247152 | 247152 | -      | -      | -      | -      | -      | -      |
|                | E   | m³/h | 102378   | 136491 | 136491 | 136491 | 170613 | 170613 | 204757 | 238871 | 238871 | 272982 | 272982 | -      | -      | -      | -      | -      | -      |

(1) On-Off with DCPX

## DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "pump" option in sizes:  
NPG 0800 A

| Size   |   |    | 0800 | 0900 | 1000 | 1100 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600  | 2800  | 3000  | 3200  | 3400  | 3600  |
|--|---|----|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Dimensions and weights without hydronic kit</b> |   |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A  | A | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|  | E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | -     | -     |
| B  | A | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|  | E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | -     | -     |
| C  | A | mm | 2820 | 4010 | 4010 | 4010 | 5200 | 5200 | 5200 | 6390 | 6390 | 7580 | 7580 | 9960  | 11150 | 11150 | 11150 | 12340 | 12340 |
|  | E | mm | 4010 | 5200 | 5200 | 5200 | 6390 | 6390 | 7580 | 8770 | 8770 | 9960 | 9960 | 12340 | 13530 | 13530 | 13530 | -     | -     |
| Empty weight                                       | A | kg | 2575 | 3120 | 3130 | 3325 | 4115 | 4305 | 4605 | 5400 | 5805 | 6640 | 6740 | 8254  | 9076  | 9471  | 9571  | 10323 | 10413 |
|  | E | kg | 3085 | 3745 | 3755 | 3955 | 4690 | 4865 | 5565 | 6400 | 6780 | 7690 | 7825 | 9268  | 10175 | 10540 | 10640 | -     | -     |
| <b>Dimensions and weights with pump/s</b>          |   |    |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |
| A  | A | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | 2450  | 2450  |
|  | E | mm | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450 | 2450  | 2450  | 2450  | 2450  | -     | -     |
| B  | A | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | 2200  | 2200  |
|  | E | mm | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200 | 2200  | 2200  | 2200  | 2200  | -     | -     |
| C  | A | mm | 4010 | 4010 | 4010 | 4010 | 5200 | 5200 | 5200 | 6390 | 6390 | 7580 | 7580 | 9960  | 11150 | 11150 | 11150 | 12340 | 12340 |
|  | E | mm | 4010 | 5200 | 5200 | 5200 | 6390 | 6390 | 7580 | 8770 | 8770 | 9960 | 9960 | 12340 | 13530 | 13530 | 13530 | -     | -     |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## CPS

## Multifunction unit with multiple temperature level capability

Cooling capacity 164 ÷ 491 kW  
 Heating capacity 176 ÷ 505 kW

- **Multipurpose 6 pipes plug and play system**
- **Simultaneous and independent production of chilled water, medium temperature hot water and high temperature hot water (also suitable for domestic use)**
- **Uses heat recovery for simultaneous cooling and heating**



### DESCRIPTION

The multi-purpose 6-pipe units CPS are designed for residential buildings and accommodation facilities that require the simultaneous availability of heating and cooling for the rooms, along with high-temperature water (up to 73°C on the machine outlet) for heating needs and/or DHW production.

**Each single service (cooling, medium-temperature heating, high-temperature hot water) can be supplied independently of the request for the others.**

The versatile functions, extended operating limits and simplified installation of these units mean that they can also be used in a variety of different industrial processes.

CPS the ideal solution for both new installations and upgrading existing systems.

### FEATURES

#### Operating field

Possibility to produce water up to 73°C, using mainly free-heating for cooling requests.

#### 2 dual circuit units

Created by combining and optimising, in a single system, an NRP series 4-pipe multifunction air-water unit (with scroll compressors and R410A refrigerant) **for the production of chilled water and medium temperature hot water on the heating/cooling circuit side**, and a WWB series water-water heat pump (with scroll compressors and R134a refrigerant) **for the production of domestic hot water (DHW).**

#### Constructional characteristics of unit

CPS units can be installed and operated even in locations with limit space, offering significant time savings in terms of both system planning and installation, while tried-and-tested, optimised management logic makes it possible to create plug-and-play systems with superior reliability and efficiency.

These units consist of:

#### 4 cooling circuits

- 2 circuits (C1/C2) with R410A gas
- 2 circuits (C2/C3) with R134a gas

#### 3 plate heat exchanger

- 1 Plate heat exchanger for chilled water

- 1 Plate heat exchanger for medium temperature hot water
- 1 Inspectable **stainless steel** plate heat exchanger for high temperature hot water production (DHW)

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

#### Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

#### Option integrated hydronic kit

To create a solution which offers both cost savings and facilitated installation, these units may be configured with an integrated hydronic kit on the chilled water utility side. A hydronic kit must always be used, however, on the medium temperature water side.

These kits include all the main plumbing components necessary, and are available in a variety of configurations with either a single pump or with a backup pump to offer a choice of different total head values.

■ **Flow switches must be installed on both the cold and medium temperature water utility circuits to protect the heat exchangers. Failure to do so will render the warranty null and void.**

#### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP control:** Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load. **ESEER up to +7% with inverter fans**

— **Night mode:** only in the **non-silenced** versions is it possible to set a silenced operating mode, which is useful for example at night for greater

## CONFIGURATOR

| Field   | Description   |
|---------|---|
| 1,2,3   | CPS   |
| 4,5,6,7 | Size<br>0704, 1004, 1805                              |
| 8       | Coils   |
| R       | Copper pipes-copper fins                              |
| S       | Copper pipes-Tinned copper fins                       |
| V       | Copper pipes-Coated aluminium fins                    |
| °       | Copper-aluminium                                      |
| 9       | Fans  |
| J       | Inverter  |
| °       | Asynchronous + DCPX                                   |
| 10      | Power supply  |
| S       | 400V ~ 3 50Hz with soft-start                         |
| °       | 400V ~ 3 50Hz with magnet circuit breakers            |
| 11,12   | Hydronic kit integrated on chilled water utility side |
| 00      | Without hydronic kit                                  |
| DA      | Pump A + stand-by pump                                |
| DB      | Pump B + stand-by pump                                |
| DC      | Pump C + stand-by pump                                |
| DD      | Pump D + stand-by pump                                |
| DE      | Pump E + stand-by pump                                |
| DF      | Pump F + stand-by pump                                |
| DG      | Pump G + stand-by pump                                |
| DH      | Pump H + stand-by pump                                |
| DI      | Pump I + stand-by pump                                |
| PA      | Pump A  |
| PB      | Pump B  |

## COMPATIBILITY BETWEEN DIFFERENT HYDRONIC KITS

These kits include all the main plumbing components necessary, and are available in a variety of configurations with either a single pump or with a backup pump to offer a choice of different total head values.

acoustic comfort but always guarantees performance even at peak load times.

| Field | Description  |
|-------|--|
| PC    | Pump C   |
| PD    | Pump D   |
| PE    | Pump E   |
| PF    | Pump F   |
| PG    | Pump G   |
| PH    | Pump H   |
| PI    | Pump I   |
| 13,14 | Hydronic kit integrated on medium temperature water utility side |
| RA    | Pump A   |
| RB    | Pump B   |
| RC    | Pump C   |
| RD    | Pump D   |
| RE    | Pump E   |
| RF    | Pump F   |
| RG    | Pump G   |
| RH    | Pump H   |
| RI    | Pump I   |
| SA    | Pump A + stand-by pump   |
| SB    | Pump B + stand-by pump   |
| SC    | Pump C + stand-by pump   |
| SD    | Pump D + stand-by pump   |
| SE    | Pump E + stand-by pump   |
| SF    | Pump F + stand-by pump   |
| SG    | Pump G + stand-by pump   |
| SH    | Pump H + stand-by pump   |
| SI    | Pump I + stand-by pump   |

The following table illustrates the compatibility between different unit sizes and the hydronic kits.

**All units must be configured with the medium temperature water side hydronic kit.**

|                            | CPS0704 | CPS1004 | CPS1805 |   | CPS0704 | CPS1004 | CPS1805 |
|----------------------------|---------|---------|---------|---|---------|---------|---------|
| Pumps -<br>COLD WATER side | PA-DA   | PA-DA   |         | Pumps -<br>HOT WATER<br>(AVERAGE TEMPERATURE)<br>side | RA-SA   | RA-SA   |         |
|                            | PB-DB   | PB-DB   |         |   | RB-SB   | RB-SB   |         |
|                            | PC-DC   | PC-DC   | PC-DC   |   | RC-SC   | RC-SC   | RC-SC   |
|                            | PD-DD   | PD-DD   | PD-DD   |   | RD-SD   | RD-SD   | RD-SD   |
|                            | PE-DE   | PE-DE   | PE-DE   |   | RE-SE   |         | RE-SE   |
|                            | PF-DF   |         | PF-DF   |   | RF-SF   |         | RF-SF   |
|                            | PG-DG   |         |         |   | RG-SG   |         | RG-SG   |
|                            | PH-DH   |         |         |   | RH-SH   |         | RH-SH   |
|                            | PI-DI   |         |         |   | RI-SI   |         | RI-SI   |

## PERFORMANCE SPECIFICATIONS

|  |     | CPS0704 <sup>000</sup> 00RA | CPS1004 <sup>000</sup> 00RC | CPS1805 <sup>000</sup> 00RE |
|--|-----|-----------------------------|-----------------------------|-----------------------------|
| <b>Household system side cooling (1)</b>   |     |                             |                             |                             |
| Cooling capacity   | kW  | 163,9                       | 259,2                       | 490,5                       |
| Input power  | kW  | 53,2                        | 86,3                        | 165,7                       |
| Cooling total input current  | A   | 97,0                        | 128,0                       | 239,0                       |
| EER  | W/W | 3,08                        | 3,00                        | 2,96                        |
| Water flow rate system side  | l/h | 28212                       | 44593                       | 84370                       |
| Pressure drop system side  | kPa | 32                          | 34                          | 49                          |
| <b>Medium temperature system heating (2)</b>   |     |                             |                             |                             |
| Heating capacity   | kW  | 175,2                       | 271,8                       | 503,5                       |
| Input power  | kW  | 55,8                        | 86,5                        | 161,7                       |
| Heating total input current  | A   | 104,0                       | 136,0                       | 250,0                       |
| COP  | W/W | 3,14                        | 3,14                        | 3,11                        |
| Water flow rate system side  | l/h | 30521                       | 47339                       | 87653                       |
| Useful head system side  | kPa | 99                          | 120                         | 113                         |
| <b>High temperature system side heating (DHW) (3)</b>  |     |                             |                             |                             |
| Heating capacity (DHW)   | kW  | 90,7                        | 177,4                       | 251,9                       |
| Input power  | kW  | 48,4                        | 85,3                        | 144,3                       |
| Heating total input current  | A   | 88,0                        | 134,0                       | 211,0                       |
| COP  | W/W | 1,87                        | 2,08                        | 1,75                        |
| Water flow rate domestic hot water side  | l/h | 7897                        | 15442                       | 21924                       |
| Pressure drop domestic hot water side  | kPa | 30                          | 40                          | 39                          |
| <b>Simultaneous operation (cooling + medium temperature heating) (4)</b>                                   |     |                             |                             |                             |
| Cooling capacity   | kW  | 163,3                       | 258,3                       | 466,2                       |
| Heating capacity   | kW  | 207,8                       | 330,2                       | 600,6                       |
| Input power  | kW  | 48,4                        | 78,7                        | 147,7                       |
| Total input current  | A   | 92                          | 136                         | 253                         |
| TER  | W/W | 7,66                        | 7,47                        | 7,22                        |
| Water flow rate cold side  | l/h | 28212                       | 45593                       | 84370                       |
| Pressure drop cold side  | kPa | 32                          | 34                          | 49                          |
| Water flow rate hot side   | l/h | 30521                       | 47339                       | 87653                       |
| Useful head system side  | kPa | 99                          | 120                         | 113                         |
| <b>Simultaneous operation (cooling + high temperature DHW production) (5)</b>                              |     |                             |                             |                             |
| Cooling capacity   | kW  | 160,0                       | 250,0                       | 463,5                       |
| Heating capacity (DHW)   | kW  | 90,7                        | 177,4                       | 251,9                       |
| Input power  | kW  | 70,7                        | 124,1                       | 217,0                       |
| Total input current  | A   | 126                         | 191                         | 333                         |
| TER  | W/W | 3,54                        | 3,45                        | 3,30                        |
| Water flow rate cold side  | l/h | 27536                       | 43003                       | 79720                       |
| Pressure drop cold side  | kPa | 30                          | 31                          | 44                          |
| Water flow rate domestic hot water side  | l/h | 7899                        | 15442                       | 21924                       |
| Pressure drop domestic hot water side  | kPa | 30                          | 40                          | 39                          |
| <b>Simultaneous operation (medium temperature heating + high temperature DHW production) (6)</b>           |     |                             |                             |                             |
| Heating capacity   | kW  | 101,4                       | 129,5                       | 304,2                       |
| Heating capacity (DHW)   | kW  | 90,5                        | 177,0                       | 251,3                       |
| Input power  | kW  | 73,7                        | 123,9                       | 215,6                       |
| Total input current  | A   | 137                         | 196                         | 341                         |
| TER  | W/W | 2,60                        | 2,47                        | 2,58                        |
| Water flow rate hot side   | l/h | 17696                       | 22604                       | 53038                       |
| Useful head system side  | kPa | 158                         | 189                         | 256                         |
| Water flow rate domestic hot water side  | l/h | 7897                        | 15442                       | 21924                       |
| Pressure drop domestic hot water side  | kPa | 30                          | 40                          | 39                          |
| <b>Simultaneous operation (cooling + medium temperature heating + high temperature DHW production) (7)</b> |     |                             |                             |                             |
| Cooling capacity   | kW  | 163,3                       | 258,3                       | 466,2                       |
| Heating capacity   | kW  | 134,0                       | 187,9                       | 401,4                       |
| Heating capacity (DHW)   | kW  | 90,5                        | 177,0                       | 251,3                       |
| Total input power  | kW  | 66,7                        | 116,6                       | 204,1                       |
| Total input current  | A   | 125                         | 199                         | 347                         |
| TER  | W/W | 5,81                        | 5,35                        | 5,48                        |
| Water flow rate cold side  | l/h | 28212                       | 44593                       | 84370                       |
| Pressure drop cold side  | kPa | 32                          | 34                          | 49                          |
| Water flow rate hot side   | l/h | 30521                       | 47339                       | 87653                       |
| Useful head system side  | kPa | 99                          | 120                         | 113                         |
| Water flow rate domestic hot water side  | l/h | 7897                        | 15442                       | 21924                       |
| Pressure drop domestic hot water side  | kPa | 30                          | 40                          | 39                          |

(1) Data 14511:2022; System side water heat exchanger 12 °C / 7 °C; External air 35 °C

(2) Data 14511:2022; System side water heat exchanger 40 °C / 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

(3) Data 14511:2022; Heat exchanger - services side (DHW at high temperature) 55 °C / 65 °C; Outside air 7 °C D.B. / 6 °C W.B.

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

(5) Data 14511:2022; Heat exchanger water (services side) 12 °C / 7 °C; outside air 35 °C; Heat exchanger water (DHW side) 55 °C / 65 °C

(6) Data 14511:2022; Heat exchanger water (services side) \* °C / 45 °C; Outside air 7 °C D.B. / 6 °C W.B.; Heat exchanger water (DHW side) 55 °C / 65 °C

(7) Heat exchanger - services side (cold water) \* / 7 °C; Heat exchanger - services side (hot water at average temperature) \* / 45 °C; Heat exchanger - services side (hot water at high temperature) 55 °C / 65 °C

## ENERGY DATA

|  |     | CPS0704 <sup>000</sup> 00RA | CPS1004 <sup>000</sup> 00RC | CPS1805 <sup>000</sup> 00RE |
|--|-----|-----------------------------|-----------------------------|-----------------------------|
| <b>Cooling capacity with low leaving water temp (UE n° 2016/2281)</b>  |     |                             |                             |                             |
| SEER   | W/W | -                           | -                           | 4,56                        |
| $\eta_{sc}$  | %   | -                           | -                           | 180%                        |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh <math>\leq</math> 400 kW (1)</b> |     |                             |                             |                             |
| Pdesignh   | kW  | 150                         | 241                         | -                           |
| SCOP   | W/W | 2,66                        | 2,76                        | -                           |
| $\eta_{sh}$  | %   | 103%                        | 107%                        | -                           |
| <b>UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh <math>\leq</math> 400 kW (2)</b> |     |                             |                             |                             |
| Pdesignh   | kW  | 158                         | 246                         | -                           |
| SCOP   | W/W | 3,26                        | 3,44                        | -                           |
| $\eta_{sh}$  | %   | 128%                        | 135%                        | -                           |

(1) Efficiencies for average temperature applications (55 °C)

(2) Efficiencies for low temperature applications (35 °C)

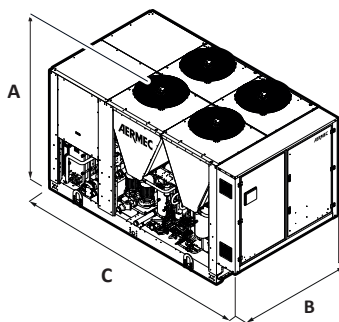
## ELECTRIC DATA

|  |   | CPS0704 <sup>000</sup> 00RA | CPS1004 <sup>000</sup> 00RC | CPS1805 <sup>000</sup> 00RE |
|--|---|-----------------------------|-----------------------------|-----------------------------|
| <b>Cooling only mode</b>   |   |                             |                             |                             |
| Maximum current (FLA)  | A | 153,0                       | 220,0                       | 420,0                       |
| Peak current (LRA)   | A | 293,0                       | 459,0                       | 746,0                       |
| <b>Medium temperature heating mode operation only</b>  |   |                             |                             |                             |
| Maximum current (FLA)  | A | 153,0                       | 220,0                       | 420,0                       |
| Peak current (LRA)   | A | 293,0                       | 459,0                       | 746,0                       |
| <b>High temperature DHW production operating mode only)</b>  |   |                             |                             |                             |
| Maximum current (FLA)  | A | 121,0                       | 203,0                       | 320,0                       |
| Peak current (LRA)   | A | 261                         | 442                         | 645                         |
| <b>Simultaneous operation (medium temperature heating + cooling)</b>                                   |   |                             |                             |                             |
| Maximum current (FLA)  | A | 138,0                       | 197,0                       | 381,0                       |
| Peak current (LRA)   | A | 278                         | 436                         | 707                         |
| <b>Simultaneous operation (medium temperature heating + high temperature DHW production)</b>           |   |                             |                             |                             |
| Maximum current (FLA)  | A | 197,0                       | 308,0                       | 549,0                       |
| Peak current (LRA)   | A | 337                         | 547                         | 874                         |
| <b>Simultaneous operation (cooling + DHW production operating)</b>                                     |   |                             |                             |                             |
| Maximum current (FLA)  | A | 189,0                       | 300,0                       | 533,0                       |
| Peak current (LRA)   | A | 329                         | 539                         | 858                         |
| <b>Simultaneous operation (cooling + medium temperature heating + high temperature DHW production)</b> |   |                             |                             |                             |
| Maximum current (FLA)  | A | 181,0                       | 284,0                       | 510,0                       |
| Peak current (LRA)   | A | 321                         | 523                         | 835                         |

## GENERAL TECHNICAL DATA

|   |      | CPS0704 <sup>000</sup> 00RA | CPS1004 <sup>000</sup> 00RC | CPS1805 <sup>000</sup> 00RE |
|---|------|-----------------------------|-----------------------------|-----------------------------|
| <b>Compressor - Circuit (C1/C2)</b>                             |      |                             |                             |                             |
| Type  | type |                             | Scroll                      |                             |
| Number  | no.  | 4                           | 4                           | 5                           |
| Circuits  | no.  | 2                           | 2                           | 2                           |
| Refrigerant   | type |                             | R410A                       |                             |
| Refrigerant charge  | kg   | 45,0                        | 61,0                        | 106,0                       |
| Thermostatic expansion valve                                    | type |                             | Meccanica                   |                             |
| <b>Compressor - Circuit (C3/C4)</b>                             |      |                             |                             |                             |
| Type  | type |                             | Scroll                      |                             |
| Number  | no.  | 2                           | 2                           | 2                           |
| Circuits  | no.  | 2                           | 2                           | 2                           |
| Refrigerant   | type |                             | R134a                       |                             |
| Refrigerant charge  | kg   | 7,0                         | 15,0                        | 20,0                        |
| Thermostatic expansion valve                                    | type |                             | Elettronica                 |                             |
| <b>Utility side heat exchanger (cooling)</b>                    |      |                             |                             |                             |
| Type  | type |                             | Brazed plate                |                             |
| Number  | no.  | 1                           | 1                           | 1                           |
| Connections (in/out)  | Type |                             | Grooved joints              |                             |
| Sizes (in/out)  | Ø    | 2" 1/2                      | 3"                          | 4"                          |
| <b>Utility side heat exchanger (medium temperature heating)</b> |      |                             |                             |                             |
| Type  | type |                             | Brazed plate                |                             |
| Number  | no.  | 2                           | 2                           | 2                           |
| Manifold connection (in/out)                                    | Type |                             | Grooved joints              |                             |
| Manifold diameter (in/out)                                      | Ø    | 2" 1/2                      | 3"                          | 4"                          |
| <b>Utility side heat exchanger (high temperature heating)</b>   |      |                             |                             |                             |
| Type  | type |                             | Brazed plate                |                             |
| Number  | no.  | 1                           | 1                           | 1                           |
| Connections (in/out)  | Type |                             | Gas                         |                             |
| Sizes (in/out)  | Ø    |                             | 2" M                        |                             |
| <b>Fan</b>  |      |                             |                             |                             |
| Type  | type |                             | Axial                       |                             |
| Fan motor   | type |                             | Asynchronous with phase cut |                             |
| Number  | no.  | 4                           | 6                           | 10                          |
| Air flow rate   | m³/h | 88000                       | 116500                      | 194100                      |

## DIMENSIONS



|                               |    | CPS0704 <sup>000</sup> 00RA | CPS1004 <sup>000</sup> 00RC | CPS1805 <sup>000</sup> 00RE |
|-------------------------------|----|-----------------------------|-----------------------------|-----------------------------|
| <b>Dimensions and weights</b> |    |                             |                             |                             |
| A                             | mm | 2450                        | 2450                        | 2450                        |
| B                             | mm | 2200                        | 2200                        | 2200                        |
| C                             | mm | 3975                        | 5760                        | 8143                        |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# NXP 0500 - 1650

## Water-water multipurpose

Cooling capacity 108 ÷ 502 kW  
Heating capacity 122 ÷ 549 kW



- Units designed for 2 or 4-pipe systems
- High efficiency also at partial loads
- Simultaneous and independent production of hot and chilled water



### DESCRIPTION

Multi-purpose indoor model designed for applications with 2 or 4-pipe systems. Just one unit is capable of satisfying the yearly hot and cold water demand simultaneously and independently. The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

### VERSIONS

- ° Standard
- L Standard silenced

### FEATURES

#### Operating field

Work at full load with chilled water production from 4 to 18°C at the evaporator and hot water at the condenser up to 55 °C.  
(for more information, refer to the technical documentation).

#### Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

#### Exchangers

All standard units have user-side heat exchangers and plate recovery, optimised to take advantage of the excellent heat exchange characteristics of the R410A.

#### Option integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.

The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

- The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.

### CONTROL PCO<sup>5</sup>

Microprocessor adjustment, with keyboard and LCD display, for easy access on the unit is a menu available in several languages.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### ACCESSORIES

**AER485P1:** RS-485 interface for supervising systems with MODBUS protocol. 1 accessory is provided for each unit control board.

**AERBACP:** Ethernet communication interface for Bacnet/IP, Modbus TCP/IP, SNMP protocols. 1 accessory is provided for each unit control board.

**AERNET:** The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 control boards). Also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

**FL:** Flow switch.

**MULTICHILLER-EVO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel (max. no. 9), always ensuring constant flow rate to the evaporators.

**PGD1:** Allows you to control the unit at a distance.

**AVX:** Spring anti-vibration supports.

### FACTORY FITTED ACCESSORIES

**DRE:** Electronic device for peak current reduction.

**RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## ACCESSORIES COMPATIBILITY

| Model            | Ver | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| AER485P1         | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERBACP          | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| AERNET           | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| FL               | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| MULTICHILLER-EVO | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| PGD1             | °L  | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

### Antivibration

| Version | System side - pumps | Recovery side - pumps | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   |
|---------|---------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                     | AVX350 | AVX350 | AVX351 | AVX351 | AVX351 | AVX351 | AVX352 |
| °       | °                   | U, V                  | AVX357 | AVX357 | AVX358 | AVX358 | AVX358 | AVX359 | AVX360 |
| °       | M, N                | °, U, V, W, Z         | AVX357 | AVX357 | AVX358 | AVX358 | AVX358 | AVX359 | AVX360 |
| °       | O, P                | U, V                  | AVX357 | AVX357 | AVX358 | AVX358 | AVX358 | AVX359 | AVX360 |
| °       | °                   | W, Z                  | AVX357 | AVX357 | AVX359 | AVX359 | AVX359 | AVX359 | AVX363 |
| °       | O, P                | °, W, Z               | AVX357 | AVX357 | AVX359 | AVX359 | AVX359 | AVX359 | AVX363 |
| L       | °                   | °                     | AVX351 | AVX351 | AVX355 | AVX355 | AVX355 | AVX356 | AVX353 |
| L       | °                   | U, V                  | AVX358 | AVX358 | AVX359 | AVX359 | AVX359 | AVX360 | AVX360 |
| L       | M, N                | °, U, V               | AVX358 | AVX358 | AVX359 | AVX359 | AVX359 | AVX360 | AVX360 |
| L       | °, M, N             | W, Z                  | AVX359 | AVX359 | AVX359 | AVX359 | AVX359 | AVX363 | AVX363 |
| L       | O, P                | °, U, V, W, Z         | AVX359 | AVX359 | AVX359 | AVX359 | AVX359 | AVX363 | AVX363 |

| Version | System side - pumps | Recovery side - pumps | 0900   | 1000   | 1250   | 1400   | 1500   | 1650   |
|---------|---------------------|-----------------------|--------|--------|--------|--------|--------|--------|
| °       | °                   | °                     | AVX352 | AVX353 | AVX353 | AVX353 | AVX354 | AVX354 |
| °       | °                   | U, V                  | AVX360 | AVX361 | AVX361 | AVX361 | AVX361 | AVX361 |
| °       | M, N                | °, U, V, W, Z         | AVX360 | AVX361 | AVX361 | AVX361 | AVX361 | AVX361 |
| °       | O, P                | U, V                  | AVX360 | AVX361 | AVX361 | AVX361 | AVX361 | AVX361 |
| °       | °                   | W, Z                  | AVX363 | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 |
| °       | O, P                | °, W, Z               | AVX363 | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 |
| L       | °                   | °                     | AVX353 | AVX353 | AVX354 | AVX354 | AVX354 | AVX354 |
| L       | °                   | U, V                  | AVX360 | AVX361 | AVX361 | AVX362 | AVX362 | AVX362 |
| L       | M, N                | °, U, V               | AVX360 | AVX361 | AVX361 | AVX362 | AVX362 | AVX362 |
| L       | °, M, N             | W, Z                  | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 |
| L       | O, P                | °, U, V, W, Z         | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 | AVX364 |

### Device for peak current reduction

| Ver  | 0500       | 0550       | 0600       | 0650       | 0700       | 0750       | 0800       | 0900       | 1000        | 1250        | 1400        | 1500        | 1650        |
|------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
| °, L | DRE501 (1) | DRE551 (1) | DRE601 (1) | DRE651 (1) | DRE701 (1) | DRE751 (1) | DRE801 (1) | DRE901 (1) | DRE1001 (1) | DRE1251 (1) | DRE1401 (1) | DRE1401 (1) | DRE1401 (1) |

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.  
A grey background indicates the accessory must be assembled in the factory

### Power factor correction

| Ver  | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1250  | 1400  | 1500  | 1650  |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| °, L | RIF98 | RIF98 | RIF95 | RIF95 | RIF95 | RIF95 | RIF95 | RIF96 | RIF97 | RIF97 | RIF97 | RIF97 | RIF97 |

A grey background indicates the accessory must be assembled in the factory

## CONFIGURATOR

### Configuration options

| Field          | Description   |
|----------------|---|
| <b>1,2,3</b>   | <b>NXP</b>  |
| <b>4,5,6,7</b> | <b>Size</b><br>0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650 |
| <b>8</b>       | <b>Operating field</b>  |
| °              | Standard mechanic thermostatic valve  |
| <b>9</b>       | <b>System type</b>  |
| 2              | 2-pipe system   |
| 4              | 4-pipe system   |
| <b>10</b>      | <b>Version</b>  |
| °              | Standard  |
| L              | Standard silenced   |
| <b>11</b>      | <b>Power supply</b>   |
| 4              | 220V ~ 3 50Hz with magnet circuit breakers (1)  |
| 5              | 500V ~ 3 50Hz with magnet circuit breakers (2)  |
| °              | 400V ~ 3 50Hz with magnet circuit breakers  |
| <b>12</b>      | <b>System side - pumps</b>  |
| M              | Single pump low head  |
| N              | Pump low head + stand-by pump   |
| O              | Single pump high head   |
| P              | Pump high head + stand-by pump  |
| °              | Without hydronic kit  |
| <b>13</b>      | <b>Recovery side - pumps</b>  |
| U              | Single pump low head  |
| V              | Pump low head + stand-by pump   |
| W              | Single pump high head   |
| Z              | Pump high head + stand-by pump  |
| °              | Without hydronic kit  |

(1) Only for sizes from 0500 to 0700

(2) Only for sizes from 0800 to 1000



## PERFORMANCE SPECIFICATIONS

### NXP - 2-pipe system versions °/L

| Size   |     | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1250  | 1400  | 1500   | 1650   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 2-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 108,9 | 117,0 | 141,5 | 157,5 | 192,7 | 218,5 | 252,2 | 281,0 | 305,8 | 345,2 | 392,3 | 447,2  | 502,4  |
| Input power  | kW  | 24,0  | 26,1  | 30,9  | 35,1  | 42,6  | 48,9  | 56,0  | 62,5  | 66,3  | 75,7  | 85,2  | 98,4   | 110,3  |
| Cooling input current  | A   | 47,0  | 50,0  | 58,0  | 65,0  | 84,0  | 90,0  | 92,0  | 101,0 | 106,0 | 135,0 | 149,0 | 169,0  | 188,0  |
| EER  | W/W | 4,54  | 4,48  | 4,58  | 4,49  | 4,52  | 4,47  | 4,51  | 4,50  | 4,61  | 4,56  | 4,60  | 4,55   | 4,55   |
| Water flow rate source side                                    | l/h | 22711 | 24436 | 29455 | 32877 | 40143 | 45586 | 52705 | 58706 | 63673 | 71963 | 81633 | 93177  | 104621 |
| Pressure drop source side                                      | kPa | 33    | 37    | 41    | 50    | 59    | 69    | 28    | 34    | 26    | 32    | 36    | 45     | 49     |
| Water flow rate system side                                    | l/h | 18734 | 20124 | 24349 | 27108 | 33155 | 37599 | 43386 | 48338 | 52596 | 59364 | 67464 | 76904  | 86389  |
| Pressure drop system side                                      | kPa | 19    | 21    | 21    | 25    | 27    | 29    | 20    | 25    | 19    | 23    | 26    | 32     | 34     |
| <b>Heating system side 2-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 122,4 | 131,0 | 158,2 | 175,7 | 210,0 | 238,7 | 289,0 | 320,9 | 352,6 | 383,7 | 433,5 | 489,5  | 549,4  |
| Input power  | kW  | 29,6  | 32,0  | 38,5  | 43,3  | 51,7  | 59,6  | 70,9  | 79,3  | 84,0  | 91,7  | 103,4 | 118,6  | 132,1  |
| Heating input current  | A   | 54,0  | 58,0  | 68,0  | 76,0  | 95,0  | 103,0 | 112,0 | 123,0 | 130,0 | 154,0 | 173,0 | 196,0  | 217,0  |
| COP  | W/W | 4,13  | 4,09  | 4,11  | 4,05  | 4,06  | 4,00  | 4,08  | 4,05  | 4,20  | 4,18  | 4,19  | 4,13   | 4,16   |
| Water flow rate source side                                    | l/h | 27209 | 29066 | 35169 | 38937 | 46642 | 52841 | 63935 | 70917 | 78660 | 85555 | 96778 | 108934 | 122632 |
| Pressure drop source side                                      | kPa | 47    | 52    | 58    | 69    | 79    | 92    | 41    | 50    | 39    | 45    | 51    | 62     | 67     |
| Water flow rate system side                                    | l/h | 21232 | 22726 | 27452 | 30476 | 36453 | 41427 | 50177 | 55720 | 61233 | 66632 | 75270 | 84987  | 95403  |
| Pressure drop system side                                      | kPa | 25    | 27    | 27    | 32    | 32    | 36    | 27    | 33    | 25    | 29    | 32    | 39     | 42     |
| <b>Heating domestic hot water side 2-pipe system (3)</b>       |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 124,5 | 133,2 | 161,0 | 178,8 | 213,6 | 242,8 | 293,3 | 325,1 | 354,8 | 390,1 | 439,8 | 496,5  | 558,6  |
| Input power  | kW  | 29,2  | 31,6  | 37,8  | 42,6  | 50,9  | 58,4  | 70,0  | 78,4  | 83,2  | 91,1  | 102,6 | 117,8  | 131,6  |
| Heating total input current                                    | A   | 54,0  | 57,0  | 67,0  | 75,0  | 95,0  | 103,0 | 110,0 | 122,0 | 129,0 | 153,0 | 171,0 | 194,0  | 216,0  |
| COP  | W/W | 4,26  | 4,21  | 4,26  | 4,20  | 4,19  | 4,16  | 4,19  | 4,15  | 4,26  | 4,28  | 4,29  | 4,21   | 4,24   |
| Water flow rate source side                                    | l/h | 27905 | 29767 | 36085 | 39952 | 47734 | 54174 | 65416 | 72379 | 79441 | 87568 | 98845 | 111238 | 125462 |
| Pressure drop source side                                      | kPa | 37    | 42    | 41    | 50    | 53    | 58    | 42    | 50    | 38    | 46    | 52    | 66     | 70     |
| Water flow rate domestic hot water side                        | l/h | 21604 | 23109 | 27936 | 31015 | 37062 | 42149 | 50928 | 56446 | 61601 | 67743 | 76363 | 86215  | 96994  |
| Pressure drop domestic hot water side                          | kPa | 23    | 26    | 25    | 30    | 33    | 36    | 26    | 32    | 23    | 28    | 33    | 40     | 43     |
| <b>Simultaneous operation (heating + cooling), 2 pipes (4)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 96,2  | 102,5 | 124,8 | 138,9 | 165,4 | 190,6 | 225,7 | 250,3 | 282,6 | 308,1 | 340,2 | 392,0  | 444,9  |
| Recovered heating power  | kW  | 123,3 | 131,9 | 160,0 | 178,4 | 212,6 | 244,6 | 290,8 | 322,7 | 360,1 | 392,6 | 435,1 | 500,6  | 566,0  |
| Input power  | kW  | 28,2  | 30,5  | 36,5  | 40,9  | 49,0  | 56,2  | 67,8  | 75,5  | 80,9  | 88,2  | 99,2  | 113,9  | 126,6  |
| Water flow rate system side                                    | l/h | 18734 | 20124 | 24349 | 27108 | 33155 | 37599 | 43386 | 48338 | 52596 | 59364 | 67464 | 76904  | 86389  |
| Pressure drop system side                                      | kPa | 19    | 21    | 21    | 25    | 27    | 29    | 20    | 25    | 19    | 23    | 26    | 32     | 34     |
| Water flow rate domestic hot water side                        | l/h | 21604 | 23109 | 27936 | 31015 | 37062 | 42149 | 50928 | 56446 | 61601 | 67743 | 76363 | 86215  | 96994  |
| Pressure drop domestic hot water side                          | kPa | 23    | 26    | 25    | 30    | 33    | 36    | 26    | 32    | 23    | 28    | 33    | 40     | 43     |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C; All the units are Eurovent certified

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

(3) Water exchanger to the total recovery side 40 °C / 45 °C; Water source side 10 °C / 7 °C

(4) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

### NXP - 4-pipe system versions °/L

| Size   |     | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1250  | 1400  | 1500   | 1650   |
|--|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <b>Cooling system side 4-pipe system (1)</b>                   |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 108,9 | 117,0 | 141,5 | 154,5 | 192,7 | 218,5 | 252,2 | 281,0 | 305,8 | 345,2 | 392,3 | 447,2  | 502,4  |
| Input power  | kW  | 24,0  | 26,1  | 30,9  | 35,1  | 42,6  | 48,9  | 56,0  | 62,5  | 66,3  | 75,7  | 85,2  | 98,4   | 110,3  |
| Cooling input current  | A   | 47,0  | 50,0  | 58,0  | 65,0  | 84,0  | 90,0  | 92,0  | 101,0 | 106,0 | 135,0 | 149,0 | 169,0  | 188,0  |
| EER  | W/W | 4,54  | 4,48  | 4,58  | 4,49  | 4,52  | 4,47  | 4,51  | 4,50  | 4,61  | 4,56  | 4,60  | 4,55   | 4,55   |
| Water flow rate source side                                    | l/h | 22711 | 24436 | 29455 | 32877 | 40143 | 45586 | 52705 | 58706 | 63673 | 71963 | 81633 | 93177  | 104621 |
| Pressure drop source side                                      | kPa | 33    | 37    | 41    | 50    | 59    | 69    | 28    | 34    | 26    | 32    | 36    | 45     | 49     |
| Water flow rate system side                                    | l/h | 18734 | 20124 | 24349 | 27108 | 33155 | 37599 | 43386 | 48338 | 52596 | 59364 | 67464 | 76904  | 86389  |
| Pressure drop system side                                      | kPa | 19    | 21    | 21    | 25    | 27    | 29    | 20    | 25    | 19    | 23    | 26    | 32     | 34     |
| <b>Heating system side 4-pipe system (2)</b>                   |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Heating capacity   | kW  | 124,5 | 133,2 | 161,0 | 178,8 | 213,6 | 242,8 | 293,3 | 325,1 | 354,8 | 390,1 | 439,8 | 496,5  | 558,6  |
| Input power  | kW  | 29,2  | 31,6  | 37,8  | 42,6  | 50,9  | 58,4  | 70,0  | 78,4  | 83,2  | 91,1  | 102,6 | 117,8  | 131,6  |
| Heating total input current                                    | A   | 54,0  | 57,0  | 67,0  | 75,0  | 95,0  | 103,0 | 110,0 | 122,0 | 129,0 | 153,0 | 171,0 | 194,0  | 216,0  |
| COP  | W/W | 4,26  | 4,21  | 4,26  | 4,20  | 4,19  | 4,16  | 4,19  | 4,15  | 4,26  | 4,28  | 4,29  | 4,21   | 4,24   |
| Water flow rate source side                                    | l/h | 27905 | 29767 | 36085 | 39952 | 47734 | 54174 | 65416 | 72379 | 79441 | 87568 | 98845 | 111238 | 125462 |
| Pressure drop source side                                      | kPa | 37    | 42    | 41    | 50    | 53    | 58    | 42    | 50    | 38    | 46    | 52    | 66     | 70     |
| Water flow rate system side                                    | l/h | 21604 | 23109 | 27935 | 31015 | 37062 | 42149 | 50928 | 54446 | 61601 | 67743 | 76363 | 86215  | 96994  |
| Pressure drop system side                                      | kPa | 23    | 26    | 25    | 30    | 33    | 36    | 26    | 32    | 23    | 28    | 33    | 40     | 43     |
| <b>Simultaneous operation (heating + cooling), 4 pipes (3)</b> |     |       |       |       |       |       |       |       |       |       |       |       |        |        |
| Cooling capacity   | kW  | 96,2  | 102,5 | 124,8 | 138,9 | 165,4 | 190,6 | 225,7 | 250,3 | 282,6 | 308,1 | 340,2 | 392,0  | 444,9  |
| Recovered heating power  | kW  | 123,3 | 131,9 | 160,0 | 178,4 | 212,6 | 244,6 | 290,8 | 322,7 | 360,1 | 392,6 | 435,1 | 500,6  | 566,0  |
| Input power  | kW  | 28,2  | 30,5  | 36,5  | 40,9  | 49,0  | 56,2  | 67,8  | 75,5  | 80,9  | 88,2  | 99,2  | 113,4  | 126,6  |
| Water flow rate cold side                                      | l/h | 18734 | 20124 | 24349 | 27108 | 33155 | 37599 | 43386 | 48338 | 52596 | 59364 | 67464 | 76904  | 86389  |
| Pressure drop cold side  | kPa | 19    | 21    | 21    | 25    | 27    | 29    | 20    | 25    | 19    | 23    | 26    | 32     | 34     |
| Water flow rate hot side                                       | l/h | 21604 | 23109 | 27936 | 31015 | 37062 | 42149 | 50928 | 56446 | 61601 | 67743 | 76363 | 86215  | 96944  |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C; All the units are Eurovent certified

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

| Size                   |     | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|------------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Pressure drop hot side | kPa | 23   | 26   | 25   | 30   | 33   | 36   | 26   | 32   | 23   | 28   | 33   | 40   | 43   |

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C; All the units are Eurovent certified

(2) Date 14511:2022; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

(3) Water exchanger to the total recovery side \* / 45 °C; Water to the system side heat exchanger \* / 7 °C;

## ENERGY INDICES (REG. 2016/2281 EU)

| Size   |        | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800   | 0900   | 1000   | 1250   | 1400   | 1500   | 1650   |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>SEER - 12/7 (EN14825:2018) (1)</b>  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEER   | °L W/W | 5,25   | 5,44   | 5,52   | 5,43   | 5,52   | 5,39   | 5,61   | 5,82   | 6,09   | 6,00   | 6,05   | 6,43   | 6,45   |
| Seasonal efficiency  | °L %   | 207,0% | 214,6% | 217,8% | 214,2% | 217,8% | 212,6% | 221,4% | 229,9% | 240,5% | 237,1% | 239,1% | 254,2% | 254,9% |
| <b>SEPR - (EN 14825:2018) High temperature (2)</b>   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| SEPR   | °L W/W | -      | -      | -      | -      | -      | -      | -      | 7,08   | 7,30   | 7,21   | 7,23   | -      | -      |
| <b>UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)</b> |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Pdesignh   | °L kW  | 163    | 173    | 212    | 234    | 280    | 318    | 385    | -      | -      | -      | -      | -      | -      |
| SCOP   | °L W/W | 4,78   | 4,68   | 4,78   | 4,65   | 4,65   | 4,58   | 4,73   | -      | -      | -      | -      | -      | -      |
| ηsh  | °L %   | 183,0% | 179,0% | 183,0% | 178,0% | 178,0% | 175,0% | 181,0% | -      | -      | -      | -      | -      | -      |
| <b>Energy index</b>  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| TER  | °L W/W | 7,77   | 7,68   | 7,80   | 7,75   | 7,71   | 7,75   | 7,62   | 7,59   | 7,94   | 7,94   | 7,82   | 7,87   | 7,99   |

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

(3) Efficiencies for average temperature applications (55 °C)

## ELECTRIC DATA

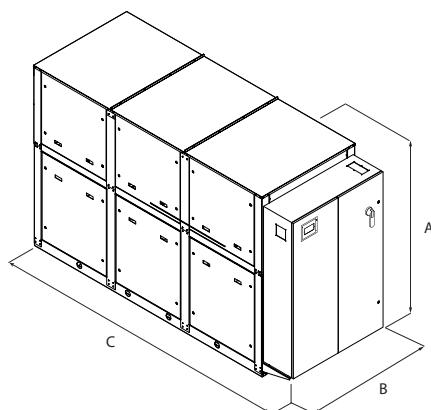
| Size                  |      | 0500  | 0550  | 0600  | 0650  | 0700  | 0750  | 0800  | 0900  | 1000  | 1250  | 1400  | 1500  | 1650  |
|-----------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Electric data</b>  |      |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Maximum current (FLA) | °L A | 71,0  | 77,0  | 91,0  | 102,0 | 124,0 | 135,0 | 163,0 | 179,0 | 195,0 | 208,0 | 237,0 | 266,0 | 295,0 |
| Peak current (LRA)    | °L A | 214,0 | 220,0 | 206,0 | 216,0 | 267,0 | 323,0 | 332,0 | 340,0 | 356,0 | 459,0 | 488,0 | 600,0 | 629,0 |

## GENERAL TECHNICAL DATA

| Size   |         | 0500   | 0550   | 0600   | 0650   | 0700   | 0750   | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|--|---------|--------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|
| <b>Compressor</b>  |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Type   | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Number   | °L no.  | 3      | 3      | 4      | 4      | 4      | 4      | 4    | 4    | 4    | 4    | 4    | 4    | 4    |
| Circuits   | °L no.  | 2      | 2      | 2      | 2      | 2      | 2      | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Refrigerant  | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| <b>2-pipe system - System side heat exchanger (hot/cold)</b>             |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Type   | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Number   | °L no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)   | °L Type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Sizes (in/out)   | °L Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>2-pipe system - Recovery side heat exchanger (domestic hot water)</b> |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Type   | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Number   | °L no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)   | °L Type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Sizes (in/out)   | °L Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>4-pipe system - System side heat exchanger (cold side)</b>            |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Type   | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Number   | °L no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)   | °L Type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Sizes (in/out)   | °L Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>4-pipe system - Recovery side heat exchanger (hot side)</b>           |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Type   | °L type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Number   | °L no.  | 1      | 1      | 1      | 1      | 1      | 1      | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Connections (in/out)   | °L Type |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Sizes (in/out)   | °L Ø    | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 2" 1/2 | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   | 3"   |
| <b>Sound data calculated in cooling mode (1)</b>                         |         |        |        |        |        |        |        |      |      |      |      |      |      |      |
| Sound power level  | °       | dB(A)  | 78,0   | 79,0   | 79,0   | 80,0   | 82,0   | 86,0 | 88,0 | 88,0 | 88,0 | 90,0 | 90,0 | 92,0 |
|  | L       | dB(A)  | 72,0   | 73,0   | 73,0   | 74,0   | 76,0   | 80,0 | 82,0 | 82,0 | 82,0 | 84,0 | 84,0 | 86,0 |
| Sound pressure level (10 m)  | °       | dB(A)  | 46,0   | 47,0   | 47,0   | 48,0   | 50,0   | 54,0 | 56,0 | 56,0 | 56,0 | 58,0 | 58,0 | 60,0 |
|  | L       | dB(A)  | 40,0   | 41,0   | 41,0   | 42,0   | 44,0   | 48,0 | 50,0 | 50,0 | 50,0 | 52,0 | 52,0 | 54,0 |

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

## DIMENSIONS



| Size                                      |    |    | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|---|----|----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Dimensions and weights</b>             |    |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °  | mm | 1976 | 1976 | 1976 | 1976 | 1976 | 1976 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 |
|   | L  | mm | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 |
| B   | °L | mm | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 |
| C   | °L | mm | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 | 2600 |
| <b>Dimensions and weights with pump/s</b> |    |    |      |      |      |      |      |      |      |      |      |      |      |      |      |
| A   | °  | mm | 1976 | 1976 | 1976 | 1976 | 1976 | 1976 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 | 2021 |
|   | L  | mm | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 | 2120 |
| B   | °L | mm | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 | 1250 |
| C   | °  | mm | 3452 | 3452 | 3452 | 3452 | 3452 | 3452 | 3452 | 3452 | 3750 | 3750 | 3750 | 3750 | 3750 |
|   | L  | mm | 3452 | 3452 | 3452 | 3452 | 3452 | 3750 | 3750 | 3750 | 3750 | 3750 | 2600 | 2600 | 2600 |

|              | Version | System side<br>- pumps | Recovery side<br>- pumps |    | 0500 | 0550 | 0600 | 0650 | 0700 | 0750 |
|--------------|---------|------------------------|--------------------------|----|------|------|------|------|------|------|
| Empty weight | °       | °                      | °                        | kg | 990  | 1000 | 1110 | 1130 | 1180 | 1380 |
|              | °       | °                      | U/V                      | kg | 1230 | 1240 | 1360 | 1380 | 1450 | 1690 |
|              | °       | M/N                    | °/U/V                    | kg | 1230 | 1240 | 1360 | 1380 | 1450 | 1690 |
|              | °       | °/M/N                  | W/Z                      | kg | 1340 | 1350 | 1490 | 1500 | 1600 | 1880 |
|              | °       | O/P                    | °/U/V/W/Z                | kg | 1340 | 1350 | 1490 | 1500 | 1600 | 1880 |
|              | L       | °                      | °                        | kg | 1230 | 1230 | 1340 | 1360 | 1420 | 1570 |
|              | L       | °                      | U/V                      | kg | 1560 | 1570 | 1690 | 1710 | 1780 | 2020 |
|              | L       | M/N                    | °/U/V                    | kg | 1560 | 1570 | 1690 | 1710 | 1780 | 2020 |
|              | L       | °/M/N                  | W/Z                      | kg | 1670 | 1680 | 1820 | 1830 | 1930 | 2210 |
|              | L       | O/P                    | °/U/V/W/Z                | kg | 1670 | 1680 | 1820 | 1830 | 1930 | 2210 |

|              | Version | System side<br>- pumps | Recovery side<br>- pumps |    | 0800 | 0900 | 1000 | 1250 | 1400 | 1500 | 1650 |
|--------------|---------|------------------------|--------------------------|----|------|------|------|------|------|------|------|
| Empty weight | °       | °                      | °                        | kg | 1680 | 1700 | 1890 | 1960 | 2060 | 2100 | 2270 |
|              | °       | °                      | U/V                      | kg | 1960 | 2060 | 2310 | 2380 | 2500 | 2540 | 2720 |
|              | °       | M/N                    | °/U/V                    | kg | 1960 | 2060 | 2310 | 2380 | 2500 | 2540 | 2720 |
|              | °       | °/M/N                  | W/Z                      | kg | 2110 | 2300 | 2560 | 2630 | 2770 | 2810 | 3010 |
|              | °       | O/P                    | °/U/V/W/Z                | kg | 2110 | 2300 | 2560 | 2630 | 2770 | 2810 | 3010 |
|              | L       | °                      | °                        | kg | 1910 | 1930 | 2120 | 2190 | 2270 | 2400 | 2500 |
|              | L       | °                      | U/V                      | kg | 2290 | 2390 | 2660 | 2730 | 2850 | 2890 | 3070 |
|              | L       | M/N                    | °/U/V                    | kg | 2290 | 2390 | 2660 | 2730 | 2850 | 2890 | 3070 |
|              | L       | °/M/N                  | W/Z                      | kg | 2240 | 2630 | 2910 | 2980 | 3120 | 3160 | 3360 |
|              | L       | O                      | °/U/V/W/Z                | kg | 2240 | 2630 | 2910 | 2980 | 3120 | 3160 | 3360 |
|              | L       | P                      | °/U/V/W                  | kg | 2240 | 2630 | 2910 | 2980 | 3120 | 3160 | 3360 |
|              | L       | P                      | Z                        | kg | 2440 | 2630 | 2910 | 2980 | 3120 | 3160 | 3360 |

Aermec reserves the right to make any modifications deemed necessary.  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# PRECISION AIR CONDITIONERS

Aermec is well established in the data centre market, with a multiple year experience and prestigious projects aimed at reducing the overall cost of ownership of modern data centres.

This process is achieved by applying state of the art product solutions with a strong focus on integrated design and sophisticated analyses of individual data centre customer requirements, with the aim of achieving a personalised and optimised solution for each and every individual installation site.

## PRECISION AIR CONDITIONING

|                   |   | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-------------------|---|--------------------------------------|--------------------|--------------------|------|
| <b>P 10-932</b>   | Direct expansion (air or water cooled); chilled water | -                                    | 7-160              | -                  | 896  |
| <b>G 070-1342</b> | Direct expansion (air or water cooled); chilled water | -                                    | 50-222             | -                  | 901  |
| <b>R 20-361</b>   | Direct expansion (air or water cooled); chilled water | -                                    | 10-37              | -                  | 905  |

## P 10-932

## Precision Air Conditioners

Cooling capacity 7 ÷ 160 kW

- **Strict control of room temperature and humidity**
- **High efficiency values**
- **Wide selection of configurations**
- **Reduced ground view clearance**



Last generation control panel



### DESCRIPTION

**P** series precision air conditioning units have design and operational features suitable for rooms where sensible nature heat loads are prevailing.

### CONFIGURATIONS

**PXO:** upwards flow air conditioners with direct expansion with air or water condensation.

**PWO:** upwards flow air conditioners with chilled water.

**PXU:** downwards flow air conditioners with direct expansion with air or water condensation.

**PWU:** downwards airflow air conditioners with chilled water.

### FEATURES

The **P** series precision air conditioning units are designed for precision air conditioning of technological rooms characterized by elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required.

Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.

In order to guarantee the maximum reliability and flexibility, there are available both solutions with double circuit and solution with different cooling mediums:

#### Two Sources

The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency.

This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the primary one.

They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.

#### Free Cooling

This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler.

The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.

### STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

### FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

### FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).

Differential pressure switch (STANDARD) for dirty filter alarm.

The control of filter dirt conditions via Modbus is available as an option.

### ELECTRONIC CONTROLLER

The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.

- The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
- The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
- View of all operating parameters in 8 languages.

### CHILLED WATER COILS

#### Only for W configurations

Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with aluminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

### COMPRESSORS

#### Only for X configurations

High efficiency scroll compressor with low power consumption.

These units in the direct expansion configurations work with R410A refrigerant, which does not damage the ozone layer.

In dual circuit configuration you can control the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.

## ACCESSORIES

### Direct expansion

- DC brushless compressors with inverter control
- Electric power supply line for remote condenser
- Electric power supply line with speed adjustment for remote condenser
- Condenser adjustment with 0-10V signal for remote condenser with EC fans
- Water condenser
- Condensate adjustment pressure valve
- "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

### Chilled water

- Two ways modulating valves
- Inlet and outlet water temperature probes
- "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

### Heating

- Low thermal inertia electric batteries with differentiated stages regulation
- Low thermal inertia electric batteries with modulating regulation
- Water heating batteries with 2 or 3 ways modulating valve (available on request on some models only)

### Humidification

- Room humidity probe
- Flow humidity probe
- Submerged electrodes humidifier (also available with low conductivity cylinder)

### Water presence detection

- Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence, even partial, is detected.

## SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.

This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.

**Electronic expansion valve standard on all sizes.**

### Mechanicals and structural

- Condensate discharge pump
- Condensation and humidifier drain pump
- Flow overpressure dampers
- Motorised damper on suction
- M5 (EU5) efficiency air filter on air supply
- Flow plenum with adjustable grills.
- Sub-base plenum with front grids.
- **Plenum Free Cooling:** available for direct expansion and downward flow versions, complete with motorised dampers and the external air temperature probe. Used to perform **direct Free Cooling** taking advantage of external air and will work in place of or supporting the direct expansion mechanical cooling.
- Height adjustable support for raised floor installation
- Grilled panels for front flow
- Closed panels for downwards air intake
- Panels with "sandwich" counter-panels (available on request on some models only)
- Panels with increased soundproof upholstery (available on request on some models only)

### Electrical

- The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 230V ~ 3 60Hz, 380V ~ 3N 60Hz
- Electric power supply line without neutral
- "Basic" version automatic transfer switch (ATS)
- Advanced" version automatic transfer switch (ATS)

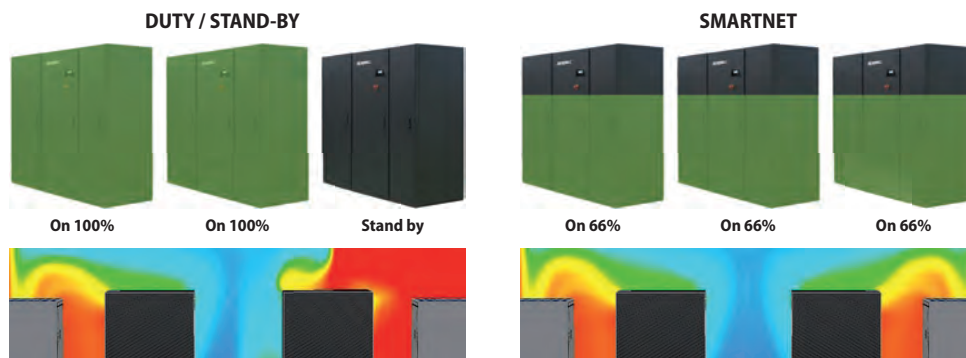
### Regulation

- Constant flow rate ventilation adjustment
- Constant pressure ventilation adjustment
- Local area network configuration and cable
- User terminal for remote installation

■ *For further details refer to the technical documentation or to the selection program.*

Compared to the Duty Stand-by (n+1 or n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET system allows to maintain the units connected on the network always active** with various advantages:

- greater efficiency of the units with partial loads;
- optimal air distribution, eliminating the risk of environment hotspots;
- internal system redundancy,





## TECHNICAL DATA

### PXO: upwards airflow - direct expansion with air or water condensation

|                                 |       | PXO 071              | PXO 141 | PXO 211 | PXO 251 | PXO 321 | PXO 322 | PXO 361 | PXO 422 | PXO 461 | PXO 512 | PXO 662 | PXO 852 | PXO 932 |
|---------------------------------|-------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Total cooling capacity          | kW    | 8,2                  | 14,7    | 21,0    | 27,4    | 35,2    | 33,8    | 38,1    | 43,7    | 48,1    | 57,8    | 67,3    | 84,4    | 94,9    |
| Sensible cooling capacity       | kW    | 7,9                  | 12,9    | 21,0    | 25,7    | 35,2    | 33,8    | 38,1    | 43,7    | 46,8    | 53,6    | 66,2    | 73,7    | 86,3    |
| EER (2)                         | W/W   | 3,83                 | 3,40    | 3,30    | 3,14    | 3,13    | 3,34    | 3,57    | 3,47    | 3,63    | 3,34    | 3,26    | 3,27    | 3,64    |
| <b>Fans</b>                     |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Type                            | type  | Plug-fan EC inverter |         |         |         |         |         |         |         |         |         |         |         |         |
| Air flow rate                   | m³/h  | 2200                 | 3200    | 7000    | 7000    | 12000   | 12000   | 14000   | 14000   | 14000   | 14000   | 18000   | 18000   | 21000   |
| <b>Refrigerant circuit</b>      |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Number                          | no.   | 1                    | 1       | 1       | 1       | 1       | 2       | 1       | 2       | 1       | 2       | 2       | 2       | 2       |
| <b>Sound data</b>               |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Sound pressure (3)              | dB(A) | 51                   | 59      | 56      | 57      | 67      | 67      | 58      | 58      | 58      | 59      | 61      | 61      | 61      |
| <b>Possible configurations</b>  |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Free Cooling                    |       | -                    | -       | -       | -       | Yes     | -       | -       | -       | Yes     | -       | Yes     | Yes     | -       |
| Two Sources                     |       | -                    | -       | Yes     | -       | Yes     | -       | -       | -       | Yes     | Yes     | Yes     | Yes     | Yes     |
| <b>Electric data</b>            |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |         |         |         |         |         |         |         |         |         |         |         |         |

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

### PWO: upwards airflow - with chilled water

|                                 |       | PWO 10               | PWO 20 | PWO 30 | PWO 50 | PWO 60 | PWO 70 | PWO 80 | PWO 110 | PWO 160 | PWO 220 |
|---------------------------------|-------|----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |        |        |        |        |        |        |         |         |         |
| Total cooling capacity          | kW    | 9,9                  | 17,2   | 30,0   | 41,0   | 52,8   | 63,1   | 65,5   | 80,0    | 110,0   | 160,0   |
| Sensible cooling capacity       | kW    | 9,3                  | 14,9   | 27,8   | 36,2   | 47,4   | 54,2   | 61,8   | 73,0    | 99,7    | 146,0   |
| EER (2)                         | W/W   | 38,26                | 29,13  | 30,00  | 24,54  | 22,75  | 24,17  | 24,79  | 24,17   | 29,33   | 21,17   |
| <b>Fans</b>                     |       |                      |        |        |        |        |        |        |         |         |         |
| Type                            | type  | Plug-fan EC inverter |        |        |        |        |        |        |         |         |         |
| Air flow rate                   | m³/h  | 2200                 | 3200   | 7000   | 8000   | 12000  | 12000  | 16000  | 18000   | 24000   | 36000   |
| <b>Refrigerant circuit</b>      |       |                      |        |        |        |        |        |        |         |         |         |
| Number                          | no.   | 1                    | 1      | 1      | 1      | 1      | 1      | 1      | 1       | 1       | 1       |
| <b>Sound data</b>               |       |                      |        |        |        |        |        |        |         |         |         |
| Sound pressure (3)              | dB(A) | 51                   | 59     | 56     | 60     | 67     | 68     | 61     | 62      | 62      | 65      |
| <b>Possible configurations</b>  |       |                      |        |        |        |        |        |        |         |         |         |
| Free Cooling                    |       | -                    | -      | -      | -      | -      | -      | -      | -       | -       | -       |
| Two Sources                     |       | -                    | -      | -      | Yes    | -      | -      | -      | Yes     | Yes     | -       |
| <b>Electric data</b>            |       |                      |        |        |        |        |        |        |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |        |        |        |        |        |        |         |         |         |

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

### PXU: downwards airflow - direct expansion with air or water condensation

|                                 |       | PXU 071              | PXU 141 | PXU 211 | PXU 251 | PXU 321 | PXU 322 | PXU 361 | PXU 422 | PXU 461 | PXU 512 | PXU 662 | PXU 852 | PXU 932 |
|---------------------------------|-------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Total cooling capacity          | kW    | 8,2                  | 14,7    | 21,0    | 27,4    | 35,2    | 33,8    | 38,1    | 43,7    | 48,1    | 57,8    | 67,3    | 84,4    | 94,9    |
| Sensible cooling capacity       | kW    | 7,9                  | 12,9    | 21,0    | 25,7    | 35,2    | 33,8    | 38,1    | 43,7    | 46,8    | 53,6    | 66,2    | 73,7    | 86,3    |
| EER (2)                         | W/W   | 3,74                 | 3,29    | 3,24    | 3,10    | 3,09    | 3,29    | 3,50    | 3,41    | 3,57    | 3,30    | 3,15    | 3,18    | 3,59    |
| <b>Fans</b>                     |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Type                            | type  | Plug-fan EC inverter |         |         |         |         |         |         |         |         |         |         |         |         |
| Air flow rate                   | m³/h  | 2200                 | 3200    | 7000    | 7000    | 12000   | 12000   | 14000   | 14000   | 14000   | 14000   | 18000   | 18000   | 21000   |
| <b>Refrigerant circuit</b>      |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Number                          | no.   | 1                    | 1       | 1       | 1       | 1       | 2       | 1       | 2       | 1       | 2       | 2       | 2       | 2       |
| <b>Sound data</b>               |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Sound pressure (3)              | dB(A) | 51                   | 57      | 62      | 62      | 67      | 68      | 59      | 59      | 59      | 59      | 63      | 63      | 62      |
| <b>Possible configurations</b>  |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Free Cooling                    |       | -                    | -       | -       | -       | Yes     | -       | -       | -       | Yes     | -       | Yes     | Yes     | -       |
| Two Sources                     |       | -                    | -       | Yes     | -       | Yes     | -       | -       | -       | Yes     | Yes     | Yes     | Yes     | Yes     |
| <b>Electric data</b>            |       |                      |         |         |         |         |         |         |         |         |         |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |         |         |         |         |         |         |         |         |         |         |         |         |

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

## PWU: downwards airflow - with chilled water

|                                 |       | PWU 10               | PWU 20 | PWU 30 | PWU 50 | PWU 60 | PWU 70 | PWU 80 | PWU 110 | PWU 160 | PWU 220 |
|---------------------------------|-------|----------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |        |        |        |        |        |        |         |         |         |
| Total cooling capacity          | kW    | 9,9                  | 17,2   | 30,0   | 41,0   | 52,8   | 63,1   | 65,4   | 80,0    | 110,0   | 160,0   |
| Sensible cooling capacity       | kW    | 9,3                  | 14,9   | 27,8   | 36,2   | 47,4   | 54,2   | 61,8   | 73,0    | 99,7    | 146,0   |
| EER (2)                         | W/W   | 32,09                | 23,54  | 27,03  | 20,91  | 21,28  | 22,77  | 23,21  | 19,80   | 24,39   | 19,80   |
| <b>Fans</b>                     |       |                      |        |        |        |        |        |        |         |         |         |
| Type                            | type  | Plug-fan EC inverter |        |        |        |        |        |        |         |         |         |
| Air flow rate                   | m³/h  | 2200                 | 3200   | 7400   | 8200   | 12000  | 12000  | 16000  | 18000   | 24000   | 36000   |
| <b>Refrigerant circuit</b>      |       |                      |        |        |        |        |        |        |         |         |         |
| Number                          | no.   | 1                    | 1      | 1      | 1      | 1      | 1      | 1      | 1       | 1       | 1       |
| <b>Sound data</b>               |       |                      |        |        |        |        |        |        |         |         |         |
| Sound pressure (3)              | dB(A) | 51                   | 60     | 57     | 62     | 68     | 68     | 62     | 63      | 63      | 66      |
| <b>Possible configurations</b>  |       |                      |        |        |        |        |        |        |         |         |         |
| Free Cooling                    |       | -                    | -      | -      | -      | -      | -      | -      | -       | -       | -       |
| Two Sources                     |       | -                    | -      | -      | Yes    | -      | -      | -      | Yes     | Yes     | -       |
| <b>Electric data</b>            |       |                      |        |        |        |        |        |        |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |        |        |        |        |        |        |         |         |         |

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

## UPWARDS FLOW CONFIGURATIONS



**Standard version** with frontal air intake and upwards air flow.



Version with front air intake and frontal air flow with distribution plenum with grid.



Version with air intake from the bottom, stand for raised floor, blind front panel and upwards air supply.

## DOWNWARDS FLOW CONFIGURATIONS



**Standard version** with upwards suction and downwards air flow, with sub-base for raised flooring.

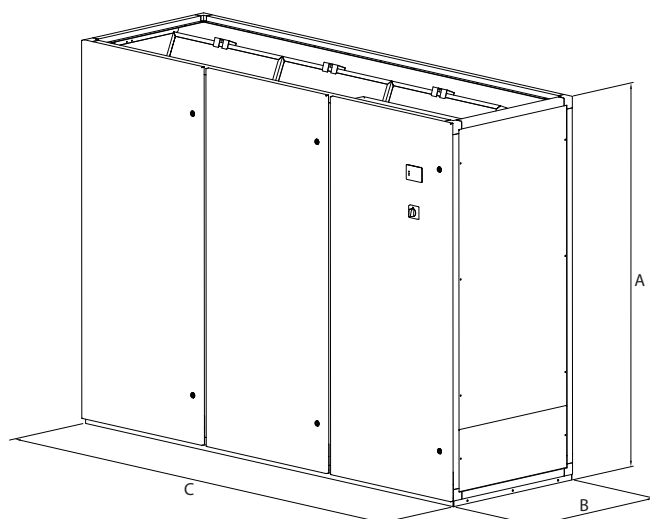


Version with upwards suction with frontal air flow with grilled plenum distribution.



Version with upwards suction with frontal air flow with grilled front panel.

## DIMENSIONS



|                               |    | PXO 071 | PXO 141 | PXO 211 | PXO 251 | PXO 321 | PXO 322 | PXO 361 | PXO 422 | PXO 461 | PXO 512 | PXO 662 | PXO 852 | PXO 932 |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| A                             | mm | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    |
| B                             | mm | 600     | 600     | 880     | 880     | 850     | 850     | 880     | 880     | 880     | 880     | 880     | 880     | 880     |
| C                             | mm | 750     | 750     | 860     | 860     | 1410    | 1410    | 1750    | 1750    | 1750    | 1750    | 2300    | 2300    | 2640    |
| Empty weight                  | kg | 180     | 210     | 270     | 270     | 365     | 390     | 440     | 450     | 450     | 500     | 640     | 660     | 860     |

|                               |    | PWO 10 | PWO 20 | PWO 30 | PWO 50 | PWO 60 | PWO 70 | PWO 80 | PWO 110 | PWO 160 | PWO 220 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |         |         |         |
| A                             | mm | 1990   | 1990   | 1990   | 1990   | 1990   | 1990   | 1990   | 1990    | 1990    | 1990    |
| B                             | mm | 600    | 600    | 880    | 880    | 850    | 850    | 880    | 880     | 880     | 880     |
| C                             | mm | 750    | 750    | 860    | 860    | 1410   | 1410   | 1750   | 1750    | 2640    | 3495    |
| Empty weight                  | kg | 155    | 160    | 220    | 240    | 240    | 260    | 340    | 360     | 540     | 700     |

|                               |    | PXU 071 | PXU 141 | PXU 211 | PXU 251 | PXU 321 | PXU 322 | PXU 361 | PXU 422 | PXU 461 | PXU 512 | PXU 662 | PXU 852 | PXU 932 |
|-------------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |         |         |         |         |         |         |         |         |         |         |         |         |         |
| A                             | mm | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    | 1990    |
| B                             | mm | 600     | 600     | 880     | 880     | 850     | 850     | 880     | 880     | 880     | 880     | 880     | 880     | 880     |
| C                             | mm | 750     | 750     | 860     | 860     | 1410    | 1410    | 1750    | 1750    | 1750    | 1750    | 2300    | 2300    | 2640    |
| Empty weight                  | kg | 180     | 210     | 270     | 270     | 365     | 390     | 440     | 450     | 450     | 500     | 640     | 660     | 860     |

|                               |    | PWU 10 | PWU 20 | PWU 30 | PWU 50 | PWU 60 | PWU 70 | PWU 80 | PWU 110 | PWU 160 | PWU 220 |
|-------------------------------|----|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| <b>Dimensions and weights</b> |    |        |        |        |        |        |        |        |         |         |         |
| A                             | mm | 1990   | 1990   | 1990   | 1990   | 1990   | 1990   | 1990   | 1990    | 1990    | 1990    |
| B                             | mm | 600    | 600    | 880    | 880    | 850    | 850    | 880    | 880     | 880     | 880     |
| C                             | mm | 750    | 750    | 860    | 860    | 1410   | 1410   | 1750   | 1750    | 2640    | 3495    |
| Empty weight                  | kg | 155    | 160    | 220    | 240    | 240    | 260    | 340    | 360     | 540     | 700     |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## G 070-1342

## Precision Air Conditioners

Cooling capacity 50 ÷ 222 kW

- **Separate ventilating section for installation under raised floor**
- **Reduced energy consumption of fans**
- **High ratio between supplied cooling capacity and footprint**
- **Optimised distribution of air in the raised floor**



Last generation control panel



### DESCRIPTION

Precision air conditioners of the series **G** their construction and operating features are suitable to meet the design criteria of last generation Data Centers.

### CONFIGURATIONS

**GXU:** downwards flow air conditioners with direct expansion with air or water condensation.

**GWU:** downwards flow air conditioners with chilled water.

For the configuration **W** there is also the version **XH (Extra Height)**. By increasing the height, performance can be enhanced thanks to the larger coil.

### FEATURES

Precision air conditioners of the series **G** they are designed for air-conditioning of utility rooms for high power density applications.

In these applications, the structures are characterised by technical floors as high as 1000 mm, creating ample space below to house the flow fans.

The fans are supplied inside a sub-base supplied separately, without increasing the size of the unit, thus optimising the available space with considerable advantages:

- The enlarged coils with ample heat exchange surface enhance performance with less energy consumption.
- Greater filtering surface reducing pressure drops so that less maintenance is needed as they get less dirty.
- Horizontal flow of fans in sub-base with lower pressure drops.

### STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

The ventilating sub-base is supplied separately and must be electrically connected at the worksite or on-site.

### FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

### FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).

Differential pressure switch (STANDARD) for dirty filter alarm.

The control of filter dirt conditions via Modbus is available as an option.

### ELECTRONIC CONTROLLER

The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.

- The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
- The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
- View of all operating parameters in 8 languages.

### CHILLED WATER COILS

#### Only for W configurations

Large surface coils, positioned in such a way as to optimise airflow and heat transfer, made of copper tubes with aluminium louvers mechanically merged, fitted with 2-way modulating valve (3-way is also available in the selection process).

### COMPRESSORS

#### Only for X configurations

High efficiency scroll compressor with low power consumption.

These units in the direct expansion configurations work with R410A refrigerant, which does not damage the ozone layer.

The dual circuit configuration controls the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.

**Electronic expansion valve standard on all sizes.**

## ACCESSORIES

### Direct expansion

- DC brushless compressors with inverter control
- Electric power supply line for remote condenser
- Electric power supply line with speed adjustment for remote condenser
- Condenser adjustment with 0-10V signal for remote condenser with EC fans
- Water condenser
- Condensate adjustment pressure valve
- "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

### Chilled water

- Three-way modulating valves
- Inlet and outlet water temperature probes
- "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

### Heating

- Low thermal inertia electric batteries with differentiated stages regulation

### Humidification

- Room humidity probe
- Flow humidity probe
- Submerged electrodes humidifier (also available with low conductivity cylinder)

## SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.

This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.

Compared to the Duty Stand-by (n+1 or n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET**

### Water presence detection

- Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence, even partial, is detected.

### Mechanicals and structural

- Condensate discharge pump
- Condensation and humidifier drain pump
- Motorised damper on suction
- M5 (EU5) efficiency air filter on air supply
- Ventilated plenum with panelling for front or rear flow
- Ventilated plenum with panelling for downflow (installation above raised floor)
- Panels with "sandwich" counter-panels (available on request on some models only)
- Panels with increased soundproof upholstery (available on request on some models only)

### Electrical

- The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 460V ~ 3 60Hz, 380V ~ 3N 60Hz
- Electric power supply line without neutral
- "Basic" version automatic transfer switch (ATS)
- "Advanced" version automatic transfer switch (ATS)

### Regulation

- Constant flow rate ventilation adjustment
- Constant pressure ventilation adjustment
- Local area network configuration and cable
- User terminal for remote installation

■ *For further details refer to the technical documentation or to the selection program.*

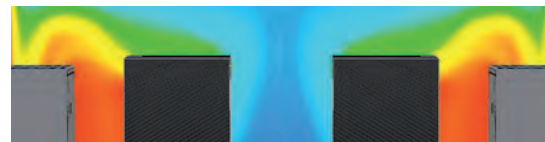
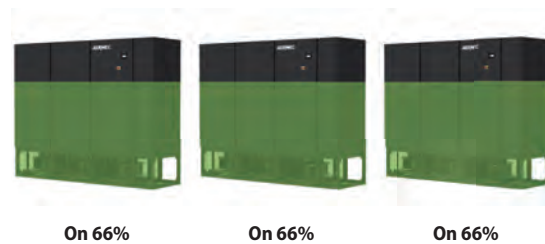
**system allows to maintain the units connected on the network always active** with various advantages:

- greater efficiency of the units with partial loads;
- optimal air distribution, eliminating the risk of environment hotspots;
- internal system redundancy,

### DUTY / STAND-BY



### SMARTNET



## TECHNICAL DATA

### GXU: downwards airflow - direct expansion with air or water condensation

|                                 |       | GXU 932              | GXU 1342 |
|---------------------------------|-------|----------------------|----------|
| <b>Cooling performances (1)</b> |       |                      |          |
| Total cooling capacity          | kW    | 91,2                 | 130,5    |
| Sensible cooling capacity       | kW    | 77,5                 | 121,2    |
| EER (2)                         | W/W   | 3,70                 | 3,81     |
| <b>Fans</b>                     |       |                      |          |
| Type                            | type  | Plug-fan EC inverter |          |
| Air flow rate                   | m³/h  | 18000                | 31500    |
| <b>Refrigerant circuit</b>      |       |                      |          |
| Number                          | no.   | 2                    | 2        |
| <b>Sound data</b>               |       |                      |          |
| Sound pressure (3)              | dB(A) | 56                   | 61       |
| <b>Electric data</b>            |       |                      |          |
| Power supply                    |       | 400V ~ 3N 50Hz       |          |

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

### GWU: downwards airflow - with chilled water

|                                 |       | GWU 070              | GWU 150 | GWU 230 | GWU 300 |
|---------------------------------|-------|----------------------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |         |         |         |
| Total cooling capacity          | kW    | 58,6                 | 96,4    | 143,6   | 208,8   |
| Sensible cooling capacity       | kW    | 49,0                 | 79,4    | 118,0   | 184,3   |
| EER (2)                         | W/W   | 31,83                | 46,92   | 62,41   | 33,68   |
| <b>Fans</b>                     |       |                      |         |         |         |
| Type                            | type  | Plug-fan EC inverter |         |         |         |
| Air flow rate                   | m³/h  | 11000                | 17600   | 25800   | 45200   |
| <b>Refrigerant circuit</b>      |       |                      |         |         |         |
| Number                          | no.   | 2                    | 2       | 2       | 2       |
| <b>Sound data</b>               |       |                      |         |         |         |
| Sound pressure (3)              | dB(A) | 58                   | 55      | 56      | 62      |
| <b>Electric data</b>            |       |                      |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |         |         |         |

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

|                                 |       | GWU 150 XH           | GWU 230 XH |
|---------------------------------|-------|----------------------|------------|
| <b>Cooling performances (1)</b> |       |                      |            |
| Total cooling capacity          | kW    | 113,2                | 222,9      |
| Sensible cooling capacity       | kW    | 93,1                 | 178,2      |
| EER (2)                         | W/W   | 55,78                | 79,32      |
| <b>Fans</b>                     |       |                      |            |
| Type                            | type  | Plug-fan EC inverter |            |
| Air flow rate                   | m³/h  | 20400                | 36000      |
| <b>Refrigerant circuit</b>      |       |                      |            |
| Number                          | no.   | 2                    | 2          |
| <b>Sound data</b>               |       |                      |            |
| Sound pressure (3)              | dB(A) | 57                   | 63         |
| <b>Electric data</b>            |       |                      |            |
| Power supply                    |       | 400V ~ 3N 50Hz       |            |

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

## DOWNWARDS FLOW CONFIGURATIONS



**Standard execution** for perimeter installation inside Data Centres: the height of the raised flooring must be minimum 550 mm.

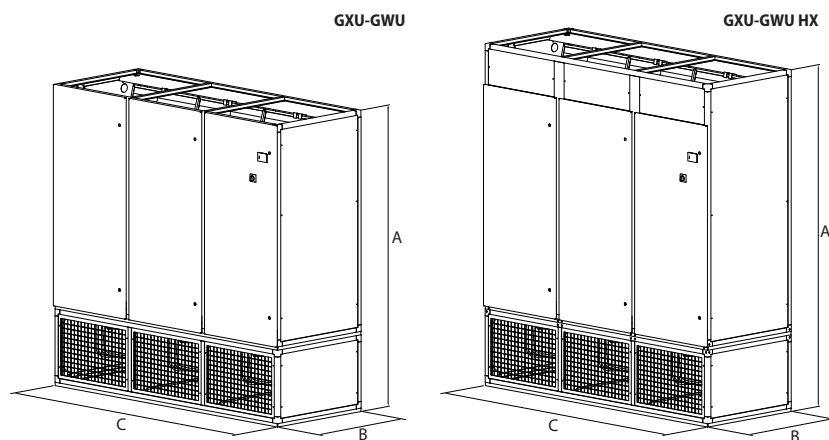


Execution for perimeter installation inside Data Centre. In this case, the sub-base side closure panels must be installed above the flooring. It is in any case essential to make sure that the height of the ceiling allows good air intake.



Execution for installation outside Data Centre, without raised flooring and rear delivery. In this case, the sub-base side closure panels and rear delivery grilles. Installation of the plenum with the rear return system is optional, if there is no channelling system.

## DIMENSIONS



|                        |    | GXU 932 |  | GXU 1342 |  |
|------------------------|----|---------|--|----------|--|
| Dimensions and weights |    |         |  |          |  |
| A                      | mm | 1990    |  | 1990     |  |
| B                      | mm | 921     |  | 921      |  |
| C                      | mm | 2390    |  | 3290     |  |
| Empty weight           | kg | 870     |  | 1000     |  |

|                        |    | GWU 070 | GWU 150 | GWU 150 XH | GWU 230 | GWU 230 XH | GWU 300 |
|------------------------|----|---------|---------|------------|---------|------------|---------|
| Dimensions and weights |    |         |         |            |         |            |         |
| A                      | mm | 1990    | 1990    | 2350       | 1990    | 2350       | 1990    |
| B                      | mm | 921     | 921     | 1050       | 921     | 1050       | 921     |
| C                      | mm | 1320    | 1840    | 1840       | 2740    | 2740       | 4020    |
| Empty weight           | kg | 610     | 750     | 640        | 930     | 950        | 1250    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## R 20-361

## Precision Air Conditioners

Cooling capacity 10 ÷ 37 kW

- “In row” installation between the server lines
- Horizontal air flow to offer an effective localised cooling
- Rear and front accessibility for simplified maintenance
- Front and side air flow



Last generation control panel



### DESCRIPTION

Precision air conditioners of the **R Series** have construction features and sizes so that they can be installed next to the servers of the Data Center.

### CONFIGURATIONS

**RXA:** air conditioners with delivery downwards and direct expansion with air or water condensation.

**RXU:** air conditioners with air delivery horizontal with cooled water.

Both configurations are available in compact version with reduced depth.

### FEATURES

Precision air conditioners in the **R** series are designed and built to have the same dimensions as the racks, rear intake from the warm corridor and front delivery towards the cold corridor.

### Two Sources

The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency.

This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the primary one.

They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.

### Free Cooling

This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler.

The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.

### STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

### FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

### FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).

Differential pressure switch (STANDARD) for dirty filter alarm.

The control of filter dirt conditions via Modbus is available as an option.

### ELECTRONIC CONTROLLER

The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.

- The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
- The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
- View of all operating parameters in 8 languages.

### CHILLED WATER COILS

#### Only for U configurations.

Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with aluminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

### COMPRESSORS

#### Only for A configurations

Single circuit configurations with DC brushless compressor with inverter, which allows to optimise the provided power guaranteeing a low electrical absorption.

These units work with R410A refrigerant, which does not damage the ozone layer.

**Electronic expansion valve standard on all sizes.**



## ACCESSORIES

### Direct expansion

- Electric power supply line for remote condenser
- Electric power supply line with speed adjustment for remote condenser
- Condenser adjustment with 0-10V signal for remote condenser with EC fans
- Water condenser
- Condensate adjustment pressure valve
- "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

### Chilled water

- Two ways modulating valves
- Inlet and outlet water temperature probes
- "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

### Heating

- Single stage electric coils with low thermal inertia.

### Humidification

- Room humidity probe
- Flow humidity probe
- Submerged electrodes humidifier (also available with low conductivity cylinder)

## SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.

This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.

Compared to the Duty Stand-by (n+1 or n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET**

### Water presence detection

- Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence, even partial, is detected.

### Mechanicals and structural

- Condensate discharge pump
- M5 (EU5) efficiency air filter on air supply
- Closed front panel for side flow
- Closed side panels for front flow
- Wheels for movement

### Electrical

- The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 230V ~ 3 60Hz, 380V ~ 3N 60Hz
- Electric power supply line without neutral
- "Basic" version automatic transfer switch (ATS)
- Advanced" version automatic transfer switch (ATS)

### Regulation

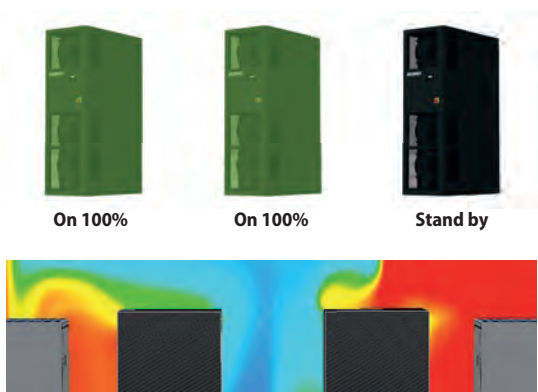
- Constant flow rate ventilation adjustment
- Constant pressure ventilation adjustment
- Local area network configuration and cable
- User terminal for remote installation

■ *For further details refer to the technical documentation or to the selection program.*

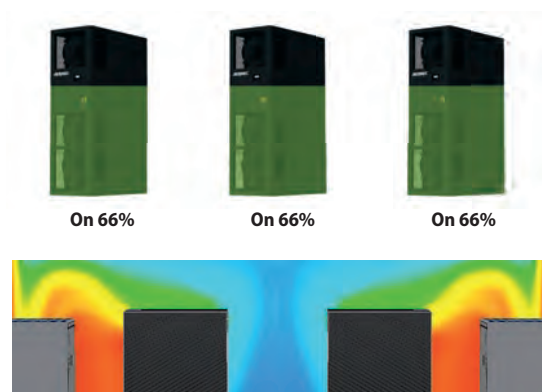
**system allows to maintain the units connected on the network always active** with various advantages:

- greater efficiency of the units with partial loads;
- optimal air distribution, eliminating the risk of environment hotspots;
- internal system redundancy,

### DUTY / STAND-BY



### SMARTNET



## TECHNICAL DATA

### RXA: horizontal air delivery - direct expansion with air or water condensation

|                                 |       | RXA 121              | RXA 201 | RXA 231 | RXA 361 |
|---------------------------------|-------|----------------------|---------|---------|---------|
| <b>Cooling performances (1)</b> |       |                      |         |         |         |
| Total cooling capacity          | kW    | 9,6                  | 19,3    | 20,8    | 32,5    |
| Sensible cooling capacity       | kW    | 9,6                  | 15,1    | 17,2    | 26,3    |
| EER (2)                         | W/W   | 3,14                 | 3,09    | 3,36    | 3,43    |
| <b>Fans</b>                     |       |                      |         |         |         |
| Type                            | type  | Plug-fan EC inverter |         |         |         |
| Air flow rate                   | m³/h  | 3200                 | 3600    | 6000    | 6600    |
| <b>Refrigerant circuit</b>      |       |                      |         |         |         |
| Number                          | no.   | 1                    | 1       | 1       | 1       |
| <b>Sound data</b>               |       |                      |         |         |         |
| Sound pressure (3)              | dB(A) | 51                   | 54      | 54      | 57      |
| <b>Possible configurations</b>  |       |                      |         |         |         |
| Free Cooling                    |       | -                    | -       | Yes     | -       |
| Two Sources                     |       | -                    | -       | Yes     | -       |
| <b>Electric data</b>            |       |                      |         |         |         |
| Power supply                    |       | 400V ~ 3N 50Hz       |         |         |         |

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

### RXU: horizontal air delivery - cooled water

|                                 |       | RXU 20               | RXU 40 |
|---------------------------------|-------|----------------------|--------|
| <b>Cooling performances (1)</b> |       |                      |        |
| Total cooling capacity          | kW    | 24,9                 | 37,8   |
| Sensible cooling capacity       | kW    | 22,2                 | 33,9   |
| EER (2)                         | W/W   | 22,81                | 27,78  |
| <b>Fans</b>                     |       |                      |        |
| Type                            | type  | Plug-fan EC inverter |        |
| Air flow rate                   | m³/h  | 5600                 | 9000   |
| <b>Refrigerant circuit</b>      |       |                      |        |
| Number                          | no.   | 1                    | 1      |
| <b>Sound data</b>               |       |                      |        |
| Sound pressure (3)              | dB(A) | 54                   | 62     |
| <b>Possible configurations</b>  |       |                      |        |
| Free Cooling                    |       | -                    | -      |
| Two Sources                     |       | -                    | Yes    |
| <b>Electric data</b>            |       |                      |        |
| Power supply                    |       | 400V ~ 3N 50Hz       |        |

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).

(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

## HORIZONTAL FLOW CONFIGURATIONS



**Standard execution**  
for "In-row" installation  
with front and side air delivery  
(RXA 121-201, RXU 20).



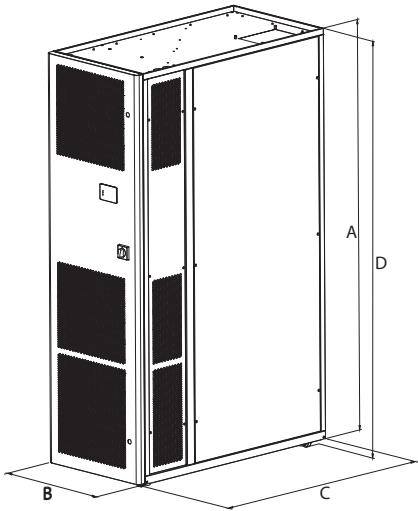
Execution for "In-row" installation  
with only front air delivery  
(RXA 231-361, RXU 40).



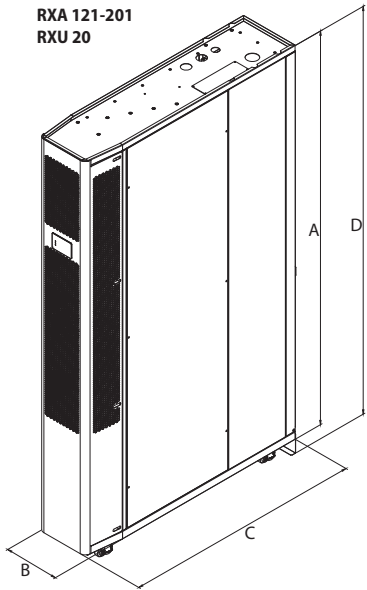
Execution for "In-row" installation  
with only side air delivery  
(RXA 231-361, RXU 40).

# DIMENSIONS

RXA 231-361  
RXU 40



RXA 121-201  
RXU 20



|                        |    | RXA 121 | RXA 201 | RXA 231 | RXA 361 |
|------------------------|----|---------|---------|---------|---------|
| Dimensions and weights |    |         |         |         |         |
| A                      | mm | 1975    | 1975    | 1985    | 1985    |
| B                      | mm | 300     | 300     | 600     | 600     |
| C                      | mm | 1200    | 1200    | 1222    | 1222    |
| D                      | mm | 2045    | 2045    | 2015    | 2015    |
| Empty weight           | kg | 200     | 215     | 215     | 215     |

|                        |    | RXU 20 | RXU 40 |
|------------------------|----|--------|--------|
| Dimensions and weights |    |        |        |
| A                      | mm | 1975   | 1985   |
| B                      | mm | 300    | 600    |
| C                      | mm | 1200   | 1222   |
| D                      | mm | 2045   | 2015   |
| Empty weight           | kg | 120    | 190    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements:

Aermec the answer to air conditioning.

A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space.

Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.

## ROOM AIR CONDITIONERS

|     |                      |                               | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|-----|----------------------|-------------------------------|--------------------------------------|--------------------|--------------------|------|
|     | <b>Monobloc</b>      |                               |                                      |                    |                    |      |
|     | <b>FK</b>            | Monobloc window               | -                                    | 2,7-3,6            | -                  | 912  |
|     | <b>CMP (COMPACT)</b> | Monobloc without outdoor unit | -                                    | 2,35               | 2,36               | 915  |
| new | <b>PST</b>           | Portable air conditioner      | -                                    | 3,5                | 2,9                | 918  |
|     | <b>Monosplit</b>     |                               |                                      |                    |                    |      |
|     | <b>SPG</b>           | Monosplit                     | -                                    | 2,5-6,2            | 2,8-6,5            | 921  |
|     | <b>SGE</b>           | Monosplit                     | -                                    | 2,8-5,9            | 2,9-6,0            | 926  |
|     | <b>SCG_1</b>         | Monosplit                     | -                                    | 7,2-12,5           | 7,9-14,5           | 930  |
|     | <b>CKG</b>           | Monosplit                     | -                                    | 2,7-6,6            | 2,9-6,8            | 934  |
|     | <b>LPG</b>           | Monosplit                     | -                                    | 3,5-16,0           | 4,0-17,0           | 940  |
|     | <b>MVAS</b>          | Monosplit high head duct      | -                                    | 22,4-28,0          | 24,0-30,0          | 949  |
|     | <b>Multisplit</b>    |                               |                                      |                    |                    |      |
|     | <b>MPG</b>           | Multisplit                    | -                                    | 4,1-12,1           | 4,4-13,0           | 952  |
|     | <b>MGE</b>           | Multisplit                    | -                                    | 4,1-7,9            | 4,4-8,2            | 969  |
| new | <b>MGEHW</b>         | Multisplit                    | -                                    | 7,91               | 8,21               | 979  |

## FK

## Monobloc window

Cooling capacity 2,7 ÷ 3,6 kW



- New R32 ecological refrigerant gas.
- Flush-mounting installation on the window.
- Plug & Play.



### DESCRIPTION

The packed air-conditioners of the FK range, for flush-mounting window installation, are ideal for use in commercial contexts such as shops, hotels, offices, laboratories and prefabricated garages.

### FEATURES



### Inner and outer side

- Remote control and holder standard supply with each unit.
- Fans with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Clean filter signal function.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- Inner side 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Sleep** night time function well-being program.
- DC inverter rotary compressor.

### General features

- New R32 ecological refrigerant gas with low GWP.
- Monobloc **Plug & Play** unit equipped with power supply with schuko plug.
- Operating mode: cooling, dehumidification and fan only.
- Condensate discharge tub included.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.

### INSTALLATION TYPE



## PERFORMANCE SPECIFICATIONS

|                                     |           | FK260 | FK360 |
|-------------------------------------|-----------|-------|-------|
| <b>Nominal cooling performances</b> |           |       |       |
| Cooling capacity (1)                | kW        | 2,70  | 3,65  |
| Cooling input power (1)             | kW        | 0,78  | 1,03  |
| EER (2)                             | W/W       | 3,45  | 3,54  |
| Moisture removed                    | l/h       | 1,0   | 1,6   |
| <b>Maximum cooling performances</b> |           |       |       |
| Cooling input current               | A         | 3,5   | 4,6   |
| <b>Seasonal efficiency</b>          |           |       |       |
| SEER                                | W/W       | 5,20  | 5,40  |
| Efficiency energy class (3)         |           | A     | A     |
| Pdesignc                            | kW        | 2,7   | 3,7   |
| Annual power consumption            | kWh/annum | 182   | 240   |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

## GENERAL DATA

|                         |    | FK260           | FK360           |
|-------------------------|----|-----------------|-----------------|
| <b>Electric data</b>    |    |                 |                 |
| Rated power input (1)   | kW | 1,10            | 1,30            |
| Rated current input (1) | A  | 5,5             | 6,5             |
| <b>Power supply</b>     |    |                 |                 |
| Power supply            |    | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## INNER SIDE

|                                  |       | FK260                | FK360                |
|----------------------------------|-------|----------------------|----------------------|
| <b>Inner side</b>                |       |                      |                      |
| Type of fan                      | Type  | Inverter centrifugal | Inverter centrifugal |
| <b>Inner side air flow rate</b>  |       |                      |                      |
| Maximum                          | m³/h  | 400                  | 480                  |
| Average                          | m³/h  | 360                  | 430                  |
| Minimum                          | m³/h  | 320                  | 380                  |
| <b>Inner side sound pressure</b> |       |                      |                      |
| Maximum                          | dB(A) | 50,0                 | 50,0                 |
| Average                          | dB(A) | 48,0                 | 48,0                 |
| Minimum                          | dB(A) | 46,0                 | 46,0                 |
| <b>Inner side sound power</b>    |       |                      |                      |
| Maximum                          | dB(A) | 59,0                 | 59,0                 |
| Average                          | dB(A) | 57,0                 | 57,0                 |
| Minimum                          | dB(A) | 55,0                 | 55,0                 |

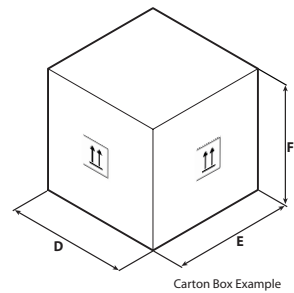
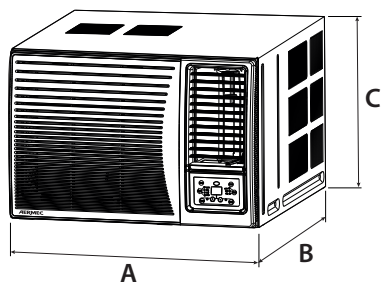
## OUTER SIDE

|                                  |       | FK260                   | FK360                   |
|----------------------------------|-------|-------------------------|-------------------------|
| <b>Outer side</b>                |       |                         |                         |
| Type of fan                      | Type  | Inverter axial          | Inverter axial          |
| <b>Outer side air flow rate</b>  |       |                         |                         |
| Maximum                          | m³/h  | 800                     | 1200                    |
| <b>Outer side sound power</b>    |       |                         |                         |
| Maximum                          | dB(A) | 65,0                    | 65,0                    |
| Average                          | dB(A) | 63,0                    | 63,0                    |
| Minimum                          | dB(A) | 61,0                    | 61,0                    |
| <b>Outer side sound pressure</b> |       |                         |                         |
| Maximum                          | dB(A) | 56,0                    | 56,0                    |
| Average                          | dB(A) | 54,0                    | 54,0                    |
| Minimum                          | dB(A) | 52,0                    | 52,0                    |
| <b>Compressor</b>                |       |                         |                         |
| Type                             | type  | Inverter rotary         | Inverter rotary         |
| <b>Compressor</b>                |       |                         |                         |
| Refrigerant                      | type  | R32                     | R32                     |
| Refrigerant charge (1)           | kg    | 0,5                     | 0,6                     |
| <b>Compressor</b>                |       |                         |                         |
| Potential global heating         | GWP   | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq |
| Equivalent CO <sub>2</sub>       | t     | 0,34                    | 0,43                    |
| <b>Outer side</b>                |       |                         |                         |
| Protection rating                |       | IPX4                    | IPX4                    |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.



DIMENSIONS AND WEIGHTS



|                        |    | FK260 | FK360 |
|------------------------|----|-------|-------|
| Dimensions and weights |    |       |       |
| A                      | mm | 560   | 660   |
| B                      | mm | 710   | 700   |
| C                      | mm | 375   | 428   |
| D                      | mm | 623   | 739   |
| E                      | mm | 806   | 793   |
| F                      | mm | 425   | 505   |
| Net weight             | kg | 43,0  | 50,0  |
| Weight for transport   | kg | 47,0  | 54,0  |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## CMP

## Monobloc without outdoor unit

Cooling capacity 2,35 kW  
Heating capacity 2,36 kW



- Two holes, no outdoor units.
- Modern design to blend with all furnishing styles.
- Extremely thin, with a depth of just 165 mm.



### DESCRIPTION

The air-conditioners of the CMP range are of the single-block type and are ideal for heating, cooling, dehumidification or ventilation only, whether in the home or the office.

The absence of an outdoor unit permits installation in all those cases where architectural restraints prevent the positioning of a split air-conditioner.

The unit boasts a compressor and a fan with inverter technology.

### FEATURES

#### Unit

Indoor unit designed for installation on internal walls.

- No need for an outdoor unit just make two 162 mm holes in the outer wall so the air-conditioner can exchange heat with the external environment.
- Folding grilles included.
- On-board control panel with display and soft-touch keys.
- Included remote control.

Cooling operation with outside temperatures up to 35 °C.

Heating operation with outdoor temperatures down to 7 °C.



#### Folding grilles

With two folding grilles which, activated by the inlet and outlet air, open when the machine is working and close when the machine is switched off. In this way they guarantee enhanced indoor comfort, less dust, noise and pollution, reduced maintenance and are even less visible from the outside.

#### Control panel

The on-board control panel with display and soft-touch keys allows you to set the required temperature set-point easily and accurately.

The "heating" function is deactivated by a simple intervention on the control panel: the device then works in "cooling only" mode, without requiring the condensate discharge tube.

The air delivery fin is easily orientated by means of the relative key.

#### Remote control

Handy remote control that's not too bulky.

Fitted with a practical magnet so it can be fixed to the unit.

All the control panel functions are available via the remote control too.

### GENERAL FEATURES

- Condensate drip tray constantly pre-heated in the winter during heat pump operation, without any risk of the water freezing.
- Operating mode: cooling, dehumidification and fan only.
- Particularly quiet operation.
- Microprocessor control.

### ACCESSORIES AS STANDARD

- Condensate drip.
- Two folding grilles.
- Remote control.

## PERFORMANCE SPECIFICATIONS

| CMP23I   |           |      |
|--|-----------|------|
| <b>Nominal cooling performances</b>            |           |      |
| Cooling capacity (1)                           | kW        | 2,35 |
| Cooling input power (1)                        | kW        | 0,73 |
| EER (2)  | W/W       | 3,22 |
| <b>Maximum cooling performances</b>            |           |      |
| Cooling capacity                               | kW        | 3,10 |
| <b>Nominal cooling performances</b>            |           |      |
| Moisture removed                               | l/h       | 1,1  |
| <b>Seasonal efficiency</b>                     |           |      |
| Efficiency energy class (3)                    |           | A+   |
| Annual power consumption                       | kWh/annum | 425  |
| <b>Nominal heating performances</b>            |           |      |
| Heating capacity (4)                           | kW        | 2,36 |
| Heating input power (4)                        | kW        | 0,72 |
| COP (2)  | W/W       | 3,28 |
| <b>Maximum heating performances</b>            |           |      |
| Heating capacity                               | kW        | 3,05 |
| <b>Seasonal efficiency (temperate climate)</b> |           |      |
| Efficiency energy class (3)                    |           | A    |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

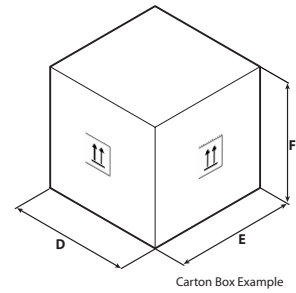
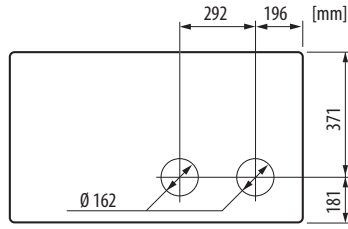
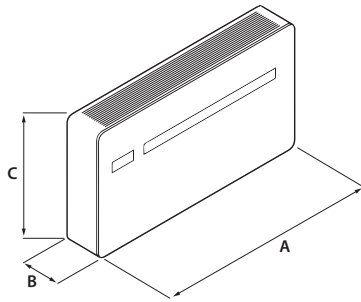
## GENERAL DATA

| CMP23I   |       |                          |
|--|-------|--------------------------|
| <b>Fan</b>                                       |       |                          |
| Type   | type  | Inverter centrifugal     |
| Number   | no.   | 1                        |
| <b>Inner side air flow rate</b>                  |       |                          |
| Maximum  | m³/h  | 400                      |
| Average  | m³/h  | 320                      |
| Minimum  | m³/h  | 270                      |
| <b>Outer side air flow rate</b>                  |       |                          |
| Maximum  | m³/h  | 480                      |
| Average  | m³/h  | 390                      |
| Minimum  | m³/h  | 340                      |
| <b>Compressor</b>                                |       |                          |
| Number   | no.   | 1                        |
| Refrigerant                                      | type  | R410A                    |
| Refrigerant charge (1)                           | kg    | 0,6                      |
| Potential global heating                         | GWP   | 2088kgCO <sub>2</sub> eq |
| <b>Sound data calculated in cooling mode (2)</b> |       |                          |
| Sound power level                                | dB(A) | 58,0                     |
| Sound pressure level (1,5 m)                     | dB(A) | 46,0                     |

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS AND WEIGHTS



| CMP23I                 |    |      |
|------------------------|----|------|
| Dimensions and weights |    |      |
| A                      | mm | 1030 |
| B                      | mm | 170  |
| C                      | mm | 555  |
| D                      | mm | 1100 |
| E                      | mm | 260  |
| F                      | mm | 660  |
| Net weight             | kg | 48,0 |
| Weight for transport   | kg | 49,0 |

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# PST

## Portable air conditioner

Cooling capacity 3,5 kW  
Heating capacity 2,9 kW

- New R290 natural refrigerant gas.
- Reversible heat pump.
- Standard Wi-Fi control.
- Compact, manoeuvrable and silent.
- Modern design to blend with all furnishing styles.
- Special coil with fin golden coating.



### DESCRIPTION

PST portable air conditioner, ideal for heating, cooling, dehumidification or ventilation only both at home and at the office.

Adapts to any kind of decor, thanks to its compact and elegant design; it is mounted on wheels and can be used in multiple rooms, and is easily transportable and installable.

Equipped with a specific tank to collect the moisture removed from the environment during cooling, heating or dehumidification.

The on-board control panel with display, allows to easily and precisely set the desired temperature set-points.

### FEATURES



### Operation

The cooled, heated and/or dehumidified air exits the front grille and directed vertically by movable louvers.

The air to be treated is drawn through filters from the rear.

The exhausted air is expelled through a hose that is attached by means of a special flange on the rear of the portable air conditioner unit.

The air filters are easy to remove and wash.

### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### GENERAL FEATURES

Remote control standard supply with each unit.

New R290 natural refrigerant gas.

Operating mode: cooling, heating, dehumidification, automatic and fan only.

Regenerable air filter easy to remove and clean.

Particularly quiet operation.

Timer for programming switch-off and switch-on.

Indoor unit front panel with LED display and indicator lights.

3-speed fan, to meet every possible need.

**Auto** function for a continuous speed variation.

**Sleep** night time function well-being program.

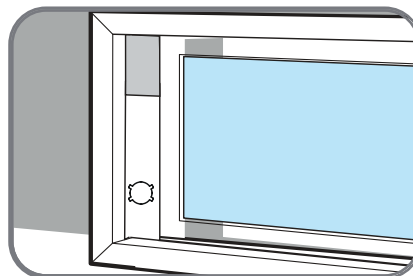
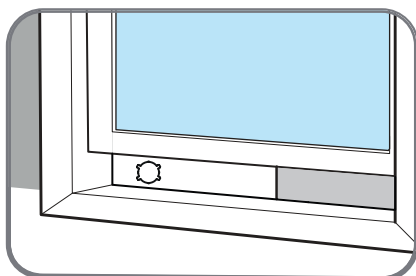
**followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

**Auto-restart** function.

## ACCESSORIES AS STANDARD

- Air expulsion hose with special joints and collectors.
- Condensate discharge hose, discharge tap and relative fixing accessories.
- Window kit and protection mesh to connect the hot air expulsion hose.
- Cap for the wall and connection for the hot air expulsion hose.
- Remote control.

## WINDOW KIT



## FLEXIBLE PIPE

| PST350               |    |      |
|----------------------|----|------|
| <b>Flexible pipe</b> |    |      |
| Minimum length       | mm | 330  |
| Maximum length       | mm | 1450 |
| Size (out)           | Ø  | 155  |

## PERFORMANCE SPECIFICATIONS

| PST350                              |    |      |
|-------------------------------------|----|------|
| <b>Nominal cooling performances</b> |    |      |
| Cooling capacity                    | kW | 3,50 |
| <b>Nominal heating performances</b> |    |      |
| Heating capacity                    | kW | 2,90 |

Rating data Cooling (EN 14511 e EN 14825) Ambient air temperature 35°C d.b. / 24°C w.b. - Max speed  
Rating data Heating (EN 14511 e EN 14825) Ambient air temperature 20°C d.b. / 12°C w.b. - Max speed

## GENERAL DATA

| PST350                        |      |   |
|-------------------------------|------|---|
| <b>Electric data</b>          |      |   |
| Rated power input             | W    | 1450  |
| Rated current input           | A    | 8,0   |
| <b>Power supply</b>           |      |   |
| Power supply                  |      | 220-240V ~ 50Hz                             |
| <b>Outer side</b>             |      |   |
| Condensate discharge diameter | mm   | 13,5  |
| <b>Power supply cable</b>     |      |   |
| Type of power supply cable    | Type | 3G1,5 mm <sup>2</sup> /L= 2,3 m/Schuko plug |

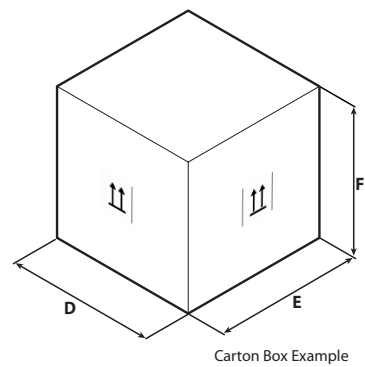
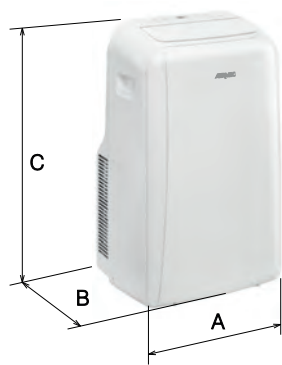
The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

## UNIT DATA

| PST350               |                   |             |
|----------------------|-------------------|-------------|
| <b>Compressor</b>    |                   |             |
| Type                 | type              | Rotary      |
| <b>Fan</b>           |                   |             |
| Type                 | type              | Centrifugal |
| <b>Air flow rate</b> |                   |             |
| Minimum              | m <sup>3</sup> /h | 355         |
| Average              | m <sup>3</sup> /h | 370         |
| Maximum              | m <sup>3</sup> /h | 420         |
| <b>Sound data</b>    |                   |             |
| Sound power level    | dB(A)             | 64,0        |

Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

DIMENSIONS AND WEIGHTS



Carton Box Example

| PST350                 |    |      |
|------------------------|----|------|
| Dimensions and weights |    |      |
| A                      | mm | 467  |
| B                      | mm | 397  |
| C                      | mm | 765  |
| D                      | mm | 512  |
| E                      | mm | 442  |
| F                      | mm | 880  |
| Net weight             | kg | 33,2 |
| Weight for transport   | kg | 37,0 |

Aermec reserves the right to make any modifications deemed necessary.  
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responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## SPG

## Monosplit

Cooling capacity 2,5 ÷ 6,2 kW  
Heating capacity 2,8 ÷ 6,5 kW



- New R32 ecological refrigerant gas.
- Wi-fi control using the relative accessory.
- Modern design to blend with all furnishing styles.
- Special coil with fin blue coating.
- Indoor units compatible with multisplit systems.



### DESCRIPTION

The monosplit air conditioners of the SPG range are combined with SPG\_W (Wall) indoor units for wall installation.

Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

| Indoor units                 | SPG_W   |         |         |         |         |
|------------------------------|---------|---------|---------|---------|---------|
|                              | SPG200W | SPG250W | SPG350W | SPG500W | SPG700W |
| Monosplit outdoor units SPG  |         | •       | •       | •       | •       |
| Multisplit outdoor units MPG | •       | •       | •       | •       | •       |

The external unit boasts a compressor and a fan with inverter technology.

### FEATURES



#### Indoor unit

**Wall** indoor unit designed to be installed on indoor walls.

- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.

- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### Outdoor unit

Monosplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

- Compressor and fan with DC inverter technology.

#### X-fan function

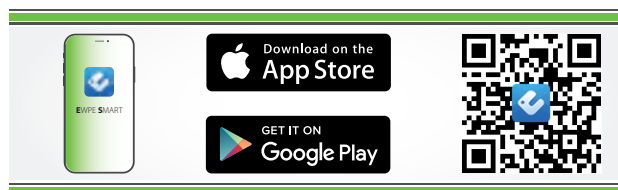
This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.





## Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



## Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

## ACCESSORIES

**CC2:** Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. \*

**WRCA:** Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

\* **The CC2 centralised control can manage up to 36 SPG system.**

**In order to use accessory CC2, for each indoor unit, the WRCA wired panel (accessory) must be installed, with the IC-2P adapter accessory.**

**DCK:** Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.

**WIFIKIT01:** Plug & Play module to be installed in the indoor unit for Wi-Fi control, equipped with Bluetooth® connection to ensure a better connection with smart devices. (Cable length 250 mm)



**DTG1:** Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

## Accessories compatibility

### SPG\_W

|                            |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
| Accessory                  | SPG500W | SPG700W |         |         |         |
| CC2 (1)                    | •       | •       |         |         |         |
| WRCA (1)                   | •       | •       |         |         |         |
| (1) Auto-restart function. |         |         |         |         |         |
| Accessory                  | SPG500W | SPG700W |         |         |         |
| IC-2P                      | •       | •       |         |         |         |
| Accessory                  | SPG200W | SPG250W | SPG350W | SPG500W | SPG700W |
| DCK                        |         |         |         | •       | •       |
| WIFIKIT01                  | •       | •       | •       | •       | •       |

## PERFORMANCE SPECIFICATIONS

| Indoor unit                                    |           | SPG250W | SPG350W | SPG500W | SPG700W |
|--|-----------|---------|---------|---------|---------|
| Outdoor unit                                   |           | SPG250  | SPG350  | SPG500  | SPG700  |
| Indoor unit quantity                           |           | 1       | 1       | 1       | 1       |
| Outdoor unit quantity                          |           | 1       | 1       | 1       | 1       |
| <b>Nominal cooling performances</b>            |           |         |         |         |         |
| Cooling capacity (1)                           | kW        | 2,50    | 3,20    | 4,60    | 6,20    |
| Cooling input power (1)                        | kW        | 0,72    | 0,99    | 1,36    | 1,77    |
| EER (2)  | W/W       | 3,47    | 3,23    | 3,39    | 3,50    |
| Moisture removed                               | l/h       | 0,6     | 1,4     | 1,8     | 1,8     |
| <b>Minimum cooling performances</b>            |           |         |         |         |         |
| Cooling capacity                               | kW        | 0,50    | 0,90    | 1,00    | 1,60    |
| Cooling input power                            | kW        | 0,15    | 0,22    | 0,42    | 0,45    |
| <b>Maximum cooling performances</b>            |           |         |         |         |         |
| Cooling capacity                               | kW        | 3,25    | 3,60    | 5,30    | 6,90    |
| Cooling input power                            | kW        | 1,30    | 1,30    | 1,80    | 2,20    |
| Cooling input current                          | A         | 3,2     | 4,4     | 5,9     | 7,9     |
| <b>Seasonal efficiency</b>                     |           |         |         |         |         |
| Annual power consumption                       | kWh/annum | 135     | 184     | 251     | 319     |
| SEER   | W/W       | 6,50    | 6,10    | 6,40    | 6,80    |
| Efficiency energy class (3)                    |           | A++     | A++     | A++     | A++     |
| <b>Nominal heating performances</b>            |           |         |         |         |         |
| Heating capacity (4)                           | kW        | 2,80    | 3,40    | 5,20    | 6,50    |
| Heating input power (4)                        | kW        | 0,75    | 0,91    | 1,34    | 1,65    |
| COP (2)  | W/W       | 3,73    | 3,71    | 3,88    | 3,95    |
| <b>Minimum heating performances</b>            |           |         |         |         |         |
| Heating capacity                               | kW        | 0,50    | 0,90    | 1,00    | 1,30    |
| Heating input power                            | kW        | 0,14    | 0,22    | 0,42    | 0,45    |
| <b>Maximum heating performances</b>            |           |         |         |         |         |
| Heating capacity                               | kW        | 3,50    | 4,00    | 5,65    | 7,91    |
| Heating input power                            | kW        | 1,50    | 1,50    | 1,90    | 2,20    |
| Heating input current                          | A         | 3,2     | 4,0     | 5,8     | 7,3     |
| <b>Seasonal efficiency (temperate climate)</b> |           |         |         |         |         |
| Annual power consumption                       | kWh/annum | 875     | 945     | 1295    | 1645    |
| Efficiency energy class (3)                    |           | A+      | A+      | A+      | A+      |
| SCOP   | W/W       | 4,00    | 4,00    | 4,00    | 4,00    |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

## INDOOR UNIT DATA

|                               |       | SPG250W              | SPG350W         | SPG500W | SPG700W |
|-------------------------------|-------|----------------------|-----------------|---------|---------|
| Indoor unit                   |       |                      |                 |         |         |
| Type of fan                   | Type  | Inverter centrifugal |                 |         |         |
| Air flow rate                 |       |                      |                 |         |         |
| Turbo                         | m³/h  | 500                  | 590             | 850     | 1100    |
| Maximum                       | m³/h  | 470                  | 520             | 800     | 950     |
| Average                       | m³/h  | 390                  | 400             | 700     | 750     |
| Minimum                       | m³/h  | 270                  | 320             | 600     | 650     |
| Sound power (1)               |       |                      |                 |         |         |
| Turbo                         | dB(A) | 55,0                 | 56,0            | 54,0    | 61,0    |
| Maximum                       | dB(A) | 48,0                 | 49,0            | 52,0    | 58,0    |
| Average                       | dB(A) | 44,0                 | 45,0            | 48,0    | 52,0    |
| Minimum                       | dB(A) | 34,0                 | 38,0            | 44,0    | 49,0    |
| Sound pressure (1 m) (2)      |       |                      |                 |         |         |
| Turbo                         | dB(A) | 38,0                 | 41,0            | 44,0    | 47,0    |
| Maximum                       | dB(A) | 36,0                 | 37,0            | 42,0    | 44,0    |
| Average                       | dB(A) | 32,0                 | 33,0            | 38,0    | 38,0    |
| Minimum                       | dB(A) | 22,0                 | 26,0            | 34,0    | 35,0    |
| Indoor unit                   |       |                      |                 |         |         |
| Condensate discharge diameter | mm    | 16,0                 | 16,0            | 16,0    | 16,0    |
| Power supply                  |       |                      |                 |         |         |
| Indoor unit power supply      |       |                      | 220-240V ~ 50Hz |         |         |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

## OUTDOOR UNIT DATA

|                               |       | SPG250                   | SPG350 | SPG500 | SPG700 |
|-------------------------------|-------|--------------------------|--------|--------|--------|
| Outdoor unit                  |       |                          |        |        |        |
| Type of fan                   | Type  | Inverter axial           |        |        |        |
| Air flow rate                 |       |                          |        |        |        |
| Maximum                       | m³/h  | 1950                     | 1950   | 1950   | 2800   |
| Sound power (1)               |       |                          |        |        |        |
| Maximum                       | dB(A) | 62,0                     | 64,0   | 63,0   | 67,0   |
| Sound pressure (1 m) (2)      |       |                          |        |        |        |
| Maximum                       | dB(A) | 51,0                     | 51,0   | 55,0   | 58,0   |
| Compressor                    |       |                          |        |        |        |
| Type                          | type  | Inverter rotary          |        |        |        |
| Refrigerant                   | type  | R32                      |        |        |        |
| Refrigerant charge            | kg    | 0,50                     | 0,55   | 0,75   | 1,30   |
| Potential global heating      | GWP   | 675kgCO <sub>2</sub> -eq |        |        |        |
| Equivalent CO <sub>2</sub>    | t     | 0,34                     | 0,37   | 0,51   | 0,88   |
| Outdoor unit                  |       |                          |        |        |        |
| Condensate discharge diameter | mm    | 16,0                     | 16,0   | 16,0   | 16,0   |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

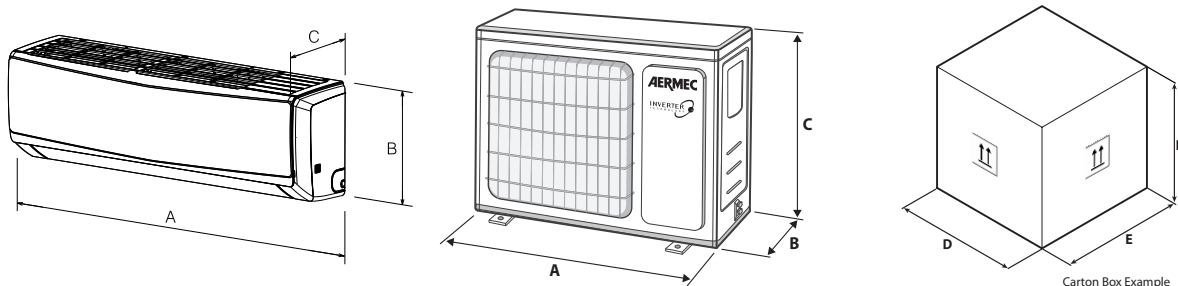
## GENERAL DATA

| <b>Indoor unit</b>  |           | SPG250W         | SPG350W         | SPG500W         | SPG700W         |
|---|-----------|-----------------|-----------------|-----------------|-----------------|
| <b>Outdoor unit</b>   |           | <b>SPG250</b>   | <b>SPG350</b>   | <b>SPG500</b>   | <b>SPG700</b>   |
| <b>Indoor unit quantity</b>   |           | <b>1</b>        | <b>1</b>        | <b>1</b>        | <b>1</b>        |
| <b>Outdoor unit quantity</b>  |           | <b>1</b>        | <b>1</b>        | <b>1</b>        | <b>1</b>        |
| <b>Electric data</b>  |           |                 |                 |                 |                 |
| Rated power input (1)   | kW        | 1,50            | 1,50            | 1,90            | 2,20            |
| Rated current input (1)   | A         | 7,5             | 7,5             | 9,0             | 10,0            |
| <b>Refrigerant lines</b>  |           |                 |                 |                 |                 |
| Diameter of liquid refrigerant connections                          | mm (inch) | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     |
| Diameter of refrigerant gas connections                             | mm (inch) | 9,52 (3/8")     | 9,52 (3/8")     | 9,52 (3/8")     | 12,7 (1/2")     |
| Maximum refrigerant tube length                                     | m         | 15              | 20              | 25              | 25              |
| Maximum refrigerant line level difference                           | m         | 10,0            | 10,0            | 10,0            | 10,0            |
| Maximum length of refrigerant lines without addition of refrigerant | m         | 5               | 5               | 5               | 5               |
| Refrigerant to be added   | g/m       | 16              | 16              | 16              | 16              |
| <b>Power supply</b>   |           |                 |                 |                 |                 |
| Power supply  |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

For lines longer than 15m it is necessary to add 5ml of refrigerant oil for every additional 5m of pipe.

## DIMENSIONS AND WEIGHTS



|                      |    | SPG250W | SPG350W | SPG500W | SPG700W |
|----------------------|----|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |
| A                    | mm | 696     | 770     | 972     | 1081    |
| B                    | mm | 251     | 251     | 300     | 325     |
| C                    | mm | 190     | 190     | 225     | 248     |
| D                    | mm | 747     | 822     | 1022    | 1137    |
| E                    | mm | 324     | 324     | 374     | 407     |
| F                    | mm | 262     | 262     | 299     | 334     |
| Net weight           | kg | 7,5     | 8,5     | 13,5    | 16,5    |
| Weight for transport | kg | 9,0     | 10,0    | 16,0    | 19,5    |
|                      |    | SPG250  | SPG350  | SPG500  | SPG700  |
| <b>Outdoor unit</b>  |    |         |         |         |         |
| A                    | mm | 732     | 732     | 732     | 873     |
| B                    | mm | 330     | 330     | 330     | 376     |
| C                    | mm | 550     | 550     | 555     | 555     |
| D                    | mm | 792     | 792     | 794     | 951     |
| E                    | mm | 393     | 393     | 376     | 431     |
| F                    | mm | 615     | 615     | 615     | 620     |
| Net weight           | kg | 25,0    | 25,0    | 27,0    | 37,0    |
| Weight for transport | kg | 28,0    | 28,0    | 29,0    | 40,0    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
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## SGE

## Monosplit

Cooling capacity 2,8 ÷ 5,9 kW  
Heating capacity 2,9 ÷ 6,0 kW



- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Possibility of Wi-Fi control.**
- **Innovative design sleek curved lines.**
- **Special coil with fin golden coating.**



### DESCRIPTION

The monosplit air conditioners of the SGE range are combined with SGE\_W (Wall) indoor units for wall installation. The external unit boasts a compressor with inverter technology.

### FEATURES

#### Innovative design

SGE has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.



#### Indoor unit

**Wall** indoor unit designed to be installed on indoor walls.

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### Outdoor unit

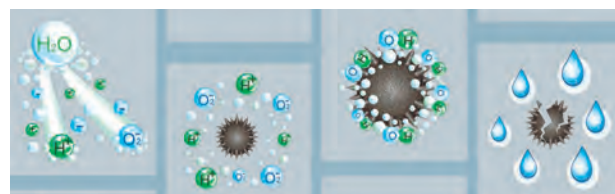
Monosplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

Compressor and fan with DC inverter technology.

#### Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



#### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## Nethome Plus app

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



## General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

## ACCESSORIES

**WIFIKEY:** Plug & Play module to be installed in the indoor unit for Wi-Fi control.

## Accessories compatibility

| Accessory | SGE250W | SGE350W | SGE500W | SGE700W |
|-----------|---------|---------|---------|---------|
| WIFIKEY   | *       | *       | *       | *       |

## PERFORMANCE SPECIFICATIONS

| Indoor unit                                    |           | SGE250W | SGE350W | SGE500W | SGE700W |
|--|-----------|---------|---------|---------|---------|
| Outdoor unit                                   |           | SGE250  | SGE350  | SGE500  | SGE700  |
| Indoor unit quantity                           |           | 1       | 1       | 1       | 1       |
| Outdoor unit quantity                          |           | 1       | 1       | 1       | 1       |
| <b>Nominal cooling performances</b>            |           |         |         |         |         |
| Cooling capacity (1)                           | kW        | 2,77    | 3,46    | 5,27    | 5,86    |
| Cooling input power (1)                        | kW        | 0,77    | 1,06    | 1,55    | 1,81    |
| EER (2)  | W/W       | 3,60    | 3,25    | 3,40    | 3,24    |
| Moisture removed                               | l/h       | 1,0     | 1,2     | 1,8     | 2,7     |
| <b>Minimum cooling performances</b>            |           |         |         |         |         |
| Cooling capacity                               | kW        | 0,91    | 1,11    | 3,39    | 2,08    |
| Cooling input power                            | kW        | 0,10    | 0,13    | 0,56    | 0,42    |
| <b>Maximum cooling performances</b>            |           |         |         |         |         |
| Cooling capacity                               | kW        | 3,39    | 4,16    | 5,83    | 7,91    |
| Cooling input power                            | kW        | 1,24    | 1,58    | 2,05    | 3,15    |
| Cooling input current                          | A         | 3,3     | 4,6     | 6,7     | 7,9     |
| <b>Seasonal efficiency</b>                     |           |         |         |         |         |
| SEER   | W/W       | 6,30    | 6,40    | 7,40    | 6,80    |
| Efficiency energy class (3)                    |           | A++     | A++     | A++     | A++     |
| Annual power consumption                       | kWh/annum | 156     | 190     | 247     | 300     |
| <b>Nominal heating performances</b>            |           |         |         |         |         |
| Heating capacity (4)                           | kW        | 2,93    | 3,57    | 4,97    | 6,00    |
| Heating input power (4)                        | kW        | 0,73    | 0,96    | 1,29    | 1,61    |
| COP (2)  | W/W       | 4,00    | 3,71    | 3,83    | 3,73    |
| <b>Minimum heating performances</b>            |           |         |         |         |         |
| Heating capacity                               | kW        | 0,82    | 1,08    | 3,10    | 1,61    |
| Heating input power                            | kW        | 0,12    | 0,10    | 0,78    | 0,30    |
| <b>Maximum heating performances</b>            |           |         |         |         |         |
| Heating capacity                               | kW        | 3,37    | 4,22    | 5,85    | 7,91    |
| Heating input power                            | kW        | 1,20    | 1,68    | 2,00    | 2,75    |
| Heating input current                          | A         | 3,2     | 4,2     | 5,6     | 7,0     |
| <b>Seasonal efficiency (temperate climate)</b> |           |         |         |         |         |
| SCOP   | W/W       | 4,00    | 4,00    | 4,00    | 4,00    |
| Efficiency energy class (3)                    |           | A+      | A+      | A+      | A+      |
| Annual power consumption                       | kWh/annum | 910     | 945     | 1435    | 1818    |
| <b>Seasonal efficiency (hot climate)</b>       |           |         |         |         |         |
| SCOP   | W/W       | 5,10    | 5,10    | 5,10    | 5,00    |
| Efficiency energy class (3)                    |           | A+++    | A+++    | A+++    | A++     |
| Annual power consumption                       | kWh/annum | 714     | 686     | 1260    | 1705    |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

## INDOOR UNIT

|                          |       | SGE250W    | SGE350W | SGE500W | SGE700W |
|--------------------------|-------|------------|---------|---------|---------|
| Indoor unit              |       |            |         |         |         |
| Type of fan              | Type  | Tangential |         |         |         |
| Air flow rate            |       |            |         |         |         |
| Maximum                  | m³/h  | 466        | 540     | 840     | 980     |
| Average                  | m³/h  | 360        | 430     | 680     | 817     |
| Minimum                  | m³/h  | 325        | 314     | 540     | 662     |
| Sound power (1)          |       |            |         |         |         |
| Maximum                  | dB(A) | 54,0       | 55,0    | 56,0    | 59,0    |
| Sound pressure (1 m) (2) |       |            |         |         |         |
| Maximum                  | dB(A) | 38,5       | 40,5    | 42,5    | 45,0    |
| Average                  | dB(A) | 32,0       | 34,5    | 36,0    | 40,5    |
| Minimum                  | dB(A) | 25,0       | 25,0    | 26,0    | 36,0    |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

## OUTDOOR UNIT

|                                 |       | SGE250                  | SGE350                  | SGE500                  | SGE700                  |
|---------------------------------|-------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Outdoor unit</b>             |       |                         |                         |                         |                         |
| Type of fan                     | Type  | Axial                   | Axial                   | Axial                   | Axial                   |
| <b>Air flow rate</b>            |       |                         |                         |                         |                         |
| Maximum                         | m³/h  | 1750                    | 1800                    | 2100                    | 3500                    |
| <b>Sound power (1)</b>          |       |                         |                         |                         |                         |
| Maximum                         | dB(A) | 62,0                    | 63,0                    | 63,0                    | 67,0                    |
| <b>Sound pressure (1 m) (2)</b> |       |                         |                         |                         |                         |
| Maximum                         | dB(A) | 55,5                    | 56,0                    | 56,0                    | 59,0                    |
| <b>Compressor</b>               |       |                         |                         |                         |                         |
| Type                            | type  | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         |
| Refrigerant                     | type  | R32                     | R32                     | R32                     | R32                     |
| Refrigerant charge              | kg    | 0,55                    | 0,55                    | 1,08                    | 1,42                    |
| Potential global heating        | GWP   | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq |
| Equivalent CO <sub>2</sub>      | t     | 0,37                    | 0,37                    | 0,73                    | 0,96                    |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

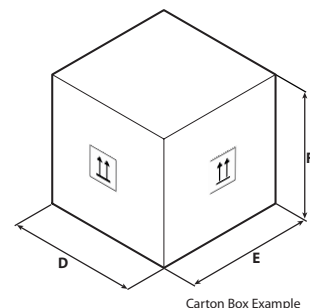
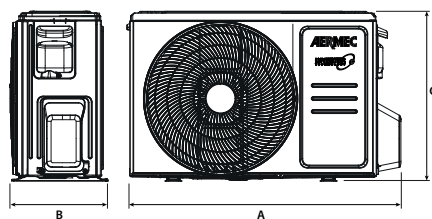
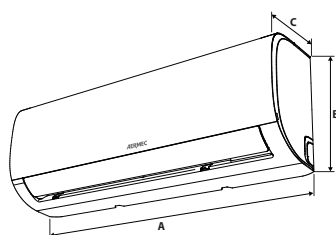
(2) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

## GENERAL DATA

| Indoor unit                                |           | SGE250W         | SGE350W         | SGE500W         | SGE700W         |
|--|-----------|-----------------|-----------------|-----------------|-----------------|
| Outdoor unit                               |           | SGE250          | SGE350          | SGE500          | SGE700          |
| <b>Indoor unit quantity</b>                |           | <b>1</b>        | <b>1</b>        | <b>1</b>        | <b>1</b>        |
| <b>Outdoor unit quantity</b>               |           | <b>1</b>        | <b>1</b>        | <b>1</b>        | <b>1</b>        |
| <b>Electric data</b>                       |           |                 |                 |                 |                 |
| Rated power input (1)                      | kW        | 2,20            | 2,20            | 2,50            | 3,50            |
| Rated current input (1)                    | A         | 10,0            | 10,0            | 13,0            | 15,5            |
| <b>Refrigeration pipework</b>              |           |                 |                 |                 |                 |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 9,52 (3/8")     |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")     | 9,52 (3/8")     | 12,7 (1/2")     | 15,9 (5/8")     |
| Maximum refrigerant tube length            | m         | 25              | 25              | 30              | 50              |
| Maximum refrigerant line level difference  | m         | 10,0            | 10,0            | 20,0            | 25,0            |
| Refrigerant to be added                    | g/m       | 12              | 12              | 12              | 24              |
| <b>Power supply</b>                        |           |                 |                 |                 |                 |
| Power supply                               |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## DIMENSIONS AND WEIGHTS



Carton Box Example

|                      |    | SGE250W | SGE350W | SGE500W | SGE700W |
|----------------------|----|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |
| A                    | mm | 805     | 805     | 957     | 1040    |
| B                    | mm | 285     | 285     | 302     | 327     |
| C                    | mm | 194     | 194     | 213     | 220     |
| D                    | mm | 870     | 870     | 1035    | 1120    |
| E                    | mm | 270     | 270     | 295     | 405     |
| F                    | mm | 365     | 365     | 385     | 315     |
| Net weight           | kg | 7,6     | 7,6     | 10,0    | 12,3    |
| Weight for transport | kg | 9,7     | 9,8     | 13,0    | 15,8    |
|                      |    | SGE250  | SGE350  | SGE500  | SGE700  |
| <b>Outdoor unit</b>  |    |         |         |         |         |
| A                    | mm | 720     | 720     | 805     | 890     |
| B                    | mm | 270     | 270     | 330     | 342     |
| C                    | mm | 495     | 495     | 554     | 673     |
| D                    | mm | 835     | 835     | 915     | 995     |
| E                    | mm | 300     | 300     | 370     | 398     |
| F                    | mm | 540     | 540     | 615     | 740     |
| Net weight           | kg | 23,2    | 23,2    | 32,7    | 42,9    |
| Weight for transport | kg | 25,0    | 25,0    | 35,4    | 45,9    |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# SCG\_1

## Monosplit

Cooling capacity 7,2 kW ÷ 12,5 kW  
Heating capacity 7,9 kW ÷ 14,5 kW



- **New R32 ecological refrigerant gas.**
- **Standard Wi-Fi module.**
- **Modern design to blend with all furnishing styles.**
- **Easy installation and maintenance.**
- **Ideal for installations in the service sector: hotels, restaurants, offices.**



### DESCRIPTION

The monosplit air conditioners of the SCG\_1 range are combined with SCG\_1V (column) indoor units for floor installation.

Thanks to their compact size, ease of installation and modern design, they are suitable for environments such as shops, restaurants, shopping centers, doctor's offices, etc.

The outdoor unit features a compressor with inverter technology and an electronic valve.

### FEATURES



#### Indoor unit

Indoor unit **column** designed to be installed for indoor floor installation.

- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Auto** function for a continuous speed variation.

#### Outdoor unit

Monosplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

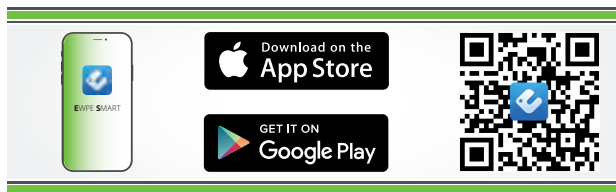
### X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



## Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



## General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

## ACCESSORIES

**DTG1:** Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

## Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## PERFORMANCE SPECIFICATIONS

| Indoor unit                                    |           | SCG701V | SCG1201V | SCG1201VT |
|--|-----------|---------|----------|-----------|
| Outdoor unit                                   |           | SCG701  | SCG1201  | SCG1201T  |
| Indoor unit quantity                           |           | 1       | 1        | 1         |
| Outdoor unit quantity                          |           | 1       | 1        | 1         |
| <b>Nominal cooling performances</b>            |           |         |          |           |
| Cooling capacity (1)                           | kW        | 7,20    | 12,30    | 12,50     |
| Cooling input power                            | kW        | 2,05    | 4,17     | 3,79      |
| Cooling input current                          | A         | 9,0     | 18,0     | 5,6       |
| EER (2)  | W/W       | 3,51    | 2,95     | 3,30      |
| Moisture removed                               | l/h       | 2,5     | 5,0      | 5,0       |
| <b>Minimum cooling performances</b>            |           |         |          |           |
| Cooling capacity (1)                           | kW        | 0,97    | 1,50     | 3,10      |
| Cooling input power                            | kW        | 0,35    | 0,55     | 0,30      |
| <b>Maximum cooling performances</b>            |           |         |          |           |
| Cooling capacity (1)                           | kW        | 8,40    | 13,50    | 14,50     |
| Cooling input power                            | kW        | 2,95    | 5,06     | 5,70      |
| <b>Seasonal efficiency</b>                     |           |         |          |           |
| SEER   | W/W       | 6,10    | 5,70     | 6,10      |
| Efficiency energy class (3)                    |           | A++     | -        | -         |
| Annual power consumption                       | kWh/annum | 413     | -        | -         |
| $\eta_{sc}$                                    | %         | -       | 227,00   | 241,00    |
| <b>Nominal heating performances</b>            |           |         |          |           |
| Heating capacity (4)                           | kW        | 7,90    | 12,60    | 14,50     |
| Heating input power                            | kW        | 2,33    | 3,82     | 3,86      |
| Heating input current                          | A         | 10,5    | 16,0     | 5,7       |
| COP (2)  | W/W       | 3,39    | 3,30     | 3,76      |
| <b>Minimum heating performances</b>            |           |         |          |           |
| Heating capacity (4)                           | kW        | 0,64    | 2,50     | 3,30      |
| Heating input power                            | kW        | 0,39    | 0,50     | 0,64      |
| <b>Maximum heating performances</b>            |           |         |          |           |
| Heating capacity (4)                           | kW        | 8,80    | 14,00    | 16,50     |
| Heating input power                            | kW        | 3,03    | 5,06     | 4,70      |
| <b>Seasonal efficiency (temperate climate)</b> |           |         |          |           |
| SCOP   | W/W       | 3,80    | 3,70     | 4,00      |
| Efficiency energy class (3)                    |           | A       | -        | -         |
| Annual power consumption                       | kWh/annum | 2063    | -        | -         |
| $\eta_{sh}$                                    | %         | -       | 146,00   | 157,00    |

(1) Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.

## INDOOR UNIT DATA

|                           |                   | SCG701V | SCG1201V    | SCG1201VT |
|---------------------------|-------------------|---------|-------------|-----------|
| <b>Indoor unit</b>        |                   |         |             |           |
| Type of fan               | Type              |         | Centrifugal |           |
| <b>Air flow rate</b>      |                   |         |             |           |
| Turbo                     | m <sup>3</sup> /h | 1250    | 2000        | 2400      |
| Maximum                   | m <sup>3</sup> /h | 950     | 1850        | 2200      |
| Average                   | m <sup>3</sup> /h | 850     | 1700        | 2000      |
| Minimum                   | m <sup>3</sup> /h | 750     | 1580        | 1800      |
| <b>Sound power (1)</b>    |                   |         |             |           |
| Turbo                     | dB(A)             | 56,0    | 64,0        | 66,0      |
| Maximum                   | dB(A)             | 52,0    | 61,0        | 64,0      |
| Average                   | dB(A)             | 50,0    | 60,0        | 63,0      |
| Minimum                   | dB(A)             | 46,0    | 58,0        | 61,0      |
| <b>Sound pressure (2)</b> |                   |         |             |           |
| Turbo                     | dB(A)             | 45,0    | 53,0        | 56,0      |
| Maximum                   | dB(A)             | 41,0    | 51,0        | 54,0      |
| Average                   | dB(A)             | 39,0    | 50,0        | 53,0      |
| Minimum                   | dB(A)             | 35,0    | 48,0        | 51,0      |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## OUTDOOR UNIT DATA

|                            |                   | SCG701 | SCG1201                 | SCG1201T |
|----------------------------|-------------------|--------|-------------------------|----------|
| <b>Outdoor unit</b>        |                   |        |                         |          |
| Type of fan                | Type              |        | Axial                   |          |
| <b>Air flow rate</b>       |                   |        |                         |          |
| Maximum                    | m <sup>3</sup> /h | 3600   | 4000                    | 5200     |
| <b>Sound power (1)</b>     |                   |        |                         |          |
| Maximum                    | dB(A)             | 70,0   | 73,0                    | 74,0     |
| <b>Sound pressure (2)</b>  |                   |        |                         |          |
| Maximum                    | dB(A)             | 61,0   | 63,0                    | 63,0     |
| <b>Compressor</b>          |                   |        |                         |          |
| Type                       | type              |        | Rotativo Inverter       |          |
| Refrigerant                | type              |        | R32                     |          |
| Potential global heating   | GWP               |        | 675kgCO <sub>2</sub> eq |          |
| Refrigerant charge         | kg                | 1,50   | 2,00                    | 2,80     |
| Equivalent CO <sub>2</sub> | t                 | 1,01   | 1,35                    | 1,89     |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

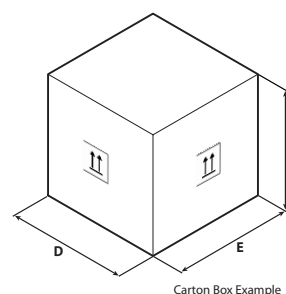
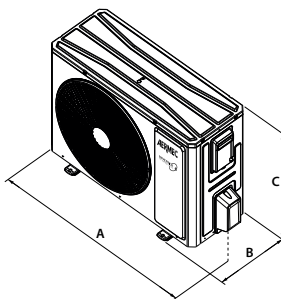
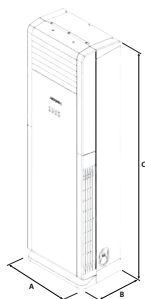
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## GENERAL DATA

| Indoor unit   |           | SCG701V         | SCG1201V        | SCG1201VT          |
|---|-----------|-----------------|-----------------|--------------------|
| Outdoor unit  |           | SCG701          | SCG1201         | SCG1201T           |
| Indoor unit quantity  |           | 1               | 1               | 1                  |
| Outdoor unit quantity   |           | 1               | 1               | 1                  |
| Electric data   |           |                 |                 |                    |
| Rated power input (1)   | kW        | 3,03            | 5,06            | 5,70               |
| Rated current input - cooling                                       | A         | 14,5            | 20,0            | 9,8                |
| Rated current input - heating                                       | A         | 13,5            | 22,0            | 8,1                |
| Refrigerant lines   |           |                 |                 |                    |
| Diameter of liquid refrigerant connections                          | mm (inch) | 6,35 (1/4")     | 6,35 (1/4")     | 9,52 (3/8")        |
| Diameter of refrigerant gas connections                             | mm (inch) | 15,9 (5/8")     | 15,9 (5/8")     | 15,9 (5/8")        |
| Maximum refrigerant tube length                                     | m         | 25              | 30              | 30                 |
| Maximum refrigerant line level difference                           | m         | 10,0            | 20,0            | 20,0               |
| Maximum length of refrigerant lines without addition of refrigerant | m         | 5               | 5               | 5                  |
| Refrigerant to be added   | g/m       | 40              | 40              | 40                 |
| Power supply  |           |                 |                 |                    |
| Power supply  |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 380-415V ~ 3N 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## DIMENSIONS AND WEIGHTS



Carton Box Example

|                      |    | SCG701V | SCG1201V | SCG1201VT |
|----------------------|----|---------|----------|-----------|
| Indoor unit          |    |         |          |           |
| A                    | mm | 507     | 587      | 587       |
| B                    | mm | 320     | 394      | 394       |
| C                    | mm | 1770    | 1882     | 1882      |
| D                    | mm | 608     | 718      | 718       |
| E                    | mm | 410     | 485      | 485       |
| F                    | mm | 1983    | 2128     | 2128      |
| Net weight           | kg | 38,0    | 53,0     | 57,0      |
| Weight for transport | kg | 47,0    | 65,0     | 69,0      |
|                      |    | SCG701  | SCG1201  | SCG1201T  |
| Outdoor unit         |    |         |          |           |
| A                    | mm | 958     | 1000     | 1020      |
| B                    | mm | 402     | 427      | 427       |
| C                    | mm | 660     | 746      | 820       |
| D                    | mm | 1032    | 1080     | 1093      |
| E                    | mm | 456     | 483      | 497       |
| F                    | mm | 737     | 810      | 955       |
| Net weight           | kg | 43,0    | 55,0     | 86,0      |
| Weight for transport | kg | 47,5    | 60,0     | 99,0      |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## CKG

## Universal

Cooling capacity 2,7 ÷ 5,2 kW  
Heating capacity 2,9 ÷ 5,3 kW



- **Standard Wi-Fi module.**
- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Low cooling function: cooling operation with outdoor temperatures down to -15 °C.**
- **Low heating function: heating operation with outdoor temperatures down to -22 °C.**



### DESCRIPTION

The monosplit air conditioners of the CKG\_1 range are combined with CK-G\_1FS (Console) indoor units with an inverter fan unit, offering twin delivery for optimum air flow control and enhanced environmental comfort.

#### Universal indoor units:

all indoor units can be combined with both multisplit outdoor units of the series MPG and MLG and monosplit outdoor units of the series CKG\_1.

| CKG_1FS  | CKG261FS | CKG361FS | CKG501FS |
|--|----------|----------|----------|
| Universal indoor units compatible with MPG multisplit system | •        | •        | •        |
| Universal indoor units compatible with MLG multisplit system | •        | •        |          |

The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

### FEATURES



### Indoor unit

**Console** indoor unit designed to be installed on indoor floors.

- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Indoor unit front panel with LED display and indicator lights.
- 5-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

### Outdoor unit

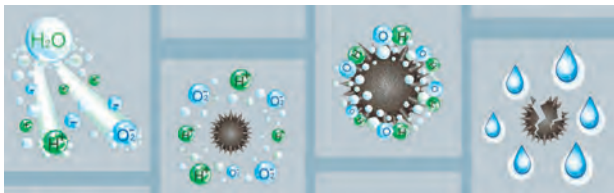
Monosplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

### Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



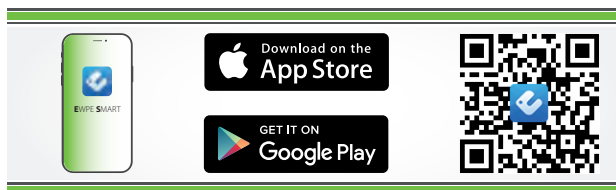
### X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



### Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



### General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

### ACCESSORIES COMPATIBILITY

| Accessory | CKG261FS | CKG361FS | CKG501FS |
|-----------|----------|----------|----------|
| CC2       | •        | •        | •        |
| WRCA      | •        | •        | •        |

The accessory CC2 version 01 is compatible with the indoor units of the CKG\_1FS series, from version 01.

| Accessory | CKG261FS | CKG361FS | CKG501FS |
|-----------|----------|----------|----------|
| IC-2P     | •        | •        | •        |

### ACCESSORIES

\* The CC2 centralised control can manage up to 36 CKG\_1 system.

In order to use accessory CC2, for each indoor unit, the WRCA wired panel (accessory) must be installed, with the IC-2P adapter accessory.



### Single air delivery



### Dual air delivery (default)



### Intake



## PERFORMANCE SPECIFICATIONS

| Indoor unit                                    |           | CKG261FS | CKG361FS | CKG501FS |
|--|-----------|----------|----------|----------|
| Outdoor unit                                   |           | CKG261   | CKG361   | CKG501   |
| Indoor unit quantity                           |           | 1        | 1        | 1        |
| Outdoor unit quantity                          |           | 1        | 1        | 1        |
| <b>Nominal cooling performances</b>            |           |          |          |          |
| Cooling capacity (1)                           | kW        | 2,70     | 3,52     | 5,20     |
| Cooling input power (1)                        | kW        | 0,70     | 0,93     | 1,45     |
| EER (2)  | W/W       | 3,86     | 3,80     | 3,60     |
| Moisture removed                               | l/h       | 0,8      | 1,2      | 1,8      |
| Cooling input current                          | A         | 5,5      | 7,0      | 11,5     |
| <b>Minimum cooling performances</b>            |           |          |          |          |
| Cooling capacity                               | kW        | 0,50     | 0,80     | 1,20     |
| Cooling input power                            | kW        | 0,15     | 0,23     | 0,10     |
| <b>Maximum cooling performances</b>            |           |          |          |          |
| Cooling capacity                               | kW        | 3,40     | 4,40     | 6,20     |
| Cooling input power                            | kW        | 1,10     | 1,55     | 2,25     |
| <b>Seasonal efficiency</b>                     |           |          |          |          |
| SEER   | W/W       | 7,80     | 7,20     | 7,20     |
| Efficiency energy class (3)                    |           | A++      | A++      | A++      |
| Annual power consumption                       | kWh/annum | 121      | 175      | 253      |
| <b>Nominal heating performances</b>            |           |          |          |          |
| Heating capacity (4)                           | kW        | 2,90     | 3,80     | 5,33     |
| Heating input power (4)                        | kW        | 0,73     | 0,96     | 1,55     |
| Heating input current                          | A         | 6,0      | 7,5      | 11,5     |
| COP (2)  | W/W       | 3,97     | 3,96     | 3,45     |
| <b>Minimum heating performances</b>            |           |          |          |          |
| Heating capacity                               | kW        | 0,60     | 1,05     | 1,10     |
| Heating input power                            | kW        | 0,16     | 0,18     | 0,20     |
| <b>Maximum heating performances</b>            |           |          |          |          |
| Heating capacity                               | kW        | 3,65     | 4,40     | 6,20     |
| Heating input power                            | kW        | 1,20     | 1,70     | 2,40     |
| <b>Seasonal efficiency (temperate climate)</b> |           |          |          |          |
| SCOP   | W/W       | 4,20     | 4,10     | 4,00     |
| Efficiency energy class (3)                    |           | A+       | A+       | A+       |
| Annual power consumption                       | kWh/annum | 867      | 1093     | 1680     |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

## INDOOR UNIT DATA

|                                   |       | CKG261FS                    | CKG361FS                    | CKG501FS                    |
|-----------------------------------|-------|-----------------------------|-----------------------------|-----------------------------|
| <b>Indoor unit</b>                |       |                             |                             |                             |
| Input power                       | W     | Powered by the outdoor unit | Powered by the outdoor unit | Powered by the outdoor unit |
| Type of fan                       | Type  | Centrifugal                 | Centrifugal                 | Centrifugal                 |
| <b>Air flow rate indoor units</b> |       |                             |                             |                             |
| Quiet                             | m³/h  | 250                         | 260                         | 350                         |
| Minimum                           | m³/h  | 280                         | 360                         | 430                         |
| Average minimum                   | m³/h  | 330                         | 400                         | 470                         |
| Average                           | m³/h  | 370                         | 440                         | 520                         |
| Average maximum                   | m³/h  | 410                         | 480                         | 600                         |
| Maximum                           | m³/h  | 430                         | 520                         | 670                         |
| Turbo                             | m³/h  | 500                         | 600                         | 750                         |
| <b>Sound power (1)</b>            |       |                             |                             |                             |
| Quiet                             | dB(A) | 35,0                        | 36,0                        | 43,0                        |
| Minimum                           | dB(A) | 38,0                        | 40,0                        | 48,0                        |
| Average minimum                   | dB(A) | 41,0                        | 44,0                        | 51,0                        |
| Average                           | dB(A) | 44,0                        | 47,0                        | 53,0                        |
| Average maximum                   | dB(A) | 46,0                        | 49,0                        | 56,0                        |
| Maximum                           | dB(A) | 48,0                        | 51,0                        | 58,0                        |
| Turbo                             | dB(A) | 52,0                        | 55,0                        | 60,0                        |
| <b>Sound pressure (2)</b>         |       |                             |                             |                             |
| Quiet                             | dB(A) | 23,0                        | 25,0                        | 32,0                        |
| Minimum                           | dB(A) | 26,0                        | 29,0                        | 37,0                        |
| Average minimum                   | dB(A) | 29,0                        | 33,0                        | 40,0                        |
| Average                           | dB(A) | 32,0                        | 36,0                        | 42,0                        |
| Average maximum                   | dB(A) | 34,0                        | 38,0                        | 45,0                        |
| Maximum                           | dB(A) | 36,0                        | 40,0                        | 47,0                        |
| Turbo                             | dB(A) | 39,0                        | 44,0                        | 49,0                        |
| <b>Sound power (1)</b>            |       |                             |                             |                             |
| Quiet                             | dB(A) | 34,0                        | 36,0                        | 42,0                        |
| Minimum                           | dB(A) | 37,0                        | 40,0                        | 47,0                        |
| Average minimum                   | dB(A) | 41,0                        | 44,0                        | 49,0                        |
| Average                           | dB(A) | 44,0                        | 47,0                        | 52,0                        |
| Average maximum                   | dB(A) | 46,0                        | 49,0                        | 54,0                        |
| Maximum                           | dB(A) | 48,0                        | 51,0                        | 57,0                        |
| Turbo                             | dB(A) | 52,0                        | 55,0                        | 60,0                        |
| <b>Sound pressure (2)</b>         |       |                             |                             |                             |
| Quiet                             | dB(A) | 22,0                        | 25,0                        | 33,0                        |
| Minimum                           | dB(A) | 25,0                        | 29,0                        | 38,0                        |
| Average minimum                   | dB(A) | 29,0                        | 33,0                        | 40,0                        |
| Average                           | dB(A) | 32,0                        | 36,0                        | 43,0                        |
| Average maximum                   | dB(A) | 34,0                        | 38,0                        | 45,0                        |
| Maximum                           | dB(A) | 36,0                        | 40,0                        | 48,0                        |
| Turbo                             | dB(A) | 39,0                        | 44,0                        | 51,0                        |
| <b>Indoor unit</b>                |       |                             |                             |                             |
| Condensate discharge diameter     | mm    | 17,0                        | 17,0                        | 17,0                        |

- (1) Sound Power measured in Semi-Anechoic Chamber at 1,0m from the source, according to EN 12102-1:2017  
(2) Sound Pressure measured in Semi-Anechoic Chamber at 1,0m from the source, according to EN 12102-1:2017

## OUTDOOR UNIT DATA

|                               |       | CKG261 | CKG361                        | CKG501 |
|-------------------------------|-------|--------|-------------------------------|--------|
| <b>Outdoor unit</b>           |       |        |                               |        |
| Type of fan                   | Type  |        | Axial                         |        |
| <b>Air flow rate</b>          |       |        |                               |        |
| Maximum                       | m³/h  | 1950   | 2200                          | 3600   |
| <b>Sound power (1)</b>        |       |        |                               |        |
| Maximum                       | dB(A) | 61,0   | 63,0                          | 65,0   |
| <b>Sound pressure (2)</b>     |       |        |                               |        |
| Maximum                       | dB(A) | 51,0   | 53,0                          | 59,0   |
| <b>Compressor</b>             |       |        |                               |        |
| Type                          | type  |        | Rotativo Inverter             |        |
| Refrigerant                   | type  |        | R32 / 675kgCO <sub>2</sub> eq |        |
| Refrigerant charge            | kg    | 0,51   | 0,75                          | 1,00   |
| Potential global heating      | GWP   |        |                               |        |
| Equivalent CO <sub>2</sub>    | t     | 0,34   | 0,51                          | 0,68   |
| <b>Outdoor unit</b>           |       |        |                               |        |
| Condensate discharge diameter | mm    | 16,0   | 16,0                          | 16,0   |

- (1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

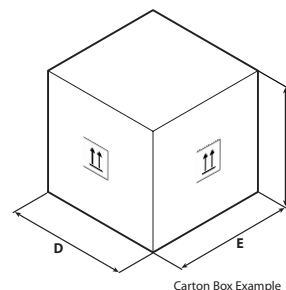
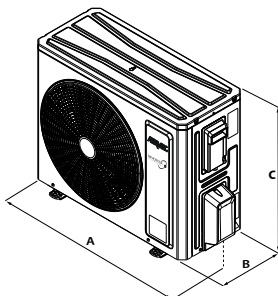
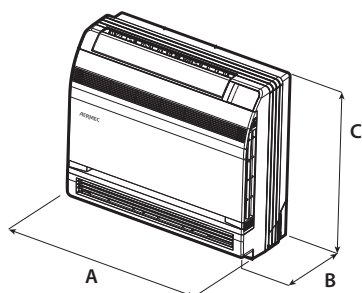


## GENERAL DATA

| Indoor unit   |           | CKG261FS        | CKG361FS        | CKG501FS        |
|---|-----------|-----------------|-----------------|-----------------|
| Outdoor unit  |           | CKG261          | CKG361          | CKG501          |
| Indoor unit quantity  |           | 1               | 1               | 1               |
| Outdoor unit quantity   |           | 1               | 1               | 1               |
| Electric data   |           |                 |                 |                 |
| Rated power input (1)   | kW        | 0,73            | 0,96            | 1,55            |
| Rated current input - cooling                                       | A         | 5,5             | 7,0             | 11,5            |
| Rated current input - heating                                       | A         | 6,0             | 7,5             | 11,5            |
| Refrigerant lines   |           |                 |                 |                 |
| Diameter of liquid refrigerant connections                          | mm (inch) | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     |
| Diameter of refrigerant gas connections                             | mm (inch) | 9,52 (3/8")     | 9,52 (3/8")     | 12,7 (1/2")     |
| Maximum refrigerant tube length                                     | m         | 15              | 20              | 25              |
| Maximum refrigerant line level difference                           | m         | 10,0            | 10,0            | 10,0            |
| Maximum length of refrigerant lines without addition of refrigerant | m         | 5               | 5               | 5               |
| Refrigerant to be added   | g/m       | 16              | 16              | 16              |
| Power supply  |           |                 |                 |                 |
| Power supply  |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## DIMENSIONS AND WEIGHTS



Carton Box Example

|                      |    | CKG261FS | CKG361FS | CKG501FS |
|----------------------|----|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |
| A                    | mm | 700      | 700      | 700      |
| B                    | mm | 215      | 215      | 215      |
| C                    | mm | 600      | 600      | 600      |
| D                    | mm | 788      | 788      | 788      |
| E                    | mm | 283      | 283      | 283      |
| F                    | mm | 697      | 697      | 697      |
| Net weight           | kg | 15,5     | 16,0     | 16,0     |
| Weight for transport | kg | 18,5     | 19,0     | 19,0     |
|                      |    | CKG261   | CKG361   | CKG501   |
| <b>Outdoor unit</b>  |    |          |          |          |
| A                    | mm | 732      | 802      | 958      |
| B                    | mm | 330      | 350      | 402      |
| C                    | mm | 555      | 555      | 660      |
| D                    | mm | 794      | 872      | 1032     |
| E                    | mm | 376      | 398      | 456      |
| F                    | mm | 615      | 620      | 737      |
| Net weight           | kg | 24,0     | 27,5     | 41,0     |
| Weight for transport | kg | 26,5     | 30,0     | 45,5     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## LPG

- SEER up to 7.2.
- Wi-fi control using the relative accessory.

## Monosplit

Cooling capacity 3,5 ÷ 16,0 kW  
Heating capacity 4,0 ÷ 17,0 kW



### DESCRIPTION

The monosplit air conditioners of the LPG range are combined with:

- LPG\_D (Duct) for duct type horizontal installation.
- LPG\_C / CS (Cassette) for false ceiling installation.
- LPG\_F (Floor ceiling) wall and/or ceiling installation.

### TYPE OF INDOOR UNIT

#### Indoor unit LPG\_D

**Duct** indoor unit, designed for indoor duct type horizontal installation.



- Every indoor unit comes with a remote control and a remote control holder.
- **WRC50** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

#### Indoor unit LPG\_CS

Indoor unit **Cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

#### Indoor unit LPG\_C

Indoor unit **Cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.

- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

### Indoor unit LPG\_F

Indoor unit **Floor ceiling** designed to be installed on the wall or ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

### General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

### Low cooling function

cooling operation with outdoor temperatures down to -20 °C.

### Low heating function

heating with external temperatures up to -20 °C.

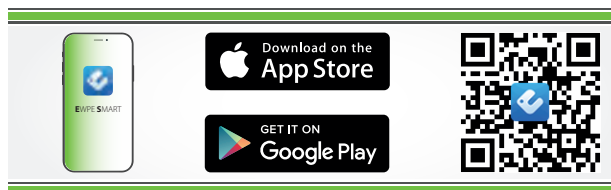
### X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



### Smart APP Ewpe

Using the specific WRC50W panel, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



### Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



## TYPE OF OUTDOOR UNIT

### Outdoor unit

Reversible air/air heat pump with DC inverter technology.

- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

## ACCESSORIES

**CC2:** Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. \*

**WRC50:** Wired panel with liquid crystal display and soft-touch buttons.

**WRC50W:** Flush panel with LCD display and Soft-Touch keys. With this accessory it is possible to control not only the traditional system functions but also a weekly timer with daily time slots. It is equipped with WiFi and Bluetooth® connection for better connection stability.

**For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.**

**DCG10:** This accessory makes it possible to remotely control the main functions of the unit via the relay externally with third-party loads that are suitably powered and sized.

**ECD10:** This accessory makes it possible to manage the switching on/off of the indoor units via the ON-OFF device.

**GLG 40:** Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.

**GLG 40S:** Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.

**MINIMODBUS20:** Thanks to its compact size, this accessory can be easily installed inside the indoor unit. It allows the units to communicate with each other by providing a ModBus RTU serial on RS485 for supervision with external BMS.

\* The CC2 centralised control can manage up to 36 LPG systems.



## Accessories compatibility

### LPG\_D

| Accessory | LPG350D | LPG500D | LPG700D | LPG850D | LPG1000D | LPG1200D | LPG1400D | LPG1600D |
|-----------|---------|---------|---------|---------|----------|----------|----------|----------|
| CC2 (1)   | *       | *       | *       | *       | *        | *        | *        | *        |
| WRC50W    | *       | *       | *       | *       | *        | *        | *        | *        |

(1) Auto-restart function.

The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Wired panel WRC50 standard supply.

| Accessory        | LPG350D | LPG500D | LPG700D | LPG850D | LPG1000D | LPG1200D | LPG1400D | LPG1600D |
|------------------|---------|---------|---------|---------|----------|----------|----------|----------|
| DCG10            | *       | *       | *       | *       | *        | *        | *        | *        |
| ECD10            | *       | *       | *       | *       | *        | *        | *        | *        |
| MINIMODBUS20 (1) | *       | *       | *       | *       | *        | *        | *        | *        |

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

### LPG\_C / CS

| Accessory | LPG350CS | LPG500CS | LPG700C | LPG850C | LPG1000C | LPG1200C | LPG1400C | LPG1600C |
|-----------|----------|----------|---------|---------|----------|----------|----------|----------|
| CC2 (1)   | *        | *        | *       | *       | *        | *        | *        | *        |
| WRC50     | *        | *        | *       | *       | *        | *        | *        | *        |
| WRC50W    | *        | *        | *       | *       | *        | *        | *        | *        |

(1) Auto-restart function.

The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

| Accessory        | LPG350CS | LPG500CS | LPG700C | LPG850C | LPG1000C | LPG1200C | LPG1400C | LPG1600C |
|------------------|----------|----------|---------|---------|----------|----------|----------|----------|
| DCG10            | *        | *        | *       | *       | *        | *        | *        | *        |
| ECD10            | *        | *        | *       | *       | *        | *        | *        | *        |
| MINIMODBUS20 (1) | *        | *        | *       | *       | *        | *        | *        | *        |

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

| Accessory  | LPG350CS | LPG500CS | LPG700C | LPG850C | LPG1000C | LPG1200C | LPG1400C | LPG1600C |
|------------|----------|----------|---------|---------|----------|----------|----------|----------|
| GLG40 (1)  | *        | *        | *       | *       | *        | *        | *        | *        |
| GLG40S (1) | *        | *        | *       | *       | *        | *        | *        | *        |

(1) Mandatory accessory.

### LPG\_F

| Accessory | LPG350F | LPG500F | LPG700F | LPG850F | LPG1000F | LPG1200F | LPG1400F | LPG1600F |
|-----------|---------|---------|---------|---------|----------|----------|----------|----------|
| CC2 (1)   | *       | *       | *       | *       | *        | *        | *        | *        |
| WRC50     | *       | *       | *       | *       | *        | *        | *        | *        |
| WRC50W    | *       | *       | *       | *       | *        | *        | *        | *        |

(1) Auto-restart function.

The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

| Accessory        | LPG350F | LPG500F | LPG700F | LPG850F | LPG1000F | LPG1200F | LPG1400F | LPG1600F |
|------------------|---------|---------|---------|---------|----------|----------|----------|----------|
| DCG10            | *       | *       | *       | *       | *        | *        | *        | *        |
| ECD10            | *       | *       | *       | *       | *        | *        | *        | *        |
| MINIMODBUS20 (1) | *       | *       | *       | *       | *        | *        | *        | *        |

(1) The units can only be routed using the wired control panel. For more information about the procedure refer to the user manual.

## OUTDOOR UNIT PERFORMANCE DATA

|  |           | LPG350                  | LPG500                  | LPG700                  | LPG850                  | LPG1000                 | LPG1000T                | LPG1200                 | LPG1200T                | LPG1400                 | LPG1400T                | LPG1600T                |
|--|-----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Outdoor unit</b>                        |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Type of fan                                | Type      | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          |
| <b>Air flow rate</b>                       |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Maximum                                    | m³/h      | 1800                    | 2200                    | 3600                    | 3600                    | 4800                    | 4800                    | 5200                    | 5200                    | 5200                    | 5200                    | 5500                    |
| <b>Sound power (1)</b>                     |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Maximum                                    | dB(A)     | 56,0                    | 65,0                    | 69,0                    | 70,0                    | 70,0                    | 70,0                    | 73,0                    | 73,0                    | 73,0                    | 75,0                    | 75,0                    |
| <b>Sound pressure (2)</b>                  |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Maximum                                    | dB(A)     | 48,0                    | 52,0                    | 55,0                    | 57,0                    | 57,0                    | 57,0                    | 58,0                    | 58,0                    | 59,0                    | 59,0                    | 60,0                    |
| <b>Compressor</b>                          |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Type                                       | type      | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         |
| Refrigerant                                | type      | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     |
| Refrigerant charge                         | kg        | 0,57                    | 0,85                    | 1,50                    | 1,50                    | 2,10                    | 2,10                    | 2,25                    | 2,25                    | 2,80                    | 2,80                    | 3,50                    |
| Potential global heating                   | GWP       | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq |
| Equivalent CO <sub>2</sub>                 | t         | 0,38                    | 0,57                    | 1,01                    | 1,01                    | 1,42                    | 1,42                    | 1,52                    | 1,52                    | 1,89                    | 1,89                    | 2,36                    |
| <b>Refrigeration pipework</b>              |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")             | 6,35 (1/4")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")             | 12,7 (1/2")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             | 15,9 (5/8")             |
| Maximum refrigerant tube length            | m         | 30                      | 30                      | 30                      | 30                      | 75                      | 75                      | 75                      | 75                      | 75                      | 75                      | 75                      |
| Maximum refrigerant line level difference  | m         | 15,0                    | 20,0                    | 20,0                    | 25,0                    | 30,0                    | 30,0                    | 30,0                    | 30,0                    | 30,0                    | 30,0                    | 30,0                    |
| Refrigerant to be added                    | g/m       | 16                      | 16                      | 20                      | 20                      | 20                      | 20                      | 20                      | 20                      | 35                      | 35                      | 35                      |
| <b>Power supply</b>                        |           |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |                         |
| Outdoor unit power supply                  |           | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 380-415V ~ 3N 50Hz      | 220-240V ~ 50Hz         | 380-415V ~ 3N 50Hz      | 220-240V ~ 50Hz         | 380-415V ~ 3N 50Hz      | 380-415V ~ 3N 50Hz      |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## INDOOR UNIT PERFORMANCE DATA

### LPG\_D

| Indoor unit                                    |           | LPG350D         | LPG500D         | LPG700D         | LPG850D         | LPG1000D        | LPG1000D             | LPG1200D        | LPG1200D             | LPG1400D        | LPG1400D             | LPG1600D             |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|----------------------|
| Outdoor unit                                   |           | LPG350          | LPG500          | LPG700          | LPG850          | LPG1000         | LPG1000T             | LPG1200         | LPG1200T             | LPG1400         | LPG1400T             | LPG1600T             |
| Indoor unit quantity                           |           | 1               | 1               | 1               | 1               | 1               | 1                    | 1               | 1                    | 1               | 1                    | 1                    |
| Outdoor unit quantity                          |           | 1               | 1               | 1               | 1               | 1               | 1                    | 1               | 1                    | 1               | 1                    | 1                    |
| <b>Nominal cooling performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Cooling capacity (1)                           | kW        | 3,50            | 5,30            | 7,10            | 8,50            | 10,50           | 10,50                | 12,10           | 12,10                | 13,40           | 13,40                | 16,00                |
| Cooling input power (1)                        | kW        | 1,03            | 1,51            | 1,92            | 2,50            | 3,00            | 3,00                 | 3,58            | 3,58                 | 4,50            | 4,50                 | 5,40                 |
| EER (2)  | W/W       | 3,40            | 3,51            | 3,70            | 3,40            | 3,50            | 3,50                 | 3,38            | 3,38                 | 2,98            | 2,98                 | 2,96                 |
| Moisture removed                               | l/h       | 1,0             | 1,7             | 2,4             | 2,8             | 3,3             | 3,3                  | 3,7             | 3,7                  | 3,9             | 3,9                  | 4,6                  |
| <b>Minimum cooling performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Cooling capacity                               | kW        | 0,90            | 1,60            | 2,40            | 2,90            | 3,20            | 3,20                 | 3,60            | 3,60                 | 4,00            | 4,00                 | 4,80                 |
| Cooling input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90                 | 1,10            | 1,10                 | 1,35            | 1,35                 | 1,50                 |
| <b>Maximum cooling performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Cooling capacity                               | kW        | 4,00            | 5,80            | 7,60            | 9,00            | 11,00           | 11,00                | 13,10           | 13,10                | 14,20           | 14,20                | 17,00                |
| Cooling input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00                 | 5,30            | 5,30                 | 5,60            | 5,60                 | 6,80                 |
| <b>Seasonal efficiency</b>                     |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| SEER   | W/W       | 6,50            | 6,30            | 6,60            | 6,40            | 6,40            | 6,40                 | 6,10            | 6,10                 | 6,10            | 6,10                 | 6,10                 |
| Efficiency energy class (3)                    |           | A++             | A++             | A++             | A++             | A++             | A++                  | -               | -                    | -               | -                    | -                    |
| Pdesignc                                       | kW        | 3,5             | 5,3             | 7,1             | 8,5             | 10,5            | 10,5                 | -               | -                    | -               | -                    | -                    |
| Annual power consumption                       | kWh/annum | 189             | 294             | 377             | 465             | 574             | 574                  | -               | -                    | -               | -                    | -                    |
| <b>Nominal heating performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Heating capacity (4)                           | kW        | 4,00            | 5,60            | 8,00            | 8,80            | 11,50           | 11,50                | 13,50           | 13,50                | 15,50           | 15,50                | 17,00                |
| Heating input power (4)                        | kW        | 1,00            | 1,42            | 2,00            | 2,25            | 2,80            | 2,80                 | 3,70            | 3,70                 | 4,50            | 4,50                 | 4,70                 |
| COP (2)  | W/W       | 4,00            | 3,94            | 4,00            | 3,91            | 4,11            | 4,11                 | 3,65            | 3,65                 | 3,44            | 3,44                 | 3,62                 |
| <b>Minimum heating performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Heating capacity                               | kW        | 0,90            | 1,60            | 2,20            | 2,50            | 3,00            | 3,00                 | 3,60            | 3,60                 | 3,90            | 3,90                 | 4,50                 |
| Heating input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90                 | 1,10            | 1,10                 | 1,35            | 1,35                 | 1,50                 |
| <b>Maximum heating performances</b>            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Heating capacity                               | kW        | 4,50            | 6,10            | 8,60            | 9,50            | 12,50           | 12,50                | 14,50           | 14,50                | 16,00           | 16,00                | 18,00                |
| Heating input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00                 | 5,30            | 5,30                 | 5,60            | 5,60                 | 6,80                 |
| <b>Seasonal efficiency (temperate climate)</b> |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| SCOP   | W/W       | 4,00            | 4,00            | 4,10            | 4,10            | 4,20            | 4,20                 | 4,10            | 4,10                 | 4,00            | 4,00                 | 4,00                 |
| Efficiency energy class (3)                    |           | A+              | A+              | A+              | A+              | A+              | A+                   | -               | -                    | -               | -                    | -                    |
| Pdesignh                                       | kW        | 3,00            | 3,90            | 4,70            | 6,00            | 7,00            | 7,00                 | -               | -                    | -               | -                    | -                    |
| Annual power consumption                       | kWh/annum | 1050            | 1365            | 1605            | 2049            | 2333            | 2333                 | -               | -                    | -               | -                    | -                    |
| <b>Electric data</b>                           |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Rated power input (5)                          | kW        | 1,30            | 1,90            | 2,80            | 3,30            | 4,70            | 4,40                 | 5,30            | 5,30                 | 5,60            | 5,60                 | 6,80                 |
| Rated current input (5)                        | A         | 6,0             | 9,5             | 14,0            | 15,0            | 21,0            | 7,0                  | 23,0            | 9,0                  | 25,0            | 11,0                 | 12,0                 |
| <b>Refrigeration pipework</b>                  |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Diameter of liquid refrigerant connections     | mm (inch) | 6.35 (1/4")     | 6.35 (1/4")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")          | 9.52 (3/8")     | 9.52 (3/8")          | 9.52 (3/8")     | 9.52 (3/8")          | 9.52 (3/8")          |
| Diameter of refrigerant gas connections        | mm (inch) | 9.52 (3/8")     | 12.7 (1/2")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")          | 15.9 (5/8")     | 15.9 (5/8")          | 15.9 (5/8")     | 15.9 (5/8")          | 15.9 (5/8")          |
| Nominal length of refrigerant lines            | m         | 5,0             | 5,0             | 5,0             | 5,0             | 5,0             | 5,0                  | 5,0             | 5,0                  | 7,5             | 7,5                  | 7,5                  |
| <b>Power supply</b>                            |           |                 |                 |                 |                 |                 |                      |                 |                      |                 |                      |                      |
| Power supply                                   |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 380-415V 3N~ 50/60Hz | 220-240V ~ 50Hz | 380-415V 3N~ 50/60Hz | 220-240V ~ 50Hz | 380-415V 3N~ 50/60Hz | 380-415V 3N~ 50/60Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|                               |       | LPG350D              | LPG500D              | LPG700D              | LPG850D              | LPG1000D             | LPG1200D             | LPG1400D             | LPG1600D             |
|-------------------------------|-------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Indoor unit</b>            |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Type of fan                   | Type  | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>          |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Turbo                         | m³/h  | 600                  | 900                  | 1100                 | 1400                 | 1700                 | 2000                 | 2300                 | 2600                 |
| Maximum                       | m³/h  | 550                  | 800                  | 1000                 | 1300                 | 1600                 | 1800                 | 2100                 | 2300                 |
| Average                       | m³/h  | 500                  | 700                  | 900                  | 1100                 | 1400                 | 1600                 | 1800                 | 2000                 |
| Minimum                       | m³/h  | 400                  | 600                  | 800                  | 1000                 | 1200                 | 1400                 | 1500                 | 1700                 |
| <b>High static pressure</b>   |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Nominal                       | Pa    | 25                   | 25                   | 25                   | 37                   | 50                   | 50                   | 50                   | 50                   |
| Maximum                       | Pa    | 80                   | 80                   | 160                  | 160                  | 155                  | 155                  | 200                  | 200                  |
| <b>Sound pressure</b>         |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Turbo                         | dB(A) | 35,0                 | 36,0                 | 37,0                 | 43,0                 | 39,0                 | 43,0                 | 43,0                 | 46,0                 |
| Maximum                       | dB(A) | 33,0                 | 35,0                 | 35,0                 | 41,0                 | 38,0                 | 42,0                 | 42,0                 | 44,0                 |
| Average                       | dB(A) | 32,0                 | 33,0                 | 33,0                 | 39,0                 | 37,0                 | 41,0                 | 40,0                 | 42,0                 |
| Minimum                       | dB(A) | 30,0                 | 31,0                 | 31,0                 | 37,0                 | 36,0                 | 40,0                 | 38,0                 | 40,0                 |
| <b>Indoor unit</b>            |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter | mm    | 26,0                 | 26,0                 | 26,0                 | 26,0                 | 26,0                 | 26,0                 | 26,0                 | 26,0                 |

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)

## LPG\_CS / C

| Indoor unit                                    |           | LPG350CS        | LPG500CS        | LPG700C         | LPG850C         | LPG1000C        | LPG1000C         | LPG1200C        | LPG1200C         | LPG1400C        | LPG1400C         | LPG1600C         |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|
| Outdoor unit                                   |           | LPG350          | LPG500          | LPG700          | LPG850          | LPG1000         | LPG1000T         | LPG1200         | LPG1200T         | LPG1400         | LPG1400T         | LPG1600T         |
| Indoor unit quantity                           |           | 1               | 1               | 1               | 1               | 1               | 1                | 1               | 1                | 1               | 1                | 1                |
| Outdoor unit quantity                          |           | 1               | 1               | 1               | 1               | 1               | 1                | 1               | 1                | 1               | 1                | 1                |
| <b>Nominal cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity (1)                           | kW        | 3,50            | 5,00            | 7,10            | 8,50            | 10,50           | 10,50            | 12,10           | 12,10            | 13,40           | 13,40            | 14,50            |
| Cooling input power (1)                        | kW        | 0,92            | 1,47            | 2,03            | 2,50            | 3,10            | 3,10             | 3,90            | 3,90             | 4,60            | 4,60             | 5,30             |
| EER (2)  | W/W       | 3,80            | 3,40            | 3,50            | 3,40            | 3,40            | 3,40             | 3,10            | 3,10             | 2,91            | 2,91             | 2,74             |
| Moisture removed                               | l/h       | 1,0             | 1,7             | 2,4             | 2,8             | 3,3             | 3,3              | 3,7             | 3,7              | 3,9             | 3,9              | 4,8              |
| <b>Minimum cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity                               | kW        | 0,90            | 1,60            | 2,40            | 2,90            | 3,20            | 3,20             | 3,60            | 3,60             | 4,00            | 4,00             | 4,80             |
| Cooling input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90             | 1,10            | 1,10             | 1,35            | 1,35             | 1,50             |
| <b>Maximum cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity                               | kW        | 4,00            | 5,20            | 7,60            | 9,00            | 11,00           | 11,00            | 13,10           | 13,10            | 14,20           | 14,20            | 15,00            |
| Cooling input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| <b>Seasonal efficiency</b>                     |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| SEER   | W/W       | 7,10            | 6,60            | 6,70            | 6,90            | 6,60            | 6,60             | 6,10            | 6,10             | 6,30            | 6,30             | 6,10             |
| Efficiency energy class (3)                    |           | A++             | A++             | A++             | A++             | A++             | A++              | -               | -                | -               | -                | -                |
| Pdesignc                                       | kW        | 3,5             | 5,0             | 7,1             | 8,5             | 10,5            | 10,5             | -               | -                | -               | -                | -                |
| Annual power consumption                       | kWh/annum | 173             | 266             | 371             | 432             | 557             | 557              | -               | -                | -               | -                | -                |
| <b>Nominal heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity (4)                           | kW        | 4,00            | 5,60            | 7,80            | 8,80            | 11,50           | 11,50            | 13,50           | 13,50            | 15,50           | 15,50            | 17,00            |
| Heating input power (4)                        | kW        | 1,00            | 1,60            | 2,00            | 2,25            | 2,95            | 2,95             | 3,97            | 3,97             | 4,70            | 4,70             | 5,70             |
| COP (2)  | W/W       | 4,00            | 3,50            | 3,90            | 3,90            | 3,90            | 3,90             | 3,40            | 3,40             | 3,30            | 3,30             | 2,98             |
| <b>Minimum heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity                               | kW        | 0,90            | 1,60            | 2,20            | 2,50            | 3,00            | 3,00             | 3,60            | 3,60             | 3,90            | 3,90             | 4,50             |
| Heating input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90             | 1,10            | 1,10             | 1,35            | 1,35             | 1,50             |
| <b>Maximum heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity                               | kW        | 4,50            | 6,10            | 8,60            | 9,50            | 12,50           | 12,50            | 14,50           | 14,50            | 16,00           | 16,00            | 17,50            |
| Heating input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| <b>Seasonal efficiency (temperate climate)</b> |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| SCOP   | W/W       | 4,20            | 4,00            | 4,30            | 4,30            | 4,40            | 4,40             | 4,10            | 4,10             | 4,00            | 4,00             | 4,00             |
| Efficiency energy class (3)                    |           | A+              | A+              | A+              | A+              | A+              | A+               | -               | -                | -               | -                | -                |
| Pdesignh                                       | kW        | 3,10            | 3,90            | 5,00            | 6,00            | 7,00            | 7,00             | -               | -                | -               | -                | -                |
| Annual power consumption                       | kWh/annum | 1034            | 1365            | 1628            | 1954            | 2227            | 2227             | -               | -                | -               | -                | -                |
| <b>Electric data</b>                           |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Rated power input (5)                          | kW        | 1,30            | 1,90            | 2,80            | 3,30            | 4,70            | 4,40             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| Rated current input (5)                        | A         | 6,0             | 9,5             | 14,0            | 15,0            | 21,0            | 7,0              | 23,0            | 9,0              | 25,0            | 11,0             | 12,0             |
| <b>Refrigeration pipework</b>                  |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Diameter of liquid refrigerant connections     | mm (inch) | 6.35 (1/4")     | 6.35 (1/4")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")      |
| Diameter of refrigerant gas connections        | mm (inch) | 9.52 (3/8")     | 12.7 (1/2")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")      |
| Nominal length of refrigerant lines            | m         | 5,0             | 5,0             | 5,0             | 5,0             | 5,0             | 5,0              | 5,0             | 5,0              | 7,5             | 7,5              | 7,5              |
| <b>Power supply</b>                            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Power supply                                   |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 380-415V 3N~50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|                               |       | LPG350CS             | LPG500CS             | LPG700C              | LPG850C              | LPG1000C             | LPG1200C             | LPG1400C             | LPG1600C             |
|-------------------------------|-------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Indoor unit</b>            |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Type of fan                   | Type  | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>          |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Turbo                         | m³/h  | 600                  | 720                  | 1100                 | 1400                 | 1500                 | 1700                 | 2000                 | 2300                 |
| Maximum                       | m³/h  | 550                  | 650                  | 1000                 | 1300                 | 1400                 | 1500                 | 1800                 | 2100                 |
| Average                       | m³/h  | 500                  | 600                  | 900                  | 1100                 | 1200                 | 1300                 | 1600                 | 1900                 |
| Minimum                       | m³/h  | 400                  | 500                  | 800                  | 1000                 | 1000                 | 1100                 | 1400                 | 1600                 |
| <b>Sound pressure</b>         |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Turbo                         | dB(A) | 36,0                 | 43,0                 | 39,0                 | 47,0                 | 43,0                 | 48,0                 | 50,0                 | 52,0                 |
| Maximum                       | dB(A) | 35,0                 | 41,0                 | 38,0                 | 46,0                 | 41,0                 | 46,0                 | 48,0                 | 50,0                 |
| Average                       | dB(A) | 33,0                 | 39,0                 | 36,0                 | 42,0                 | 39,0                 | 43,0                 | 45,0                 | 48,0                 |
| Minimum                       | dB(A) | 29,0                 | 35,0                 | 34,0                 | 38,0                 | 38,0                 | 39,0                 | 41,0                 | 44,0                 |
| <b>Indoor unit</b>            |       |                      |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter | mm    | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)



## LPG\_F

| Indoor unit                                    |           | LPG350F         | LPG500F         | LPG700F         | LPG850F         | LPG1000F        | LPG1000F         | LPG1200F        | LPG1200F         | LPG1400F        | LPG1400F         | LPG1600F         |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|------------------|
| Outdoor unit                                   |           | LPG350          | LPG500          | LPG700          | LPG850          | LPG1000         | LPG1000T         | LPG1200         | LPG1200T         | LPG1400         | LPG1400T         | LPG1600T         |
| Indoor unit quantity                           |           | 1               | 1               | 1               | 1               | 1               | 1                | 1               | 1                | 1               | 1                | 1                |
| Outdoor unit quantity                          |           | 1               | 1               | 1               | 1               | 1               | 1                | 1               | 1                | 1               | 1                | 1                |
| <b>Nominal cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity (1)                           | kW        | 3,50            | 5,30            | 7,10            | 8,50            | 10,00           | 10,00            | 12,10           | 12,10            | 13,40           | 13,40            | 16,00            |
| Cooling input power (1)                        | kW        | 0,92            | 1,56            | 2,03            | 2,50            | 2,94            | 2,94             | 3,67            | 3,67             | 4,30            | 4,30             | 5,30             |
| EER (2)  | W/W       | 3,80            | 3,40            | 3,50            | 3,40            | 3,40            | 3,40             | 3,30            | 3,30             | 3,12            | 3,12             | 3,02             |
| Moisture removed                               | l/h       | 1,1             | 1,7             | 2,4             | 2,8             | 3,3             | 3,3              | 3,7             | 3,7              | 3,9             | 3,9              | 4,7              |
| <b>Minimum cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity                               | kW        | 0,90            | 1,60            | 2,40            | 2,90            | 3,20            | 3,20             | 3,60            | 3,60             | 4,00            | 4,00             | 4,80             |
| Cooling input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90             | 1,10            | 1,10             | 1,35            | 1,35             | 1,50             |
| <b>Maximum cooling performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Cooling capacity                               | kW        | 4,00            | 5,50            | 7,60            | 9,00            | 10,50           | 10,50            | 13,10           | 13,10            | 14,20           | 14,20            | 17,00            |
| Cooling input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| <b>Seasonal efficiency</b>                     |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| SEER   | W/W       | 7,20            | 6,50            | 7,20            | 6,80            | 6,30            | 6,30             | 6,30            | 6,30             | 6,30            | 6,30             | 6,10             |
| Efficiency energy class (3)                    |           | A++             | A++             | A++             | A++             | A++             | A++              | -               | -                | -               | -                | -                |
| Pdesignc                                       | kW        | 3,5             | 5,3             | 7,1             | 8,5             | 10,0            | 10,0             | -               | -                | -               | -                | -                |
| Annual power consumption                       | kWh/annum | 170             | 285             | 345             | 438             | 556             | 556              | -               | -                | -               | -                | -                |
| <b>Nominal heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity (4)                           | kW        | 4,00            | 5,60            | 7,70            | 8,80            | 11,50           | 11,50            | 13,50           | 13,50            | 15,50           | 15,50            | 17,00            |
| Heating input power (4)                        | kW        | 0,93            | 1,44            | 1,95            | 2,25            | 2,95            | 2,95             | 3,75            | 3,75             | 4,20            | 4,20             | 4,80             |
| COP (2)  | W/W       | 4,30            | 3,90            | 3,95            | 3,90            | 3,90            | 3,90             | 3,60            | 3,60             | 3,69            | 3,69             | 3,54             |
| <b>Minimum heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity                               | kW        | 0,90            | 1,60            | 2,20            | 2,50            | 3,00            | 3,00             | 3,60            | 3,60             | 3,90            | 3,90             | 4,50             |
| Heating input power                            | kW        | 0,20            | 0,30            | 0,50            | 0,75            | 0,90            | 0,90             | 1,10            | 1,10             | 1,35            | 1,35             | 1,50             |
| <b>Maximum heating performances</b>            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Heating capacity                               | kW        | 4,50            | 6,10            | 8,40            | 9,50            | 12,00           | 12,00            | 14,50           | 14,50            | 16,00           | 16,00            | 18,00            |
| Heating input power                            | kW        | 1,30            | 1,80            | 2,60            | 3,30            | 4,00            | 4,00             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| <b>Seasonal efficiency (temperate climate)</b> |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| SCOP   | W/W       | 4,10            | 4,20            | 4,30            | 4,50            | 4,20            | 4,20             | 4,00            | 4,00             | 4,00            | 4,00             | 4,00             |
| Efficiency energy class (3)                    |           | A+              | A+              | A+              | A+              | A+              | A+               | -               | -                | -               | -                | -                |
| Pdesignh                                       | kW        | 3,10            | 3,90            | 4,70            | 6,00            | 7,00            | 7,00             | -               | -                | -               | -                | -                |
| Annual power consumption                       | kWh/annum | 1059            | 1300            | 1530            | 1867            | 2333            | 2333             | -               | -                | -               | -                | -                |
| <b>Electric data</b>                           |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Rated power input (5)                          | kW        | 1,30            | 1,90            | 2,80            | 3,30            | 4,70            | 4,40             | 5,30            | 5,30             | 5,60            | 5,60             | 6,80             |
| Rated current input (5)                        | A         | 6,0             | 9,5             | 14,0            | 15,0            | 21,0            | 7,0              | 23,0            | 9,0              | 25,0            | 11,0             | 12,0             |
| <b>Refrigeration pipework</b>                  |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Diameter of liquid refrigerant connections     | mm (inch) | 6.35 (1/4")     | 6.35 (1/4")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")     | 15.9 (5/8")      | 15.9 (5/8")      |
| Diameter of refrigerant gas connections        | mm (inch) | 9.52 (3/8")     | 12.7 (1/2")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")     | 9.52 (3/8")      | 9.52 (3/8")      |
| Nominal length of refrigerant lines            | m         | 5,0             | 5,0             | 5,0             | 5,0             | 5,0             | 5,0              | 5,0             | 5,0              | 7,5             | 7,5              | 7,5              |
| <b>Power supply</b>                            |           |                 |                 |                 |                 |                 |                  |                 |                  |                 |                  |                  |
| Power supply                                   |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 220-240V ~ 50Hz | 380-415V 3N~50Hz | 380-415V 3N~50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

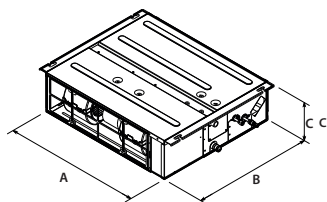
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|                               |       | LPG350F              | LPG500F | LPG700F | LPG850F | LPG1000F | LPG1200F | LPG1400F | LPG1600F |
|-------------------------------|-------|----------------------|---------|---------|---------|----------|----------|----------|----------|
| Indoor unit                   |       |                      |         |         |         |          |          |          |          |
| Type of fan                   | Type  | Inverter centrifugal |         |         |         |          |          |          |          |
| Air flow rate                 |       |                      |         |         |         |          |          |          |          |
| Turbo                         | m³/h  | 650                  | 900     | 1250    | 1400    | 1600     | 1900     | 2300     | 2400     |
| Maximum                       | m³/h  | 600                  | 800     | 1100    | 1300    | 1500     | 1800     | 2100     | 2200     |
| Average                       | m³/h  | 500                  | 700     | 1000    | 1200    | 1400     | 1600     | 1800     | 1900     |
| Minimum                       | m³/h  | 400                  | 600     | 900     | 1000    | 1200     | 1400     | 1500     | 1600     |
| Sound pressure                |       |                      |         |         |         |          |          |          |          |
| Turbo                         | dB(A) | 35,0                 | 41,0    | 41,0    | 46,0    | 48,0     | 45,0     | 51,0     | 53,0     |
| Maximum                       | dB(A) | 34,0                 | 40,0    | 39,0    | 45,0    | 46,0     | 43,0     | 48,0     | 51,0     |
| Average                       | dB(A) | 31,0                 | 38,0    | 37,0    | 43,0    | 45,0     | 40,0     | 45,0     | 48,0     |
| Minimum                       | dB(A) | 28,0                 | 36,0    | 35,0    | 39,0    | 43,0     | 38,0     | 43,0     | 44,0     |
| Indoor unit                   |       |                      |         |         |         |          |          |          |          |
| Condensate discharge diameter | mm    | 17,0                 | 17,0    | 17,0    | 17,0    | 17,0     | 17,0     | 17,0     | 17,0     |

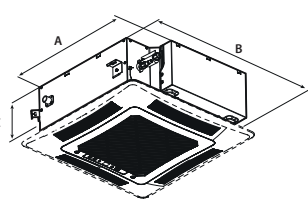
Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source (1,5m for type Duct and Cassette)

## INDOOR UNIT WEIGHTS AND DIMENSIONS

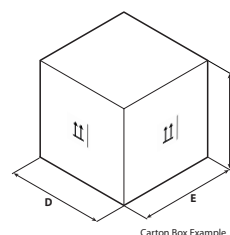
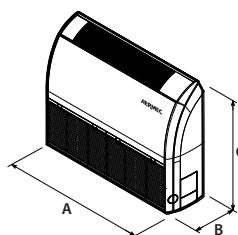
LPG\_D



LPG\_C / CS



LPG\_F



LPG\_D

|   |    | LPG350D | LPG500D | LPG700D | LPG850D | LPG1000D | LPG1200D | LPG1400D | LPG1600D |
|---|----|---------|---------|---------|---------|----------|----------|----------|----------|
| <b>Indoor unit</b>                          |    |         |         |         |         |          |          |          |          |
| A   | mm | 710     | 1000    | 900     | 900     | 1340     | 1340     | 1400     | 1400     |
| B   | mm | 450     | 450     | 655     | 655     | 655      | 655      | 700      | 700      |
| C   | mm | 200     | 200     | 260     | 260     | 260      | 260      | 300      | 300      |
| Net weight                                  | kg | 18,0    | 24,0    | 29,5    | 29,5    | 43,0     | 43,0     | 52,0     | 55,0     |
| <b>Dimensions and weights for transport</b> |    |         |         |         |         |          |          |          |          |
| D   | mm | 1008    | 1308    | 1115    | 1115    | 1568     | 1568     | 1601     | 1601     |
| E   | mm | 568     | 568     | 772     | 772     | 770      | 770      | 813      | 813      |
| F   | mm | 275     | 275     | 320     | 320     | 323      | 323      | 365      | 365      |
| Weight for transport                        | kg | 22,0    | 29,0    | 33,5    | 33,5    | 49,0     | 49,0     | 58,0     | 62,0     |

LPG\_C / CS

|   |    | LPG350CS | LPG500CS | LPG700C | LPG850C | LPG1000C | LPG1200C | LPG1400C | LPG1600C |
|---|----|----------|----------|---------|---------|----------|----------|----------|----------|
| <b>Indoor unit</b>                          |    |          |          |         |         |          |          |          |          |
| A   | mm | 570      | 570      | 840     | 840     | 840      | 840      | 840      | 840      |
| B   | mm | 570      | 570      | 840     | 840     | 840      | 840      | 840      | 840      |
| C   | mm | 260      | 260      | 200     | 200     | 240      | 240      | 290      | 290      |
| Net weight                                  | kg | 17,0     | 17,0     | 21,0    | 21,0    | 23,0     | 23,0     | 25,0     | 26,0     |
| <b>Dimensions and weights for transport</b> |    |          |          |         |         |          |          |          |          |
| D   | mm | 698      | 698      | 943     | 943     | 933      | 933      | 933      | 933      |
| E   | mm | 653      | 653      | 923     | 923     | 903      | 903      | 903      | 903      |
| F   | mm | 295      | 295      | 245     | 245     | 272      | 272      | 335      | 335      |
| Weight for transport                        | kg | 21,0     | 21,0     | 27,0    | 27,0    | 29,0     | 29,0     | 32,0     | 33,0     |

LPG\_F

|   |    | LPG350F | LPG500F | LPG700F | LPG850F | LPG1000F | LPG1200F | LPG1400F | LPG1600F |
|---|----|---------|---------|---------|---------|----------|----------|----------|----------|
| <b>Indoor unit</b>                          |    |         |         |         |         |          |          |          |          |
| A   | mm | 870     | 870     | 1200    | 1200    | 1200     | 1570     | 1570     | 1570     |
| B   | mm | 235     | 235     | 235     | 235     | 235      | 235      | 235      | 235      |
| C   | mm | 665     | 665     | 665     | 665     | 665      | 665      | 665      | 665      |
| Net weight                                  | kg | 24,0    | 25,0    | 31,0    | 32,0    | 32,0     | 40,0     | 42,0     | 42,0     |
| <b>Dimensions and weights for transport</b> |    |         |         |         |         |          |          |          |          |
| D   | mm | 973     | 973     | 1303    | 1303    | 1303     | 1669     | 1669     | 1669     |
| E   | mm | 770     | 770     | 770     | 770     | 770      | 770      | 770      | 770      |
| F   | mm | 300     | 300     | 300     | 300     | 300      | 300      | 300      | 300      |
| Weight for transport                        | kg | 28,0    | 29,0    | 36,0    | 37,0    | 37,0     | 47,0     | 49,0     | 49,0     |

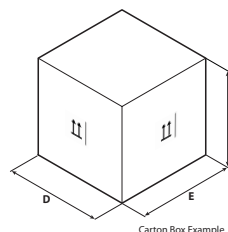
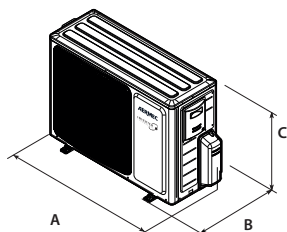
## Grid dimensions and weights

GLG40 - GLG40S

|                      |    | GLG40 | GLG40S |
|----------------------|----|-------|--------|
| <b>Indoor unit</b>   |    |       |        |
| A                    | mm | 950   | 620    |
| B                    | mm | 950   | 620    |
| C                    | mm | 52    | 48     |
| D                    | mm | 1033  | 701    |
| E                    | mm | 1038  | 701    |
| F                    | mm | 112   | 125    |
| Net weight           | kg | 6,0   | 3,0    |
| Weight for transport | kg | 10,0  | 5,0    |

Mandatory accessory to be provided when ordering.

## OUTDOOR UNIT WEIGHTS AND DIMENSIONS



LPG350 - LCGP500 - LPG700 - LPG850  
 LPG1000 - LPG1000T - LPG1200  
 LPG1200T LPG1400 - LPG1400T - LP-  
 G1600T

|   |    | LPG350 | LPG500 | LPG700 | LPG850 | LPG1000 | LPG1000T | LPG1200 | LPG1200T | LPG1400 | LPG1400T | LPG1600T |
|---|----|--------|--------|--------|--------|---------|----------|---------|----------|---------|----------|----------|
| <b>Outdoor unit</b>                         |    |        |        |        |        |         |          |         |          |         |          |          |
| A   | mm | 732    | 802    | 958    | 958    | 1020    | 1020     | 1020    | 1020     | 1020    | 1020     | 1070     |
| B   | mm | 330    | 350    | 402    | 402    | 427     | 427      | 427     | 427      | 427     | 427      | 427      |
| C   | mm | 553    | 555    | 660    | 660    | 820     | 820      | 820     | 820      | 820     | 820      | 960      |
| Net weight                                  | kg | 24,5   | 30,5   | 41,5   | 46,0   | 65,0    | 75,0     | 66,0    | 76,0     | 73,0    | 81,0     | 94,0     |
| <b>Dimensions and weights for transport</b> |    |        |        |        |        |         |          |         |          |         |          |          |
| D   | mm | 794    | 872    | 1032   | 1032   | 1095    | 1095     | 1095    | 1095     | 1095    | 1095     | 1150     |
| E   | mm | 376    | 398    | 456    | 456    | 500     | 500      | 500     | 500      | 500     | 500      | 475      |
| F   | mm | 605    | 609    | 730    | 730    | 955     | 955      | 955     | 955      | 955     | 955      | 1095     |
| Weight for transport                        | kg | 27,0   | 33,0   | 45,0   | 50,0   | 72,0    | 88,0     | 73,0    | 89,0     | 86,0    | 94,0     | 103,0    |

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**Aermec S.p.A.**  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# MVAS

## Monosplit high head duct

Cooling capacity 22,4 ÷ 28,0 kW  
Heating capacity 24,0 ÷ 30,0 kW



- Suitable for long-distance channels.
- Effective static pressure that can reach 150 Pa.
- Special coil with fin golden coating.



### DESCRIPTION

The monosplit air conditioners of the MVAS range are combined with MVA\_DH monosplit (high head duct) indoor units for duct type horizontal installation.

The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

### FEATURES



### Indoor unit

**High head duct** indoor unit, designed for indoor duct type horizontal installation.

- Every indoor unit comes with a remote control and a remote control holder.
- **WRC** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- 5-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

### Outdoor unit

Monosplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

### X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

### ACCESSORIES

**MVAGW:** This accessory allows you to manage up to 16 MV systems (with a maximum of 255 total indoor units), making available a serial in ModBus

RTU protocol on RS485, ModBus TCP or BACnet / IP for supervision with an external BMS.

**USBDC / USBDC1:** The kit includes a converter (from CanBus to ModBus) and the VRF debugger software. IT is designed to meet the requirements of after sales services and qualified technicians who need to carry out control and debugging procedures on the MV\_ ranges.

**WRC:** Wired panel with liquid crystal display and soft-touch buttons.

**WRC1:** Simplified wired panel with liquid crystal display and soft-touch buttons with built-in external contact. This panel is particularly suitable for hotel applications.

**For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.**



### PERFORMANCE SPECIFICATIONS

| Indoor unit                  |     | MVA2240DH | MVA2800DH |
|------------------------------|-----|-----------|-----------|
| Outdoor unit                 |     | MVA52242T | MVA52803T |
| Indoor unit quantity         |     | 1         | 1         |
| Outdoor unit quantity        |     | 1         | 1         |
| Nominal cooling performances |     |           |           |
| Cooling capacity (1)         | kW  | 22,40     | 28,00     |
| Cooling input power (1)      | kW  | 6,12      | 13,02     |
| Cooling input current        | A   | 10,9      | -         |
| EER (2)                      | W/W | 3,66      | 2,15      |
| Nominal heating performances |     |           |           |
| Heating capacity (3)         | kW  | 24,00     | 28,00     |
| Heating input power (3)      | kW  | 4,90      | 8,00      |
| Heating input current        | A   | 8,8       | -         |
| COP (2)                      | W/W | 4,90      | 3,50      |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

### INDOOR UNIT

|                               | MVA2240DH | MVA2800DH            |
|-------------------------------|-----------|----------------------|
| Indoor unit                   |           |                      |
| Type of fan                   | Type      | Inverter centrifugal |
| Air flow rate                 |           |                      |
| Maximum                       | m³/h      | 4000                 |
| High static pressure          |           |                      |
| Nominal                       | Pa        | 150                  |
| Sound power (1)               |           |                      |
| Maximum                       | dB(A)     | 64,0                 |
| Average                       | dB(A)     | 62,0                 |
| Minimum                       | dB(A)     | 59,0                 |
| Sound pressure (2)            |           |                      |
| Maximum                       | dB(A)     | 54,0                 |
| Average                       | dB(A)     | 52,0                 |
| Minimum                       | dB(A)     | 49,0                 |
| Indoor unit                   |           |                      |
| Condensate discharge diameter | mm        | 30,0                 |

(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## OUTDOOR UNIT

|  |       | MVAS 2242T               | MVAS 2803T               |
|--|-------|--------------------------|--------------------------|
| <b>Outdoor unit</b>                          |       |                          |                          |
| Type of fan                                  | Type  | Inverter axial           | Inverter axial           |
| <b>Sound power (1)</b>                       |       |                          |                          |
| Maximum                                      | dB(A) | 74,0                     | -                        |
| <b>Sound data calculated in cooling mode</b> |       |                          |                          |
| Maximum sound pressure level                 | dB(A) | 58,0                     | 62,0                     |
| Maximum sound power level                    | dB(A) | 78,0                     | 80,0                     |
| <b>Sound data calculated in heating mode</b> |       |                          |                          |
| Maximum sound pressure level                 | dB(A) | 58,0                     | 64,0                     |
| Maximum sound power level                    | dB(A) | 79,0                     | 82,0                     |
| <b>Compressor</b>                            |       |                          |                          |
| Type   | type  | Rotary                   | Rotary                   |
| Refrigerant                                  | type  | R410A                    | R410A                    |
| Potential global heating                     | GWP   | 2088kgCO <sub>2</sub> eq | 2088kgCO <sub>2</sub> eq |

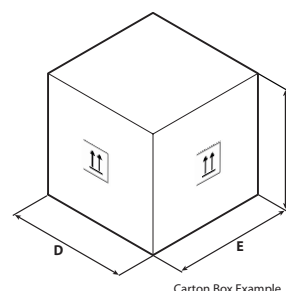
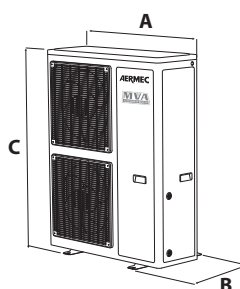
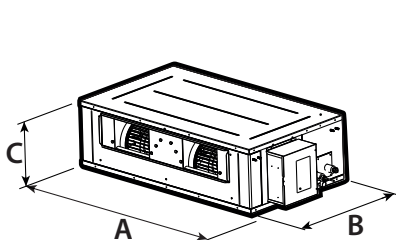
(1) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## GENERAL DATA

|  |           | MVA2240DH             | MVA2800DH             |
|--|-----------|-----------------------|-----------------------|
| <b>Indoor unit</b>                         |           | MVAS2242T             | MVAS2803T             |
| <b>Outdoor unit</b>                        |           |                       |                       |
| Indoor unit quantity                       |           | 1                     | 1                     |
| Outdoor unit quantity                      |           | 1                     | 1                     |
| <b>Electric data</b>                       |           |                       |                       |
| Rated power input (1)                      | kW        | 9,60                  | -                     |
| <b>Refrigeration pipework</b>              |           |                       |                       |
| Type refrigerant connections               | Type      | To be soldered        | To be soldered        |
| Diameter of liquid refrigerant connections | mm (inch) | 9,52 (3/8")           | 9,52 (3/8")           |
| Diameter of refrigerant gas connections    | mm (inch) | 19,05 (3/4")          | 22,2 (7/8")           |
| <b>Power supply</b>                        |           |                       |                       |
| Power supply                               |           | 380-415V ~ 3N 50/60Hz | 380-415V ~ 3N 50/60Hz |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## DIMENSIONS AND WEIGHTS



Carton Box Example

|                      |    | MVA2240DH | MVA2800DH |
|----------------------|----|-----------|-----------|
| <b>Indoor unit</b>   |    |           |           |
| A                    | mm | 1483      | 1686      |
| B                    | mm | 791       | 870       |
| C                    | mm | 385       | 450       |
| D                    | mm | 1758      | 1788      |
| E                    | mm | 883       | 988       |
| F                    | mm | 470       | 580       |
| Net weight           | kg | 82,0      | 105,0     |
| Weight for transport | kg | 104,0     | 140,0     |
|                      |    | MVAS2242T | MVAS2803T |
| <b>Outdoor unit</b>  |    |           |           |
| A                    | mm | 940       | 940       |
| B                    | mm | 320       | 460       |
| C                    | mm | 1430      | 1615      |
| D                    | mm | 1038      | 1038      |
| E                    | mm | 438       | 578       |
| F                    | mm | 1580      | 1765      |
| Net weight           | kg | 133,0     | 163,0     |
| Weight for transport | kg | 144,0     | 175,0     |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## MPG

## Multisplit

Cooling capacity 4,1 ÷ 12,1 kW  
Heating capacity 4,4 ÷ 13,0 kW

- New R32 ecological refrigerant gas.
- Wi-fi control using the relative accessory.
- Modern design to blend with all furnishing styles.
- Wide choice of indoor units available.
- Special coil with fin blue coating.

MPG\_CS / MPG\_C



SPG\_W



MPG\_D / MPG\_DH



CKG\_FS



MLG\_F



### DESCRIPTION

The multisplit air conditioners of the MPG range are combined with:

- **SPG\_W Wall**, for wall installation.
- **CKG\_FS Console**, for wall installation.
- **MLG\_F Floor ceiling**, for wall and/or ceiling installation.
- **MPG\_CS** and **MPG\_C Cassette**, for false ceiling installation.
- **MPG\_D** and **MPG\_DH Duct**, for duct type horizontal installation.

Outdoor units equipped with base electric resistance to avoid the possible formation of ice and facilitate the disposal of condensate during heating operation, compressor and fan with DC inverter technology and electronic expansion valve.

### TYPE OF INDOOR UNIT

#### SPG\_W indoor unit

**Wall** indoor unit designed to be installed on indoor walls.

Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

|                              | Indoor units SPG_W |         |         |         |         |
|------------------------------|--------------------|---------|---------|---------|---------|
|                              | SPG200W            | SPG250W | SPG350W | SPG500W | SPG700W |
| Monosplit outdoor units SPG  |                    | •       | •       | •       | •       |
| Multisplit outdoor units MPG | •                  | •       | •       | •       | •       |



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.

- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play), the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



### CKG\_FS indoor unit

**Console** indoor unit designed to be installed on indoor floors.

Universal indoor units: all indoor units can be combined with both multi-split outdoor units of the series MPG and monosplit outdoor units of the series CKG.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Indoor unit front panel with LED display and indicator lights.
- 5-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Air Purifiers (Cold Plasma) is able to reduce pollutants.
- Standard Wi-Fi module.

#### Single air delivery



#### Dual air delivery (default)



#### Intake



### Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

### Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

### MLG\_F indoor unit

Indoor unit **floor ceiling** designed to be installed on the wall or ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

### MPG\_CS indoor unit

Indoor unit **cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 7-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.



### MPG\_C indoor unit

Indoor unit **cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



- Every indoor unit comes with a remote control and a remote control holder.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 7-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

### MPG\_D indoor unit

**Duct** indoor unit designed for indoor duct type installation.



- Every indoor unit comes with a remote control and a remote control holder.
- **WRCB** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- 7-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

### MPG\_DH indoor unit

**Duct** indoor unit designed for indoor duct type installation.



- Every indoor unit comes with a remote control and a remote control holder.
- **WRCB** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- 7-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- Equipped with condensate drain pump.

### General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- **Auto-restart** function.
- **Self-diagnosis** function.
- Air filter easily removed and cleaned.
- Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
- Easy installation and maintenance.

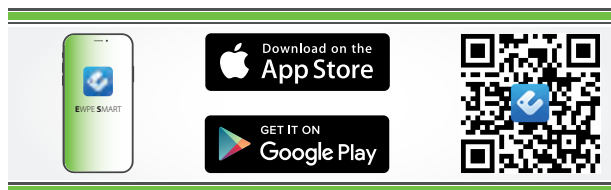
### X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



### Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



### Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### Supplied components for indoor units

| Models   | SPG_W | CKG_FS | MLG_F | MPG_CS | MPG_C | MPG_D | MPG_DH |
|--|-------|--------|-------|--------|-------|-------|--------|
| Remote control                                     | •     | •      | •     | •      | •     | •     | •      |
| Remote control holder                              | •     | •      | •     | •      | •     | •     | •      |
| WRCB wired panel WRCB with integrated Wi-Fi module |       |        |       |        |       | •     | •      |
| Air Purifiers (Cold Plasma)                        |       | •      |       |        |       |       |        |
| Wi-Fi module                                       |       | •      |       |        |       |       |        |
| Condensate discharge pump                          |       |        |       | •      | •     | •     | •      |

### TYPE OF OUTDOOR UNIT

#### MPG outdoor unit

Multisplit reversible air/air heat pump with DC inverter technology.

#### Types:

- **Dualsplit:** outdoor units MPG420 and MPG520 can be combined with 1 or 2 indoor units.
- **Trialsplit:** outdoor units MPG630 and MPG730 can be combined with 2 or 3 indoor units.

— **Quadrisplit:** outdoor unit MPG840 and MPG1040 can be combined with 2, 3 or 4 indoor units.

— **Pentasplit:** outdoor unit MPG1250 can be combined with 2, 3, 4 or indoor units.

#### Main features:

- Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

### INDOOR UNIT VERSIONS AVAILABLE

| Nominal cooling capacity in kBTU/h |         | Indoor units |         |          |         |          |          |
|------------------------------------|---------|--------------|---------|----------|---------|----------|----------|
| 7                                  | SPG200W |              |         |          |         |          |          |
| 9                                  | SPG250W | CKG260FS     | MLG250F |          | MPG250D | MPG250DH |          |
| 12                                 | SPG350W | CKG360FS     | MLG350F | MPG350CS | MPG350D | MPG350DH |          |
| 18                                 | SPG500W | CKG500FS     | MLG500F | MPG500CS | MPG500D | MPG500DH |          |
| 24                                 | SPG700W |              | MLG700F |          | MPG700C | MPG700D  | MPG700DH |

## ALLOWED COMBINATIONS OF INDOOR UNITS

For triasplit, quadrisplit, pentasplit it is mandatory to install at least 2 indoor units for correct functioning of the system.

For further information, please refer to the technical documentation on the website [www.aermec.com](http://www.aermec.com)

| MPG420<br>(14kBTU/h) |      | MPG520<br>(18kBTU/h) |       | MPG630<br>(21kBTU/h) |         |
|----------------------|------|----------------------|-------|----------------------|---------|
| N° unità interne     |      |                      |       |                      |         |
| 1                    | 2    | 1                    | 2     | 2                    | 3       |
| 7                    | 7+7  | 9                    | 7+7   | 7+7                  | 7+7+7   |
| 9                    | 7+9  | 12                   | 7+9   | 7+9                  | 7+7+9   |
| 12                   | 7+12 |                      | 7+12  | 7+12                 | 7+7+12  |
|                      | 9+9  |                      | 9+9   | 7+18                 | 7+9+9   |
|                      | 9+12 |                      | 9+12  | 9+9                  | 7+9+12  |
|                      |      |                      | 12+12 | 9+12                 | 7+12+12 |
|                      |      |                      |       | 9+18                 | 9+9+9   |
|                      |      |                      |       | 12+12                | 9+9+12  |
|                      |      |                      |       | 12+18                |         |
|                      |      |                      |       |                      |         |
|                      |      |                      |       |                      |         |
|                      |      |                      |       |                      |         |
|                      |      |                      |       |                      |         |

| MPG730<br>(24kBTU/h) |          | MPG840<br>(28kBTU/h) |          |           |
|----------------------|----------|----------------------|----------|-----------|
| 2                    | 3        | 2                    | 3        | 4         |
| 7+7                  | 7+7+7    | 7+7                  | 7+7+7    | 7+7+7+7   |
| 7+9                  | 7+7+9    | 7+9                  | 7+7+9    | 7+7+7+9   |
| 7+12                 | 7+7+12   | 7+12                 | 7+7+12   | 7+7+7+12  |
| 7+18                 | 7+7+18   | 7+18                 | 7+7+18   | 7+7+7+18  |
| 9+9                  | 7+9+9    | 9+9                  | 7+9+9    | 7+7+9+9   |
| 9+12                 | 7+9+12   | 9+12                 | 7+9+12   | 7+7+9+12  |
| 9+18                 | 7+9+18   | 9+18                 | 7+9+18   | 7+7+9+18  |
| 12+12                | 7+12+12  | 12+12                | 7+12+12  | 7+7+12+12 |
| 12+18                | 9+9+9    | 12+18                | 7+12+18  | 7+9+9+9   |
| 18+18                | 9+9+12   | 18+18                | 9+9+9    | 7+9+9+12  |
|                      | 9+9+18   |                      | 9+9+12   | 7+9+12+12 |
|                      | 9+12+12  |                      | 9+9+18   | 9+9+9+9   |
|                      | 12+12+12 |                      | 9+12+12  | 9+9+9+12  |
|                      |          |                      | 9+12+18  | 9+9+12+12 |
|                      |          |                      | 12+12+12 |           |
|                      |          |                      | 12+12+18 |           |
|                      |          |                      |          |           |
|                      |          |                      |          |           |
|                      |          |                      |          |           |

Any configuration outside of those listed in the above tables will cause errors on the external drives, resulting in system failure and/or damage.

| MPG1040<br>(36kBTU/h) |          |             | MPG1250<br>(42kBTU/h) |          |           |             |              |                |
|-----------------------|----------|-------------|-----------------------|----------|-----------|-------------|--------------|----------------|
| 2                     | 3        | 4           | 2                     | 3        | 4         | 5           |              |                |
| 7+12                  | 7+7+7    | 7+7+7+7     | 7+18                  | 7+7+7    | 7+7+7+7   | 7+12+12+12  | 7+7+7+7+7    | 7+9+9+9+9      |
| 7+18                  | 7+7+9    | 7+7+7+9     | 7+21                  | 7+7+9    | 7+7+7+9   | 7+12+12+21  | 7+7+7+7+9    | 7+9+9+9+12     |
| 7+21                  | 7+7+12   | 7+7+7+12    | 7+24                  | 7+7+12   | 7+7+7+12  | 7+12+12+24  | 7+7+7+7+12   | 7+9+9+9+18     |
| 7+24                  | 7+7+18   | 7+7+7+18    | 9+12                  | 7+7+18   | 7+7+7+18  | 7+12+18+18  | 7+7+7+7+18   | 7+9+9+9+21     |
| 9+9                   | 7+7+21   | 7+7+7+21    | 9+18                  | 7+7+21   | 7+7+7+21  | 7+12+18+21  | 7+7+7+7+21   | 7+9+9+9+24     |
| 9+12                  | 7+7+24   | 7+7+7+24    | 9+21                  | 7+7+24   | 7+7+7+24  | 7+12+18+24  | 7+7+7+7+24   | 7+9+9+12+12    |
| 9+18                  | 7+9+9    | 7+7+9+9     | 9+24                  | 7+9+9    | 7+7+9+9   | 7+12+21+21  | 7+7+7+9+9    | 7+9+9+12+18    |
| 9+21                  | 7+9+12   | 7+7+9+12    | 12+12                 | 7+9+12   | 7+7+9+12  | 7+18+18+18  | 7+7+7+9+12   | 7+9+9+12+21    |
| 9+24                  | 7+9+18   | 7+7+9+18    | 12+18                 | 7+9+18   | 7+7+9+18  | 9+9+9+9     | 7+7+7+9+18   | 7+9+9+12+24    |
| 12+12                 | 7+9+21   | 7+7+9+21    | 12+21                 | 7+9+21   | 7+7+9+21  | 9+9+9+12    | 7+7+7+9+21   | 7+9+9+18+18    |
| 12+18                 | 7+9+24   | 7+7+9+24    | 12+24                 | 7+9+24   | 7+7+9+24  | 9+9+9+18    | 7+7+7+9+24   | 7+9+12+12+12   |
| 12+21                 | 7+12+12  | 7+7+12+12   | 18+18                 | 7+12+12  | 7+7+12+12 | 9+9+9+21    | 7+7+7+12+12  | 7+9+12+12+18   |
| 12+24                 | 7+12+18  | 7+7+12+18   | 18+21                 | 7+12+18  | 7+7+12+18 | 9+9+9+24    | 7+7+7+12+18  | 7+9+12+12+21   |
| 18+18                 | 7+12+21  | 7+7+12+21   | 18+24                 | 7+12+21  | 7+7+12+21 | 9+9+12+12   | 7+7+7+12+21  | 7+12+12+12+12  |
| 18+21                 | 7+12+24  | 7+7+12+24   | 21+21                 | 7+12+24  | 7+7+12+24 | 9+9+12+18   | 7+7+7+12+24  | 7+12+12+12+18  |
| 18+24                 | 7+18+18  | 7+7+18+18   | 21+24                 | 7+18+18  | 7+7+18+18 | 9+9+12+21   | 7+7+7+18+18  | 9+9+ 9+9+9     |
| 21+21                 | 7+18+21  | 7+7+18+21   | 24+24                 | 7+18+21  | 7+7+18+21 | 9+9+12+24   | 7+7+7+18+21  | 9+9+ 9+9+12    |
| 21+21                 | 7+18+24  | 7+9+9+9     |                       | 7+18+24  | 7+7+18+24 | 9+9+18+18   | 7+7+7+18+24  | 9+9+ 9+9+18    |
| 24+24                 | 7+21+21  | 7+9+9+12    |                       | 7+21+21  | 7+7+21+21 | 9+9+18+21   | 7+7+7+21+21  | 9+9+ 9+9+21    |
|                       | 7+21+24  | 7+9+9+18    |                       | 7+21+24  | 7+7+21+24 | 9+9+18+24   | 7+7+9+9+9    | 9+9+ 9+9+24    |
|                       | 9+9+9    | 7+9+9+21    |                       | 7+24+24  | 7+7+24+24 | 9+9+21+21   | 7+7+9+9+12   | 9+9+9+12+12    |
|                       | 9+9+12   | 7+9+9+24    |                       | 9+9+9    | 7+9+9+9   | 9+9+21+24   | 7+7+9+9+18   | 9+9+9+12+18    |
|                       | 9+9+18   | 7+9+12+12   |                       | 9+9+12   | 7+9+9+12  | 9+12+12+12  | 7+7+9+9+21   | 9+9+9+12+21    |
|                       | 9+9+21   | 7+9+12+18   |                       | 9+9+18   | 7+9+9+18  | 9+12+12+18  | 7+7+9+9+24   | 9+9+9+12+24    |
|                       | 9+9+24   | 7+9+12+21   |                       | 9+9+21   | 7+9+9+21  | 9+12+12+21  | 7+7+9+12+12  | 9+9+9+18+18    |
|                       | 9+12+12  | 7+9+12+24   |                       | 9+9+24   | 7+9+9+24  | 9+12+12+24  | 7+7+9+12+18  | 9+9+12+12+12   |
|                       | 9+12+18  | 7+9+18+18   |                       | 9+12+12  | 7+9+12+12 | 9+12+18+18  | 7+7+9+12+21  | 9+9+12+12+18   |
|                       | 9+12+21  | 7+12+12+12  |                       | 9+12+18  | 7+9+12+18 | 9+12+18+21  | 7+7+9+12+24  | 9+9+12+12+21   |
|                       | 9+12+24  | 7+12+12+18  |                       | 9+12+21  | 7+9+12+21 | 9+12+18+24  | 7+7+9+18+18  | 9+12+12+12+12  |
|                       | 9+18+18  | 7+12+12+21  |                       | 9+12+24  | 7+9+12+24 | 9+12+21+21  | 7+7+9+18+21  | 9+12+12+12+18  |
|                       | 9+18+21  | 9+9+9+9     |                       | 9+18+18  | 7+9+18+18 | 9+18+18+18  | 7+7+12+12+12 | 12+12+12+12+12 |
|                       | 9+18+24  | 9+9+9+12    |                       | 9+18+21  | 7+9+18+21 | 12+12+12+12 | 7+7+12+12+18 |                |
|                       | 9+21+21  | 9+9+9+18    |                       | 9+18+24  | 7+9+18+24 | 12+12+12+18 | 7+7+12+12+21 |                |
|                       | 9+21+24  | 9+9+9+21    |                       | 9+21+21  | 7+9+21+21 | 12+12+12+21 | 7+7+12+12+24 |                |
|                       | 12+12+12 | 9+9+9+24    |                       | 9+21+24  | 7+9+21+24 | 12+12+12+24 | 7+7+12+18+18 |                |
|                       | 12+12+18 | 9+9+12+12   |                       | 9+24+24  |           | 12+12+18+18 |              |                |
|                       | 12+12+21 | 9+9+12+18   |                       | 12+12+12 |           | 12+12+18+21 |              |                |
|                       | 12+12+24 | 9+9+12+21   |                       | 12+12+18 |           |             |              |                |
|                       | 12+18+18 | 9+9+12+24   |                       | 12+12+21 |           |             |              |                |
|                       | 12+18+21 | 9+9+18+18   |                       | 12+12+24 |           |             |              |                |
|                       | 12+18+24 | 9+12+12+12  |                       | 12+18+18 |           |             |              |                |
|                       | 12+21+21 | 9+12+12+18  |                       | 12+18+21 |           |             |              |                |
|                       | 18+18+18 | 9+12+12+21  |                       | 12+18+24 |           |             |              |                |
|                       |          | 12+12+12+12 |                       | 12+21+21 |           |             |              |                |
|                       |          | 12+12+12+18 |                       | 12+21+24 |           |             |              |                |
|                       |          |             |                       | 12+24+24 |           |             |              |                |
|                       |          |             |                       | 18+18+18 |           |             |              |                |
|                       |          |             |                       | 18+18+21 |           |             |              |                |
|                       |          |             |                       | 18+18+24 |           |             |              |                |
|                       |          |             |                       | 18+21+21 |           |             |              |                |
|                       |          |             |                       | 18+21+24 |           |             |              |                |
|                       |          |             |                       | 21+21+21 |           |             |              |                |

Any configuration outside of those listed in the above tables will cause errors on the external drives, resulting in system failure and/or damage.

## ACCESSORIES

**CC2:** Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. \*

**WRCA:** Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

**WRCB:** Wired panel with liquid crystal display and soft-touch buttons, equipped with an integrated wi-fi module for remote control of the unit (via the dedicated EWPE Smart App).

\* The CC2 centralised control can manage up to 36 MPG systems.

In order to use accessory CC2, for each indoor unit, the WRCA / WRCB wired panel (accessory) must be installed, with the IC-2P adapter accessory.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

**DCK:** Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.

**WIFIKIT01:** Plug & Play module to be installed in the indoor unit for Wi-Fi control, equipped with Bluetooth® connection to ensure a better connection with smart devices. (Cable length 250 mm)

The accessories WRCA and WIFIKIT01 are compatible with one another and can therefore be connected to the same indoor unit simultaneously.

**GLG40S:** Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.

**GLG40:** Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.



**DTG1:** Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

## ACCESSORIES COMPATIBILITY

### SPG\_W

| Accessory | SPG500W | SPG700W |
|-----------|---------|---------|
| CC2 (1)   | •       | •       |
| WRCA (1)  | •       | •       |

(1) Auto-restart function.

| Accessory | SPG500W | SPG700W |
|-----------|---------|---------|
| IC-2P     | •       | •       |

| Accessory | SPG200W | SPG250W | SPG350W | SPG500W | SPG700W |
|-----------|---------|---------|---------|---------|---------|
| DCK       |         |         |         | •       | •       |
| WIFIKIT01 | •       | •       | •       | •       | •       |

### CKG\_FS

| Accessory | CKG260FS | CKG360FS | CKG500FS |
|-----------|----------|----------|----------|
| CC2 (1)   | •        | •        | •        |
| WRCA (1)  | •        | •        | •        |

(1) Auto-restart function.

| Accessory | CKG260FS | CKG360FS | CKG500FS |
|-----------|----------|----------|----------|
| IC-2P     | •        | •        | •        |

### MLG\_F

| Accessory | MLG250F | MLG350F | MLG500F | MLG700F |
|-----------|---------|---------|---------|---------|
| CC2 (1)   | •       | •       | •       | •       |
| WRCA (1)  | •       | •       | •       | •       |
| WRCB (1)  | •       | •       | •       | •       |

(1) Auto-restart function.

| Accessory | MLG250F | MLG350F | MLG500F | MLG700F |
|-----------|---------|---------|---------|---------|
| IC-2P     | •       | •       | •       | •       |

| Accessory | MLG250F | MLG350F | MLG500F | MLG700F |
|-----------|---------|---------|---------|---------|
| DCK       | •       | •       | •       | •       |

### MPG\_CS

| Accessory | MPG350CS | MPG500CS |
|-----------|----------|----------|
| CC2 (1)   | •        | •        |
| WRCA (1)  | •        | •        |
| WRCB (1)  | •        | •        |

(1) Auto-restart function.

|                          |          |          |
|--------------------------|----------|----------|
| <b>Accessory</b>         | MPG350CS | MPG500CS |
| IC-2P                    | •        | •        |
| <b>Accessory</b>         | MPG350CS | MPG500CS |
| GLG40S (1)               | •        | •        |
| (1) Mandatory accessory. |          |          |
| <b>Accessory</b>         | MPG350CS | MPG500CS |
| DCK                      | •        | •        |

### MPG\_C

|                            |         |
|----------------------------|---------|
| <b>Accessory</b>           | MPG700C |
| CC2 (1)                    | •       |
| WRCA (1)                   | •       |
| WRCB (1)                   | •       |
| (1) Auto-restart function. |         |
| <b>Accessory</b>           | MPG700C |
| IC-2P                      | •       |
| <b>Accessory</b>           | MPG700C |
| GLG40 (1)                  | •       |
| (1) Mandatory accessory.   |         |
| <b>Accessory</b>           | MPG700C |
| DCK                        | •       |

### MPG\_D

|   |         |         |         |         |
|---|---------|---------|---------|---------|
| <b>Accessory</b>  | MPG250D | MPG350D | MPG500D | MPG700D |
| CC2 (1)   | •       | •       | •       | •       |
| WRCA (1)  | •       | •       | •       | •       |
| WRCB (1)  | •       | •       | •       | •       |
| (1) Auto-restart function.<br>Wired panel WRCB standard supply. |         |         |         |         |
| <b>Accessory</b>  | MPG250D | MPG350D | MPG500D | MPG700D |
| IC-2P   | •       | •       | •       | •       |
| <b>Accessory</b>  | MPG250D | MPG350D | MPG500D | MPG700D |
| DCK   | •       | •       | •       | •       |

### MPG\_DH

|   |          |          |          |          |
|---|----------|----------|----------|----------|
| <b>Accessory</b>  | MPG250DH | MPG350DH | MPG500DH | MPG700DH |
| CC2 (1)   | •        | •        | •        | •        |
| WRCA (1)  | •        | •        | •        | •        |
| WRCB (1)  | •        | •        | •        | •        |
| (1) Auto-restart function.<br>Wired panel WRCB standard supply. |          |          |          |          |
| <b>Accessory</b>  | MPG250DH | MPG350DH | MPG500DH | MPG700DH |
| IC-2P   | •        | •        | •        | •        |
| <b>Accessory</b>  | MPG250DH | MPG350DH | MPG500DH | MPG700DH |
| DCK   | •        | •        | •        | •        |

## OUTDOOR UNIT PERFORMANCE DATA

|  |           | MPG420                  | MPG520                  | MPG630                  | MPG730                  | MPG840                  | MPG1040                 | MPG1250                 |
|--|-----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Nominal cooling performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Cooling capacity (1)   | kW        | 4,10                    | 5,30                    | 6,10                    | 7,10                    | 8,00                    | 10,60                   | 12,10                   |
| Cooling input power (1)  | kW        | 1,10                    | 1,48                    | 1,48                    | 1,88                    | 2,12                    | 3,00                    | 3,40                    |
| EER (2)  | W/W       | 3,73                    | 3,58                    | 4,12                    | 3,78                    | 3,77                    | 3,53                    | 3,56                    |
| <b>Minimum cooling performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Cooling capacity   | kW        | 2,05                    | 2,14                    | 2,20                    | 2,30                    | 2,30                    | 2,60                    | 2,60                    |
| Cooling input power  | kW        | 0,20                    | 0,30                    | 0,40                    | 0,60                    | 0,80                    | 0,60                    | 0,60                    |
| <b>Maximum cooling performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Cooling capacity   | kW        | 5,00                    | 5,80                    | 8,30                    | 9,20                    | 11,00                   | 12,00                   | 15,20                   |
| Cooling input power  | kW        | 2,20                    | 2,50                    | 2,90                    | 3,40                    | 3,60                    | 4,60                    | 4,60                    |
| <b>Seasonal efficiency</b>   |           |                         |                         |                         |                         |                         |                         |                         |
| SEER   | W/W       | 6,70                    | 6,50                    | 6,90                    | 6,50                    | 6,10                    | 6,50                    | 6,48                    |
| Annual power consumption   | kWh/annum | 214                     | 285                     | 309                     | 382                     | 459                     | 571                     | -                       |
| Efficiency energy class (3)  |           | A++                     | A++                     | A++                     | A++                     | A++                     | A++                     | -                       |
| <b>Nominal heating performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Heating capacity (4)   | kW        | 4,40                    | 5,65                    | 6,50                    | 8,60                    | 9,50                    | 12,00                   | 13,00                   |
| Heating input power (4)  | kW        | 0,97                    | 1,25                    | 1,43                    | 2,23                    | 2,20                    | 3,04                    | 3,19                    |
| COP (2)  | W/W       | 4,54                    | 4,52                    | 4,55                    | 3,86                    | 4,32                    | 3,95                    | 4,08                    |
| <b>Minimum heating performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Heating capacity   | kW        | 2,49                    | 2,58                    | 3,60                    | 3,65                    | 3,65                    | 3,00                    | 3,00                    |
| Heating input power  | kW        | 0,30                    | 0,40                    | 0,40                    | 0,60                    | 0,70                    | 0,80                    | 0,80                    |
| <b>Maximum heating performances</b>                                    |           |                         |                         |                         |                         |                         |                         |                         |
| Heating capacity   | kW        | 5,40                    | 6,50                    | 8,50                    | 9,20                    | 10,25                   | 14,00                   | 15,50                   |
| Heating input power  | kW        | 2,25                    | 2,50                    | 2,90                    | 3,00                    | 3,60                    | 5,00                    | 5,00                    |
| <b>Seasonal efficiency (temperate climate)</b>                         |           |                         |                         |                         |                         |                         |                         |                         |
| SCOP   | W/W       | 4,00                    | 4,00                    | 3,80                    | 3,80                    | 4,00                    | 3,80                    | 3,80                    |
| Annual power consumption   | kWh/annum | 1295                    | 1435                    | 2247                    | 2247                    | 2345                    | 3795                    | -                       |
| Efficiency energy class (3)  |           | A+                      | A+                      | A                       | A                       | A+                      | A                       | -                       |
| <b>Outdoor unit</b>  |           |                         |                         |                         |                         |                         |                         |                         |
| Type of fan  | Type      | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          | Inverter axial          |
| <b>Air flow rate</b>   |           |                         |                         |                         |                         |                         |                         |                         |
| Maximum  | m³/h      | 2300                    | 2300                    | 3800                    | 3800                    | 3800                    | 5800                    | 5800                    |
| <b>Sound power (5)</b>   |           |                         |                         |                         |                         |                         |                         |                         |
| Maximum  | dB(A)     | 62,0                    | 64,0                    | 68,0                    | 68,0                    | 68,0                    | 70,0                    | 74,0                    |
| <b>Sound pressure (1 m) (6)</b>  |           |                         |                         |                         |                         |                         |                         |                         |
| Maximum  | dB(A)     | 52,0                    | 54,0                    | 58,0                    | 58,0                    | 58,0                    | 60,0                    | 60,0                    |
| <b>Compressor</b>  |           |                         |                         |                         |                         |                         |                         |                         |
| Type   | type      | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         | Inverter rotary         |
| Refrigerant  | type      | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     |
| Refrigerant charge   | kg        | 0,75                    | 0,90                    | 1,60                    | 1,70                    | 1,80                    | 2,40                    | 2,40                    |
| Potential global heating   | GWP       | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq |
| Equivalent CO <sub>2</sub>   | t         | 0,51                    | 0,61                    | 1,08                    | 1,15                    | 1,22                    | 1,62                    | 1,62                    |
| <b>Electric data</b>   |           |                         |                         |                         |                         |                         |                         |                         |
| Rated power input (7)  | kW        | 2,30                    | 2,50                    | 2,90                    | 3,40                    | 3,60                    | 5,00                    | 5,00                    |
| Rated current input (7)  | A         | 10,0                    | 11,0                    | 12,9                    | 15,0                    | 16,0                    | 21,7                    | 21,7                    |
| <b>Refrigeration pipework</b>  |           |                         |                         |                         |                         |                         |                         |                         |
| Maximum refrigerant tube length  | m         | 40                      | 40                      | 60                      | 60                      | 70                      | 80                      | 100                     |
| Maximum single cooling line length                                     | m         | 20,0                    | 20,0                    | 20,0                    | 20,0                    | 20,0                    | 25,0                    | 25,0                    |
| Maximum unit (indoor/external) cooling line level difference in height | m         | 15,0                    | 15,0                    | 15,0                    | 15,0                    | 15,0                    | 25,0                    | 25,0                    |
| Maximum (indoor/outdoor) cooling line level difference                 | m         | 15,0                    | 15,0                    | 15,0                    | 15,0                    | 15,0                    | 25,0                    | 25,0                    |
| Refrigerant to be added  | g/m       | 20                      | 20                      | 20                      | 20                      | 20                      | 20                      | 20                      |
| Diameter of liquid refrigerant connections                             | mm (inch) | 6,35 (1/4")             | 6,35 (1/4")             | 6,35 (1/4")             | 6,35 (1/4")             | 6,35 (1/4")             | 6,35 (1/4")             | 6,35 (1/4")             |
| Diameter of refrigerant gas connections                                | mm (inch) | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             | 9,52 (3/8")             |
| <b>Power supply</b>  |           |                         |                         |                         |                         |                         |                         |                         |
| Outdoor unit power supply  |           | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         | 220-240V ~ 50Hz         |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(5) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(6) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

(7) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

All technical data refer to the respective reference combinations of the indoor units.

## INDOOR UNIT PERFORMANCE DATA

### SPG\_W

|                                     |       | SPG200W              | SPG250W | SPG350W | SPG500W | SPG700W |
|-------------------------------------|-------|----------------------|---------|---------|---------|---------|
| <b>Nominal cooling performances</b> |       |                      |         |         |         |         |
| Cooling capacity (1)                | kW    | 2,20                 | 2,50    | 3,20    | 4,60    | 6,20    |
| Moisture removed                    | l/h   | 0,6                  | 0,6     | 1,4     | 1,8     | 1,8     |
| <b>Nominal heating performances</b> |       |                      |         |         |         |         |
| Heating capacity (2)                | kW    | 2,40                 | 2,80    | 3,40    | 5,20    | 6,50    |
| <b>Indoor unit</b>                  |       |                      |         |         |         |         |
| Type of fan                         | Type  | Inverter centrifugal |         |         |         |         |
| Input power                         | W     | 13                   | 13      | 23      | 38      | 38      |
| <b>Air flow rate</b>                |       |                      |         |         |         |         |
| Minimum                             | m³/h  | 250                  | 270     | 320     | 600     | 650     |
| Average                             | m³/h  | 420                  | 390     | 400     | 700     | 750     |
| Maximum                             | m³/h  | 470                  | 470     | 520     | 800     | 950     |
| Turbo                               | m³/h  | 500                  | 500     | 590     | 850     | 1100    |
| <b>Sound power (3)</b>              |       |                      |         |         |         |         |
| Minimum                             | dB(A) | 34,0                 | 34,0    | 38,0    | 44,0    | 49,0    |
| Average                             | dB(A) | 45,0                 | 44,0    | 45,0    | 48,0    | 52,0    |
| Maximum                             | dB(A) | 49,0                 | 48,0    | 49,0    | 52,0    | 58,0    |
| Turbo                               | dB(A) | 55,0                 | 55,0    | 56,0    | 54,0    | 61,0    |
| <b>Sound pressure (1 m) (4)</b>     |       |                      |         |         |         |         |
| Minimum                             | dB(A) | 22,0                 | 22,0    | 26,0    | 34,0    | 35,0    |
| Average                             | dB(A) | 33,0                 | 32,0    | 33,0    | 38,0    | 38,0    |
| Maximum                             | dB(A) | 36,0                 | 36,0    | 37,0    | 42,0    | 44,0    |
| Turbo                               | dB(A) | 39,0                 | 38,0    | 41,0    | 44,0    | 47,0    |
| <b>Indoor unit</b>                  |       |                      |         |         |         |         |
| Condensate discharge diameter       | mm    | 16,0                 | 16,0    | 16,0    | 16,0    | 16,0    |
| <b>Power supply</b>                 |       |                      |         |         |         |         |
| Indoor unit power supply            |       | 220-240V ~ 50Hz      |         |         |         |         |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

Sound power calculated in free field, in accordance with UNI EN ISO 3744.

### CKG\_FS

|                                     |       | CKG260FS             | CKG360FS | CKG500FS |
|-------------------------------------|-------|----------------------|----------|----------|
| <b>Nominal cooling performances</b> |       |                      |          |          |
| Cooling capacity (1)                | kW    | 2,70                 | 3,50     | 5,20     |
| Moisture removed                    | l/h   | 0,8                  | 1,2      | 1,8      |
| <b>Nominal heating performances</b> |       |                      |          |          |
| Heating capacity (2)                | kW    | 2,90                 | 3,80     | 5,33     |
| <b>Indoor unit</b>                  |       |                      |          |          |
| Type of fan                         | Type  | Inverter centrifugal |          |          |
| Input power                         | W     | 35                   | 40       | 50       |
| <b>Air flow rate</b>                |       |                      |          |          |
| Minimum                             | m³/h  | 280                  | 360      | 410      |
| Average                             | m³/h  | 370                  | 440      | 520      |
| Maximum                             | m³/h  | 430                  | 520      | 650      |
| Turbo                               | m³/h  | 500                  | 600      | 700      |
| <b>Sound power (3)</b>              |       |                      |          |          |
| Minimum                             | dB(A) | 38,0                 | 39,0     | 47,0     |
| Average                             | dB(A) | 44,0                 | 46,0     | 51,0     |
| Maximum                             | dB(A) | 48,0                 | 50,0     | 55,0     |
| Turbo                               | dB(A) | 50,0                 | 54,0     | 57,0     |
| <b>Sound pressure (4)</b>           |       |                      |          |          |
| Minimum                             | dB(A) | 26,0                 | 29,0     | 37,0     |
| Average                             | dB(A) | 31,0                 | 36,0     | 41,0     |
| Maximum                             | dB(A) | 36,0                 | 40,0     | 45,0     |
| Turbo                               | dB(A) | 39,0                 | 44,0     | 47,0     |
| <b>Indoor unit</b>                  |       |                      |          |          |
| Condensate discharge diameter       | mm    | 17,0                 | 17,0     | 17,0     |
| <b>Power supply</b>                 |       |                      |          |          |
| Indoor unit power supply            |       | 220-240V ~ 50Hz      |          |          |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

Sound power calculated in free field, in accordance with UNI EN ISO 3744.



## MLG\_F

|                                     |       | MLG250F              | MLG350F | MLG500F | MLG700F |
|-------------------------------------|-------|----------------------|---------|---------|---------|
| <b>Nominal cooling performances</b> |       |                      |         |         |         |
| Cooling capacity (1)                | kW    | 2,60                 | 3,50    | 4,50    | 7,10    |
| Moisture removed                    | l/h   | 0,8                  | 1,4     | 1,8     | 2,5     |
| <b>Nominal heating performances</b> |       |                      |         |         |         |
| Heating capacity (2)                | kW    | 2,70                 | 4,00    | 5,00    | 8,00    |
| <b>Electric data</b>                |       |                      |         |         |         |
| Rated power input (3)               | W     | 38                   | 38      | 38      | 60      |
| <b>Indoor unit</b>                  |       |                      |         |         |         |
| Type of fan                         | Type  | Inverter centrifugal |         |         |         |
| Input power                         | W     | 38                   | 38      | 38      | 60      |
| <b>Air flow rate</b>                |       |                      |         |         |         |
| Minimum                             | m³/h  | 420                  | 420     | 410     | 720     |
| Average                             | m³/h  | 540                  | 540     | 520     | 800     |
| Maximum                             | m³/h  | 610                  | 610     | 590     | 870     |
| Turbo                               | m³/h  | 700                  | 700     | 680     | 950     |
| <b>Sound power (4)</b>              |       |                      |         |         |         |
| Minimum                             | dB(A) | 40,0                 | 40,0    | 40,0    | 41,0    |
| Average                             | dB(A) | 44,0                 | 44,0    | 44,0    | 45,0    |
| Maximum                             | dB(A) | 49,0                 | 49,0    | 49,0    | 52,0    |
| Turbo                               | dB(A) | 52,0                 | 52,0    | 52,0    | 52,0    |
| <b>Sound pressure (5)</b>           |       |                      |         |         |         |
| Minimum                             | dB(A) | 26,0                 | 26,0    | 26,0    | 27,0    |
| Average                             | dB(A) | 30,0                 | 30,0    | 30,0    | 31,0    |
| Maximum                             | dB(A) | 35,0                 | 35,0    | 35,0    | 35,0    |
| Turbo                               | dB(A) | 38,0                 | 38,0    | 38,0    | 38,0    |
| <b>Indoor unit</b>                  |       |                      |         |         |         |
| Condensate discharge diameter       | mm    | 17,0                 | 17,0    | 17,0    | 17,0    |
| <b>Power supply</b>                 |       |                      |         |         |         |
| Indoor unit power supply            |       | 220-240V ~ 50Hz      |         |         |         |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.  
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## MPG\_CS

|                                     |       | MPG350CS             | MPG500CS |
|-------------------------------------|-------|----------------------|----------|
| <b>Nominal cooling performances</b> |       |                      |          |
| Cooling capacity (1)                | kW    | 3,50                 | 5,00     |
| Moisture removed                    | l/h   | 1,4                  | 1,8      |
| <b>Nominal heating performances</b> |       |                      |          |
| Heating capacity (2)                | kW    | 4,00                 | 5,50     |
| <b>Indoor unit</b>                  |       |                      |          |
| Type of fan                         | Type  | Inverter centrifugal |          |
| Input power                         | W     | 30                   | 35       |
| <b>Air flow rate</b>                |       |                      |          |
| Minimum                             | m³/h  | 380                  | 380      |
| Average                             | m³/h  | 450                  | 450      |
| Maximum                             | m³/h  | 540                  | 540      |
| Turbo                               | m³/h  | 560                  | 650      |
| <b>Sound power (3)</b>              |       |                      |          |
| Minimum                             | dB(A) | 46,0                 | 46,0     |
| Average                             | dB(A) | 50,0                 | 50,0     |
| Maximum                             | dB(A) | 55,0                 | 55,0     |
| Turbo                               | dB(A) | 57,0                 | 59,0     |
| <b>Sound pressure (1 m) (4)</b>     |       |                      |          |
| Turbo                               | dB(A) | 41,0                 | 43,0     |
| Minimum                             | dB(A) | 30,0                 | 30,0     |
| Average                             | dB(A) | 34,0                 | 34,0     |
| Maximum                             | dB(A) | 39,0                 | 39,0     |
| <b>Indoor unit</b>                  |       |                      |          |
| Condensate discharge diameter       | mm    | 25,0                 | 25,0     |
| <b>Power supply</b>                 |       |                      |          |
| Indoor unit power supply            |       | 220-240V ~ 50Hz      |          |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.  
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## MPG\_C

| MPG700C                             |                 |                      |
|-------------------------------------|-----------------|----------------------|
| <b>Nominal cooling performances</b> |                 |                      |
| Cooling capacity (1)                | kW              | 7,00                 |
| Moisture removed                    | l/h             | 2,5                  |
| <b>Nominal heating performances</b> |                 |                      |
| Heating capacity (2)                | kW              | 8,00                 |
| <b>Indoor unit</b>                  |                 |                      |
| Type of fan                         | Type            | Inverter centrifugal |
| Input power                         | W               | 50                   |
| <b>Air flow rate</b>                |                 |                      |
| Minimum                             | m³/h            | 830                  |
| Average                             | m³/h            | 910                  |
| Maximum                             | m³/h            | 1050                 |
| Turbo                               | m³/h            | 1100                 |
| <b>Sound pressure (1 m) (3)</b>     |                 |                      |
| Turbo                               | dB(A)           | 44,0                 |
| Minimum                             | dB(A)           | 38,0                 |
| Average                             | dB(A)           | 40,0                 |
| Maximum                             | dB(A)           | 43,0                 |
| <b>Sound power (4)</b>              |                 |                      |
| Minimum                             | dB(A)           | 57,0                 |
| Average                             | dB(A)           | 59,0                 |
| Maximum                             | dB(A)           | 61,0                 |
| Turbo                               | dB(A)           | 62,0                 |
| <b>Indoor unit</b>                  |                 |                      |
| Condensate discharge diameter       | mm              | 25,0                 |
| <b>Power supply</b>                 |                 |                      |
| Indoor unit power supply            | 220-240V ~ 50Hz |                      |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
 (2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
 (3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.  
 (4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
 Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## MPG\_D

|                               |       | MPG250D              | MPG350D         | MPG500D | MPG700D |
|-------------------------------|-------|----------------------|-----------------|---------|---------|
| Nominal cooling performances  |       |                      |                 |         |         |
| Cooling capacity (1)          | kW    | 2,65                 | 3,50            | 5,00    | 7,00    |
| Moisture removed              | l/h   | 0,8                  | 1,4             | 1,8     | 2,5     |
| Nominal heating performances  |       |                      |                 |         |         |
| Heating capacity (2)          | kW    | 2,80                 | 4,00            | 5,50    | 8,00    |
| Indoor unit                   |       |                      |                 |         |         |
| Type of fan                   | Type  | Inverter centrifugal |                 |         |         |
| Input power                   | W     | 70                   | 80              | 80      | 200     |
| Air flow rate                 |       |                      |                 |         |         |
| Minimum                       | m³/h  | 220                  | 300             | 420     | 900     |
| Average                       | m³/h  | 340                  | 420             | 610     | 1000    |
| Maximum                       | m³/h  | 450                  | 540             | 720     | 1200    |
| Turbo                         | m³/h  | 560                  | 600             | 800     | 1300    |
| Sound pressure (1 m) (3)      |       |                      |                 |         |         |
| Turbo                         | dB(A) | 32,0                 | 36,0            | 36,0    | 46,0    |
| Minimum                       | dB(A) | 22,0                 | 27,0            | 25,0    | 36,0    |
| Average                       | dB(A) | 22,0                 | 27,0            | 25,0    | 36,0    |
| Maximum                       | dB(A) | 28,0                 | 34,0            | 31,0    | 42,0    |
| Sound power (4)               |       |                      |                 |         |         |
| Minimum                       | dB(A) | 37,0                 | 42,0            | 40,0    | 51,0    |
| Average                       | dB(A) | 40,0                 | 46,0            | 43,0    | 55,0    |
| Maximum                       | dB(A) | 43,0                 | 49,0            | 46,0    | 57,0    |
| Turbo                         | dB(A) | 47,0                 | 51,0            | 51,0    | 61,0    |
| Indoor unit                   |       |                      |                 |         |         |
| Condensate discharge diameter | mm    | 26,0                 | 26,0            | 26,0    | 26,0    |
| Power supply                  |       |                      |                 |         |         |
| Indoor unit power supply      |       |                      | 220-240V ~ 50Hz |         |         |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
 (2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
 (3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.  
 (4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
 Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## MPG\_DH

|                                     |       | MPG250DH             | MPG350DH | MPG500DH | MPG700DH |
|-------------------------------------|-------|----------------------|----------|----------|----------|
| <b>Nominal cooling performances</b> |       |                      |          |          |          |
| Cooling capacity (1)                | kW    | 2,65                 | 3,50     | 5,00     | 7,00     |
| Moisture removed                    | l/h   | 0,8                  | 1,4      | 1,8      | 2,5      |
| <b>Nominal heating performances</b> |       |                      |          |          |          |
| Heating capacity (2)                | kW    | 2,80                 | 4,00     | 5,50     | 8,00     |
| <b>Indoor unit</b>                  |       |                      |          |          |          |
| Type of fan                         | Type  | Inverter centrifugal |          |          |          |
| Input power                         | W     | 50                   | 50       | 75       | 80       |
| <b>High static pressure</b>         |       |                      |          |          |          |
| Maximum                             | Pa    | 60                   | 60       | 60       | 125      |
| <b>Air flow rate</b>                |       |                      |          |          |          |
| Minimum                             | m³/h  | 550                  | 410      | 750      | 900      |
| Average                             | m³/h  | 610                  | 480      | 790      | 1000     |
| Maximum                             | m³/h  | 670                  | 560      | 840      | 1200     |
| Turbo                               | m³/h  | 700                  | 650      | 880      | 1500     |
| <b>Sound pressure (1 m) (3)</b>     |       |                      |          |          |          |
| Turbo                               | dB(A) | 41,0                 | 39,0     | 41,0     | 45,0     |
| Minimum                             | dB(A) | 35,0                 | 33,0     | 37,0     | 36,0     |
| Average                             | dB(A) | 37,0                 | 35,0     | 38,0     | 38,0     |
| Maximum                             | dB(A) | 39,0                 | 37,0     | 39,0     | 40,0     |
| <b>Sound power (4)</b>              |       |                      |          |          |          |
| Minimum                             | dB(A) | 51,0                 | 49,0     | 53,0     | 53,0     |
| Average                             | dB(A) | 53,0                 | 51,0     | 54,0     | 55,0     |
| Maximum                             | dB(A) | 55,0                 | 53,0     | 55,0     | 57,0     |
| Turbo                               | dB(A) | 57,0                 | 55,0     | 57,0     | 62,0     |
| <b>Indoor unit</b>                  |       |                      |          |          |          |
| Condensate discharge diameter       | mm    | 26,0                 | 26,0     | 26,0     | 26,0     |
| <b>Power supply</b>                 |       |                      |          |          |          |
| Indoor unit power supply            |       | 220-240V ~ 50Hz      |          |          |          |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

## INDOOR UNIT COOLING FITTINGS

### SPG\_W

|  |           | SPG200W     | SPG250W     | SPG350W     | SPG500W     | SPG700W     |
|--|-----------|-------------|-------------|-------------|-------------|-------------|
| <b>Refrigeration pipework</b>              |           |             |             |             |             |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 12,7 (1/2") |

### CKG\_FS

|  |           | CKG260FS    | CKG360FS    | CKG500FS    |
|--|-----------|-------------|-------------|-------------|
| <b>Refrigeration pipework</b>              |           |             |             |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 12,7 (1/2") |

### MLG\_F

|  |           | MLG250F    | MLG350F    | MLG500F    | MLG700F    |
|--|-----------|------------|------------|------------|------------|
| <b>Refrigeration pipework</b>              |           |            |            |            |            |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4) | 6,35 (1/4) | 6,35 (1/4) | 9,52 (3/8) |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8) | 9,52 (3/8) | 12,7 (1/2) | 15,9 (5/8) |

### MPG\_CS

|  |           | MPG350CS    | MPG500CS    |
|--|-----------|-------------|-------------|
| <b>Refrigeration pipework</b>              |           |             |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8") | 12,7 (1/2") |

### MPG\_C

|  |           | MPG700C     |
|--|-----------|-------------|
| <b>Refrigeration pipework</b>              |           |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 15,9 (5/8") |

### MPG\_D

|  |           | MPG250D     | MPG350D     | MPG500D     | MPG700D     |
|--|-----------|-------------|-------------|-------------|-------------|
| <b>Refrigeration pipework</b>              |           |             |             |             |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 12,7 (1/2") | 15,9 (5/8") |

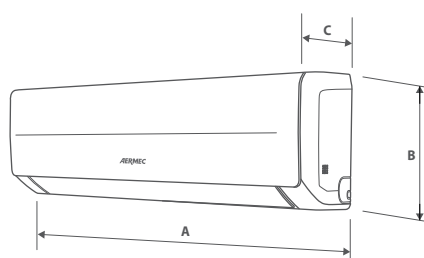
### MPG\_DH

|  |           | MPG250DH    | MPG350DH    | MPG500DH    | MPG700DH    |
|--|-----------|-------------|-------------|-------------|-------------|
| <b>Refrigeration pipework</b>              |           |             |             |             |             |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 12,7 (1/2") | 15,9 (5/8") |

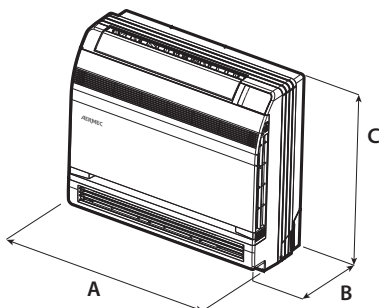
## OUTDOOR UNIT COOLING FITTINGS

| Models             |   |           | MPG420      | MPG520      | MPG630      | MPG730      | MPG840      | MPG1040     | MPG1250     |
|--------------------|---|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                    |   |           | 14kBtu/h    | 18kBtu/h    | 21kBtu/h    | 24kBtu/h    | 28kBtu/h    | 36kBtu/h    | 42kBtu/h    |
| Liquid connections | A | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") |
|                    | B | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") |
|                    | C | mm (inch) |             |             | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") |
|                    | D | mm (inch) |             |             |             |             | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") |
|                    | E | mm (inch) |             |             |             |             |             |             | 9,52 (3/8") |
| Gas connections    | A | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
|                    | B | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
|                    | C | mm (inch) |             |             | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
|                    | D | mm (inch) |             |             |             |             | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
|                    | E | mm (inch) |             |             |             |             |             |             | 6,35 (1/4") |

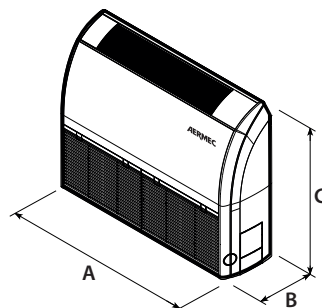
## INDOOR UNIT WEIGHTS AND DIMENSIONS



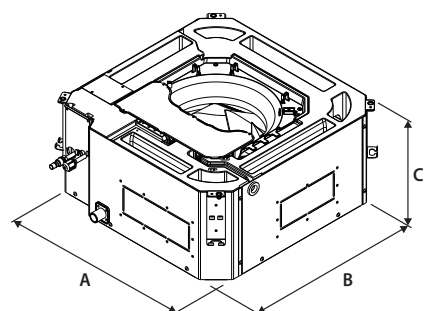
SPG\_W



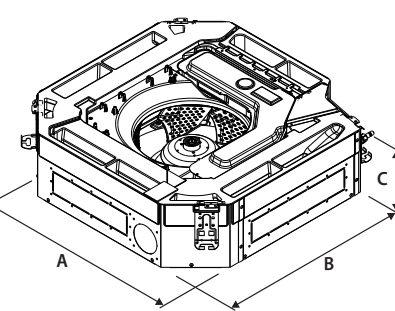
CKG\_FS



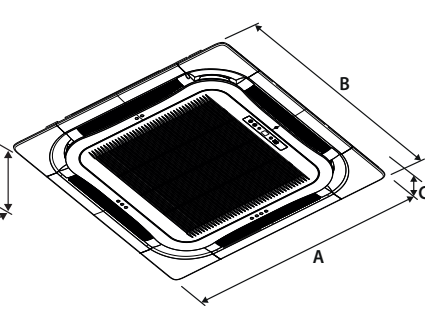
MLG\_F



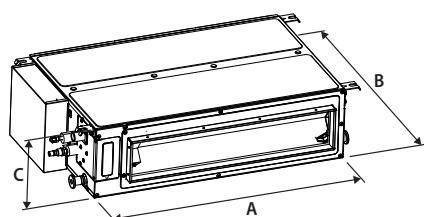
MPG\_CS



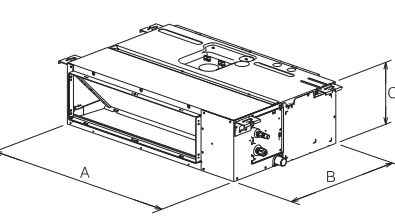
MPG\_C



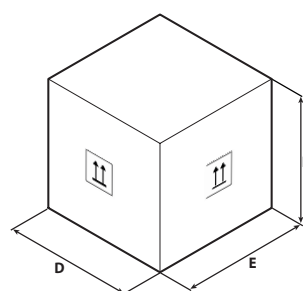
GLG40S / GLG40



MPG\_D



MGE\_DH



Carton Box Example

### SPG\_W

|                      |    | SPG200W | SPG250W | SPG350W | SPG500W | SPG700W |
|----------------------|----|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |
| A                    | mm | 696     | 696     | 770     | 972     | 1081    |
| B                    | mm | 251     | 251     | 251     | 300     | 325     |
| C                    | mm | 190     | 190     | 190     | 225     | 248     |
| D                    | mm | 747     | 747     | 822     | 1022    | 1137    |
| E                    | mm | 324     | 324     | 324     | 374     | 407     |
| F                    | mm | 262     | 262     | 262     | 299     | 334     |
| Net weight           | kg | 7,5     | 7,5     | 8,5     | 13,5    | 16,5    |
| Weight for transport | kg | 9,0     | 9,0     | 10,0    | 16,0    | 19,5    |

### CKG\_FS

|                      |    | CKG260FS | CKG360FS | CKG500FS |
|----------------------|----|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |
| A                    | mm | 700      | 700      | 700      |
| B                    | mm | 215      | 215      | 215      |
| C                    | mm | 600      | 600      | 600      |
| D                    | mm | 788      | 788      | 788      |
| E                    | mm | 283      | 283      | 283      |
| F                    | mm | 697      | 697      | 697      |
| Net weight           | kg | 15,5     | 15,5     | 15,5     |
| Weight for transport | kg | 18,5     | 18,5     | 18,5     |

**MLG\_F**

|                      |    | MLG250F | MLG350F | MLG500F | MLG700F |
|----------------------|----|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |
| A                    | mm | 870     | 870     | 870     | 1200    |
| B                    | mm | 235     | 235     | 235     | 235     |
| C                    | mm | 665     | 665     | 665     | 665     |
| D                    | mm | 1033    | 1033    | 1033    | 1363    |
| E                    | mm | 300     | 300     | 300     | 300     |
| F                    | mm | 770     | 770     | 770     | 770     |
| Net weight           | kg | 25,0    | 25,0    | 26,0    | 33,0    |
| Weight for transport | kg | 30,0    | 30,0    | 31,0    | 40,0    |

**MPG\_CS**

|                      |    | MPG350CS | MPG500CS |
|----------------------|----|----------|----------|
| <b>Indoor unit</b>   |    |          |          |
| A                    | mm | 570      | 570      |
| B                    | mm | 570      | 570      |
| C                    | mm | 265      | 265      |
| D                    | mm | 698      | 698      |
| E                    | mm | 653      | 653      |
| F                    | mm | 295      | 295      |
| Net weight           | kg | 17,0     | 17,0     |
| Weight for transport | kg | 22,0     | 22,0     |

**MPG\_C**

|                      |    | MPG700C |
|----------------------|----|---------|
| <b>Indoor unit</b>   |    |         |
| A                    | mm | 840     |
| B                    | mm | 840     |
| C                    | mm | 240     |
| D                    | mm | 963     |
| E                    | mm | 963     |
| F                    | mm | 325     |
| Net weight           | kg | 29,0    |
| Weight for transport | kg | 36,0    |

**GLG40S / GLG40**

|                      |    | GLG40S | GLG40 |
|----------------------|----|--------|-------|
| <b>Indoor unit</b>   |    |        |       |
| A                    | mm | 620    | 950   |
| B                    | mm | 620    | 950   |
| C                    | mm | 48     | 52    |
| D                    | mm | 701    | 1033  |
| E                    | mm | 701    | 1038  |
| F                    | mm | 125    | 112   |
| Net weight           | kg | 3,0    | 6,0   |
| Weight for transport | kg | 5,0    | 10,0  |

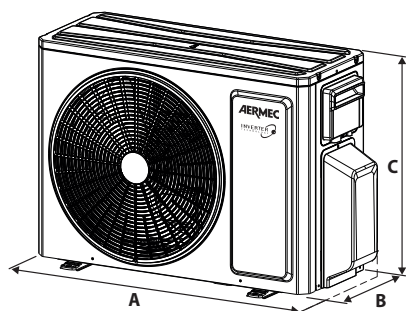
**MPG\_D**

|                      |    | MPG250D | MPG350D | MPG500D | MPG700D |
|----------------------|----|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |
| A                    | mm | 710     | 710     | 1010    | 900     |
| B                    | mm | 450     | 450     | 450     | 655     |
| C                    | mm | 200     | 200     | 200     | 260     |
| D                    | mm | 1008    | 1008    | 1308    | 1115    |
| E                    | mm | 568     | 568     | 568     | 772     |
| F                    | mm | 275     | 275     | 275     | 320     |
| Net weight           | kg | 18,5    | 19,0    | 25,0    | 31,0    |
| Weight for transport | kg | 22,5    | 23,0    | 30,0    | 36,0    |

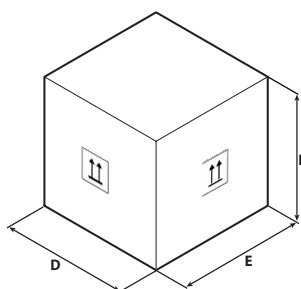
**MPG\_DH**

|                      |    | MPG250DH | MPG350DH | MPG500DH | MPG700DH |
|----------------------|----|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |
| A                    | mm | 710      | 710      | 1010     | 900      |
| B                    | mm | 450      | 450      | 450      | 655      |
| C                    | mm | 200      | 200      | 200      | 260      |
| D                    | mm | 1008     | 1008     | 1308     | 1115     |
| E                    | mm | 568      | 568      | 568      | 772      |
| F                    | mm | 275      | 275      | 275      | 320      |
| Net weight           | kg | 18,5     | 19,0     | 25,0     | 31,0     |
| Weight for transport | kg | 22,5     | 23,0     | 30,0     | 36,0     |

## OUTDOOR UNIT WEIGHTS AND DIMENSIONS



MPG



Carton Box Example

### MPG

|                      |    | MPG420 | MPG520 | MPG630 | MPG730 | MPG840 | MPG1040  | MPG1250  |
|----------------------|----|--------|--------|--------|--------|--------|----------|----------|
| <b>Outdoor unit</b>  |    |        |        |        |        |        |          |          |
| A                    | mm | 822    | 822    | 964    | 964    | 964    | 1020     | 1020     |
| B                    | mm | 352    | 352    | 402    | 402    | 402    | 427      | 427      |
| C                    | mm | 555    | 555    | 660    | 660    | 660    | 826      | 826      |
| D                    | mm | 872    | 872    | 1032   | 1032   | 1032   | 1095     | 1095     |
| E                    | mm | 398    | 398    | 456    | 456    | 456    | 500      | 500      |
| F                    | mm | 620    | 620    | 737    | 737    | 737    | 955      | 955      |
| Net weight           | kg | 30,0   | 32,0   | 47,5   | 47,5   | 51,0   | 72,0     | 73,0     |
| Weight for transport | kg | 32,5   | 34,5   | 52,0   | 52,0   | 55,5   | 85,0 (1) | 86,0 (1) |

(1) Packaging + pallet

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## MGE

## Multisplit

Cooling capacity 4,1 ÷ 12,31 kW  
Heating capacity 4,4 ÷ 12,31 kW

- R32 ecological refrigerant gas.
- Wi-fi control using the relative accessory.
- Modern design to blend with all furnishing styles.
- Wide choice of indoor units available.
- Special golden fin coil.



### DESCRIPTION

The multisplit air conditioners of the MGE range are combined with:

- SGE\_W unit **wall**, for wall installation.
- MGE\_C\_CSunit **Cassette** for false ceiling installation.
- MGE\_FS unit **Console**, for wall installation.
- MGE\_DH unit **Duct**, for duct type horizontal installation.

### TYPE OF OUTDOOR UNIT

#### Outdoor unit

Multisplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

#### Types

- **Dualsplit**: outdoor units MGE420 and MGE520 can be combined with 2 indoor units.
- **Trialsplit**: outdoor units MGE630 and MGE830 can be combined with 2 or 3 indoor units.
- **Quadrisplit**: outdoor unit MGE840 and MGE1040 can be combined with 2, 3 or 4 indoor units.
- **Pentasplit**: outdoor unit MGE1250 can be combined with 2, 3, 4 or indoor units.

#### General features

- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

#### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### TYPE OF INDOOR UNIT

#### Indoor unit SGE\_W

**Wall** indoor unit designed to be installed on indoor walls.

SGE\_W has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.



#### Features

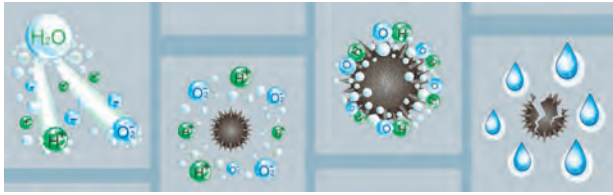
- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



Not available for SGE200W



### MGE\_CS - MGE\_C Indoor unit

Indoor unit **Cassette** of dimensions 570x570 mm (MGE350CS - MGE500CS) and 830x830 mm (MGE700C) designed to be installed on suspended ceiling indoors.



#### Features

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- **Dehumidification** function that allows humidity control

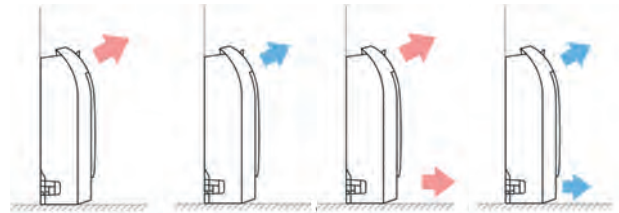
### MGE\_FS Indoor unit

**Console** indoor unit designed to be installed on indoor floors.



#### Features

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.



Single air delivery

Dual air delivery

### MGE\_DH Indoor unit

**Duct** indoor unit designed for indoor duct type installation.



#### Features

- Remote control standard supply with each indoor unit.
- **WRPE10** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Timer for programming switch-off and switch-on.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### General features

- R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
- Easy installation and maintenance.

#### Low cooling function

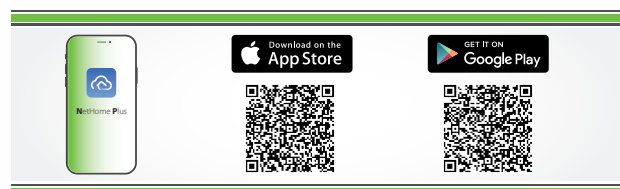
cooling operation with outdoor temperatures down to -15 °C

#### Low heating function

heating with external temperatures up to -15 °C.

#### Nethome Plus app

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



## ACCESSORIES

**WIFIKEY:** Plug & Play module to be installed in the indoor unit for Wi-Fi control.

**WRPE10:** Wired panel with liquid crystal display and soft-touch buttons.

**WRPE10W:** Flush panel with LCD display and Soft-Touch keys. It is equipped with WiFi and Bluetooth® connection for better connection stability.

**GLE10S:** Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit. Mandatory accessory.

**GLE10:** Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit. Mandatory accessory.



**WRPE10**



**WRPE10W**



**GLE10S**



**GLE10**



**WIFIKEY**

## Accessories compatibility

### SGE\_W

| Accessory | SGE200W | SGE250W | SGE350W | SGE500W |
|-----------|---------|---------|---------|---------|
| WIFIKEY   | •       | •       | •       | •       |

### MGE\_C / CS

| Accessory  | MGE350CS | MGE500CS | MGE700C |
|------------|----------|----------|---------|
| WIFIKEY    | •        | •        | •       |
| Accessory  | MGE350CS | MGE500CS | MGE700C |
| WRPE10     | •        | •        | •       |
| WRPE10W    | •        | •        | •       |
| Accessory  | MGE350CS | MGE500CS | MGE700C |
| GLE10 (1)  |          |          | •       |
| GLE10S (1) | •        | •        |         |

(1) Mandatory accessory.

### MGE\_DH

| Accessory | MGE250DH | MGE350DH | MGE500DH | MGE700DH |
|-----------|----------|----------|----------|----------|
| WRPE10W   | •        | •        | •        | •        |

Wired panel WRPE10 standard supply.

### MGE\_FS

| Accessory | MGE250FS | MGE350FS | MGE500FS |
|-----------|----------|----------|----------|
| WIFIKEY   | •        | •        | •        |
| Accessory | MGE250FS | MGE350FS | MGE500FS |
| WRPE10    | •        | •        | •        |
| WRPE10W   | •        | •        | •        |

## ALLOWED COMBINATIONS OF INDOOR UNITS

For tri-split, quad-split or penta-split MGE units, it is mandatory to install at least 2 indoor units for correct functioning of the system.

For further information, please refer to the technical documentation on the website [www.aermec.com](http://www.aermec.com)

| MGE420       | MGE520       | MGE630       |              | MGE830      |              | MGE840         |              |              |
|--------------|--------------|--------------|--------------|-------------|--------------|----------------|--------------|--------------|
| BI (1x2)     | BI (1x2)     | TRI (1x2)    | TRI (1x3)    | TRI (1x2)   | TRI (1x3)    | QUADRI (1x2)   | QUADRI (1x3) | QUADRI (1x4) |
| <b>7+7</b>   | 7+7          | 7+7          | <b>7+7+7</b> | 7+7         | 7+7+7        | 7+7            | 7+7+7        | 7+7+7+7      |
| 7+9          | 7+9          | 7+9          | 7+7+9        | 7+9         | 7+7+9        | 7+9            | 7+7+9        | 7+7+7+9      |
| 7+12         | 7+12         | 7+12         | 7+7+12       | 7+12        | 7+7+12       | 7+12           | 7+7+12       | 7+7+7+12     |
| 9+9          | <b>9+9</b>   | 7+18         | 7+9+9        | 7+18        | 7+7+18       | 7+18           | 7+7+18       | 7+7+7+18     |
|              | 9+12         | 9+9          | 7+9+12       | 9+9         | 7+9+9        | 7+24           | 7+7+24       | 7+7+9+9      |
|              | 12+12        | 9+12         | 9+9+9        | 9+12        | 7+9+12       | 9+9            | 7+9+9        | 7+7+9+12     |
|              |              | 9+18         |              | 9+18        | 7+9+18       | 9+12           | 7+9+12       | 7+7+9+18     |
|              |              | 12+12        |              | 12+12       | 7+12+12      | 9+18           | 7+9+18       | 7+7+12+12    |
|              |              |              |              | 12+18       | <b>9+9+9</b> | 9+24           | 7+9+24       | 7+9+9+9      |
|              |              |              |              |             | 9+9+12       | 12+12          | 7+12+12      | 7+9+9+12     |
|              |              |              |              |             | 9+12+12      | 12+18          | 7+12+18      | 7+9+12+12    |
|              |              |              |              |             | 12+12+12     | 12+24          | 9+9+9        | 9+9+9+9      |
|              |              |              |              |             |              |                | 9+9+12       | 9+9+9+12     |
|              |              |              |              |             |              |                | 9+9+18       | 9+9+12+12    |
|              |              |              |              |             |              |                | 9+9+24       |              |
|              |              |              |              |             |              |                | 9+12+12      |              |
|              |              |              |              |             |              |                | 9+12+18      |              |
|              |              |              |              |             |              |                | 12+12+12     |              |
|              |              |              |              |             |              |                | 12+12+18     |              |
|              |              |              |              |             |              |                |              |              |
| MGE1040      |              |              |              | MGE1250     |              |                |              |              |
| QUADRI (1x2) | QUADRI (1x3) | QUADRI (1x4) | PENTA (1x2)  | PENTA (1x3) | PENTA (1x4)  | PENTA (1x5)    |              |              |
| 7+12         | 7+7+7        | 7+7+7+7      | 7+18         | 7+7+7       | 7+7+7+7      | 7+7+7+7+7      |              |              |
| 7+18         | 7+7+9        | 7+7+7+9      | 7+24         | 7+7+9       | 7+7+7+9      | 7+7+7+7+9      |              |              |
| 7+24         | 7+7+12       | 7+7+7+12     | 9+12         | 7+7+12      | 7+7+7+12     | 7+7+7+7+12     |              |              |
| 9+9          | 7+7+18       | 7+7+7+18     | 9+18         | 7+7+18      | 7+7+7+18     | 7+7+7+7+18     |              |              |
| 9+12         | 7+7+24       | 7+7+7+24     | 9+24         | 7+7+24      | 7+7+7+24     | 7+7+7+7+24     |              |              |
| 9+18         | 7+9+9        | 7+7+9+9      | 12+12        | 7+9+9       | 7+7+9+9      | 7+7+7+9+9      |              |              |
| 9+24         | 7+9+12       | 7+7+9+12     | 12+18        | 7+9+12      | 7+7+9+12     | 7+7+7+9+12     |              |              |
| 12+12        | 7+9+18       | 7+7+9+18     | 12+24        | 7+9+18      | 7+7+9+18     | 7+7+7+9+18     |              |              |
| 12+18        | 7+9+24       | 7+7+9+24     |              | 7+9+24      | 7+7+9+24     | 7+7+7+9+24     |              |              |
| 12+24        | 7+12+12      | 7+7+12+12    |              | 7+12+12     | 7+7+12+12    | 7+7+7+12+12    |              |              |
|              | 7+12+18      | 7+7+12+18    |              | 7+12+18     | 7+7+12+18    | 7+7+7+12+18    |              |              |
|              | 7+12+24      | 7+9+9+9      |              | 7+12+24     | 7+7+12+24    | 7+7+7+12+24    |              |              |
|              | 9+9+9        | 7+9+9+12     |              | 9+9+9       | 7+9+9+9      | 7+7+9+9+9      |              |              |
|              | 9+9+12       | 7+9+9+18     |              | 9+9+12      | 7+9+9+12     | 7+7+9+9+12     |              |              |
|              | 9+9+18       | 7+9+12+12    |              | 9+9+18      | 7+9+9+18     | 7+7+9+9+18     |              |              |
|              | 9+9+24       | 7+9+12+18    |              | 9+9+24      | 7+9+9+24     | 7+7+9+9+24     |              |              |
|              | 9+12+12      | 7+12+12+12   |              | 9+12+12     | 7+9+12+12    | 7+7+9+12+12    |              |              |
|              | 9+12+18      | 9+9+9+9      |              | 9+12+18     | 7+9+12+18    | 7+7+9+12+18    |              |              |
|              | 9+12+24      | 9+9+9+12     |              | 9+12+24     | 7+9+12+24    | 7+7+9+12+24    |              |              |
|              | 12+12+12     | 9+9+9+18     |              | 12+12+12    | 7+12+12+12   | 7+7+12+12+12   |              |              |
|              | 12+12+18     | 9+9+12+12    |              | 12+12+18    | 7+12+12+18   | 7+7+12+12+18   |              |              |
|              | 12+12+24     | 9+9+12+18    |              | 12+12+24    | 7+12+12+24   | 7+7+12+12+24   |              |              |
|              |              | 9+12+12+12   |              |             | 9+9+9+9      | 7+9+9+9+9      |              |              |
|              |              | 12+12+12+12  |              |             | 9+9+9+12     | 7+9+9+9+12     |              |              |
|              |              |              |              |             | 9+9+9+18     | 7+9+9+9+18     |              |              |
|              |              |              |              |             | 9+9+9+24     | 7+9+9+9+24     |              |              |
|              |              |              |              |             | 9+9+12+12    | 7+9+9+12+12    |              |              |
|              |              |              |              |             | 9+9+12+18    | 7+9+9+12+18    |              |              |
|              |              |              |              |             | 9+9+12+24    | 7+9+9+12+24    |              |              |
|              |              |              |              |             | 12+12+12+12  | 7+12+12+12+12  |              |              |
|              |              |              |              |             | 12+12+12+18  | 7+12+12+12+18  |              |              |
|              |              |              |              |             | 12+12+12+24  | 7+12+12+12+24  |              |              |
|              |              |              |              |             |              | 9+9+9+9+9      |              |              |
|              |              |              |              |             |              | 9+9+9+9+12     |              |              |
|              |              |              |              |             |              | 9+9+9+9+18     |              |              |
|              |              |              |              |             |              | 9+9+9+9+24     |              |              |
|              |              |              |              |             |              | 9+9+9+12+12    |              |              |
|              |              |              |              |             |              | 9+9+9+12+18    |              |              |
|              |              |              |              |             |              | 9+9+12+12+24   |              |              |
|              |              |              |              |             |              | 9+12+12+12+12  |              |              |
|              |              |              |              |             |              | 12+12+12+12+18 |              |              |
|              |              |              |              |             |              | 12+12+12+12+24 |              |              |
|              |              |              |              |             |              | 12+12+12+12+18 |              |              |

## OUTDOOR UNIT PERFORMANCE DATA

|  |           | MGE420          | MGE520          | MGE630          | MGE830          | MGE840          | MGE1040         | MGE1250         |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity (1)                           | kW        | 4,10            | 5,30            | 6,15            | 7,90            | 8,20            | 10,55           | 12,31           |
| Cooling input power (1)                        | kW        | 1,27            | 1,64            | 1,91            | 2,45            | 2,54            | 3,30            | 3,81            |
| EER (2)  | W/W       | 3,23            | 3,23            | 3,23            | 3,23            | 3,23            | 3,20            | 3,23            |
| <b>Minimum cooling performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity                               | kW        | 1,47            | 2,29            | 1,99            | 3,18            | 2,34            | 3,64            | 3,02            |
| Cooling input power                            | kW        | 0,12            | 0,69            | 0,18            | 0,29            | 0,20            | 0,33            | 0,28            |
| <b>Maximum cooling performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Cooling capacity                               | kW        | 4,98            | 5,71            | 6,59            | 8,21            | 10,02           | 10,84           | 12,31           |
| Cooling input power                            | kW        | 1,67            | 2,00            | 2,20            | 3,10            | 3,45            | 4,25            | 4,65            |
| <b>Seasonal efficiency</b>                     |           |                 |                 |                 |                 |                 |                 |                 |
| SEER   | W/W       | 5,60            | 6,10            | 6,10            | 6,10            | 6,10            | 6,20            | 6,10            |
| Efficiency energy class (3)                    |           | A+              | A++             | A++             | A++             | A++             | A++             | A++             |
| Annual power consumption                       | kWh/annum | 258             | 309             | 350             | 453             | 470             | 598             | 714             |
| <b>Nominal heating performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity (4)                           | kW        | 4,40            | 5,57            | 6,45            | 8,20            | 8,79            | 10,85           | 12,31           |
| Heating input power (4)                        | kW        | 1,19            | 1,50            | 1,74            | 2,21            | 2,20            | 2,76            | 3,30            |
| COP (2)  | W/W       | 3,71            | 3,71            | 3,71            | 3,71            | 4,00            | 3,93            | 3,73            |
| <b>Minimum heating performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity                               | kW        | 1,52            | 2,40            | 1,99            | 2,29            | 2,37            | 2,85            | 3,46            |
| Heating input power                            | kW        | 0,12            | 0,60            | 0,35            | 0,37            | 0,43            | 0,47            | 0,65            |
| <b>Maximum heating performances</b>            |           |                 |                 |                 |                 |                 |                 |                 |
| Heating capacity                               | kW        | 4,98            | 5,74            | 6,68            | 8,50            | 10,49           | 12,02           | 12,31           |
| Heating input power                            | kW        | 1,67            | 1,78            | 1,80            | 2,90            | 3,05            | 4,21            | 3,80            |
| <b>Seasonal efficiency (temperate climate)</b> |           |                 |                 |                 |                 |                 |                 |                 |
| SCOP   | W/W       | 3,80            | 3,80            | 4,00            | 4,00            | 3,80            | 3,80            | 3,50            |
| Efficiency energy class (3)                    |           | A               | A               | A+              | A+              | A               | A               | A               |
| Annual power consumption                       | kWh/annum | 1400            | 1768            | 1910            | 1960            | 2395            | 3316            | 3933            |
| <b>Power supply</b>                            |           |                 |                 |                 |                 |                 |                 |                 |
| Outdoor unit power supply                      |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

## Outdoor unit technical data

|                               |       | MGE420                  | MGE520                  | MGE630                  | MGE830                  | MGE840                  | MGE1040                 | MGE1250                 |
|-------------------------------|-------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Outdoor unit</b>           |       |                         |                         |                         |                         |                         |                         |                         |
| Type of fan                   | Type  | Axial                   | Axial                   | Axial                   | Axial                   | Axial                   | Axial                   | Axial                   |
| <b>Air flow rate</b>          |       |                         |                         |                         |                         |                         |                         |                         |
| Maximum                       | m³/h  | 2100                    | 2100                    | 3000                    | 3000                    | 3800                    | 4000                    | 3850                    |
| <b>Sound power</b>            |       |                         |                         |                         |                         |                         |                         |                         |
| Maximum                       | dB(A) | 64,0                    | 65,0                    | 65,0                    | 67,0                    | 67,0                    | 67,0                    | 69,0                    |
| <b>Sound pressure (1 m)</b>   |       |                         |                         |                         |                         |                         |                         |                         |
| Maximum                       | dB(A) | 56,0                    | 54,0                    | 58,0                    | 58,0                    | 61,5                    | 61,0                    | 64,0                    |
| <b>Compressor</b>             |       |                         |                         |                         |                         |                         |                         |                         |
| Type                          | type  | Inverter rotary         | Inverter rotary         | Inverter rotary         | Twin rotary inverter    | Twin rotary inverter    | Inverter rotary         | Inverter rotary         |
| Refrigerant                   | type  | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     | R32                     |
| Refrigerant charge            | kg    | 1,10                    | 1,25                    | 1,50                    | 1,85                    | 2,10                    | 2,10                    | 2,90                    |
| Potential global heating      | GWP   | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq | 675kgCO <sub>2</sub> eq |
| Equivalent CO <sub>2</sub>    | t     | 0,743                   | 0,844                   | 1,013                   | 1,240                   | 1,418                   | 1,420                   | 1,960                   |
| <b>Outdoor unit</b>           |       |                         |                         |                         |                         |                         |                         |                         |
| Condensate discharge diameter | mm    | 16,0                    | 16,0                    | 16,0                    | 16,0                    | 16,0                    | 16,0                    | 16,0                    |

- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.

- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## Outdoor unit general technical data

|  |           | MGE420      | MGE520      | MGE630      | MGE830      | MGE840                | MGE1040               | MGE1250               |
|--|-----------|-------------|-------------|-------------|-------------|-----------------------|-----------------------|-----------------------|
| <b>Electric data</b>   |           |             |             |             |             |                       |                       |                       |
| Rated power input (1)  | W         | 2750        | 3050        | 3910        | 4100        | 4150                  | 4600                  | 4700                  |
| Rated current input (1)  | A         | 12,0        | 13,0        | 17,0        | 18,0        | 19,0                  | 21,5                  | 22,0                  |
| <b>Refrigeration pipework</b>  |           |             |             |             |             |                       |                       |                       |
| Maximum refrigerant tube length  | m         | 40          | 40          | 60          | 60          | 80                    | 80                    | 80                    |
| Maximum single cooling line length                                     | m         | 25,0        | 25,0        | 30,0        | 30,0        | 35,0                  | 35,0                  | 35,0                  |
| Refrigerant to be added  | g/m       | 12          | 12          | 12          | 12          | 12                    | 12                    | 12                    |
| Maximum unit (indoor/external) cooling line level difference in height | m         | 10,0        | 10,0        | 10,0        | 10,0        | 10,0                  | 10,0                  | 10,0                  |
| Maximum (indoor/outdoor) cooling line level difference                 | m         | 15,0        | 15,0        | 15,0        | 15,0        | 15,0                  | 15,0                  | 15,0                  |
| <b>Liquid cooling connections</b>                                      |           |             |             |             |             |                       |                       |                       |
| Diameter of liquid refrigerant connections                             | mm (inch) | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4")           | 6,35 (1/4")           | 6,35 (1/4")           |
| Number   | no.       | 2           | 2           | 3           | 3           | 4                     | 4                     | 5                     |
| <b>Refrigerant gas connections</b>                                     |           |             |             |             |             |                       |                       |                       |
| Diameter of refrigerant gas connections                                | mm (inch) | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52 (3/8") | 9,52/12,7 (3/8"-1/2") | 9,52/12,7 (3/8"-1/2") | 9,52/12,7 (3/8"-1/2") |
| Number   | no.       | 2           | 2           | 3           | 3           | 3/1                   | 3/1                   | 4/1                   |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## INDOOR UNIT PERFORMANCE DATA

### SGE\_W

|  |           | SGE200W         | SGE250W         | SGE350W         | SGE500W         | SGE700W         |
|--|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b>        |           |                 |                 |                 |                 |                 |
| Cooling capacity (1)                       | kW        | 2,05            | 2,77            | 3,46            | 5,27            | 5,27            |
| <b>Nominal heating performances</b>        |           |                 |                 |                 |                 |                 |
| Heating capacity (2)                       | kW        | 2,34            | 2,93            | 3,57            | 4,97            | 4,97            |
| <b>Indoor unit</b>                         |           |                 |                 |                 |                 |                 |
| Type of fan                                | Type      | Tangential      | Tangential      | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                       |           |                 |                 |                 |                 |                 |
| Maximum                                    | m³/h      | 460             | 466             | 540             | 840             | 980             |
| Average                                    | m³/h      | 360             | 360             | 430             | 680             | 817             |
| Minimum                                    | m³/h      | 325             | 325             | 314             | 540             | 662             |
| <b>Sound power (3)</b>                     |           |                 |                 |                 |                 |                 |
| Maximum                                    | dB(A)     | 54,0            | 54,0            | 55,0            | 56,0            | 59,0            |
| Average                                    | dB(A)     | -               | -               | -               | -               | -               |
| Minimum                                    | dB(A)     | -               | -               | -               | -               | -               |
| <b>Sound pressure (1 m) (4)</b>            |           |                 |                 |                 |                 |                 |
| Minimum                                    | dB(A)     | 21,0            | 25,0            | 25,0            | 26,0            | 36,0            |
| Maximum                                    | dB(A)     | 40,0            | 38,5            | 40,5            | 42,5            | 45,0            |
| Average                                    | dB(A)     | 26,0            | 32,0            | 34,5            | 36,0            | 40,5            |
| <b>Refrigeration pipework</b>              |           |                 |                 |                 |                 |                 |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 9,52 (3/8")     |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")     | 9,52 (3/8")     | 9,52 (3/8")     | 12,7 (1/2")     | 15,9 (5/8")     |
| <b>Power supply</b>                        |           |                 |                 |                 |                 |                 |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

## MGE\_CS/MGE\_C

|                                     |       | MGE350CS        | MGE500CS        | MGE700C         |
|-------------------------------------|-------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |
| Cooling capacity                    | kW    | 3,52            | 5,28            | 7,03            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |
| Heating capacity                    | kW    | 3,81            | 5,57            | 7,62            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |
| Minimum                             | m³/h  | 330             | 300             | 992             |
| Average                             | m³/h  | 520             | 540             | 1118            |
| Maximum                             | m³/h  | 620             | 660             | 1247            |
| <b>Sound power</b>                  |       |                 |                 |                 |
| Minimum                             | dB(A) | -               | -               | -               |
| Average                             | dB(A) | -               | -               | -               |
| Maximum                             | dB(A) | 55,0            | 59,0            | 59,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |
| Minimum                             | dB(A) | 31,5            | 31,5            | 37,0            |
| Average                             | dB(A) | 38,5            | 41,0            | 42,5            |
| Maximum                             | dB(A) | 42,0            | 44,0            | 45,0            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Condensate discharge diameter       | mm    | 25,0            | 25,0            | 25,0            |
| <b>Power supply</b>                 |       |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,4 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## MGE\_FS

|                                     |       | MGE250FS        | MGE350FS        | MGE500FS        |
|-------------------------------------|-------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |
| Cooling capacity                    | kW    | 2,64            | 3,52            | 4,98            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |
| Heating capacity                    | kW    | 2,93            | 3,81            | 5,28            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |
| Minimum                             | m³/h  | 400             | 490             | 600             |
| Average                             | m³/h  | 510             | 580             | 690             |
| Maximum                             | m³/h  | 600             | 650             | 780             |
| <b>Sound power</b>                  |       |                 |                 |                 |
| Minimum                             | dB(A) | -               | -               | -               |
| Average                             | dB(A) | -               | -               | -               |
| Maximum                             | dB(A) | 54,0            | 54,0            | 55,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |
| Minimum                             | dB(A) | 27,5            | 27,0            | 32,0            |
| Average                             | dB(A) | 33,5            | 34,0            | 38,0            |
| Maximum                             | dB(A) | 36,5            | 37,0            | 41,0            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Condensate discharge diameter       | mm    | 16,0            | 16,0            | 16,0            |
| <b>Power supply</b>                 |       |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## MGE\_DH

|                                     |       | MGE250DH        | MGE350DH        | MGE500DH        | MGE700DH        |
|-------------------------------------|-------|-----------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |                 |
| Cooling capacity                    | kW    | 2,64            | 3,52            | 5,28            | 7,03            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |                 |
| Heating capacity                    | kW    | 2,93            | 3,81            | 5,57            | 7,62            |
| <b>Electric data</b>                |       |                 |                 |                 |                 |
| Rated power input                   | W     | 88              | 91              | 172             | 217             |
| <b>Indoor unit</b>                  |       |                 |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |                 |
| Minimum                             | m³/h  | 450             | 470             | 650             | 700             |
| Average                             | m³/h  | 540             | 570             | 780             | 1000            |
| Maximum                             | m³/h  | 620             | 660             | 900             | 1200            |
| <b>Sound power</b>                  |       |                 |                 |                 |                 |
| Minimum                             | dB(A) | -               | -               | -               | -               |
| Average                             | dB(A) | -               | -               | -               | -               |
| Maximum                             | dB(A) | 54,0            | 52,0            | 53,0            | 56,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |                 |
| Minimum                             | dB(A) | 31,0            | 31,0            | 31,0            | 31,0            |
| Average                             | dB(A) | 33,0            | 33,0            | 34,0            | 32,5            |
| Maximum                             | dB(A) | 35,0            | 35,0            | 36,5            | 33,5            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |                 |
| Condensate discharge diameter       | mm    | 25,0            | 25,0            | 25,0            | 25,0            |
| <b>Useful static pressure</b>       |       |                 |                 |                 |                 |
| Range of static pressure            | Pa    | 0 ÷ 80          | 0 ÷ 100         | 0 ÷ 160         | 0 ÷ 160         |
| Nominal                             | Pa    | 25              | 25              | 25              | 25              |
| <b>Power supply</b>                 |       |                 |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

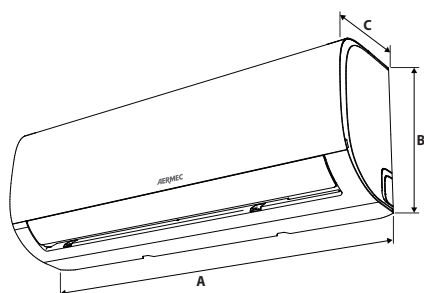
- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## ADAPTERS SUPPLIED WITH THE OUTDOOR UNIT

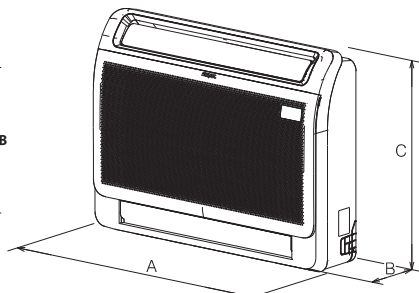
|                                       |     | MGE420 | MGE520 | MGE630 | MGE830 | MGE840 | MGE1040 | MGE1250 |
|---------------------------------------|-----|--------|--------|--------|--------|--------|---------|---------|
| <b>Adapters from 9.52mm to 12.7mm</b> |     |        |        |        |        |        |         |         |
| Number                                | no. | 0      | 0      | 1      | 1      | -      | -       | 1       |
| <b>Adapters from 12.7mm to 9.52mm</b> |     |        |        |        |        |        |         |         |
| Number                                | no. | -      | -      | -      | -      | 1      | 1       | 1       |

For further information, please refer to the technical documentation on the website [www.aermec.com](http://www.aermec.com)

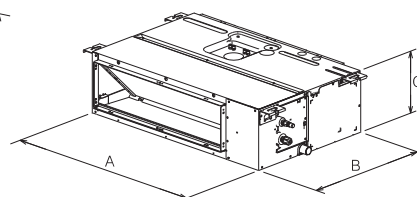
## INDOOR UNIT WEIGHTS AND DIMENSIONS



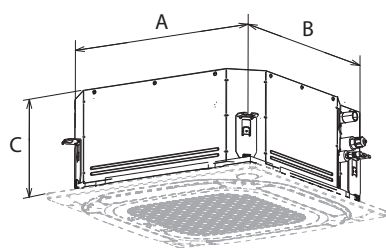
SGE\_W



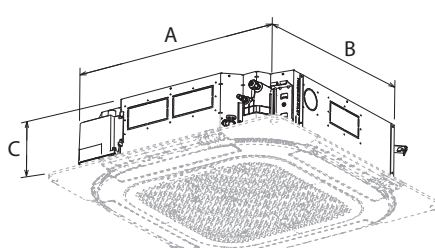
MGE\_FS



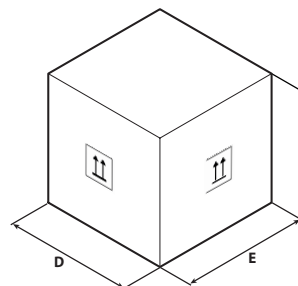
MGE\_DH



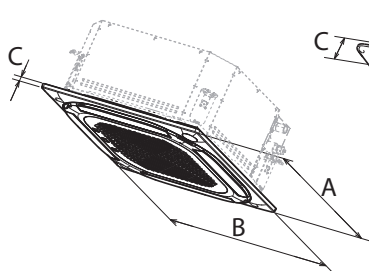
MGE350CS - MGE500CS



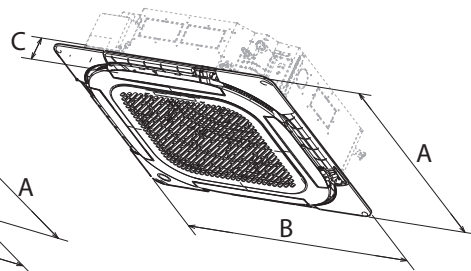
MGE700C



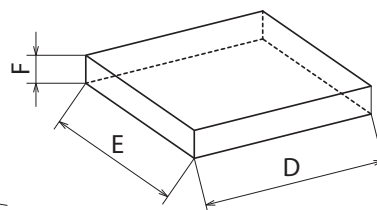
Carton Box Example



GLE10S



GLE10



### SGE\_W

|                      |    | SGE200W | SGE250W | SGE350W | SGE500W | SGE700W |
|----------------------|----|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |
| A                    | mm | 805     | 805     | 805     | 957     | 1040    |
| B                    | mm | 285     | 285     | 285     | 302     | 327     |
| C                    | mm | 194     | 194     | 194     | 213     | 220     |
| D                    | mm | 870     | 870     | 870     | 1035    | 1120    |
| E                    | mm | 270     | 270     | 270     | 295     | 405     |
| F                    | mm | 360     | 365     | 365     | 385     | 315     |
| Net weight           | kg | 7,9     | 7,6     | 7,6     | 10,0    | 12,3    |
| Weight for transport | kg | 9,7     | 9,7     | 9,8     | 13,0    | 15,8    |

### MGE\_FS

|                      |    | MGE250FS | MGE350FS | MGE500FS |
|----------------------|----|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |
| A                    | mm | 794      | 794      | 794      |
| B                    | mm | 200      | 200      | 200      |
| C                    | mm | 621      | 621      | 621      |
| D                    | mm | 865      | 865      | 865      |
| E                    | mm | 280      | 280      | 280      |
| F                    | mm | 719      | 719      | 719      |
| Net weight           | kg | 14,9     | 14,9     | 14,9     |
| Weight for transport | kg | 18,8     | 18,8     | 18,8     |



## MGE\_DH

|                      |    | MGE250DH | MGE350DH | MGE500DH | MGE700DH |
|----------------------|----|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |
| A                    | mm | 700      | 700      | 700      | 1000     |
| B                    | mm | 506      | 506      | 750      | 750      |
| C                    | mm | 200      | 200      | 245      | 245      |
| D                    | mm | 860      | 860      | 925      | 1225     |
| E                    | mm | 540      | 540      | 850      | 860      |
| F                    | mm | 285      | 285      | 298      | 304      |
| Net weight           | kg | 16,6     | 16,6     | 24,4     | 31,8     |
| Weight for transport | kg | 19,8     | 19,8     | 29,0     | 37,2     |

## MGE\_CS / MGE\_C

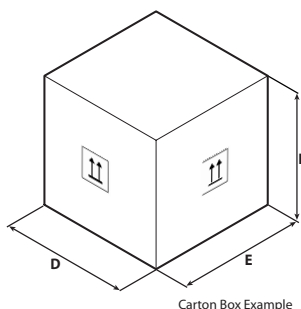
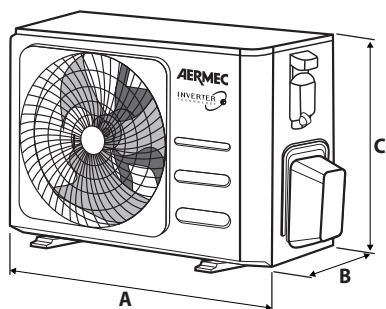
|                      |    | MGE350CS | MGE500CS | MGE700C |
|----------------------|----|----------|----------|---------|
| <b>Indoor unit</b>   |    |          |          |         |
| A                    | mm | 570      | 570      | 856     |
| B                    | mm | 570      | 570      | 831     |
| C                    | mm | 245      | 245      | 205     |
| D                    | mm | 715      | 715      | 910     |
| E                    | mm | 640      | 640      | 910     |
| F                    | mm | 295      | 295      | 235     |
| Net weight           | kg | 16,1     | 16,2     | 21,6    |
| Weight for transport | kg | 18,8     | 19,0     | 25,4    |

## Grids

|                      |    | GLE10S | GLE10 |
|----------------------|----|--------|-------|
| <b>Indoor unit</b>   |    |        |       |
| A                    | mm | 620    | 950   |
| B                    | mm | 620    | 950   |
| C                    | mm | 50     | 70    |
| D                    | mm | 697    | 1042  |
| E                    | mm | 712    | 1027  |
| F                    | mm | 115    | 95    |
| Net weight           | kg | 2,6    | 6,0   |
| Weight for transport | kg | 4,2    | 9,0   |

## OUTDOOR UNIT WEIGHTS AND DIMENSIONS

### MGE



|                      |    | MGE420 | MGE520 | MGE630 | MGE830 | MGE840 | MGE1040 | MGE1250 |
|----------------------|----|--------|--------|--------|--------|--------|---------|---------|
| <b>Outdoor unit</b>  |    |        |        |        |        |        |         |         |
| A                    | mm | 877    | 877    | 1003   | 1003   | 1034   | 1034    | 1034    |
| B                    | mm | 349    | 349    | 380    | 380    | 432    | 432     | 432     |
| C                    | mm | 554    | 554    | 673    | 673    | 810    | 810     | 810     |
| D                    | mm | 915    | 915    | 1030   | 1030   | 1090   | 1090    | 1090    |
| E                    | mm | 370    | 370    | 438    | 438    | 505    | 505     | 505     |
| F                    | mm | 615    | 615    | 750    | 750    | 845    | 845     | 845     |
| Net weight           | kg | 31,6   | 35,0   | 43,3   | 48,0   | 62,1   | 68,8    | 74,1    |
| Weight for transport | kg | 34,7   | 38,0   | 47,1   | 51,8   | 78,3   | 86,2    | 90,1    |

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## MGEHW

## Multisplit

- R32 ecological refrigerant gas.
- Possibility of DHW storage tank Wi-Fi control.
- Possibility of AC indoor units Wi-Fi control via accessory.
- Achieve maximum energy savings with the new heat recovery multisplit system for domestic hot water.



### DESCRIPTION

MGEHW it is a multi-split unit that allows effective heat recovery for DHW production using 3 reverse cycle valves.

The multi-split outdoor units of the series MGEHW are combined with indoor units:

- MGEWT Domestic hot water **storage tank**
- SGE\_W unit Wall, for wall installation.
- MGE\_C\_CS unit Cassette for false ceiling installation.
- MGE\_FS unit Console, for wall installation.
- MGE\_DH unit Duct, for duct type horizontal installation.

### TYPE OF OUTDOOR UNIT

#### MGEHW Outdoor unit

Multisplit air conditioner.

Reversible air/air heat pump with DC inverter technology.

#### Types

- Can be combined with 1, 2 or 3 indoor units.
- Can be combined with 1, 2 or 3 indoor units and MGEWT domestic hot water storage tank.

#### General features

- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

#### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### TYPE OF INDOOR UNIT

#### MGEWT Indoor unit

MGEWT it is a domestic hot water storage tank intended for indoor installation with a room temperature between 5°C and 43°C.



#### Features

- Unit front panel with LED display and indicator lights and touch screen keyboard.
- Timer for programming switch-off and switch-on.
- WiFi function integrated in the panel.
- Anti-corrosion magnesium anode.
- Supplementary electric resistance for DHW.
- Function quick water heating for a quick heating of domestic hot water
- Auto-restart function.
- When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.
- Hybrid function allowing the electric heater and heat pump to work together in heating mode.
- Smart function that records users' hot water usage habits over the last 7 days and switches the heating on in advance based on the user's peak water usage hours.
- SG function (Smart Grid)

#### Indoor unit SGE\_W

**Wall** indoor unit designed to be installed on indoor walls.

SGE\_W has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.

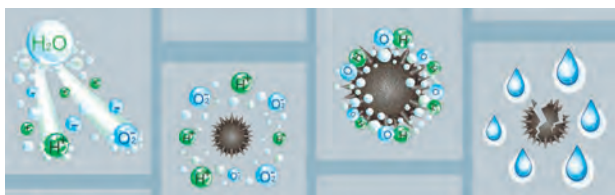


#### Features

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- 3-speed fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function to attain the desired temperature as quickly as possible.
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



#### MGE\_CS - MGE\_C Indoor unit

Indoor unit **Cassette** of dimensions 570x570 mm (MGE350CS - MGE500CS) and 830x830 mm (MGE700C) designed to be installed on suspended ceiling indoors.



#### Features

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.
- **Dehumidification** function that allows humidity control

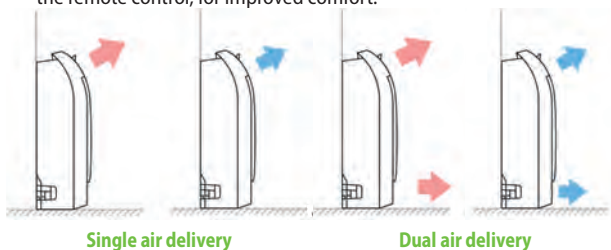
#### MGE\_FS Indoor unit

**Console** indoor unit designed to be installed on indoor floors.



#### Features

- Remote control standard supply with each indoor unit.
- Fan with DC inverter technology.
- Regenerable air filter easy to remove and clean.
- Timer for programming switch-off and switch-on.
- Auxiliary emergency command integrated into the unit.
- Indoor unit front panel with LED display and indicator lights.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- Louver angle memory function.
- **Sleep** night time function well-being program.
- Refrigerant Leak Detection System.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.



#### MGE\_DH Indoor unit

**Duct** indoor unit designed for indoor duct type installation.



#### Features

- Remote control standard supply with each indoor unit.
- **WRPE10** wired panel standard supply with each indoor unit.
- Fan with DC inverter technology.
- Timer for programming switch-off and switch-on.
- **4-speed** fan, to meet every possible need.
- **Auto** function for a continuous speed variation.
- **Turbo** function
- **Sleep** night time function well-being program.
- **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
- **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

#### General features

- R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
- Easy installation and maintenance.

#### Low cooling function

cooling operation with outdoor temperatures down to -15 °C

#### Low heating function

heating with external temperatures up to -15 °C.

## Nethome Plus app

The system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.

- The Wi-Fi module is supplied as per standard for the indoor unit MGEWT
- For indoor units SGE\_W, MGE\_C\_CS, MGE\_DH, MGE\_FS Wi-Fi management can be supported via specific **accessory**.



## ACCESSORIES

**WIFIKEY:** Plug & Play module to be installed in the indoor unit for Wi-Fi control.

**WRPE10:** Wired panel with liquid crystal display and soft-touch buttons.

**WRPE10W:** Flush panel with LCD display and Soft-Touch keys. It is equipped with WiFi and Bluetooth® connection for better connection stability.

**GLE10S:** Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit. Mandatory accessory.

**GLE10:** Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit. Mandatory accessory.



**WRPE10**



**WRPE10W**



**GLE10S**



**GLE10**



**WIFIKEY**

## Accessories compatibility

### SGE\_W

| Accessory | SGE200W | SGE250W | SGE350W | SGE500W | SGE700W |
|-----------|---------|---------|---------|---------|---------|
| WIFIKEY   | *       | *       | *       | *       | *       |

### MGE\_C / CS

| Accessory  | MGE350CS | MGE500CS | MGE700C |
|------------|----------|----------|---------|
| WIFIKEY    | *        | *        | *       |
| Accessory  | MGE350CS | MGE500CS | MGE700C |
| WRPE10     | *        | *        | *       |
| WRPE10W    | *        | *        | *       |
| Accessory  | MGE350CS | MGE500CS | MGE700C |
| GLE10 (1)  |          |          | *       |
| GLE10S (1) | *        | *        |         |

(1) Mandatory accessory.

### MGE\_DH

| Accessory | MGE250DH | MGE350DH | MGE500DH | MGE700DH |
|-----------|----------|----------|----------|----------|
| WRPE10W   | *        | *        | *        | *        |

Wired panel WRPE10 standard supply.

### MGE\_FS

| Accessory | MGE250FS | MGE350FS | MGE500FS |
|-----------|----------|----------|----------|
| WIFIKEY   | *        | *        | *        |
| Accessory | MGE250FS | MGE350FS | MGE500FS |
| WRPE10    | *        | *        | *        |
| WRPE10W   | *        | *        | *        |

## ALLOWED COMBINATIONS OF INDOOR UNITS

### Combinations MGEHW - Direct expansion indoor units

| Outdoor unit | Combination | Indoor units | Combinations (x1000 Btu/h) |        |        |
|--------------|-------------|--------------|----------------------------|--------|--------|
|              |             |              | Unit A                     | Unit B | Unit C |
| MGEHW840     | (1x1)       | 7            | 7                          | -      | -      |
|              |             | 9            | 9                          | -      | -      |
|              |             | 12           | 12                         | -      | -      |
|              |             | 18           | 18                         | -      | -      |
|              | (1x2)       | 7+7          | 7                          | 7      | -      |
|              |             | 7+9          | 7                          | 9      | -      |
|              |             | 7+12         | 7                          | 12     | -      |
|              |             | 7+18         | 7                          | 18     | -      |
|              |             | 9+9          | 9                          | 9      | -      |
|              |             | 9+12         | 9                          | 12     | -      |
|              |             | 9+18         | 9                          | 18     | -      |
|              |             | 12+12        | 12                         | 12     | -      |
|              |             | 12+18        | 12                         | 18     | -      |
|              | (1x3)       | 7+7+7        | 7                          | 7      | 7      |
|              |             | 7+7+9        | 7                          | 7      | 9      |
|              |             | 7+7+12       | 7                          | 7      | 12     |
|              |             | 7+7+18       | 7                          | 7      | 18     |
|              |             | 7+9+9        | 7                          | 9      | 9      |
|              |             | 7+9+12       | 7                          | 9      | 12     |
|              |             | 7+9+18       | 7                          | 9      | 18     |
|              |             | 7+12+12      | 7                          | 12     | 12     |
|              |             | 7+12+18      | 7                          | 12     | 18     |
|              |             | 9+9+9        | 9                          | 9      | 9      |
|              |             | 9+9+12       | 9                          | 9      | 12     |
|              |             | 9+12+12      | 9                          | 12     | 12     |
|              |             | 12+12+12     | 12                         | 12     | 12     |

### Combinations MGEHW - indoor units + MGEWT

| Outdoor unit | Combination      | Indoor units        | Combinations (x1000 Btu/h) |        |        | D.H.W.   |
|--------------|------------------|---------------------|----------------------------|--------|--------|----------|
|              |                  |                     | Unit A                     | Unit B | Unit C |          |
| MGEHW840     | (1x1) + MGEWT190 | 7 + MGEWT190        | 7                          | -      | -      | MGEWT190 |
|              |                  | 9 + MGEWT190        | 9                          | -      | -      |          |
|              |                  | 12 + MGEWT190       | 12                         | -      | -      |          |
|              |                  | 18 + MGEWT190       | 18                         | -      | -      |          |
|              |                  | 24 + MGEWT190       | 24                         | -      | -      |          |
|              | (1x2) + MGEWT190 | 7+12 + MGEWT190     | 7                          | 12     | -      |          |
|              |                  | 7+18 + MGEWT190     | 7                          | 18     | -      |          |
|              |                  | 7+24 + MGEWT190     | 7                          | 24     | -      |          |
|              |                  | 9+9 + MGEWT190      | 9                          | 9      | -      |          |
|              |                  | 9+12 + MGEWT190     | 9                          | 12     | -      |          |
|              |                  | 9+18 + MGEWT190     | 9                          | 18     | -      |          |
|              |                  | 12+12 + MGEWT190    | 12                         | 12     | -      |          |
|              |                  | 12+18 + MGEWT190    | 12                         | 18     | -      |          |
|              | (1x3) + MGEWT190 | 7+7+7 + MGEWT190    | 7                          | 7      | 7      |          |
|              |                  | 7+7+9 + MGEWT190    | 7                          | 7      | 9      |          |
|              |                  | 7+7+12 + MGEWT190   | 7                          | 7      | 12     |          |
|              |                  | 7+7+18 + MGEWT190   | 7                          | 7      | 18     |          |
|              |                  | 7+9+9 + MGEWT190    | 7                          | 9      | 9      |          |
|              |                  | 7+9+12 + MGEWT190   | 7                          | 9      | 12     |          |
|              |                  | 7+9+18 + MGEWT190   | 7                          | 9      | 18     |          |
|              |                  | 7+12+12 + MGEWT190  | 7                          | 12     | 12     |          |
|              |                  | 7+12+18 + MGEWT190  | 7                          | 12     | 18     |          |
|              |                  | 9+9+9 + MGEWT190    | 9                          | 9      | 9      |          |
|              |                  | 9+9+12 + MGEWT190   | 9                          | 9      | 12     |          |
|              |                  | 9+9+18 + MGEWT190   | 9                          | 9      | 18     |          |
|              |                  | 9+12+12 + MGEWT190  | 9                          | 12     | 12     |          |
|              |                  | 9+12+18 + MGEWT190  | 9                          | 12     | 18     |          |
|              |                  | 12+12+12 + MGEWT190 | 12                         | 12     | 12     |          |

## OUTDOOR UNIT PERFORMANCE DATA MGEHW

| MGEHW840                                       |           |      |
|--|-----------|------|
| <b>Nominal cooling performances</b>            |           |      |
| Cooling capacity (1)                           | kW        | 7,91 |
| Cooling input power (1)                        | kW        | 2,45 |
| EER (2)  | W/W       | 3,23 |
| <b>Minimum cooling performances</b>            |           |      |
| Cooling capacity                               | kW        | 2,70 |
| Cooling input power                            | kW        | 0,25 |
| <b>Maximum cooling performances</b>            |           |      |
| Cooling capacity                               | kW        | 8,21 |
| Cooling input power                            | kW        | 2,90 |
| <b>Seasonal efficiency</b>                     |           |      |
| SEER   | W/W       | 6,30 |
| Efficiency energy class (3)                    |           | A++  |
| Annual power consumption                       | kWh/annum | 439  |
| <b>Nominal heating performances</b>            |           |      |
| Heating capacity (4)                           | kW        | 8,21 |
| Heating input power (4)                        | kW        | 2,21 |
| COP (2)  | W/W       | 3,71 |
| <b>Minimum heating performances</b>            |           |      |
| Heating capacity                               | kW        | 2,11 |
| Heating input power                            | kW        | 0,35 |
| <b>Maximum heating performances</b>            |           |      |
| Heating capacity                               | kW        | 8,79 |
| Heating input power                            | kW        | 3,00 |
| <b>Seasonal efficiency (temperate climate)</b> |           |      |
| SCOP   | W/W       | 4,10 |
| Efficiency energy class (3)                    |           | A+   |
| Annual power consumption                       | kWh/annum | 2151 |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.

(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

### MGEHW - MGEWT

| MGEWT190  |       |       |
|---|-------|-------|
| <b>Indoor unit</b>                                      |       |       |
| <b>Outdoor unit</b>                                     |       |       |
| <b>Indoor unit quantity</b>                             |       |       |
| <b>Outdoor unit quantity</b>                            |       |       |
| <b>Storage tank (DHW)</b>                               |       |       |
| Water heating power (A 15/12°C, W 15~45°C)              | kW    | 4,0   |
| COP (A 15/12°C, W 15~45°C)                              | kW/kW | 3,90  |
| Heating capacity DHW (1)                                | kW    | 3,90  |
| COP DHW (1)   | kW/kW | 3,40  |
| Setting Temperature for the performance measurement (1) | °C    | 52    |
| Reference hot water temperature (1)                     | °C    | 52,6  |
| Water heating energy efficient (1)                      | %     | 128   |
| Maximum volume of mixed water at 40°C (1)               | L     | 240   |
| Declared load profile (1)                               |       | L     |
| Energy Efficiency Class (1)                             |       | A+    |
| Heating time (1)  | hh:mm | 02:30 |
| Energy input during Heat-up time (1)                    | kW    | 2,9   |
| Standby power input (1)                                 | W     | 50    |

(1) Data according to EN 16147:2017

## OUTDOOR UNIT GENERAL TECHNICAL DATA

| MGEHW840  |                 |                           |
|---|-----------------|---------------------------|
| <b>Electric data</b>  |                 |                           |
| Rated power input (1)   | W               | 5300                      |
| Rated current input (1)   | A               | 23,5                      |
| <b>Liquid cooling connections</b>                                   |                 |                           |
| Diameter of liquid refrigerant connections                          | mm (inch)       | 6,35 (1/4")               |
| Number  | no.             | 4                         |
| <b>Gas cooling connections (AC)</b>                                 |                 |                           |
| Diameter of refrigerant gas connections                             | mm (inch)       | 9,52 (3/8") / 12,7 (1/2") |
| Number  | no.             | 2/1                       |
| <b>Gas cooling connections (DHW)</b>                                |                 |                           |
| Diameter of refrigerant gas connections                             | mm (inch)       | 9,52 (3/8")               |
| Number  | no.             | 1                         |
| <b>Refrigerant lines</b>  |                 |                           |
| Total maximum length of the refrigerant lines (AC)                  | m               | 80,0                      |
| Max. lenght for DHW   | m               | 20,0                      |
| Maximum single cooling line length                                  | m               | 35,0                      |
| Maximum height difference between ODU and IDU                       | m               | 15,0                      |
| Maximum height difference between IDU and ODU                       | m               | 10,0                      |
| Maximum length of refrigerant lines without addition of refrigerant | m               | 7,5                       |
| Refrigerant to be added   | g/m             | 20                        |
| <b>Power supply</b>   |                 |                           |
| Power supply  |                 | 220-240V ~ 50Hz           |
| <b>Cross section</b>  |                 |                           |
| Section of the power cable  | mm <sup>2</sup> | 2,5                       |
| <b>Power supply cable</b>   |                 |                           |
| Magnet circuit breaker  | A               | 25                        |

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

### MGEHW - MGEWT

|   |                 |                           |
|---|-----------------|---------------------------|
| <b>Indoor unit</b>  |                 | <b>MGEWT190</b>           |
| <b>Outdoor unit</b>                                       |                 | <b>MGEHW840</b>           |
| <b>Indoor unit quantity</b>                               |                 | <b>1</b>                  |
| <b>Outdoor unit quantity</b>                              |                 | <b>1</b>                  |
| <b>Liquid cooling connections</b>                         |                 |                           |
| Diameter of liquid refrigerant connections                | mm (inch)       | 6,35 (1/4")               |
| Number  | no.             | 4                         |
| <b>Gas cooling connections (AC)</b>                       |                 |                           |
| Diameter of refrigerant gas connections                   | mm (inch)       | 9,52 (3/8") / 12,7 (1/2") |
| Number  | no.             | 2/1                       |
| <b>Gas cooling connections (DHW)</b>                      |                 |                           |
| Diameter of refrigerant gas connections                   | mm (inch)       | 9,52 (3/8")               |
| Number  | no.             | 1                         |
| <b>Refrigerant lines</b>                                  |                 |                           |
| Max. lenght for DHW                                       | m               | 20,0                      |
| Maximum height difference between ODU and WT              | m               | 15,0                      |
| Maximum height difference between IDU and WT              | m               | 10,0                      |
| <b>Power supply</b>                                       |                 |                           |
| Power supply  |                 | 220-240V ~ 50Hz           |
| <b>Electric heater</b>                                    |                 |                           |
| Capacity  | kW              | 2,0                       |
| Maximum current   | A               | 9,10                      |
| <b>Magnet circuit breaker</b>                             |                 |                           |
| Air Break Switch (electric heater)                        | A               | 16                        |
| <b>Cross section</b>                                      |                 |                           |
| Section of the power cable                                | mm <sup>2</sup> | 1,5                       |
| Communication wires between the tank and the outdoor unit | mm <sup>2</sup> | 1                         |



## OUTDOOR UNIT TECHNICAL DATA

| MGEHW840                      |                   |        |
|-------------------------------|-------------------|--------|
| <b>Outdoor unit</b>           |                   |        |
| Type of fan                   | Type              | Axial  |
| <b>Air flow rate</b>          |                   |        |
| Maximum                       | m <sup>3</sup> /h | 4000   |
| <b>Sound power</b>            |                   |        |
| Maximum                       | dB(A)             | 69,0   |
| <b>Sound pressure</b>         |                   |        |
| Maximum                       | dB(A)             | 61,0   |
| <b>Compressor</b>             |                   |        |
| Type                          | type              | Rotary |
| Refrigerant                   | type              | R32    |
| Refrigerant charge            | kg                | 1,80   |
| Equivalent CO <sub>2</sub>    | t                 | 1,22   |
| <b>Outdoor unit</b>           |                   |        |
| Condensate discharge diameter | mm                | 16,0   |

Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## INDOOR UNIT PERFORMANCE DATA

### SGE\_W

|  |                   | SGE200W         | SGE250W         | SGE350W         | SGE500W         | SGE700W         |
|--|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b>        |                   |                 |                 |                 |                 |                 |
| Cooling capacity (1)                       | kW                | 2,05            | 2,77            | 3,46            | 5,27            | 5,27            |
| <b>Nominal heating performances</b>        |                   |                 |                 |                 |                 |                 |
| Heating capacity (2)                       | kW                | 2,34            | 2,93            | 3,57            | 4,97            | 4,97            |
| <b>Indoor unit</b>                         |                   |                 |                 |                 |                 |                 |
| Type of fan                                | Type              | Tangential      | Tangential      | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                       |                   |                 |                 |                 |                 |                 |
| Maximum                                    | m <sup>3</sup> /h | 460             | 466             | 540             | 840             | 980             |
| Average                                    | m <sup>3</sup> /h | 360             | 360             | 430             | 680             | 817             |
| Minimum                                    | m <sup>3</sup> /h | 325             | 325             | 314             | 540             | 662             |
| <b>Sound power (3)</b>                     |                   |                 |                 |                 |                 |                 |
| Maximum                                    | dB(A)             | 54,0            | 54,0            | 55,0            | 56,0            | 59,0            |
| <b>Sound pressure (1 m) (4)</b>            |                   |                 |                 |                 |                 |                 |
| Minimum                                    | dB(A)             | 21,0            | 25,0            | 25,0            | 26,0            | 36,0            |
| Maximum                                    | dB(A)             | 40,0            | 38,5            | 40,5            | 42,5            | 45,0            |
| Average                                    | dB(A)             | 26,0            | 32,0            | 34,5            | 36,0            | 40,5            |
| <b>Refrigeration pipework</b>              |                   |                 |                 |                 |                 |                 |
| Diameter of liquid refrigerant connections | mm (inch)         | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 6,35 (1/4")     | 9,52 (3/8")     |
| Diameter of refrigerant gas connections    | mm (inch)         | 9,52 (3/8")     | 9,52 (3/8")     | 9,52 (3/8")     | 12,7 (1/2")     | 15,9 (5/8")     |
| <b>Power supply</b>                        |                   |                 |                 |                 |                 |                 |
| Indoor unit power supply                   |                   | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

### MGEWT

| MGEWT190                         |                           |
|----------------------------------|---------------------------|
| <b>Storage tank (DHW)</b>        |                           |
| Nominal volume of the tank       | L                         |
| Rated pressure of the water tank | MPa                       |
| Material                         | Vitrified steel           |
| Anode type                       | Magnesium bar             |
| Electrical resistance type       | Electric immersion heater |



## MGE\_CS/MGE\_C

|                                     |       | MGE350CS        | MGE500CS        | MGE700C         |
|-------------------------------------|-------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |
| Cooling capacity                    | kW    | 3,52            | 5,28            | 7,03            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |
| Heating capacity                    | kW    | 3,81            | 5,57            | 7,62            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |
| Minimum                             | m³/h  | 330             | 300             | 992             |
| Average                             | m³/h  | 520             | 540             | 1118            |
| Maximum                             | m³/h  | 620             | 660             | 1247            |
| <b>Sound power</b>                  |       |                 |                 |                 |
| Maximum                             | dB(A) | 55,0            | 59,0            | 59,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |
| Minimum                             | dB(A) | 31,5            | 31,5            | 37,0            |
| Average                             | dB(A) | 38,5            | 41,0            | 42,5            |
| Maximum                             | dB(A) | 42,0            | 44,0            | 45,0            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Condensate discharge diameter       | mm    | 25,0            | 25,0            | 25,0            |
| <b>Power supply</b>                 |       |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,4 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## MGE\_FS

|                                     |       | MGE250FS        | MGE350FS        | MGE500FS        |
|-------------------------------------|-------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |
| Cooling capacity                    | kW    | 2,64            | 3,52            | 4,98            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |
| Heating capacity                    | kW    | 2,93            | 3,81            | 5,28            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |
| Minimum                             | m³/h  | 400             | 490             | 600             |
| Average                             | m³/h  | 510             | 580             | 690             |
| Maximum                             | m³/h  | 600             | 650             | 780             |
| <b>Sound power</b>                  |       |                 |                 |                 |
| Maximum                             | dB(A) | 54,0            | 54,0            | 55,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |
| Minimum                             | dB(A) | 27,5            | 27,0            | 32,0            |
| Average                             | dB(A) | 33,5            | 34,0            | 38,0            |
| Maximum                             | dB(A) | 36,5            | 37,0            | 41,0            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |
| Condensate discharge diameter       | mm    | 16,0            | 16,0            | 16,0            |
| <b>Power supply</b>                 |       |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

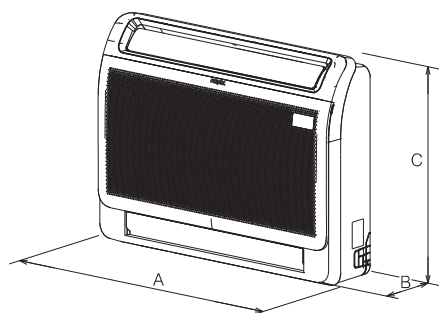
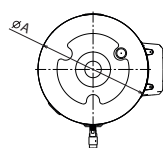
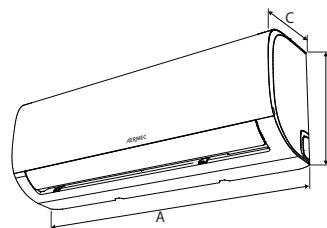
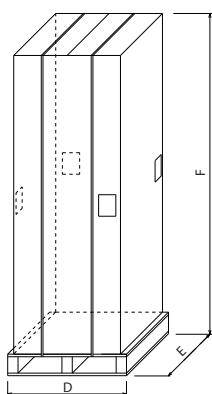
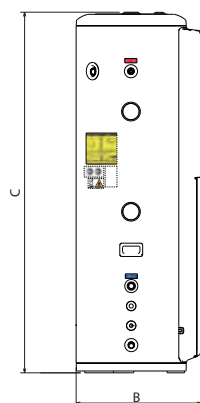
- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure: measured in semi anechoic chamber at a distance of 1 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

## MGE\_DH

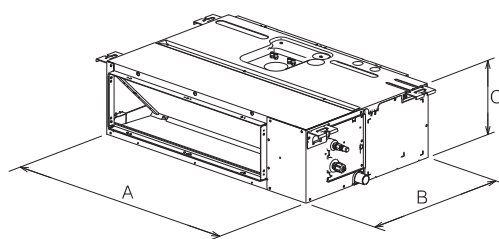
|                                     |       | MGE250DH        | MGE350DH        | MGE500DH        | MGE700DH        |
|-------------------------------------|-------|-----------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b> |       |                 |                 |                 |                 |
| Cooling capacity                    | kW    | 2,64            | 3,52            | 5,28            | 7,03            |
| <b>Nominal heating performances</b> |       |                 |                 |                 |                 |
| Heating capacity                    | kW    | 2,93            | 3,81            | 5,57            | 7,62            |
| <b>Electric data</b>                |       |                 |                 |                 |                 |
| Rated power input                   | W     | 88              | 91              | 172             | 217             |
| <b>Indoor unit</b>                  |       |                 |                 |                 |                 |
| Type of fan                         | Type  | Tangential      | Tangential      | Tangential      | Tangential      |
| <b>Air flow rate</b>                |       |                 |                 |                 |                 |
| Minimum                             | m³/h  | 450             | 470             | 650             | 700             |
| Average                             | m³/h  | 540             | 570             | 780             | 1000            |
| Maximum                             | m³/h  | 620             | 660             | 900             | 1200            |
| <b>Sound power</b>                  |       |                 |                 |                 |                 |
| Maximum                             | dB(A) | 54,0            | 52,0            | 53,0            | 56,0            |
| <b>Sound pressure</b>               |       |                 |                 |                 |                 |
| Minimum                             | dB(A) | 31,0            | 31,0            | 31,0            | 31,0            |
| Average                             | dB(A) | 33,0            | 33,0            | 34,0            | 32,5            |
| Maximum                             | dB(A) | 35,0            | 35,0            | 36,5            | 33,5            |
| <b>Indoor unit</b>                  |       |                 |                 |                 |                 |
| Condensate discharge diameter       | mm    | 25,0            | 25,0            | 25,0            | 25,0            |
| <b>Useful static pressure</b>       |       |                 |                 |                 |                 |
| Range of static pressure            | Pa    | 0 ÷ 80          | 0 ÷ 100         | 0 ÷ 160         | 0 ÷ 160         |
| Nominal                             | Pa    | 25              | 25              | 25              | 25              |
| <b>Power supply</b>                 |       |                 |                 |                 |                 |
| Power supply                        |       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

- Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.
- Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.
- The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.
- Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
- Sound Power: measured in reverberation room at a distance of 1,5 - in accordance with EN12102.

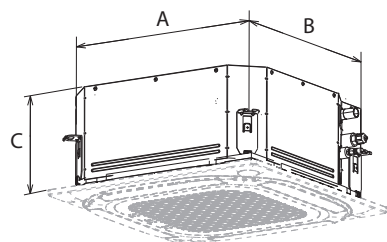
## INDOOR UNIT WEIGHTS AND DIMENSIONS



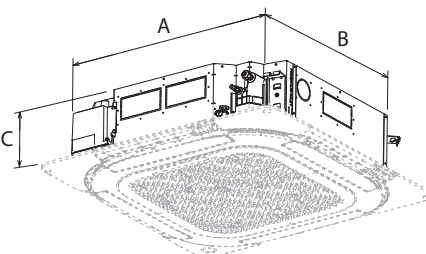
MGE\_FS



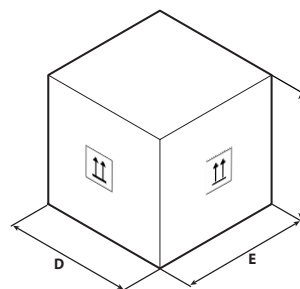
MGE\_DH



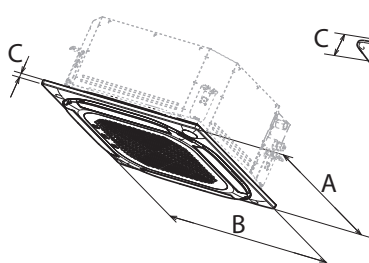
MGE350CS - MGE500CS



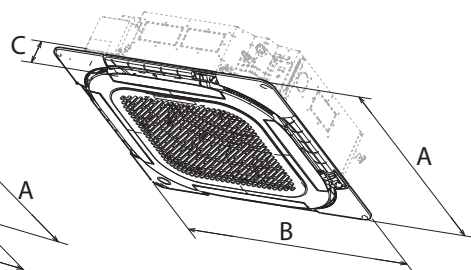
MGE700C



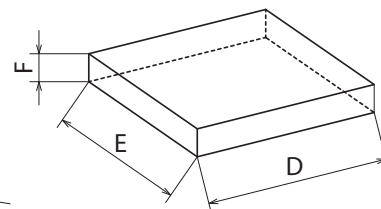
Carton Box Example



GLE10S



GLE10



## MGEWT190

| MGEWT190             |    |      |
|----------------------|----|------|
| Indoor unit          |    |      |
| A                    | mm | 504  |
| B                    | mm | 574  |
| C                    | mm | 1660 |
| D                    | mm | 690  |
| E                    | mm | 690  |
| F                    | mm | 1860 |
| Net weight           | kg | 70,0 |
| Weight for transport | kg | 92,0 |

## SGE\_W

|                      |    | SGE200W | SGE250W | SGE350W | SGE500W | SGE700W |
|----------------------|----|---------|---------|---------|---------|---------|
| Indoor unit          |    |         |         |         |         |         |
| A                    | mm | 805     | 805     | 805     | 957     | 1040    |
| B                    | mm | 285     | 285     | 285     | 302     | 327     |
| C                    | mm | 194     | 194     | 194     | 213     | 220     |
| D                    | mm | 870     | 870     | 870     | 1035    | 1120    |
| E                    | mm | 270     | 270     | 270     | 295     | 405     |
| F                    | mm | 360     | 365     | 365     | 385     | 315     |
| Net weight           | kg | 7,9     | 7,6     | 7,6     | 10,0    | 12,3    |
| Weight for transport | kg | 9,7     | 9,7     | 9,8     | 13,0    | 15,8    |

## MGE\_FS

|                      |    | MGE250FS | MGE350FS | MGE500FS |
|----------------------|----|----------|----------|----------|
| Indoor unit          |    |          |          |          |
| A                    | mm | 794      | 794      | 794      |
| B                    | mm | 200      | 200      | 200      |
| C                    | mm | 621      | 621      | 621      |
| D                    | mm | 865      | 865      | 865      |
| E                    | mm | 280      | 280      | 280      |
| F                    | mm | 719      | 719      | 719      |
| Net weight           | kg | 14,9     | 14,9     | 14,9     |
| Weight for transport | kg | 18,8     | 18,8     | 18,8     |

## MGE\_DH

|                      |    | MGE250DH | MGE350DH | MGE500DH | MGE700DH |
|----------------------|----|----------|----------|----------|----------|
| Indoor unit          |    |          |          |          |          |
| A                    | mm | 700      | 700      | 700      | 1000     |
| B                    | mm | 506      | 506      | 750      | 750      |
| C                    | mm | 200      | 200      | 245      | 245      |
| D                    | mm | 860      | 860      | 925      | 1225     |
| E                    | mm | 540      | 540      | 850      | 860      |
| F                    | mm | 285      | 285      | 298      | 304      |
| Net weight           | kg | 16,6     | 16,6     | 24,4     | 31,8     |
| Weight for transport | kg | 19,8     | 19,8     | 29,0     | 37,2     |

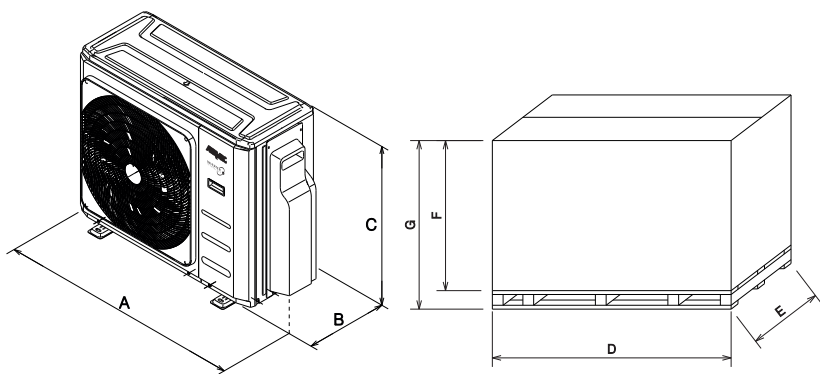
## MGE\_CS / MGE\_C

|                      |    | MGE350CS | MGE500CS | MGE700C |
|----------------------|----|----------|----------|---------|
| Indoor unit          |    |          |          |         |
| A                    | mm | 570      | 570      | 856     |
| B                    | mm | 570      | 570      | 831     |
| C                    | mm | 245      | 245      | 205     |
| D                    | mm | 715      | 715      | 910     |
| E                    | mm | 640      | 640      | 910     |
| F                    | mm | 295      | 295      | 235     |
| Net weight           | kg | 16,1     | 16,2     | 21,6    |
| Weight for transport | kg | 18,8     | 19,0     | 25,4    |

## Grids

|                      |    | GLE10 | GLE10S |
|----------------------|----|-------|--------|
| Indoor unit          |    |       |        |
| A                    | mm | 950   | 620    |
| B                    | mm | 950   | 620    |
| C                    | mm | 70    | 50     |
| D                    | mm | 1042  | 697    |
| E                    | mm | 1027  | 712    |
| F                    | mm | 95    | 115    |
| Net weight           | kg | 6,0   | 2,6    |
| Weight for transport | kg | 9,0   | 4,2    |

**OUTDOOR UNIT WEIGHTS AND DIMENSIONS**  
**MGEHW**



| MGEHW840             |    |      |
|----------------------|----|------|
| Outdoor unit         |    |      |
| A                    | mm | 1050 |
| B                    | mm | 433  |
| C                    | mm | 810  |
| D                    | mm | 1090 |
| E                    | mm | 500  |
| F                    | mm | 845  |
| G                    | mm | 935  |
| Net weight           | kg | 64,3 |
| Weight for transport | kg | 79,1 |



## VRF SYSTEM

The VRFs are the direct expansion systems, with variable refrigerant flow.

Unlike the Multisplits, which are characterised by a set flow of refrigerant, these systems allow users to adjust the amount of refrigerant in circulation, according to the actual load required by the indoor units in use.

They range of 12kW to 276 kW thanks to their modular configuration, and are available in a heat pump version with heat recovery and domestic hot water production.

These systems guarantee excellent energy efficiency, avoiding wasting energy pointlessly, and are amazingly quiet during operation.





# MVBM - MVAS - MVBHR

## Direct expansion variable refrigerant flow system VRF

Cooling capacity 12,1 ÷ 246,0 kW  
Heating capacity 14,0 ÷ 276,0 kW

- Units prepared for installations with two or three pipes.
- The correct balance between cost, efficiency and space.
- Wide choice of indoor units available.
- Up to 80 connectible indoor units.



### DESCRIPTION

The MV air conditioners from the MVBM, MVAS and MVBHR range are combined with indoor units:

- MVA\_WL - **Wall.**
- MVA\_D - **Horizontal duct.**
- MVA\_DH - **Horizontal duct, high head.**
- MVA\_DV - **Vertical duct.**
- MVA\_CS, MVA\_C - **8-way cassette .**
- MVA\_C1 - **1-way cassette .**
- MVA\_F - **Floor ceiling.**
- MVA\_FS - **Console.**
- MVA\_V - **Column.**
- MVA\_ERV - **Heat recovery unit.**

### TYPE OF INDOOR UNIT

#### MVA\_WL

**Wall** indoor unit designed to be installed on indoor walls.

- Modern design to blend with all furnishing styles.
- Distributed air jet: air outlet louvers with horizontal and vertical adjustment facility.
- Anti-freeze function that allows a minimum temperature of 8 °C to be maintained in the environment during the winter period.

#### MVA\_D

**Duct** indoor unit designed for indoor duct type installation.

##### MVA\_D - Horizontal duct.

- Wired panel standard supply.
- Low noise levels.
- Easy installation in small assembly spaces, thanks to the limited dimensions.
- Useful static pressure up to 80 Pa.

#### MVA\_DH

**Duct** indoor unit designed for indoor duct type installation.

##### MVA\_DH - Horizontal duct, high head.

- Wired panel standard supply.
- Unit without cover, designed for duct type horizontal installation.
- Useful static pressure up to 200 Pa.

#### MVA\_DV

**Duct** indoor unit designed for indoor vertical installation.

##### MVA\_DV - Vertical duct.

- Wired panel standard supply.
- Unit without cover, designed for installation in wall recesses.
- Useful static pressure up to 60 Pa.

#### MVA\_CS / MVA\_C

**8-way cassette** indoor unit designed to be installed on false ceilings indoors.

##### MVA\_CS - Cassette 570x570.

Mandatory accessory GLG40S.

##### MVA\_C - Cassette 840x840.

Mandatory accessory GLG40.

- Wired panel standard supply.
- Condensate discharge pump as standard.
- Guarantees even air distribution, for optimum comfort.

### MVA\_C1

**1-way cassette** indoor unit designed to be installed on false ceilings indoors.

#### MVA\_C1 - Cassette 987x385.

Mandatory accessory GLC1.

- Wired panel standard supply.
- Condensate discharge pump as standard.
- Compact size and minimum dimensions.

### MVA\_F

**Floor ceiling** indoor unit to be installed on walls or ceiling.

- Low noise levels.
- Anti-freeze function.
- Flexible installation for any environment.

### MVA\_FS

**Console** indoor unit designed to be installed on the floor.

- Anti-freeze function.
- 5-speed fan, to meet every possible need.
- Two delivery vents for optimal control of the air flow.

### MVA\_V

**Column** indoor unit designed to be installed in large sized rooms.

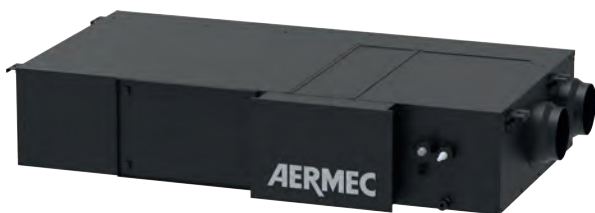
- Easy installation and maintenance.
- Speed in reaching the defined set point in the shortest time possible.
- Ideal for installations in the service sector: hotels, restaurants, offices.

#### General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Total capacity connected to the outdoor units between 50% and 135% of the rated capacity of the selected configuration.
- Indoor unit fitted standard with an electronic expansion valve.
- WRC wired panel standard supply with each indoor unit.
- Every indoor unit comes with a remote control and a remote control holder.
- Automatic unit adjustment function.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Easy installation and maintenance.

## TYPE OF INDOOR UNIT - HEAT RECOVERY

### MVA\_ERV



**Heat recovery** units designed for duct-type horizontal installation indoors. Fitted with a cross-flow enthalpic heat recovery unit with recovery efficiency higher than 70%. The heat exchanger allows energy to be transferred from the exhaust air to the fresh air, avoiding any direct mixing of the air flows. This range of heat recovery units ensures constantly clean and filtered fresh air, a constant air flow rate, and rooms with comfortable temperature and humidity levels, ensuring reduced energy consumption in every application. The device is also equipped with a direct expansion coil to allow the air flow delivered into the room to give off or absorb heat. This means that the unit not only guarantees correct air renewal, but also helps cool or heat the rooms and avoid air currents with a marked temperature difference in relation to the room temperature, to ensure optimum comfort for the occupants.

#### Operating mode

Every indoor unit comes with a wired panel. The wired panel can be used to set the standard cooling, heating, dehumidification and ventilation-only modes, plus the following operating modes.

- **Bypass with free cooling and night-time free cooling operation:** night-time free cooling operation reduces the thermal load in the rooms, taking advantage merely of the outside temperature difference

and therefore boosting energy savings for the following day thanks to free night-time cooling.

- **Control of different inlet and outlet air flow rates:** known as "positive pressure operating mode" when the inlet air flow rate is higher than the recovery one, or "negative pressure operating mode" in the opposite situation.

#### Mixed connection indoor units + MVA\_ERV

In case of mixed systems, i.e. consisting of indoor units of the VRF and units, MVA\_ERV to guarantee the proper operation of the system, the nominal cooling powers of the indoor units is between 50% and 100% of the nominal cooling power of the system of external units and that the sum of the installed nominal power of the MVA\_ERV units does not exceed 30% of the power of the external units system.

**The MVA\_ERV units are compatible with MVBHR systems.**

#### Connections with MVA\_ERV units only

In case of systems made up only by units, MVA\_ERV to guarantee the proper operation of the system, check that the sum of the nominal cooling powers of the indoor units is between 50% and 100% of the nominal cooling power of the external units system.

#### General features

- Wired panel standard supply with each indoor unit.
- Particularly quiet operation.
- Centrifugal fans with 5-speed brushless DC motor.
- Units fitted with an electronic expansion valve as standard.
- Filters with G4 efficiency level on inlet and outlet air.
- Alarm signal for filter cleaning.
- Timer for programming unit switch-on and switch-off.
- Incorporated electrical panel with electronic card to control the ventilation and free cooling functions.
- Easy installation and maintenance.

## TYPE OF OUTDOOR UNIT

### MVAS

Standard multisplit VRF air conditioners.

Reversible air/air heat pump with DC inverter technology.

- From 1 to 16 connectible indoor units.
- Total maximum length of the refrigerant lines up to 300 m.
- The sizes MVAS 1201S - MVAS 1401S - MVAS 1601S e MVAS 1201T - MVAS 1401T - MVAS 1601T, are fitted with a base electric resistor to avoid possible formation of ice and encourage the disposal of the condensate during the heating operation.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.

### MVBM

Module multisplit VRF ambient air conditioner for 2-pipe systems.

Reversible air/air heat pump with DC inverter technology.

- From 1 to 80 connectible indoor units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 33 recommended combinations.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.
- Optimised management of the compressor operating time with partial loads.
- Emergency operation, in the event of problems with the compressors or fans, allows operation of the system with a reduced number of compressors and/or fans for a limited time.
- Channelled air delivery from 0 Pa (default) to 110 Pa of effective static head set via dip switches.
- **For cooling line connections, refer to refnet joints in the accessories section.**

### MVBHR

Module multisplit VRF ambient air conditioner for 3-pipe systems.

Reversible air/air heat pump with DC inverter technology.

- From 1 to 80 connectible indoor units.
- Total maximum length of the refrigerant lines up to 1000 m.
- Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 33 recommended combinations.
- Compressor and fan with DC inverter technology.
- Fitted with an electronic expansion valve.
- Channelled air delivery from 0 Pa (default) to 110 Pa of effective static head set via dip switches.
- A system that permits managing the heating and cooling modes in an independent and simultaneous manner.
- Possibility of managing hot or cold modes independently and simultaneously.
- MVBHR 3-pipe outdoor units must be interfaced with two dual pipe MVA\_Indoor units using the exchange module (MEB) available with one, two, four or eight branches.

**MEB: mandatory accessory for 3-pipe systems.**

### Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Refrigerant connections with braze welded Y and F joints (mandatory accessories).
- Compressor and fan with DC inverter technology.
- Particularly quiet operation.
- Microprocessor control.
- Auto-restart function.
- Self-diagnosis function.
- Easy installation and maintenance.
- Serial communication in CanBus protocol.

## ACCESSORIES

**CC2:** Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. \*

**MVASZC:** Simplified centralised control (4,3" touch screen display), which can be used to manage up to 32 Indoor Units distributed across a maximum of 16 Systems.

**WLRC:** Remote control with liquid crystal display and soft-touch buttons.

**WRC:** Wired panel with liquid crystal display and soft-touch buttons.

**WRC1:** Simplified wired panel with liquid crystal display and soft-touch buttons with built-in external contact. This panel is particularly suitable for hotel applications.

\* **The CC2 centralised control can manage up to 255 indoor units distributed over a maximum of 16 VRF systems.**

**For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.**

**AHUKIT:** Kit comprised of a box that contains the thermal expansion valve(s) complete with wiring and their control module, with pre-wired probes, a wall-mounted control panel with external contact. The kit is in-

tended to be combined with the direct expansion cooling and/or heating coil (using R410A) of an air treatment unit. The latter is not supplied as an MV\_ component, but is functionally connected to an MV\_ system and is suitably sized. AHUKIT, and the and the air treatment unit connected to it, treat the recirculated and/or fresh air that falls within the operating limits, regulating the recirculation/expulsion air temperature.

**MINIMODBUS10:** Thanks to its smaller size, this accessory can be easily installed in the outdoor unit. It allows you to manage up to 16 MV systems (with a maximum of 255 indoor units), with a ModBus RTU serial on RSA485 for supervision with an external BMS.

**MVAGW /** This accessory allows you to manage up to 16 MV systems (with a maximum of 255 total indoor units), making available a serial in ModBus RTU protocol on RS485, ModBus TCP or BACnet / IP for supervision with an external BMS.

**USBDC / USBDC1:** The kit includes a converter (from CanBus to ModBus) and the VRF debugger software. IT is designed to meet the requirements of after sales services and qualified technicians who need to carry out control and debugging procedures on the MV\_ ranges.

**DTAC:** Diagnostic tool for indoor and outdoor units of the entire series (tool reserved for service centres or installers).

## Accessories mandatory

Air delivery and recovery grille for indoor **Cassette** type units.

| Grille model | Indoor unit model |       |        | 8 WAY | 4 WAY | 1 WAY | Dimensions<br>LxHxW (mm) | Weight<br>Kg |
|--------------|-------------------|-------|--------|-------|-------|-------|--------------------------|--------------|
|              | MVA_CS            | MVA_C | MVA_C1 |       |       |       |                          |              |
| GLG40S       | *                 | -     | -      | *     | -     | -     | 620x620x47,5             | 3,0          |
| GLG40        | -                 | *     | -      | *     | -     | -     | 950x950x52               | 6,0          |
| GL40B        | -                 | -     | -      | -     | *     | -     | 1040x1040x65             | 8,0          |
| GLC1         | -                 | -     | *      | -     | -     | *     | 1200x460x55              | 4,2          |

## Joints refnet

### Connection between modular outdoor units.

The modules are easy to install and link together from the cooling point of view, thanks to the connections with dedicated refnet joints. Modularity is the fundamental characteristic of these systems as it also allows high-capacity systems to be created in a quick, simple way.

Y-joints for cooling connection between 2 Outdoor Units in Modular Systems. **A modular system made up of n. base modules requires n-1 RNYMHR.-joints.**

**Mandatory accessory for modular systems.**

| MVBM 2-pipe system. |  | MVBHR 3-pipe system        |  | MVBM 2-pipe system. |  | MVBHR 3-pipe system |  |
|---------------------|--|----------------------------|--|---------------------|--|---------------------|--|
| Outdoor unit        |  | Outdoor unit               |  | Indoor units        |  | Indoor units        |  |
| RNYM01              |  | RNYMHR10                   |  | RNY11               |  | RNY11               |  |
|                     |  | RNYMHR20                   |  |                     |  |                     |  |
| <b>AHUKIT</b>       |  | <b>Outdoor units - MEB</b> |  | RNY12               |  | RNY12               |  |
| RNYAHU              |  | RNYHR10                    |  | RNY21               |  |                     |  |
| RNYAHU20            |  | RNYHR20                    |  | RNY31               |  |                     |  |
|                     |  | RNYHR30                    |  | RNY41               |  |                     |  |
|                     |  | RNYHR40                    |  | RNF14               |  |                     |  |
|                     |  | RNYHR50                    |  | RNF18               |  |                     |  |
|                     |  | RNYHR60                    |  | RNF18B              |  |                     |  |
|                     |  | RNYHR70                    |  |                     |  |                     |  |

## MVBM 2-pipe system

### RNYM01

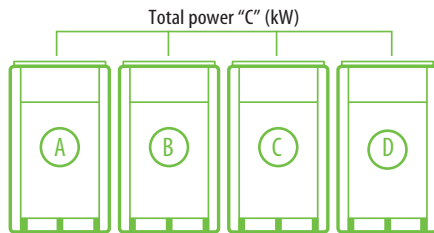
Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

## MVBHR 3-pipe system

### RNYMHR

Accessory comprising 3 Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

| Code     | Type |
|----------|------|
| RNYMHR10 | Y    |
| RNYMHR20 | Y    |



## Connection between modular outdoor units and MEB - Exchange module

### RNYHR

Accessory for connecting outdoor units with the MEB exchange module. Comprises three Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

| Code    | Type |
|---------|------|
| RNYHR10 | Y    |
| RNYHR20 | Y    |
| RNYHR30 | Y    |
| RNYHR40 | Y    |
| RNYHR50 | Y    |
| RNYHR60 | Y    |
| RNYHR70 | Y    |

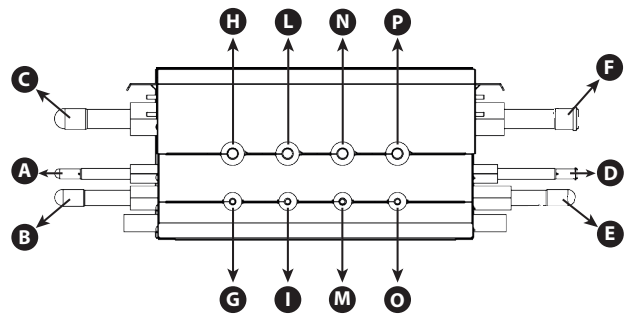
## MEB

Exchange module with one, two, four or eight branches (each single branch can manage heating or cooling mode independently of the others, but simultaneously) for interfacing MVBHR 3-pipe outdoor units with the MV 2-pipe indoor units.

| Code  | Branches | Maximum manageable cooling capacity (per single branch) | Total power managed by the MEB | Connectible indoor units (per single branch) |
|-------|----------|---|--------------------------------|--|
|       | No.      | (kW)  | (kW)                           | No.  |
| MEB12 | 1        | 16,00   | ≤ 16,00                        | 8  |
| MEB22 | 2        | 16,00   | ≤ 28,00                        | 8  |
| MEB42 | 4        | 16,00   | ≤ 45,00                        | 8  |
| MEB82 | 8        | 16,00   | ≤ 85,00                        | 8  |

In order to connect indoor units with a capacity higher than 16kW, two branches must be used that are joined into one using suitable DIP-switch settings on the distribution box.

## MEB exchange module



| Refrigerant connection | Description                    |
|------------------------|--------------------------------|
| A                      | Liquid (left side)             |
| B                      | Gas high pressure (left side)  |
| C                      | Gas low pressure (left side)   |
| D                      | Liquid (right side)            |
| E                      | Gas high pressure (right side) |
| F                      | Gas low pressure (right side)  |
| G                      | Liquid (branch 1)              |
| H                      | Gas (branch 1)                 |
| I                      | Liquid (branch 2)              |
| L                      | Gas (branch 2)                 |
| M                      | Liquid (branch 3)              |
| N                      | Gas (branch 3)                 |
| O                      | Liquid (branch 4)              |
| P                      | Gas (branch 4)                 |

## Connection between indoor units

### RNY

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

### RNF

Accessory made up of two F-joints, one for the liquid line and one for the discharge line.

| Code   | System type |        | Type of joint | Maximum 1-way connectible power<br>(kW) | Connectible indoor units<br>No. |
|--------|-------------|--------|---------------|---|---------------------------------|
|        | 2-pipe      | 3-pipe |               |   |                                 |
| RNY11  | •           | •      | Y             | -                                       | -                               |
| RNY12  | •           | •      | Y             | -                                       | -                               |
| RNY21  | •           |        | Y             | -                                       | -                               |
| RNY31  | •           |        | Y             | -                                       | -                               |
| RNY41  | •           |        | Y             | -                                       | -                               |
| RNF14  | •           |        | F             | 16,00                                   | from 2 to 4                     |
| RNF18  | •           |        | F             | 16,00                                   | from 4 to 8                     |
| RNF18B | •           |        | F             | 16,00                                   | from 4 to 8                     |

## ADVANTAGES FOR VRF SYSTEMS: MVAS - MVBM - MVBHR

### Compact design

Thanks to the reduced dimensions and compact design of these units, they are easy to move at the job site. All the models can in fact be transported easily right up to the roof, even using a lift.



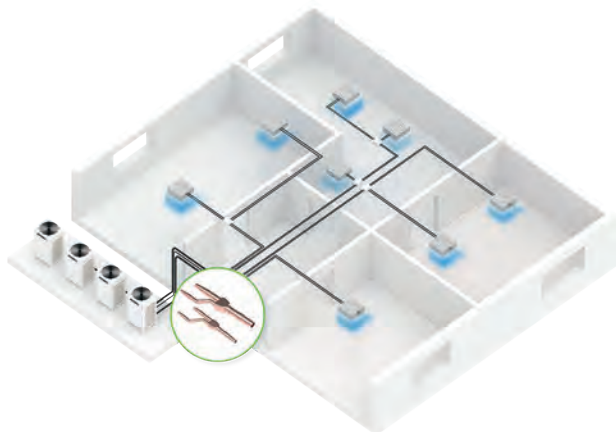
## VRF systems - 2-pipe heat pump

### Customise your VRF system

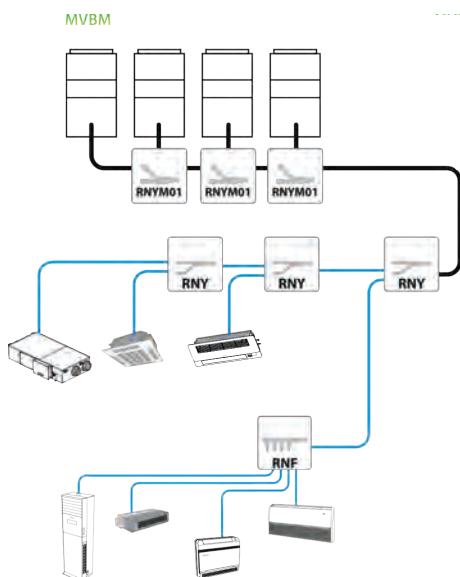
To guarantee greater seasonal efficiency and maximum comfort with the variable refrigerant function.

### Continuous comfort

Continuous heating or cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



### Example of a 2-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

### MVAS - MVBM

- 2-pipe system.
- Cooling or heating mode. (The image shows an example of a system in cooling mode)
- Total maximum length of the refrigerant lines: MVAS: 300 m, MVBM: 1000 m

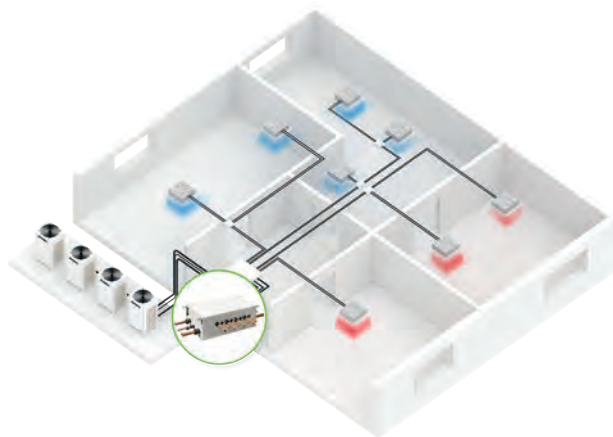
## VRF systems - 3-pipe heat pump

The VRF MVBHR heat recovery system heats and cools at the same time with one single circuit.

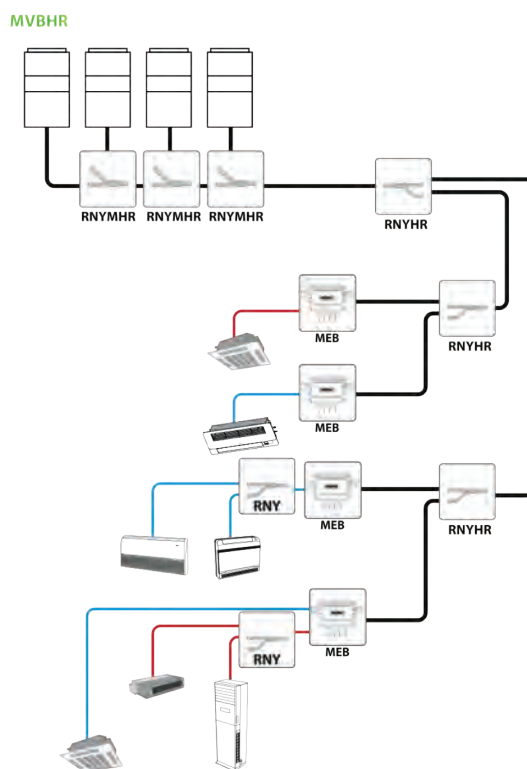
MVBHR recovers the heat produced during cooling and uses it to heat certain rooms cost-free, maximising energy efficiency and reducing energy costs.

### Continuous comfort

Simultaneous heating and cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



### Example of a 3-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

### MVBHR

- 3-pipe system.
- Simultaneous cold and hot operation.
- Total maximum length of the refrigerant lines: MVBHR: 1000 m

## CONFIGURATIONS

### MVAS combinations

#### MVAS connectable units

| MVAS  | Nominal cooling capacity (kW) | Min. no. of indoor units | Max. no. of indoor units |
|-------|-------------------------------|--------------------------|--------------------------|
| 1201S | 12,10                         | 2                        | 7                        |
| 1401S | 14,00                         | 2                        | 8                        |
| 1601S | 16,00                         | 2                        | 9                        |
| 1201T | 12,10                         | 2                        | 7                        |
| 1401T | 14,00                         | 2                        | 8                        |
| 1601T | 16,00                         | 2                        | 9                        |
| 2242T | 22,40                         | 1                        | 13                       |
| 2803T | 28,00                         | 1                        | 17                       |
| 3352T | 33,50                         | 2                        | 20                       |

#### MVAS outdoor unit with single duct type indoor unit

| MVAS  | Nominal cooling capacity (kW) | No. indoor units | Compatible indoor unit |
|-------|-------------------------------|------------------|------------------------|
| 2242T | 22,40                         | 1                | MVA2240DH              |
| 2803T | 28,00                         | 1                | MVA2800DH              |

### MVBM recommended configurations

|              | Nominal cooling capacity |       | MVBM combination |       |       |  | Connectible indoor units |             |
|--------------|--------------------------|-------|------------------|-------|-------|--|--------------------------|-------------|
|              |                          |       | Module           |       |       |  | Number                   |             |
|              | (kW)                     | (A)   | (B)              | (C)   | (D)   |  | MINIMUM (1)              | MAXIMUM (2) |
| Base Module  | 22,40                    | 2240T | -                | -     | -     |  | 1                        | 13          |
|              | 28,00                    | 2800T | -                | -     | -     |  | 1                        | 16          |
|              | 33,50                    | 3350T | -                | -     | -     |  | 1                        | 19          |
|              | 40,00                    | 4000T | -                | -     | -     |  | 1                        | 23          |
|              | 45,00                    | 4500T | -                | -     | -     |  | 1                        | 26          |
|              | 50,40                    | 5040T | -                | -     | -     |  | 1                        | 29          |
|              | 56,00                    | 5600T | -                | -     | -     |  | 1                        | 33          |
| Combinations | 61,50                    | 6150T | -                | -     | -     |  | 2                        | 36          |
|              | 68,00                    | 2800T | 4000T            | -     | -     |  | 2                        | 39          |
|              | 73,00                    | 2800T | 4500T            | -     | -     |  | 2                        | 43          |
|              | 78,40                    | 2800T | 5040T            | -     | -     |  | 2                        | 46          |
|              | 84,00                    | 2800T | 5600T            | -     | -     |  | 2                        | 50          |
|              | 89,50                    | 2800T | 6150T            | -     | -     |  | 2                        | 53          |
|              | 95,00                    | 3350T | 6150T            | -     | -     |  | 2                        | 56          |
|              | 101,50                   | 4000T | 6150T            | -     | -     |  | 2                        | 59          |
|              | 106,50                   | 4500T | 6150T            | -     | -     |  | 2                        | 63          |
|              | 111,90                   | 5040T | 6150T            | -     | -     |  | 3                        | 64          |
|              | 117,50                   | 5600T | 6150T            | -     | -     |  | 3                        | 64          |
|              | 123,00                   | 6150T | 6150T            | -     | -     |  | 3                        | 64          |
|              | 129,00                   | 2800T | 4500T            | 5600T | -     |  | 3                        | 64          |
|              | 134,50                   | 2800T | 4500T            | 6150T | -     |  | 3                        | 64          |
|              | 140,00                   | 3350T | 4500T            | 6150T | -     |  | 3                        | 66          |
|              | 145,50                   | 2800T | 5600T            | 6150T | -     |  | 3                        | 69          |
|              | 151,00                   | 2800T | 6150T            | 6150T | -     |  | 3                        | 71          |
|              | 156,50                   | 3350T | 6150T            | 6150T | -     |  | 3                        | 74          |
|              | 163,00                   | 4000T | 6150T            | 6150T | -     |  | 3                        | 77          |
|              | 168,00                   | 4500T | 6150T            | 6150T | -     |  | 4                        | 80          |
|              | 173,40                   | 5040T | 6150T            | 6150T | -     |  | 4                        | 80          |
|              | 179,00                   | 5600T | 6150T            | 6150T | -     |  | 4                        | 80          |
|              | 184,50                   | 6150T | 6150T            | 6150T | -     |  | 4                        | 80          |
|              | 190,50                   | 2800T | 4500T            | 5600T | 6150T |  | 4                        | 80          |
|              | 195,90                   | 2800T | 5040T            | 5600T | 6150T |  | 4                        | 80          |
|              | 201,50                   | 2800T | 5600T            | 5600T | 6150T |  | 4                        | 80          |
|              | 207,00                   | 2800T | 5600T            | 6150T | 6150T |  | 4                        | 80          |
|              | 212,50                   | 2800T | 6150T            | 6150T | 6150T |  | 4                        | 80          |
|              | 218,00                   | 3350T | 6150T            | 6150T | 6150T |  | 4                        | 80          |
|              | 224,50                   | 4000T | 6150T            | 6150T | 6150T |  | 5                        | 80          |
|              | 229,50                   | 4500T | 6150T            | 6150T | 6150T |  | 5                        | 80          |
|              | 234,90                   | 5040T | 6150T            | 6150T | 6150T |  | 5                        | 80          |
|              | 240,50                   | 5600T | 6150T            | 6150T | 6150T |  | 5                        | 80          |
|              | 246,00                   | 6150T | 6150T            | 6150T | 6150T |  | 5                        | 80          |



## MVBHR recommended configurations

|              | Nominal cooling capacity |       | MVBHR combination |       |       | Connectible indoor units |             |
|--------------|--------------------------|-------|-------------------|-------|-------|--------------------------|-------------|
|              |                          |       | Module            |       |       | Number                   |             |
|              | (kW)                     | (A)   | (B)               | (C)   | (D)   | MINIMUM (1)              | MAXIMUM (2) |
| Base Module  | 22,40                    | 2240T | -                 | -     | -     | 1                        | 13          |
|              | 28,00                    | 2800T | -                 | -     | -     | 1                        | 16          |
|              | 33,50                    | 3350T | -                 | -     | -     | 1                        | 19          |
|              | 40,00                    | 4000T | -                 | -     | -     | 1                        | 23          |
|              | 45,00                    | 4500T | -                 | -     | -     | 1                        | 26          |
|              | 50,40                    | 5040T | -                 | -     | -     | 1                        | 29          |
|              | 56,00                    | 5600T | -                 | -     | -     | 1                        | 33          |
| Combinations | 61,50                    | 6150T | -                 | -     | -     | 2                        | 36          |
|              | 68,00                    | 2800T | 4000T             | -     | -     | 2                        | 39          |
|              | 73,00                    | 2800T | 4500T             | -     | -     | 2                        | 43          |
|              | 78,40                    | 2800T | 5040T             | -     | -     | 2                        | 46          |
|              | 84,00                    | 2800T | 5600T             | -     | -     | 2                        | 50          |
|              | 89,50                    | 2800T | 6150T             | -     | -     | 2                        | 53          |
|              | 95,00                    | 3350T | 6150T             | -     | -     | 2                        | 56          |
|              | 101,50                   | 4000T | 6150T             | -     | -     | 2                        | 59          |
|              | 106,50                   | 4500T | 6150T             | -     | -     | 2                        | 63          |
|              | 111,90                   | 5040T | 6150T             | -     | -     | 3                        | 64          |
|              | 117,50                   | 5600T | 6150T             | -     | -     | 3                        | 64          |
|              | 123,00                   | 6150T | 6150T             | -     | -     | 3                        | 64          |
|              | 129,00                   | 2800T | 4500T             | 5600T | -     | 3                        | 64          |
|              | 134,50                   | 2800T | 4500T             | 6150T | -     | 3                        | 64          |
|              | 140,00                   | 3350T | 4500T             | 6150T | -     | 3                        | 66          |
|              | 145,50                   | 2800T | 5600T             | 6150T | -     | 3                        | 69          |
|              | 151,00                   | 2800T | 6150T             | 6150T | -     | 3                        | 71          |
|              | 156,50                   | 3350T | 6150T             | 6150T | -     | 3                        | 74          |
|              | 163,00                   | 4000T | 6150T             | 6150T | -     | 3                        | 77          |
|              | 168,00                   | 4500T | 6150T             | 6150T | -     | 4                        | 80          |
|              | 173,40                   | 5040T | 6150T             | 6150T | -     | 4                        | 80          |
|              | 179,00                   | 5600T | 6150T             | 6150T | -     | 4                        | 80          |
|              | 184,50                   | 6150T | 6150T             | 6150T | -     | 4                        | 80          |
|              | 190,50                   | 2800T | 4500T             | 5600T | 6150T | 4                        | 80          |
|              | 195,90                   | 2800T | 5040T             | 5600T | 6150T | 4                        | 80          |
|              | 201,50                   | 2800T | 5600T             | 5600T | 6150T | 4                        | 80          |
|              | 207,00                   | 2800T | 5600T             | 6150T | 6150T | 4                        | 80          |
|              | 212,50                   | 2800T | 6150T             | 6150T | 6150T | 4                        | 80          |
|              | 218,00                   | 3350T | 6150T             | 6150T | 6150T | 4                        | 80          |
|              | 224,50                   | 4000T | 6150T             | 6150T | 6150T | 5                        | 80          |
|              | 229,50                   | 4500T | 6150T             | 6150T | 6150T | 5                        | 80          |
|              | 234,90                   | 5040T | 6150T             | 6150T | 6150T | 5                        | 80          |
|              | 240,50                   | 5600T | 6150T             | 6150T | 6150T | 5                        | 80          |
|              | 246,00                   | 6150T | 6150T             | 6150T | 6150T | 5                        | 80          |

## INDOOR UNIT PERFORMANCE DATA

### MVA\_WL

|  |           | MVA220WL            | MVA280WL            | MVA360WL            | MVA450WL            | MVA500WL            | MVA560WL            | MVA630WL            | MVA710WL            |
|--|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Nominal cooling performances</b>        |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Cooling capacity (1)                       | kW        | 2,20                | 2,80                | 3,60                | 4,50                | 5,00                | 5,60                | 6,30                | 7,10                |
| <b>Nominal heating performances</b>        |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Heating capacity (2)                       | kW        | 2,50                | 3,20                | 4,00                | 5,00                | 5,60                | 6,30                | 7,10                | 7,50                |
| <b>Electric data</b>                       |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Rated power input (3)                      | W         | 20                  | 20                  | 25                  | 35                  | 35                  | 50                  | 50                  | 65                  |
| <b>Fan</b>                                 |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Type                                       | type      | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential |
| <b>Air flow rate</b>                       |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Minimum                                    | m³/h      | 300                 | 300                 | 320                 | 500                 | 501                 | 650                 | 650                 | 650                 |
| Average                                    | m³/h      | 440                 | 440                 | 460                 | 580                 | 580                 | 850                 | 850                 | 850                 |
| Maximum                                    | m³/h      | 500                 | 500                 | 630                 | 850                 | 850                 | 1100                | 1100                | 1200                |
| <b>Sound power (4)</b>                     |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Minimum                                    | dB(A)     | 40,0                | 41,0                | 41,0                | 47,0                | 47,0                | 47,0                | 48,0                | 47,0                |
| Average                                    | dB(A)     | 43,0                | 43,0                | 45,0                | 50,0                | 50,0                | 51,0                | 51,0                | 51,0                |
| Maximum                                    | dB(A)     | 45,0                | 45,0                | 48,0                | 53,0                | 53,0                | 53,0                | 53,0                | 54,0                |
| <b>Sound pressure (5)</b>                  |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Minimum                                    | dB(A)     | 30,0                | 30,0                | 31,0                | 37,0                | 37,0                | 37,0                | 37,0                | 37,0                |
| Average                                    | dB(A)     | 33,0                | 33,0                | 35,0                | 40,0                | 40,0                | 41,0                | 41,0                | 41,0                |
| Maximum                                    | dB(A)     | 35,0                | 35,0                | 38,0                | 43,0                | 43,0                | 43,0                | 43,0                | 44,0                |
| <b>Refrigeration pipework</b>              |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         | 9,52 (3/8")         | 9,52 (3/8")         | 9,52 (3/8")         |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")         | 9,52 (3/8")         | 12,7 (1/2")         | 12,7 (1/2")         | 12,7 (1/2")         | 15,9 (5/8")         | 15,9 (5/8")         | 15,9 (5/8")         |
| <b>Power supply</b>                        |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     |
| <b>Indoor unit</b>                         |           |                     |                     |                     |                     |                     |                     |                     |                     |
| Condensate discharge diameter              | mm        | 20,0                | 20,0                | 20,0                | 20,0                | 20,0                | 20,0                | 20,0                | 20,0                |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

### MVA\_D

|  |                 | MVA222D              | MVA252D  | MVA282D  | MVA322D  | MVA362D  | MVA402D  |
|--|-----------------|----------------------|----------|----------|----------|----------|----------|
| Nominal cooling performances               |                 |                      |          |          |          |          |          |
| Cooling capacity (1)                       | kW              | 2,20                 | 2,50     | 2,80     | 3,20     | 3,60     | 4,00     |
| Nominal heating performances               |                 |                      |          |          |          |          |          |
| Heating capacity (2)                       | kW              | 2,50                 | 2,80     | 3,20     | 3,60     | 4,00     | 4,50     |
| Electric data                              |                 |                      |          |          |          |          |          |
| Rated power input (3)                      | W               | 78                   | 78       | 78       | 78       | 78       | 78       |
| Refrigeration pipework                     |                 |                      |          |          |          |          |          |
| Diameter of liquid refrigerant connections | mm (inch)       | 6,35 (1/4")          |          |          |          |          |          |
| Diameter of refrigerant gas connections    | mm (inch)       | 9,52 (3/8")          |          |          |          |          |          |
| Power supply                               |                 |                      |          |          |          |          |          |
| Indoor unit power supply                   | 220-240V ~ 50Hz |                      |          |          |          |          |          |
| Power supply 60Hz                          |                 |                      |          |          |          |          |          |
| Indoor unit power supply                   | 208-230V ~ 60Hz |                      |          |          |          |          |          |
| Indoor unit                                |                 |                      |          |          |          |          |          |
| Condensate discharge diameter              | mm              | 25,0 x 2             | 25,0 x 2 | 25,0 x 2 | 25,0 x 2 | 25,0 x 2 | 25,0 x 2 |
| Fan  |                 |                      |          |          |          |          |          |
| Type                                       | type            | Inverter centrifugal |          |          |          |          |          |
| Air flow rate                              |                 |                      |          |          |          |          |          |
| Minimum                                    | m³/h            | 200                  | 200      | 200      | 300      | 300      | 400      |
| Average                                    | m³/h            | 350                  | 350      | 350      | 400      | 400      | 550      |
| Maximum                                    | m³/h            | 450                  | 450      | 450      | 550      | 550      | 750      |
| Sound power                                |                 |                      |          |          |          |          |          |
| Minimum                                    | dB(A)           | 34,0                 | 34,0     | 34,0     | 37,0     | 37,0     | 39,0     |
| Average                                    | dB(A)           | 37,0                 | 37,0     | 37,0     | 39,0     | 39,0     | 41,0     |
| Maximum                                    | dB(A)           | 42,0                 | 42,0     | 42,0     | 43,0     | 43,0     | 45,0     |
| Sound pressure                             |                 |                      |          |          |          |          |          |
| Minimum                                    | dB(A)           | 22,0                 | 22,0     | 22,0     | 25,0     | 25,0     | 27,0     |
| Average                                    | dB(A)           | 25,0                 | 25,0     | 25,0     | 27,0     | 27,0     | 29,0     |
| Maximum                                    | dB(A)           | 30,0                 | 30,0     | 30,0     | 31,0     | 31,0     | 33,0     |
| Useful static pressure                     |                 |                      |          |          |          |          |          |
| Nominal                                    | Pa              | 15                   | 15       | 15       | 15       | 15       | 15       |
| Range of static pressure                   | Pa              | 0~30                 |          |          |          |          |          |

|  |           | MVA452D              | MVA502D  | MVA562D         | MVA632D     | MVA712D  | MVA802D  |
|--|-----------|----------------------|----------|-----------------|-------------|----------|----------|
| Nominal cooling performances               |           |                      |          |                 |             |          |          |
| Cooling capacity (1)                       | kW        | 4,50                 | 5,00     | 5,60            | 6,30        | 7,10     | 8,00     |
| Nominal heating performances               |           |                      |          |                 |             |          |          |
| Heating capacity (2)                       | kW        | 5,00                 | 5,60     | 6,30            | 7,10        | 8,00     | 9,00     |
| Electric data                              |           |                      |          |                 |             |          |          |
| Rated power input (3)                      | W         | 78                   | 78       | 117             | 117         | 154      | 154      |
| Refrigeration pipework                     |           |                      |          |                 |             |          |          |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          |          |                 | 9,52 (3/8") |          |          |
| Diameter of refrigerant gas connections    | mm (inch) | 12,7 (1/2")          |          |                 | 15,9 (5/8") |          |          |
| Power supply                               |           |                      |          |                 |             |          |          |
| Indoor unit power supply                   |           |                      |          | 220-240V ~ 50Hz |             |          |          |
| Power supply 60Hz                          |           |                      |          |                 |             |          |          |
| Indoor unit power supply                   |           |                      |          | 208-230V ~ 60Hz |             |          |          |
| Indoor unit                                |           |                      |          |                 |             |          |          |
| Condensate discharge diameter              | mm        | 25,0 x 2             | 25,0 x 2 | 25,0 x 2        | 25,0 x 2    | 25,0 x 2 | 25,0 x 2 |
| Fan  |           |                      |          |                 |             |          |          |
| Type                                       | type      | Inverter centrifugal |          |                 |             |          |          |
| Air flow rate                              |           |                      |          |                 |             |          |          |
| Minimum                                    | m³/h      | 400                  | 400      | 550             | 550         | 650      | 700      |
| Average                                    | m³/h      | 550                  | 550      | 700             | 700         | 850      | 950      |
| Maximum                                    | m³/h      | 750                  | 750      | 850             | 850         | 1100     | 1200     |
| Sound power                                |           |                      |          |                 |             |          |          |
| Minimum                                    | dB(A)     | 39,0                 | 39,0     | 41,0            | 41,0        | 42,0     | 43,0     |
| Average                                    | dB(A)     | 41,0                 | 41,0     | 43,0            | 43,0        | 44,0     | 47,0     |
| Maximum                                    | dB(A)     | 45,0                 | 45,0     | 47,0            | 47,0        | 49,0     | 52,0     |
| Sound pressure                             |           |                      |          |                 |             |          |          |
| Minimum                                    | dB(A)     | 27,0                 | 27,0     | 29,0            | 29,0        | 30,0     | 31,0     |
| Average                                    | dB(A)     | 29,0                 | 29,0     | 31,0            | 31,0        | 32,0     | 35,0     |
| Maximum                                    | dB(A)     | 33,0                 | 33,0     | 35,0            | 35,0        | 37,0     | 40,0     |
| Useful static pressure                     |           |                      |          |                 |             |          |          |
| Nominal                                    | Pa        | 15                   | 15       | 15              | 15          | 15       | 15       |
| Range of static pressure                   | Pa        | 0~30                 |          |                 | 0~30        |          |          |

(1) Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.

(2) Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

Sound power measured in anechoic chamber at a distance of 1,0m from the source, according to EN 12102.

Sound pressure measured in semi anechoic chamber at a distance of 1,0m from the source, according to EN 12102.

|  |           | MVA901D              | MVA1001D             | MVA1121D             | MVA1251D             | MVA1401D             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 9,00                 | 10,00                | 11,20                | 12,50                | 14,00                |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 10,00                | 11,20                | 12,50                | 14,00                | 16,00                |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 130                  | 130                  | 130                  | 170                  | 170                  |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 900                  | 1000                 | 1100                 | 1400                 | 1400                 |
| Average                                    | m³/h      | 1250                 | 1350                 | 1500                 | 1700                 | 1700                 |
| Maximum                                    | m³/h      | 1500                 | 1500                 | 1700                 | 2000                 | 2000                 |
| <b>High static pressure</b>                |           |                      |                      |                      |                      |                      |
| Nominal                                    | Pa        | 50                   | 50                   | 50                   | 50                   | 50                   |
| Minimum                                    | Pa        | 0                    | 0                    | 0                    | 0                    | 0                    |
| Maximum                                    | Pa        | 80                   | 80                   | 80                   | 80                   | 80                   |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 47,0                 | 47,0                 | 47,0                 | 52,0                 | 52,0                 |
| Average                                    | dB(A)     | 51,0                 | 51,0                 | 51,0                 | 55,0                 | 55,0                 |
| Maximum                                    | dB(A)     | 55,0                 | 55,0                 | 55,0                 | 57,0                 | 57,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 32,0                 | 32,0                 | 32,0                 | 37,0                 | 37,0                 |
| Average                                    | dB(A)     | 36,0                 | 36,0                 | 36,0                 | 40,0                 | 40,0                 |
| Maximum                                    | dB(A)     | 40,0                 | 40,0                 | 40,0                 | 42,0                 | 42,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_DH

|  |           | MVA222DH | MVA252DH    | MVA282DH | MVA322DH    | MVA362DH             | MVA402DH    | MVA452DH | MVA502DH | MVA562DH    |
|--|-----------|----------|-------------|----------|-------------|----------------------|-------------|----------|----------|-------------|
| <b>Nominal cooling performances</b>        |           |          |             |          |             |                      |             |          |          |             |
| Cooling capacity (1)                       | kW        | 2,20     | 2,50        | 2,80     | 3,20        | 3,60                 | 4,00        | 4,50     | 5,00     | 5,60        |
| <b>Nominal heating performances</b>        |           |          |             |          |             |                      |             |          |          |             |
| Heating capacity (2)                       | kW        | 2,50     | 2,80        | 3,20     | 3,60        | 4,00                 | 4,50        | 5,00     | 5,60     | 6,30        |
| <b>Electric data</b>                       |           |          |             |          |             |                      |             |          |          |             |
| Rated power input (3)                      | W         | 50       | 50          | 50       | 50          | 50                   | 100         | 100      | 100      | 105         |
| <b>Refrigeration pipework</b>              |           |          |             |          |             |                      |             |          |          |             |
| Diameter of liquid refrigerant connections | mm (inch) |          |             |          | 6,35 (1/4") |                      |             |          |          | 9,52 (3/8") |
| Diameter of refrigerant gas connections    | mm (inch) |          | 9,52 (3/8") |          |             |                      | 12,7 (1/2") |          |          | 15,9 (5/8") |
| <b>Power supply</b>                        |           |          |             |          |             |                      |             |          |          |             |
| Indoor unit power supply                   |           |          |             |          |             | 220-240V ~ 50Hz      |             |          |          |             |
| <b>Power supply 60Hz</b>                   |           |          |             |          |             |                      |             |          |          |             |
| Indoor unit power supply                   |           |          |             |          |             | 208-230V ~ 60Hz      |             |          |          |             |
| <b>Indoor unit</b>                         |           |          |             |          |             |                      |             |          |          |             |
| Condensate discharge diameter              | mm        | 25 x 2,5 | 25 x 2,5    | 25 x 2,5 | 25 x 2,5    | 25 x 2,5             | 25 x 2,5    | 25 x 2,5 | 25 x 2,5 | 25 x 2,5    |
| <b>Fan</b>                                 |           |          |             |          |             |                      |             |          |          |             |
| Type                                       | type      |          |             |          |             | Inverter centrifugal |             |          |          |             |
| <b>Air flow rate</b>                       |           |          |             |          |             |                      |             |          |          |             |
| Minimum                                    | m³/h      | 400      | 400         | 400      | 420         | 420                  | 600         | 600      | 600      | 700         |
| Average                                    | m³/h      | 480      | 480         | 480      | 500         | 500                  | 700         | 700      | 700      | 800         |
| Maximum                                    | m³/h      | 550      | 550         | 550      | 600         | 600                  | 850         | 850      | 850      | 1000        |
| <b>Sound power</b>                         |           |          |             |          |             |                      |             |          |          |             |
| Minimum                                    | dB(A)     | 39,0     | 39,0        | 39,0     | 40,0        | 40,0                 | 42,0        | 42,0     | 42,0     | 42,0        |
| Average                                    | dB(A)     | 41,0     | 41,0        | 41,0     | 43,0        | 43,0                 | 46,0        | 46,0     | 46,0     | 46,0        |
| Maximum                                    | dB(A)     | 45,0     | 45,0        | 45,0     | 46,0        | 46,0                 | 50,0        | 50,0     | 50,0     | 50,0        |
| <b>Sound pressure</b>                      |           |          |             |          |             |                      |             |          |          |             |
| Minimum                                    | dB(A)     | 29,0     | 29,0        | 29,0     | 30,0        | 30,0                 | 32,0        | 32,0     | 32,0     | 32,0        |
| Average                                    | dB(A)     | 31,0     | 31,0        | 31,0     | 33,0        | 33,0                 | 36,0        | 36,0     | 36,0     | 36,0        |
| Maximum                                    | dB(A)     | 35,0     | 35,0        | 35,0     | 36,0        | 36,0                 | 40,0        | 40,0     | 40,0     | 40,0        |
| <b>Useful static pressure</b>              |           |          |             |          |             |                      |             |          |          |             |
| Nominal                                    | Pa        | 50       | 50          | 50       | 50          | 50                   | 50          | 50       | 50       | 90          |
| Range of static pressure                   | Pa        |          |             |          | 0~80        |                      |             |          |          | 0~200       |

|  |           | MVA632DH | MVA712DH | MVA802DH | MVA902DH    | MVA1002DH            | MVA1122DH | MVA1252DH | MVA1402DH | MVA1602DH    |
|--|-----------|----------|----------|----------|-------------|----------------------|-----------|-----------|-----------|--------------|
| <b>Nominal cooling performances</b>        |           |          |          |          |             |                      |           |           |           |              |
| Cooling capacity (1)                       | kW        | 6,30     | 7,10     | 8,00     | 9,00        | 10,00                | 11,20     | 12,50     | 14,00     | 16,00        |
| <b>Nominal heating performances</b>        |           |          |          |          |             |                      |           |           |           |              |
| Heating capacity (2)                       | kW        | 7,10     | 8,00     | 9,00     | 10,00       | 11,20                | 12,50     | 14,00     | 16,00     | 18,00        |
| <b>Electric data</b>                       |           |          |          |          |             |                      |           |           |           |              |
| Rated power input (3)                      | W         | 105      | 110      | 110      | 170         | 170                  | 170       | 170       | 240       | 240          |
| <b>Refrigeration pipework</b>              |           |          |          |          |             |                      |           |           |           |              |
| Diameter of liquid refrigerant connections | mm (inch) |          |          |          |             | 9,52 (3/8")          |           |           |           |              |
| Diameter of refrigerant gas connections    | mm (inch) |          |          |          | 15,9 (5/8") |                      |           |           |           | 19,05 (3/4") |
| <b>Power supply</b>                        |           |          |          |          |             |                      |           |           |           |              |
| Indoor unit power supply                   |           |          |          |          |             | 220-240V ~ 50Hz      |           |           |           |              |
| <b>Power supply 60Hz</b>                   |           |          |          |          |             |                      |           |           |           |              |
| Indoor unit power supply                   |           |          |          |          |             | 208-230V ~ 60Hz      |           |           |           |              |
| <b>Indoor unit</b>                         |           |          |          |          |             |                      |           |           |           |              |
| Condensate discharge diameter              | mm        | 25 x 2,5 | 25 x 2,5 | 25 x 2,5 | 25 x 2,5    | 25 x 2,5             | 25 x 2,5  | 25 x 2,5  | 25 x 2,5  | 25 x 2,5     |
| <b>Fan</b>                                 |           |          |          |          |             |                      |           |           |           |              |
| Type                                       | type      |          |          |          |             | Inverter centrifugal |           |           |           |              |
| <b>Air flow rate</b>                       |           |          |          |          |             |                      |           |           |           |              |
| Minimum                                    | m³/h      | 700      | 950      | 950      | 1250        | 1250                 | 1400      | 1400      | 1650      | 1650         |
| Average                                    | m³/h      | 800      | 1050     | 1050     | 1450        | 1450                 | 1600      | 1600      | 1900      | 1900         |
| Maximum                                    | m³/h      | 1000     | 1250     | 1250     | 1800        | 1800                 | 2000      | 2000      | 2350      | 2350         |
| <b>Sound power</b>                         |           |          |          |          |             |                      |           |           |           |              |
| Minimum                                    | dB(A)     | 42,0     | 42,0     | 42,0     | 44,0        | 44,0                 | 46,0      | 47,0      | 48,0      | 50,0         |
| Average                                    | dB(A)     | 46,0     | 46,0     | 46,0     | 48,0        | 48,0                 | 49,0      | 50,0      | 51,0      | 53,0         |
| Maximum                                    | dB(A)     | 50,0     | 50,0     | 50,0     | 52,0        | 52,0                 | 53,0      | 54,0      | 54,0      | 55,0         |
| <b>Sound pressure</b>                      |           |          |          |          |             |                      |           |           |           |              |
| Minimum                                    | dB(A)     | 32,0     | 32,0     | 32,0     | 34,0        | 34,0                 | 34,0      | 37,0      | 38,0      | 40,0         |
| Average                                    | dB(A)     | 36,0     | 36,0     | 36,0     | 38,0        | 38,0                 | 38,0      | 40,0      | 41,0      | 43,0         |
| Maximum                                    | dB(A)     | 40,0     | 40,0     | 40,0     | 42,0        | 42,0                 | 43,0      | 44,0      | 44,0      | 45,0         |
| <b>Useful static pressure</b>              |           |          |          |          |             |                      |           |           |           |              |
| Nominal                                    | Pa        | 90       | 90       | 90       | 90          | 90                   | 90        | 90        | 90        | 90           |
| Range of static pressure                   | Pa        |          | 0~200    |          | 0~200       |                      |           | 0~200     |           |              |

(1) Cooling (EN-14511 and EN-14825) Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.

(2) Heating (EN-14511 and EN-14825) Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

Sound power measured in anechoic chamber at a distance of 1,0m from the source, according to EN 12102.

Sound pressure measured in semi anechoic chamber at a distance of 1,0m from the source, according to EN 12102.

|  |           | MVA 2240 DH     | MVA 2800 DH     |
|--|-----------|-----------------|-----------------|
| <b>Nominal cooling performances</b>        |           |                 |                 |
| Cooling capacity (1)                       | kW        | 22,40           | 28,00           |
| <b>Nominal heating performances</b>        |           |                 |                 |
| Heating capacity (2)                       | kW        | 24,00           | 30,00           |
| <b>Electric data</b>                       |           |                 |                 |
| Rated power input (3)                      | W         | 960             | 1250            |
| <b>Air flow rate</b>                       |           |                 |                 |
| Minimum                                    | m³/h      | -               | -               |
| Average                                    | m³/h      | -               | -               |
| Maximum                                    | m³/h      | 4000            | 4400            |
| <b>High static pressure</b>                |           |                 |                 |
| Nominal                                    | Pa        | 150             | 150             |
| Minimum                                    | Pa        | -               | -               |
| Maximum                                    | Pa        | -               | -               |
| <b>Sound power (4)</b>                     |           |                 |                 |
| Minimum                                    | dB(A)     | 59,0            | 60,0            |
| Average                                    | dB(A)     | 62,0            | 62,0            |
| Maximum                                    | dB(A)     | 64,0            | 65,0            |
| <b>Sound pressure (5)</b>                  |           |                 |                 |
| Minimum                                    | dB(A)     | 49,0            | 50,0            |
| Average                                    | dB(A)     | 52,0            | 52,0            |
| Maximum                                    | dB(A)     | 54,0            | 55,0            |
| <b>Refrigeration pipework</b>              |           |                 |                 |
| Diameter of liquid refrigerant connections | mm (inch) | 19,05 (3/4")    | 22,2 (7/8")     |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")     | 9,52 (3/8")     |
| <b>Power supply</b>                        |           |                 |                 |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz | 220-240V ~ 50Hz |
| <b>Indoor unit</b>                         |           |                 |                 |
| Condensate discharge diameter              | mm        | 30,0            | 30,0            |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_DV

|  |           | MVA220DV             | MVA280DV             | MVA360DV             | MVA450DV             | MVA560DV             | MVA630DV             | MVA710DV             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 2,20                 | 2,80                 | 3,60                 | 4,50                 | 5,60                 | 6,30                 | 7,10                 |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 2,50                 | 3,20                 | 4,00                 | 5,00                 | 6,30                 | 7,10                 | 8,00                 |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 35                   | 35                   | 43                   | 45                   | 80                   | 80                   | 90                   |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 250                  | 250                  | 350                  | 400                  | 600                  | 600                  | 700                  |
| Average                                    | m³/h      | 350                  | 350                  | 450                  | 500                  | 750                  | 750                  | 900                  |
| Maximum                                    | m³/h      | 450                  | 450                  | 550                  | 650                  | 900                  | 900                  | 1100                 |
| <b>High static pressure</b>                |           |                      |                      |                      |                      |                      |                      |                      |
| Nominal                                    | Pa        | 10                   | 10                   | 10                   | 15                   | 15                   | 15                   | 15                   |
| Minimum                                    | Pa        | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    | 0                    |
| Maximum                                    | Pa        | 40                   | 40                   | 40                   | 60                   | 60                   | 60                   | 60                   |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 35,0                 | 35,0                 | 38,0                 | 38,0                 | 40,0                 | 40,0                 | 43,0                 |
| Average                                    | dB(A)     | 38,0                 | 38,0                 | 41,0                 | 41,0                 | 43,0                 | 43,0                 | 45,0                 |
| Maximum                                    | dB(A)     | 40,0                 | 40,0                 | 43,0                 | 43,0                 | 45,0                 | 45,0                 | 47,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 25,0                 | 25,0                 | 28,0                 | 28,0                 | 30,0                 | 30,0                 | 33,0                 |
| Average                                    | dB(A)     | 28,0                 | 28,0                 | 31,0                 | 31,0                 | 33,0                 | 33,0                 | 35,0                 |
| Maximum                                    | dB(A)     | 30,0                 | 30,0                 | 33,0                 | 33,0                 | 35,0                 | 35,0                 | 37,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 12,7 (1/2")          | 12,7 (1/2")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_CS

|  |           | MVA151CS             | MVA181CS             | MVA221CS             | MVA281CS             | MVA361CS             | MVA451CS             | MVA501CS             | MVA561CS             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 1,50                 | 1,80                 | 2,20                 | 2,80                 | 3,60                 | 4,50                 | 5,00                 | 5,60                 |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 1,80                 | 2,20                 | 2,50                 | 3,20                 | 4,00                 | 5,00                 | 5,60                 | 6,30                 |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 30                   | 30                   | 30                   | 30                   | 30                   | 45                   | 45                   | 45                   |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 370                  | 370                  | 370                  | 420                  | 480                  | 560                  | 560                  | 560                  |
| Average                                    | m³/h      | 420                  | 420                  | 460                  | 480                  | 550                  | 650                  | 650                  | 650                  |
| Maximum                                    | m³/h      | 460                  | 460                  | 500                  | 570                  | 620                  | 730                  | 730                  | 730                  |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 39,0                 | 39,0                 | 39,0                 | 42,0                 | 45,0                 | 53,0                 | 43,0                 | 53,0                 |
| Average                                    | dB(A)     | 44,0                 | 44,0                 | 45,0                 | 47,0                 | 49,0                 | 55,0                 | 55,0                 | 55,0                 |
| Maximum                                    | dB(A)     | 47,0                 | 47,0                 | 50,0                 | 50,0                 | 52,0                 | 57,0                 | 57,0                 | 57,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 25,0                 | 25,0                 | 25,0                 | 28,0                 | 31,0                 | 39,0                 | 39,0                 | 39,0                 |
| Average                                    | dB(A)     | 30,0                 | 30,0                 | 31,0                 | 33,0                 | 35,0                 | 41,0                 | 41,0                 | 41,0                 |
| Maximum                                    | dB(A)     | 33,0                 | 33,0                 | 36,0                 | 36,0                 | 38,0                 | 43,0                 | 43,0                 | 43,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 12,7 (1/2")          | 12,7 (1/2")          | 12,7 (1/2")          | 15,9 (5/8")          |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_C

|  |           | MVA221C              | MVA281C              | MVA361C              | MVA451C              | MVA501C              | MVA561C              | MVA631C              |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 2,20                 | 2,80                 | 3,60                 | 4,50                 | 5,00                 | 5,60                 | 6,30                 |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 2,50                 | 3,20                 | 4,00                 | 5,00                 | 5,60                 | 6,30                 | 7,10                 |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 26                   | 26                   | 26                   | 26                   | 28                   | 35                   | 60                   |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 600                  | 600                  | 600                  | 600                  | 700                  | 750                  | 850                  |
| Average                                    | m³/h      | 700                  | 700                  | 700                  | 700                  | 800                  | 850                  | 950                  |
| Maximum                                    | m³/h      | 800                  | 800                  | 800                  | 800                  | 900                  | 950                  | 1150                 |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 42,0                 | 42,0                 | 42,0                 | 42,0                 | 43,0                 | 44,0                 | 45,0                 |
| Average                                    | dB(A)     | 44,0                 | 44,0                 | 44,0                 | 44,0                 | 46,0                 | 47,0                 | 48,0                 |
| Maximum                                    | dB(A)     | 47,0                 | 47,0                 | 47,0                 | 48,0                 | 49,0                 | 51,0                 | 51,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 28,0                 | 28,0                 | 28,0                 | 28,0                 | 29,0                 | 30,0                 | 31,0                 |
| Average                                    | dB(A)     | 30,0                 | 30,0                 | 30,0                 | 30,0                 | 32,0                 | 33,0                 | 34,0                 |
| Maximum                                    | dB(A)     | 33,0                 | 33,0                 | 33,0                 | 34,0                 | 35,0                 | 37,0                 | 37,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 12,7 (1/2")          | 12,7 (1/2")          | 12,7 (1/2")          | 15,9 (5/8")          | 15,9 (5/8")          |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

|  |           | MVA711C              | MVA801C              | MVA901C              | MVA1001C             | MVA1121C             | MVA1251C             | MVA1401C             | MVA1601C             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 7,10                 | 8,00                 | 9,00                 | 10,00                | 11,20                | 12,50                | 14,00                | 16,00                |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 8,00                 | 9,00                 | 10,00                | 11,20                | 12,50                | 14,00                | 16,00                | 18,00                |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 60                   | 85                   | 85                   | 85                   | 115                  | 115                  | 115                  | 170                  |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 850                  | 900                  | 900                  | 900                  | 1100                 | 1100                 | 1100                 | 1430                 |
| Average                                    | m³/h      | 950                  | 1000                 | 1000                 | 1000                 | 1300                 | 1300                 | 1300                 | 1800                 |
| Maximum                                    | m³/h      | 1150                 | 1250                 | 1250                 | 1250                 | 1650                 | 1650                 | 1650                 | 2000                 |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 45,0                 | 48,0                 | 48,0                 | 48,0                 | 53,0                 | 53,0                 | 53,0                 | 54,0                 |
| Average                                    | dB(A)     | 48,0                 | 51,0                 | 51,0                 | 51,0                 | 55,0                 | 55,0                 | 55,0                 | 60,0                 |
| Maximum                                    | dB(A)     | 51,0                 | 53,0                 | 53,0                 | 53,0                 | 57,0                 | 57,0                 | 57,0                 | 63,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 31,0                 | 34,0                 | 34,0                 | 34,0                 | 39,0                 | 39,0                 | 39,0                 | 42,0                 |
| Average                                    | dB(A)     | 34,0                 | 37,0                 | 37,0                 | 37,0                 | 41,0                 | 41,0                 | 41,0                 | 48,0                 |
| Maximum                                    | dB(A)     | 37,0                 | 39,0                 | 39,0                 | 39,0                 | 43,0                 | 43,0                 | 43,0                 | 51,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 19,05 (3/4")         |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 | 25,0                 |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_C1

|  |           | MVA220C1            | MVA280C1            | MVA360C1            | MVA450C1            | MVA500C1            |
|--|-----------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Nominal cooling performances</b>        |           |                     |                     |                     |                     |                     |
| Cooling capacity (1)                       | kW        | 2,20                | 2,80                | 3,60                | 4,50                | 5,00                |
| <b>Nominal heating performances</b>        |           |                     |                     |                     |                     |                     |
| Heating capacity (2)                       | kW        | 2,50                | 3,20                | 4,00                | 5,00                | 5,60                |
| <b>Electric data</b>                       |           |                     |                     |                     |                     |                     |
| Rated power input (3)                      | W         | 30                  | 30                  | 30                  | 30                  | 30                  |
| <b>Fan</b>                                 |           |                     |                     |                     |                     |                     |
| Type                                       | type      | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential | Inverter tangential |
| <b>Air flow rate</b>                       |           |                     |                     |                     |                     |                     |
| Minimum                                    | m³/h      | 450                 | 450                 | 450                 | 500                 | 500                 |
| Average                                    | m³/h      | 500                 | 500                 | 500                 | 600                 | 600                 |
| Maximum                                    | m³/h      | 600                 | 600                 | 600                 | 830                 | 830                 |
| <b>Sound power (4)</b>                     |           |                     |                     |                     |                     |                     |
| Minimum                                    | dB(A)     | 38,0                | 38,0                | 38,0                | 40,0                | 40,0                |
| Average                                    | dB(A)     | 42,0                | 42,0                | 42,0                | 45,0                | 45,0                |
| Maximum                                    | dB(A)     | 46,0                | 46,0                | 46,0                | 50,0                | 50,0                |
| <b>Sound pressure (5)</b>                  |           |                     |                     |                     |                     |                     |
| Minimum                                    | dB(A)     | 28,0                | 28,0                | 28,0                | 30,0                | 30,0                |
| Average                                    | dB(A)     | 32,0                | 32,0                | 32,0                | 35,0                | 35,0                |
| Maximum                                    | dB(A)     | 36,0                | 36,0                | 36,0                | 40,0                | 40,0                |
| <b>Refrigeration pipework</b>              |           |                     |                     |                     |                     |                     |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         | 6,35 (1/4")         |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")         | 9,52 (3/8")         | 12,7 (1/2")         | 12,7 (1/2")         | 12,7 (1/2")         |
| <b>Power supply</b>                        |           |                     |                     |                     |                     |                     |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     | 220-240V ~ 50Hz     |
| <b>Indoor unit</b>                         |           |                     |                     |                     |                     |                     |
| Condensate discharge diameter              | mm        | 25,0                | 25,0                | 25,0                | 25,0                | 25,0                |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_F

|  |           | MVA281F              | MVA361F              | MVA501F              | MVA561F              | MVA631F              | MVA711F              | MVA901F              | MVA1121F             | MVA1251F             | MVA1401F             | MVA1601F             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 2,80                 | 3,60                 | 5,00                 | 5,60                 | 6,30                 | 7,10                 | 9,00                 | 11,20                | 12,50                | 14,00                | 16,00                |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 3,20                 | 4,00                 | 5,60                 | 6,30                 | 7,10                 | 8,00                 | 10,00                | 12,50                | 14,00                | 16,00                | 18,00                |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 35                   | 35                   | 55                   | 55                   | 80                   | 80                   | 120                  | 120                  | 120                  | 150                  | 175                  |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 450                  | 450                  | 600                  | 600                  | 1050                 | 1050                 | 1250                 | 1400                 | 1400                 | 1600                 | 1650                 |
| Average                                    | m³/h      | 500                  | 500                  | 650                  | 650                  | 1200                 | 1200                 | 1400                 | 1600                 | 1600                 | 1750                 | 1850                 |
| Maximum                                    | m³/h      | 600                  | 600                  | 750                  | 750                  | 1350                 | 1350                 | 1550                 | 1800                 | 1800                 | 2000                 | 2150                 |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 45,0                 | 45,0                 | 48,0                 | 48,0                 | 54,0                 | 54,0                 | 54,0                 | 54,0                 | 54,0                 | 55,0                 | 57,0                 |
| Average                                    | dB(A)     | 48,0                 | 48,0                 | 51,0                 | 51,0                 | 57,0                 | 57,0                 | 56,0                 | 56,0                 | 56,0                 | 57,0                 | 60,0                 |
| Maximum                                    | dB(A)     | 52,0                 | 52,0                 | 54,0                 | 54,0                 | 60,0                 | 60,0                 | 59,0                 | 59,0                 | 59,0                 | 61,0                 | 64,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 29,0                 | 29,0                 | 36,0                 | 36,0                 | 38,0                 | 38,0                 | 41,0                 | 42,0                 | 42,0                 | 43,0                 | 45,0                 |
| Average                                    | dB(A)     | 32,0                 | 32,0                 | 39,0                 | 39,0                 | 41,0                 | 41,0                 | 44,0                 | 44,0                 | 44,0                 | 45,0                 | 48,0                 |
| Maximum                                    | dB(A)     | 36,0                 | 36,0                 | 42,0                 | 42,0                 | 44,0                 | 44,0                 | 47,0                 | 47,0                 | 47,0                 | 49,0                 | 52,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")          | 12,7 (1/2")          | 12,7 (1/2")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 15,9 (5/8")          | 19,05 (3/4")         |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 | 17,0                 |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.

(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.



## MVA\_FS

|  |           | MVA220FS             | MVA280FS             | MVA360FS             | MVA450FS             | MVA500FS             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |                      |                      |                      |
| Cooling capacity (1)                       | kW        | 2,20                 | 2,80                 | 3,60                 | 4,50                 | 5,00                 |
| <b>Nominal heating performances</b>        |           |                      |                      |                      |                      |                      |
| Heating capacity (2)                       | kW        | 2,50                 | 3,20                 | 4,00                 | 5,00                 | 5,50                 |
| <b>Electric data</b>                       |           |                      |                      |                      |                      |                      |
| Rated power input (3)                      | W         | 15                   | 15                   | 20                   | 40                   | 40                   |
| <b>Fan</b>                                 |           |                      |                      |                      |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |                      |                      |                      |
| Minimum                                    | m³/h      | 270                  | 270                  | 310                  | 500                  | 500                  |
| Average                                    | m³/h      | 320                  | 320                  | 400                  | 600                  | 600                  |
| Maximum                                    | m³/h      | 400                  | 400                  | 480                  | 680                  | 680                  |
| <b>Sound power (4)</b>                     |           |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 37,0                 | 37,0                 | 42,0                 | 49,0                 | 49,0                 |
| Average                                    | dB(A)     | 43,0                 | 43,0                 | 47,0                 | 53,0                 | 53,0                 |
| Maximum                                    | dB(A)     | 48,0                 | 48,0                 | 50,0                 | 56,0                 | 56,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |                      |                      |                      |
| Minimum                                    | dB(A)     | 27,0                 | 27,0                 | 32,0                 | 39,0                 | 39,0                 |
| Average                                    | dB(A)     | 33,0                 | 33,0                 | 37,0                 | 43,0                 | 43,0                 |
| Maximum                                    | dB(A)     | 38,0                 | 38,0                 | 40,0                 | 46,0                 | 46,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |                      |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          | 6,35 (1/4")          |
| Diameter of refrigerant gas connections    | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          | 12,7 (1/2")          | 12,7 (1/2")          | 12,7 (1/2")          |
| <b>Power supply</b>                        |           |                      |                      |                      |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |                      |                      |                      |
| Condensate discharge diameter              | mm        | 17,2                 | 17,2                 | 17,2                 | 17,2                 | 17,2                 |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_V

|  |           | MVA1000V             | MVA1400V             |
|--|-----------|----------------------|----------------------|
| <b>Nominal cooling performances</b>        |           |                      |                      |
| Cooling capacity (1)                       | kW        | 10,00                | 14,00                |
| <b>Nominal heating performances</b>        |           |                      |                      |
| Heating capacity (2)                       | kW        | 11,00                | 15,00                |
| <b>Electric data</b>                       |           |                      |                      |
| Rated power input (3)                      | W         | 200                  | 200                  |
| <b>Fan</b>                                 |           |                      |                      |
| Type                                       | type      | Inverter centrifugal | Inverter centrifugal |
| <b>Air flow rate</b>                       |           |                      |                      |
| Minimum                                    | m³/h      | 1400                 | 1400                 |
| Average                                    | m³/h      | 1600                 | 1600                 |
| Maximum                                    | m³/h      | 1850                 | 1850                 |
| <b>Sound power (4)</b>                     |           |                      |                      |
| Minimum                                    | dB(A)     | 56,0                 | 56,0                 |
| Average                                    | dB(A)     | 58,0                 | 58,0                 |
| Maximum                                    | dB(A)     | 60,0                 | 60,0                 |
| <b>Sound pressure (5)</b>                  |           |                      |                      |
| Minimum                                    | dB(A)     | 46,0                 | 46,0                 |
| Average                                    | dB(A)     | 48,0                 | 48,0                 |
| Maximum                                    | dB(A)     | 50,0                 | 50,0                 |
| <b>Refrigeration pipework</b>              |           |                      |                      |
| Diameter of liquid refrigerant connections | mm (inch) | 9,52 (3/8")          | 9,52 (3/8")          |
| Diameter of refrigerant gas connections    | mm (inch) | 15,9 (5/8")          | 15,9 (5/8")          |
| <b>Power supply</b>                        |           |                      |                      |
| Indoor unit power supply                   |           | 220-240V ~ 50Hz      | 220-240V ~ 50Hz      |
| <b>Indoor unit</b>                         |           |                      |                      |
| Condensate discharge diameter              | mm        | 31,0                 | 31,0                 |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.  
(4) Sound power calculated in free field, in accordance with UNI EN ISO 3744.  
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

## MVA\_ERV

|  |                       | MVA500ERV       | MVA800ERV       | MVA1000ERV      |
|--|-----------------------|-----------------|-----------------|-----------------|
| <b>Nominal cooling performances</b>                |                       |                 |                 |                 |
| Cooling capacity (1)                               | kW                    | 8,50            | 12,00           | 14,50           |
| Cooling capacity of finned pack heat exchanger (2) | kW                    | 3,60            | 6,30            | 8,00            |
| <b>Nominal heating performances</b>                |                       |                 |                 |                 |
| Heating capacity (3)                               | kW                    | 4,00            | 10,60           | 12,00           |
| Heating capacity of finned pack heat exchanger     | kW                    | 2,00            | 8,04            | 8,40            |
| <b>Heat recovery unit</b>                          |                       |                 |                 |                 |
| Unit type  |                       | UVNR            | UVNR            | UVNR            |
| Thermal efficiency (4)                             | %                     | 73              | 74              | 73              |
| <b>Fans</b>  |                       |                 |                 |                 |
| Commissioning                                      | type                  | Speed variator  | Speed variator  | Speed variator  |
| SFP int  | W/(m <sup>3</sup> /s) | 1099,57         | 1118,00         | 1059,20         |
| Nominal external pressure Δp (5)                   | Pa                    | 150             | 150             | 150             |
| Type of fan  | Type                  | Centrifugal     | Centrifugal     | Centrifugal     |
| Nominal air flow rate                              | m <sup>3</sup> /h     | 500             | 800             | 1000            |
| <b>Sound data</b>                                  |                       |                 |                 |                 |
| Sound power level                                  | dB(A)                 | 55,0            | 59,0            | 62,0            |
| <b>General data</b>                                |                       |                 |                 |                 |
| Rated power input                                  | W                     | 270             | 440             | 640             |
| Diameter of liquid refrigerant connections         | mm (inch)             | 7,89 (5/16")    | 9,52 (3/8")     | 9,52 (3/8")     |
| Diameter of refrigerant gas connections            | mm (inch)             | 12,7 (1/2")     | 15,9 (5/8")     | 15,9 (5/8")     |
| Condensate discharge diameter                      | mm                    | 26,0            | 26,0            | 26,0            |
| <b>Heat recovery unit</b>                          |                       |                 |                 |                 |
| Power supply                                       |                       | 220-240V ~ 50Hz | 220-240V ~ 50Hz | 220-240V ~ 50Hz |

(1) Cooling: room air temperature 27 °C d.b. / 19.5 °C w.b.; outside air temperature 35 °C; turbo speed; cooling line length 5 m; indoor and outdoor units at the same height.

(2) Use the finned pack heat exchanger power (cooling) to make the calculation and select the unit.

(3) Heating: room air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; cooling line length 5 m; indoor and outdoor units at the same height.

(4) Thermal efficiency complying with European regulation EU 1253/2014.

(5) Performances referring to clean filters.

The air flow rate is calculated on the basis of the nominal high static pressure at high fan speed. It may vary according to the real installation conditions.

The nominal static pressure is the effective pressure value declared for a standard unit when it leaves the factory. The use of other filters may alter the unit performance values.

## 2-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

|                                     |       | MVAS 1201S      | MVAS 1201T         | MVAS 1401S      | MVAS 1401T         | MVAS 1601S      | MVAS 1601T         |
|-------------------------------------|-------|-----------------|--------------------|-----------------|--------------------|-----------------|--------------------|
| <b>Nominal cooling performances</b> |       |                 |                    |                 |                    |                 |                    |
| Cooling capacity (1)                | kW    | 12,10           | 12,10              | 14,00           | 14,00              | 16,00           | 16,00              |
| Cooling input power (1)             | kW    | 3,03            | 3,03               | 3,59            | 3,59               | 4,75            | 4,75               |
| <b>Nominal heating performances</b> |       |                 |                    |                 |                    |                 |                    |
| Heating capacity (2)                | kW    | 14,00           | 14,00              | 16,50           | 16,50              | 18,00           | 18,00              |
| Heating input power (2)             | kW    | 3,27            | 3,27               | 3,95            | 3,95               | 4,65            | 4,65               |
| <b>Fan</b>                          |       |                 |                    |                 |                    |                 |                    |
| Type                                | type  | Inverter axial  | Inverter axial     | Inverter axial  | Inverter axial     | Inverter axial  | Inverter axial     |
| Number                              | no.   | 2               | 2                  | 2               | 2                  | 2               | 2                  |
| <b>Air flow rate</b>                |       |                 |                    |                 |                    |                 |                    |
| Nominal                             | m³/h  | 6000            | 6000               | 6300            | 6300               | 6600            | 6600               |
| <b>Sound pressure (3)</b>           |       |                 |                    |                 |                    |                 |                    |
| Nominal                             | dB(A) | 57,0            | 57,0               | 58,0            | 58,0               | 58,0            | 58,0               |
| <b>Compressor</b>                   |       |                 |                    |                 |                    |                 |                    |
| Type                                | type  | Scroll inverter | Scroll inverter    | Scroll inverter | Scroll inverter    | Scroll inverter | Scroll inverter    |
| Number                              | no.   | 1               | 1                  | 1               | 1                  | 1               | 1                  |
| Refrigerant                         | type  | R410A           | R410A              | R410A           | R410A              | R410A           | R410A              |
| Refrigerant charge                  | kg    | 3,3             | 3,3                | 3,3             | 3,3                | 3,3             | 3,3                |
| <b>Electric data</b>                |       |                 |                    |                 |                    |                 |                    |
| Rated current input (4)             | A     | 30,4            | 11,1               | 33,7            | 12,0               | 36,3            | 12,5               |
| <b>Refrigeration pipework</b>       |       |                 |                    |                 |                    |                 |                    |
| Maximum refrigerant tube length     | m     | 300             | 300                | 300             | 300                | 300             | 300                |
| <b>Power supply</b>                 |       |                 |                    |                 |                    |                 |                    |
| Outdoor unit power supply           |       | 220-245V ~ 50Hz | 380-415V ~ 3N 50Hz | 220-245V ~ 50Hz | 380-415V ~ 3N 50Hz | 220-245V ~ 50Hz | 380-415V ~ 3N 50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

(4) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|  |       | MVAS 2242T         | MVAS 2803T         | MVAS 3352T         |
|--|-------|--------------------|--------------------|--------------------|
| <b>Nominal cooling performances</b>          |       |                    |                    |                    |
| Cooling capacity (1)                         | kW    | 22,40              | 28,00              | 33,50              |
| Cooling input power (1)                      | kW    | 6,12               | 13,02              | 12,88              |
| <b>Nominal heating performances</b>          |       |                    |                    |                    |
| Heating capacity (2)                         | kW    | 22,40              | 28,00              | 33,50              |
| Heating input power (2)                      | kW    | 4,90               | 8,00               | 10,47              |
| <b>Fan</b>                                   |       |                    |                    |                    |
| Type   | type  | Inverter axial     | Inverter axial     | Inverter axial     |
| Number                                       | no.   | 2                  | 2                  | 2                  |
| <b>Air flow rate</b>                         |       |                    |                    |                    |
| Nominal                                      | m³/h  | 8000               | 11000              | 11000              |
| <b>Sound data calculated in cooling mode</b> |       |                    |                    |                    |
| Maximum sound pressure level                 | dB(A) | 58,0               | 62,0               | 62,0               |
| Maximum sound power level                    | dB(A) | 78,0               | 80,0               | 80,0               |
| <b>Sound data calculated in heating mode</b> |       |                    |                    |                    |
| Maximum sound pressure level                 | dB(A) | 58,0               | 64,0               | 64,0               |
| Maximum sound power level                    | dB(A) | 79,0               | 82,0               | 82,0               |
| <b>Compressor</b>                            |       |                    |                    |                    |
| Type   | type  | Rotary             | Rotary             | Rotary             |
| Number                                       | no.   | 1                  | 1                  | 1                  |
| Refrigerant                                  | type  | R410A              | R410A              | R410A              |
| Refrigerant charge                           | kg    | 5,5                | 7,1                | 8,5                |
| <b>Electric data</b>                         |       |                    |                    |                    |
| Rated current input (3)                      | A     | 17,2               | 22,5               | 24,5               |
| <b>Refrigeration pipework</b>                |       |                    |                    |                    |
| Maximum refrigerant tube length              | m     | 300                | 300                | 300                |
| <b>Power supply</b>                          |       |                    |                    |                    |
| Outdoor unit power supply                    |       | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz |

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.

(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

|  |           | MVBM 2240T       | MVBM 2800T       | MVBM 3350T       | MVBM 4000T       | MVBM 4500T       | MVBM 5040T       | MVBM 5600T       | MVBM 6150T       |
|--|-----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Nominal cooling performances</b>        |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Cooling capacity (1)                       | kW        | 22,40 (2)        | 28,00 (2)        | 33,50 (2)        | 40,00 (2)        | 45,00 (2)        | 50,40 (2)        | 52,00 (2)        | 52,00 (2)        |
| <b>Maximum cooling performances</b>        |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Cooling capacity                           | kW        | 22,40            | 28,00            | 33,50            | 40,00            | 45,00            | 50,40            | 56,00            | 61,50            |
| <b>Nominal heating performances</b>        |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Heating capacity (3)                       | kW        | 22,40 (2)        | 28,00 (2)        | 33,50 (2)        | 40,00 (2)        | 45,00 (2)        | 50,40 (2)        | 56,00 (2)        | 56,00 (2)        |
| <b>Maximum heating performances</b>        |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Heating capacity                           | kW        | 25,00            | 31,50            | 37,50            | 45,00            | 50,00            | 56,50            | 63,00            | 69,00            |
| <b>Fan</b>                                 |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Type                                       | type      | Inverter axial   | Inverter axial   | Inverter axial   | Inverter axial   | Inverter axial   | Inverter axial   | Inverter axial   | Inverter axial   |
| Number                                     | no.       | 1                | 1                | 1                | 2                | 2                | 2                | 2                | 2                |
| <b>Air flow rate</b>                       |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Nominal                                    | m³/h      | 9750             | 10500            | 11100            | 13500            | 15400            | 16000            | 16500            | 16500            |
| <b>Sound pressure (4)</b>                  |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Nominal                                    | dB(A)     | 56,0             | 57,0             | 59,0             | 59,0             | 60,0             | 61,0             | 62,0             | 63,0             |
| <b>Compressor</b>                          |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Type                                       | type      | Scroll inverter  | Scroll inverter  | Scroll inverter  | Scroll inverter  | Scroll inverter  | Scroll inverter  | Scroll inverter  | Scroll inverter  |
| Number                                     | no.       | 1                | 1                | 1                | 1                | 1                | 2                | 2                | 2                |
| Refrigerant                                | type      | R410A            | R410A            | R410A            | R410A            | R410A            | R410A            | R410A            | R410A            |
| Refrigerant charge                         | kg        | 5,5              | 5,5              | 7,5              | 7,5              | 7,5              | 8,3              | 8,3              | 8,3              |
| <b>Electric data</b>                       |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Rated current input (5)                    | A         | 23,0             | 23,5             | 24,1             | 37,5             | 39,3             | 47,0             | 48,0             | 49,0             |
| <b>Refrigeration pipework</b>              |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Type refrigerant connections               | Type      | To be soldered   | To be soldered   | To be soldered   | To be soldered   | To be soldered   | To be soldered   | To be soldered   | To be soldered   |
| Diameter of liquid refrigerant connections | mm (inch) | 9,52 (3/8")      | 9,52 (3/8")      | 12,7 (1/2")      | 12,7 (1/2")      | 12,7 (1/2")      | 15,9 (5/8")      | 15,9 (5/8")      | 15,9 (5/8")      |
| Diameter of refrigerant gas connections    | mm (inch) | 19,05 (3/4")     | 22,2 (7/8")      | 25,4 (1")        | 25,4 (1")        | 28,6 (1 1/8")    | 28,6 (1 1/8")    | 28,6 (1 1/8")    | 28,6 (1 1/8")    |
| Maximum refrigerant tube length            | m         | 1000             | 1000             | 1000             | 1000             | 1000             | 1000             | 1000             | 1000             |
| <b>Power supply</b>                        |           |                  |                  |                  |                  |                  |                  |                  |                  |
| Outdoor unit power supply                  |           | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz | 380-415V~3N 50Hz |

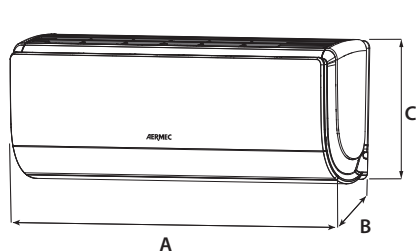
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) the cooling capacity of the system actually selected may be different from the value shown in the table; to determine the cooling performance data of each MVBM system refer to the selection software  
(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.  
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

### 3-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

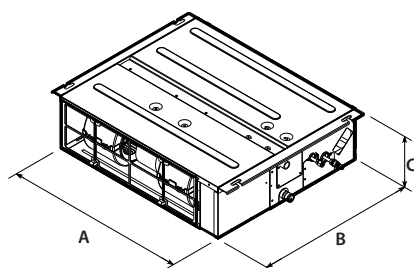
|   |           | MVBHR2240T         | MVBHR2800T         | MVBHR3350T         | MVBHR4000T         | MVBHR4500T         | MVBHR5040T         | MVBHR5600T         | MVBHR6150T         |
|---|-----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Nominal cooling performances</b>                   |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Cooling capacity (1)                                  | kW        | 22,40              | 28,00              | 33,50              | 40,00              | 45,00              | 50,40              | 52,00              | 52,00              |
| <b>Maximum cooling performances</b>                   |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Cooling capacity                                      | kW        | 22,40              | 28,00              | 33,50              | 40,00              | 45,00              | 50,40              | 56,00              | 61,50              |
| <b>Nominal heating performances</b>                   |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Heating capacity (2)                                  | kW        | 22,40              | 28,00              | 33,50              | 40,00              | 45,00              | 50,40              | 56,00              | 56,00              |
| <b>Maximum heating performances</b>                   |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Heating capacity                                      | kW        | 25,00              | 31,50              | 37,50              | 45,00              | 50,00              | 56,50              | 63,00              | 69,00              |
| <b>Fan</b>  |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Type  | type      | Inverter axial     | Inverter axial     | Inverter axial     | Inverter axial     | Inverter axial     | Inverter axial     | Inverter axial     | Inverter axial     |
| Number  | no.       | 1                  | 1                  | 1                  | 2                  | 2                  | 2                  | 2                  | 2                  |
| <b>Air flow rate</b>                                  |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Maximum   | m³/h      | 9750               | 10500              | 11100              | 13500              | 15400              | 16000              | 16500              | 16500              |
| <b>Compressor</b>                                     |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Type  | type      | Scroll inverter    | Scroll inverter    | Scroll inverter    | Scroll inverter    | Scroll inverter    | Scroll inverter    | Scroll inverter    | Scroll inverter    |
| Number  | no.       | 1                  | 1                  | 1                  | 1                  | 1                  | 2                  | 2                  | 2                  |
| Refrigerant charge                                    | kg        | 8,2                | 8,5                | 9,6                | 11,1               | 11,6               | 12,8               | 12,8               | 13,3               |
| <b>Electric data</b>                                  |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Rated current input (3)                               | A         | 23,0               | 23,5               | 24,1               | 37,5               | 39,3               | 47,0               | 48,0               | 49,0               |
| <b>Refrigeration pipework</b>                         |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Type refrigerant connections                          | Type      | To be soldered     | To be soldered     | To be soldered     | To be soldered     | To be soldered     | To be soldered     | To be soldered     | To be soldered     |
| Diameter of liquid refrigerant connections            | mm (inch) | 9,52 (3/8")        | 9,52 (3/8")        | 12,7 (1/2")        | 12,7 (1/2")        | 12,7 (1/2")        | 15,9 (5/8")        | 15,9 (5/8")        | 15,9 (5/8")        |
| Diameter of low pressure refrigerant gas connections  | mm (inch) | 19,05 (3/4")       | 22,2 (7/8")        | 25,4 (1")          | 25,4 (1")          | 28,6 (1 1/8")      | 28,6 (1 1/8")      | 28,6 (1 1/8")      | 28,6 (1 1/8")      |
| Diameter of high pressure refrigerant gas connections | mm (inch) | 15,9 (5/8")        | 19,05 (3/4")       | 19,05 (3/4")       | 22,2 (7/8")        | 22,2 (7/8")        | 25,4 (1")          | 25,4 (1")          | 25,4 (1")          |
| Maximum refrigerant tube length                       | m         | 1000               | 1000               | 1000               | 1000               | 1000               | 1000               | 1000               | 1000               |
| <b>Power supply</b>                                   |           |                    |                    |                    |                    |                    |                    |                    |                    |
| Outdoor unit power supply                             |           | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz | 380-415V ~ 3N 50Hz |

- (1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.  
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.  
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

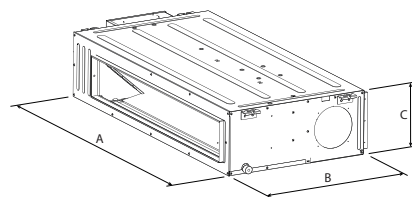
## INDOOR UNIT WEIGHTS AND DIMENSIONS



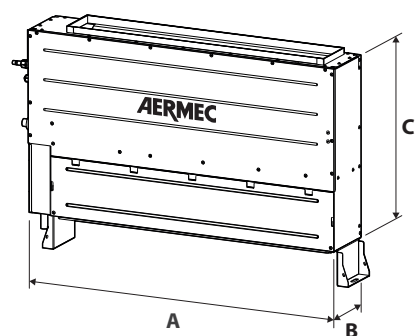
MVA\_WL



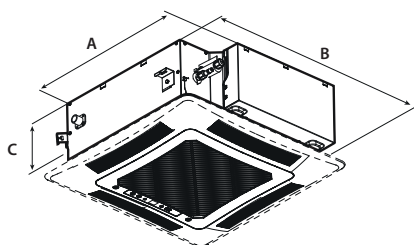
MVA\_D



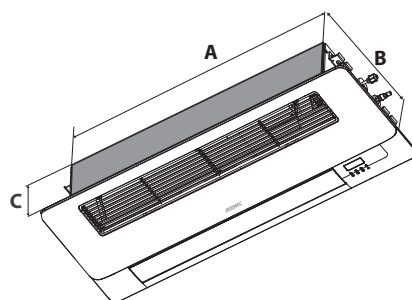
MVA\_DH



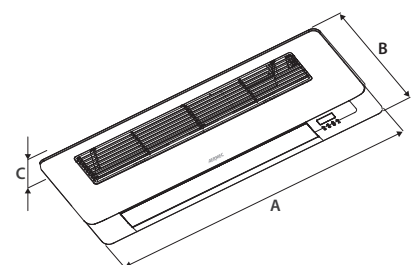
MVA\_DV



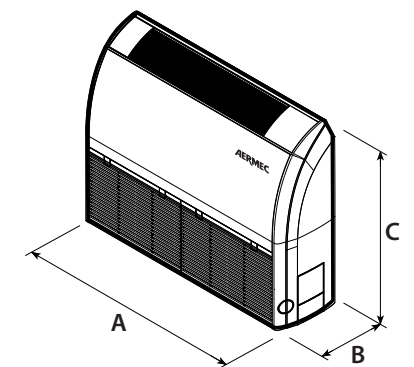
MVA\_C / MVA\_CS



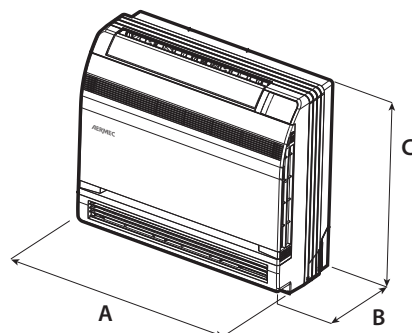
MVA\_C1



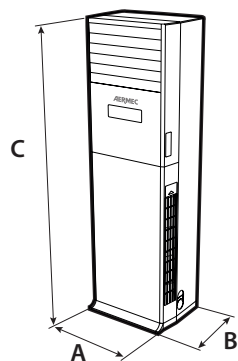
GLC1



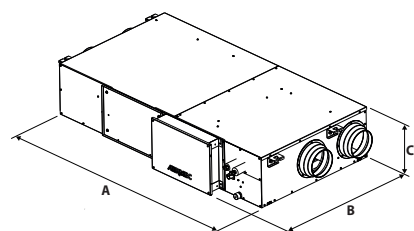
MVA\_F



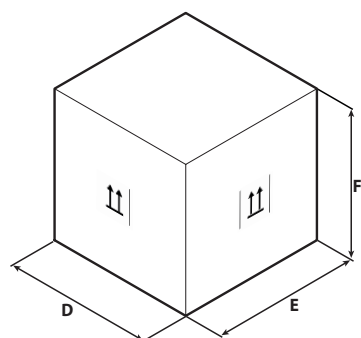
MVA\_FS



MVA\_V



MVA\_ERV



Carton Box Example

## MVA\_WL

|                      |    | MVA220WL | MVA280WL | MVA360WL | MVA450WL | MVA500WL | MVA560WL | MVA630WL | MVA710WL |
|----------------------|----|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |          |          |          |
| A                    | mm | 845      | 845      | 845      | 970      | 970      | 1078     | 1078     | 1078     |
| B                    | mm | 209      | 209      | 209      | 224      | 224      | 246      | 246      | 246      |
| C                    | mm | 289      | 289      | 289      | 300      | 300      | 325      | 325      | 325      |
| D                    | mm | 976      | 976      | 976      | 1096     | 1096     | 1203     | 1203     | 1203     |
| E                    | mm | 281      | 281      | 281      | 320      | 320      | 350      | 350      | 350      |
| F                    | mm | 379      | 379      | 379      | 383      | 383      | 413      | 413      | 413      |
| Net weight           | kg | 11,0     | 11,0     | 11,0     | 13,0     | 13,0     | 16,0     | 16,0     | 16,0     |
| Weight for transport | kg | 13,0     | 13,0     | 13,0     | 16,0     | 16,0     | 19,0     | 19,0     | 19,0     |

## MVA\_D

|                      |    | MVA222D | MVA252D | MVA282D | MVA322D | MVA362D | MVA402D |
|----------------------|----|---------|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |         |
| A                    | mm | 710     | 710     | 710     | 710     | 710     | 1010    |
| B                    | mm | 462     | 462     | 462     | 462     | 462     | 462     |
| C                    | mm | 200     | 200     | 200     | 200     | 200     | 200     |
| D                    | mm | 1008    | 1008    | 1008    | 1008    | 1008    | 1308    |
| E                    | mm | 568     | 568     | 568     | 568     | 568     | 568     |
| F                    | mm | 275     | 275     | 275     | 275     | 275     | 275     |
| Net weight           | kg | 18,5    | 18,5    | 18,5    | 19,0    | 19,0    | 24,0    |
| Weight for transport | kg | 23,5    | 23,5    | 23,5    | 24,0    | 24,0    | 30,0    |

|                      |    | MVA452D | MVA502D | MVA562D | MVA632D | MVA712D | MVA802D |
|----------------------|----|---------|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |         |
| A                    | mm | 1010    | 1010    | 1010    | 1010    | 1310    | 1310    |
| B                    | mm | 462     | 462     | 462     | 462     | 462     | 462     |
| C                    | mm | 200     | 200     | 200     | 200     | 200     | 200     |
| D                    | mm | 1308    | 1308    | 1308    | 1308    | 1608    | 1608    |
| E                    | mm | 568     | 568     | 568     | 568     | 568     | 568     |
| F                    | mm | 275     | 275     | 275     | 275     | 275     | 275     |
| Net weight           | kg | 24,0    | 24,0    | 25,0    | 25,0    | 31,0    | 31,0    |
| Weight for transport | kg | 30,0    | 30,0    | 31,0    | 31,0    | 37,5    | 37,5    |

|                      |    | MVA901D | MVA1001D | MVA1121D | MVA1251D | MVA1401D |
|----------------------|----|---------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |         |          |          |          |          |
| A                    | mm | 1340    | 1340     | 1340     | 1340     | 1340     |
| B                    | mm | 655     | 655      | 655      | 655      | 655      |
| C                    | mm | 260     | 260      | 260      | 260      | 260      |
| D                    | mm | 1588    | 1588     | 1588     | 1588     | 1588     |
| E                    | mm | 858     | 858      | 858      | 858      | 858      |
| F                    | mm | 315     | 315      | 315      | 315      | 315      |
| Net weight           | kg | 46,0    | 46,0     | 46,0     | 47,0     | 47,0     |
| Weight for transport | kg | 55,0    | 55,0     | 55,0     | 56,0     | 56,0     |

## MVA\_DV

|                      |    | MVA220DV | MVA280DV | MVA360DV | MVA450DV | MVA560DV | MVA630DV | MVA710DV |
|----------------------|----|----------|----------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |          |          |
| A                    | mm | 700      | 700      | 700      | 900      | 1100     | 1100     | 1100     |
| B                    | mm | 200      | 200      | 200      | 200      | 200      | 200      | 200      |
| C                    | mm | 615      | 615      | 615      | 615      | 615      | 615      | 615      |
| D                    | mm | 893      | 893      | 893      | 1123     | 1323     | 1323     | 1323     |
| E                    | mm | 305      | 305      | 305      | 305      | 305      | 305      | 305      |
| F                    | mm | 743      | 743      | 743      | 743      | 743      | 743      | 743      |
| Net weight           | kg | 23,0     | 23,0     | 23,0     | 27,0     | 32,0     | 32,0     | 32,0     |
| Weight for transport | kg | 30,0     | 30,0     | 30,0     | 36,0     | 41,0     | 41,0     | 41,0     |

## MVA\_DH

|                      |    | MVA222DH | MVA252DH | MVA282DH | MVA322DH | MVA362DH | MVA402DH | MVA452DH | MVA502DH | MVA562DH |
|----------------------|----|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |          |          |          |          |
| A                    | mm | 700      | 700      | 700      | 700      | 700      | 700      | 700      | 700      | 1000     |
| B                    | mm | 700      | 700      | 700      | 700      | 700      | 700      | 700      | 700      | 700      |
| C                    | mm | 300      | 300      | 300      | 300      | 300      | 300      | 300      | 300      | 300      |
| D                    | mm | 897      | 897      | 897      | 897      | 897      | 897      | 897      | 897      | 1205     |
| E                    | mm | 808      | 808      | 808      | 808      | 808      | 808      | 808      | 808      | 813      |
| F                    | mm | 360      | 360      | 360      | 360      | 360      | 360      | 360      | 360      | 360      |
| Net weight           | kg | 30,5     | 30,5     | 30,5     | 30,5     | 30,5     | 31,5     | 31,5     | 31,5     | 40,5     |
| Weight for transport | kg | 36,0     | 36,0     | 36,0     | 36,0     | 36,0     | 37,0     | 37,0     | 37,0     | 46,5     |

|                      |    | MVA632DH | MVA712DH | MVA802DH | MVA902DH | MVA1002DH | MVA1122DH | MVA1252DH | MVA1402DH | MVA1602DH |
|----------------------|----|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>Indoor unit</b>   |    |          |          |          |          |           |           |           |           |           |
| A                    | mm | 1000     | 1000     | 1000     | 1400     | 1400      | 1400      | 1400      | 1400      | 1400      |
| B                    | mm | 700      | 700      | 700      | 700      | 700       | 700       | 700       | 700       | 700       |
| C                    | mm | 300      | 300      | 300      | 300      | 300       | 300       | 300       | 300       | 300       |
| D                    | mm | 1205     | 1205     | 1205     | 1600     | 1600      | 1600      | 1600      | 1600      | 1600      |
| E                    | mm | 813      | 813      | 813      | 813      | 813       | 813       | 813       | 813       | 813       |
| F                    | mm | 360      | 360      | 360      | 365      | 365       | 365       | 365       | 365       | 365       |
| Net weight           | kg | 40,5     | 41,0     | 41,0     | 54,0     | 54,0      | 54,0      | 54,0      | 54,5      | 54,5      |
| Weight for transport | kg | 46,5     | 47,0     | 47,0     | 61,0     | 61,0      | 61,0      | 61,0      | 61,5      | 61,5      |

|                      |    | MVA2240DH |       |  |  | MVA2800DH |       |  |  |
|----------------------|----|-----------|-------|--|--|-----------|-------|--|--|
| <b>Indoor unit</b>   |    |           |       |  |  |           |       |  |  |
| A                    | mm |           | 1483  |  |  |           | 1686  |  |  |
| B                    | mm |           | 791   |  |  |           | 870   |  |  |
| C                    | mm |           | 385   |  |  |           | 450   |  |  |
| D                    | mm |           | 1758  |  |  |           | 1788  |  |  |
| E                    | mm |           | 883   |  |  |           | 988   |  |  |
| F                    | mm |           | 470   |  |  |           | 580   |  |  |
| Net weight           | kg |           | 82,0  |  |  |           | 105,0 |  |  |
| Weight for transport | kg |           | 104,0 |  |  |           | 140,0 |  |  |

## MVA\_CS

|                      |    | MVA151CS | MVA181CS | MVA221CS | MVA281CS | MVA361CS | MVA451CS | MVA501CS | MVA561CS |
|----------------------|----|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |          |          |          |
| A                    | mm | 570      | 570      | 570      | 570      | 570      | 570      | 570      | 570      |
| B                    | mm | 570      | 570      | 570      | 570      | 570      | 570      | 570      | 570      |
| C                    | mm | 265      | 265      | 265      | 265      | 265      | 265      | 265      | 265      |
| D                    | mm | 698      | 698      | 698      | 698      | 698      | 698      | 698      | 698      |
| E                    | mm | 653      | 653      | 653      | 653      | 653      | 653      | 653      | 653      |
| F                    | mm | 295      | 295      | 295      | 295      | 295      | 295      | 295      | 295      |
| Net weight           | kg | 18,0     | 18,0     | 18,0     | 18,0     | 18,0     | 18,0     | 18,0     | 18,0     |
| Weight for transport | kg | 23,0     | 23,0     | 23,0     | 23,0     | 23,0     | 23,0     | 23,0     | 23,0     |

## MVA\_C

|                      |    | MVA221C | MVA281C | MVA361C | MVA451C | MVA501C | MVA561C | MVA631C | MVA711C |
|----------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |         |         |         |
| A                    | mm | 840     | 840     | 840     | 840     | 840     | 840     | 840     | 840     |
| B                    | mm | 840     | 840     | 840     | 840     | 840     | 840     | 840     | 840     |
| C                    | mm | 240     | 240     | 240     | 240     | 240     | 240     | 240     | 240     |
| D                    | mm | 963     | 963     | 963     | 963     | 963     | 963     | 963     | 963     |
| E                    | mm | 963     | 963     | 963     | 963     | 963     | 963     | 963     | 963     |
| F                    | mm | 325     | 325     | 325     | 325     | 325     | 325     | 325     | 325     |
| Net weight           | kg | 27,0    | 27,0    | 27,0    | 27,0    | 28,0    | 28,0    | 28,0    | 28,0    |
| Weight for transport | kg | 35,0    | 35,0    | 35,0    | 35,0    | 36,0    | 36,0    | 36,0    | 36,0    |

|                      |    | MVA801C | MVA901C | MVA1001C | MVA1121C | MVA1251C | MVA1401C | MVA1601C |
|----------------------|----|---------|---------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |         |         |          |          |          |          |          |
| A                    | mm | 840     | 840     | 840      | 840      | 840      | 840      | 840      |
| B                    | mm | 840     | 840     | 840      | 840      | 840      | 840      | 840      |
| C                    | mm | 240     | 240     | 240      | 290      | 290      | 290      | 290      |
| D                    | mm | 963     | 963     | 963      | 963      | 963      | 963      | 963      |
| E                    | mm | 963     | 963     | 963      | 963      | 963      | 963      | 963      |
| F                    | mm | 325     | 325     | 325      | 375      | 375      | 375      | 375      |
| Net weight           | kg | 29,0    | 29,0    | 29,0     | 33,0     | 33,0     | 33,0     | 36,0     |
| Weight for transport | kg | 37,0    | 37,0    | 37,0     | 42,0     | 42,0     | 42,0     | 44,0     |

## MVA\_C1

|                      |    | MVA220C1 | MVA280C1 | MVA360C1 | MVA450C1 | MVA500C1 |
|----------------------|----|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |
| A                    | mm | 987      | 987      | 987      | 987      | 987      |
| B                    | mm | 385      | 385      | 385      | 385      | 385      |
| C                    | mm | 178      | 178      | 178      | 178      | 178      |
| D                    | mm | 1307     | 1307     | 1307     | 1307     | 1307     |
| E                    | mm | 501      | 501      | 501      | 501      | 501      |
| F                    | mm | 310      | 310      | 310      | 310      | 310      |
| Net weight           | kg | 20,0     | 20,0     | 20,0     | 21,0     | 21,0     |
| Weight for transport | kg | 27,0     | 27,0     | 27,0     | 29,0     | 29,0     |

## MVA\_F

|                      |    | MVA280F | MVA281F | MVA360F | MVA361F | MVA500F | MVA501F | MVA561F | MVA630F | MVA631F | MVA710F |
|----------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Indoor unit</b>   |    |         |         |         |         |         |         |         |         |         |         |
| A                    | mm | 1220    | 870     | 1220    | 870     | 1220    | 870     | 870     | 1420    | 1200    | 1420    |
| B                    | mm | 225     | 235     | 225     | 235     | 225     | 235     | 235     | 245     | 235     | 245     |
| C                    | mm | 700     | 665     | 700     | 665     | 700     | 665     | 665     | 700     | 665     | 700     |
| D                    | mm | 1343    | 973     | 1343    | 973     | 1343    | 973     | 973     | 1548    | 1303    | 1548    |
| E                    | mm | 315     | 300     | 315     | 300     | 315     | 300     | 300     | 345     | 300     | 345     |
| F                    | mm | 823     | 770     | 823     | 770     | 823     | 770     | 770     | 828     | 770     | 828     |
| Net weight           | kg | 40,0    | 24,0    | 40,0    | 24,0    | 40,0    | 25,0    | 25,0    | 50,0    | 32,0    | 50,0    |
| Weight for transport | kg | 49,0    | 29,0    | 49,0    | 29,0    | 49,0    | 30,0    | 30,0    | 58,0    | 38,0    | 58,0    |

|                      |    | MVA711F | MVA900F | MVA901F | MVA1120F | MVA1121F | MVA1250F | MVA1251F | MVA1400F | MVA1401F | MVA1601F |
|----------------------|----|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |         |         |         |          |          |          |          |          |          |          |
| A                    | mm | 1200    | 1420    | 1200    | 1700     | 1570     | 1700     | 1570     | 1700     | 1570     | 1570     |
| B                    | mm | 235     | 245     | 235     | 245      | 235      | 245      | 235      | 245      | 235      | 235      |
| C                    | mm | 665     | 700     | 665     | 700      | 665      | 700      | 665      | 700      | 665      | 665      |
| D                    | mm | 1303    | 1548    | 1303    | 1828     | 1669     | 1828     | 1669     | 1828     | 1669     | 1669     |
| E                    | mm | 300     | 345     | 300     | 345      | 300      | 345      | 300      | 345      | 300      | 300      |
| F                    | mm | 770     | 828     | 770     | 828      | 770      | 828      | 770      | 828      | 770      | 770      |
| Net weight           | kg | 32,0    | 50,0    | 33,0    | 60,0     | 41,0     | 60,0     | 41,0     | 60,0     | 43,0     | 43,0     |
| Weight for transport | kg | 38,0    | 58,0    | 39,0    | 68,0     | 48,0     | 68,0     | 48,0     | 68,0     | 50,0     | 50,0     |

## MVA\_FS

|                      |    | MVA220FS | MVA280FS | MVA360FS | MVA450FS | MVA500FS |
|----------------------|----|----------|----------|----------|----------|----------|
| <b>Indoor unit</b>   |    |          |          |          |          |          |
| A                    | mm | 700      | 700      | 700      | 700      | 700      |
| B                    | mm | 215      | 215      | 215      | 215      | 215      |
| C                    | mm | 600      | 600      | 600      | 600      | 600      |
| D                    | mm | 780      | 780      | 780      | 780      | 780      |
| E                    | mm | 285      | 285      | 285      | 285      | 285      |
| F                    | mm | 682      | 682      | 682      | 682      | 682      |
| Net weight           | kg | 16,0     | 16,0     | 16,0     | 16,0     | 16,0     |
| Weight for transport | kg | 19,0     | 19,0     | 19,0     | 19,0     | 19,0     |

## MVA\_V

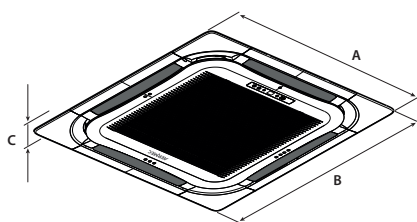
|                      |    | MVA1000V | MVA1400V |
|----------------------|----|----------|----------|
| <b>Indoor unit</b>   |    |          |          |
| A                    | mm | 580      | 580      |
| B                    | mm | 400      | 400      |
| C                    | mm | 1870     | 1870     |
| D                    | mm | 738      | 738      |
| E                    | mm | 545      | 545      |
| F                    | mm | 2083     | 2083     |
| Net weight           | kg | 54,0     | 57,0     |
| Weight for transport | kg | 74,0     | 77,0     |

## MVA\_ERV

|                               |    | MVA500ERV | MVA800ERV | MVA1000ERV |
|-------------------------------|----|-----------|-----------|------------|
| <b>Dimensions and weights</b> |    |           |           |            |
| A                             | mm | 1700      | 1800      | 1800       |
| B                             | mm | 880       | 1185      | 1185       |
| C                             | mm | 340       | 390       | 390        |
| D                             | mm | 1988      | 2110      | 2110       |
| E                             | mm | 1138      | 1440      | 1440       |
| F                             | mm | 535       | 567       | 567        |
| Net weight                    | kg | 120,0     | 158,0     | 158,0      |
| Weight for transport          | kg | 175,0     | 225,0     | 225,0      |



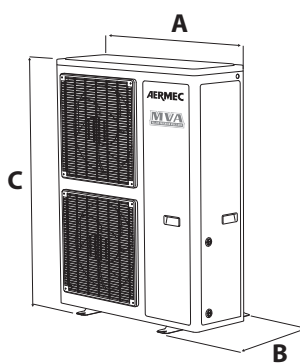
## GLC1 / GL40B / GLG40S / GLG40



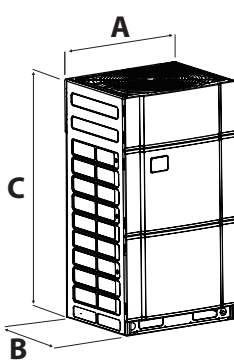
GLG40S / GLG40 / GL40B

|                      |    | GLC1 | GL40B | GLG40S | GLG40 |
|----------------------|----|------|-------|--------|-------|
| <b>Indoor unit</b>   |    |      |       |        |       |
| A                    | mm | 1200 | 1040  | 620    | 950   |
| B                    | mm | 460  | 1040  | 620    | 950   |
| C                    | mm | 55   | 65    | 48     | 52    |
| D                    | mm | 1265 | 1137  | 701    | 1033  |
| E                    | mm | 536  | 1137  | 701    | 1038  |
| F                    | mm | 118  | 140   | 125    | 112   |
| Net weight           | kg | 4,0  | 8,0   | 3,0    | 6,0   |
| Weight for transport | kg | 6,0  | 12,0  | 5,0    | 10,0  |

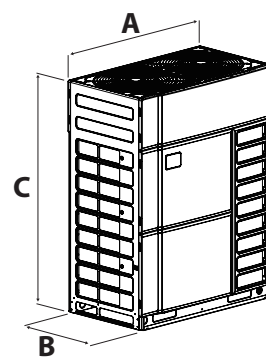
## OUTDOOR UNIT WEIGHTS AND DIMENSIONS



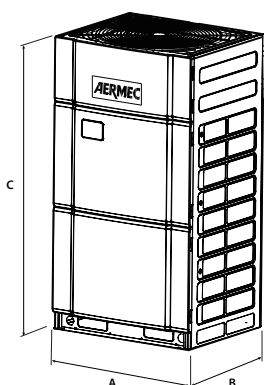
MVAS



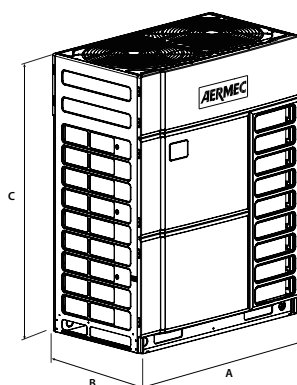
MVBM2240T-2800T-3350T



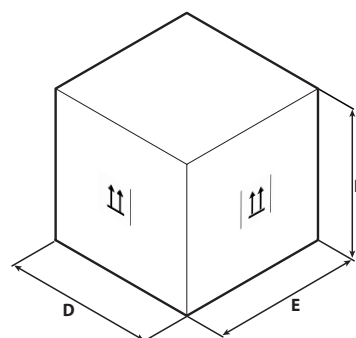
MVBM4000T-4500T  
5040T-5600T-6150T



MVBHR2240T-2800T-3350T



MVBHR4000T-4500T-5040T-5600T-6150T



Carton Box Example

## MVAS

|                      |    | MVAS 1201S | MVAS 1201T | MVAS 1401S | MVAS 1401T | MVAS 1601S | MVAS 1601T | MVAS 2242T | MVAS 2803T | MVAS 3352T |
|----------------------|----|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Outdoor unit</b>  |    |            |            |            |            |            |            |            |            |            |
| A                    | mm | 900        | 900        | 900        | 900        | 900        | 900        | 940        | 940        | 940        |
| B                    | mm | 340        | 340        | 340        | 340        | 340        | 340        | 320        | 460        | 460        |
| C                    | mm | 1345       | 1345       | 1345       | 1345       | 1345       | 1345       | 1430       | 1615       | 1615       |
| D                    | mm | 1408       | 1048       | 1408       | 1048       | 1408       | 1048       | 1038       | 1038       | 1038       |
| E                    | mm | 458        | 458        | 458        | 458        | 458        | 458        | 438        | 578        | 578        |
| F                    | mm | 1507       | 1507       | 1507       | 1507       | 1507       | 1507       | 1580       | 1765       | 1765       |
| Net weight           | kg | 110,0      | 120,0      | 110,0      | 120,0      | 110,0      | 120,0      | 133,0      | 163,0      | 174,0      |
| Weight for transport | kg | 123,0      | 133,0      | 123,0      | 133,0      | 123,0      | 133,0      | 144,0      | 175,0      | 187,0      |

## MVBM

|                      |    | MVBM 2240T | MVBM 2800T | MVBM 3350T | MVBM 4000T | MVBM 4500T | MVBM 5040T | MVBM 5600T | MVBM 6150T |
|----------------------|----|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Outdoor unit</b>  |    |            |            |            |            |            |            |            |            |
| A                    | mm | 930        | 930        | 930        | 1340       | 1340       | 1340       | 1340       | 1340       |
| B                    | mm | 775        | 775        | 775        | 775        | 775        | 775        | 775        | 775        |
| C                    | mm | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       |
| D                    | mm | 1000       | 1000       | 1000       | 1400       | 1400       | 1400       | 1400       | 1400       |
| E                    | mm | 830        | 830        | 830        | 830        | 830        | 830        | 830        | 830        |
| F                    | mm | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       |
| Net weight           | kg | 220,0      | 220,0      | 240,0      | 300,0      | 300,0      | 350,0      | 350,0      | 355,0      |
| Weight for transport | kg | 230,0      | 230,0      | 250,0      | 315,0      | 315,0      | 365,0      | 365,0      | 370,0      |

## MVBHR

|                      |    | MVBHR2240T | MVBHR2800T | MVBHR3350T | MVBHR4000T | MVBHR4500T | MVBHR5040T | MVBHR5600T | MVBHR6150T |
|----------------------|----|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Outdoor unit</b>  |    |            |            |            |            |            |            |            |            |
| A                    | mm | 930        | 930        | 930        | 1340       | 1340       | 1340       | 1340       | 1340       |
| B                    | mm | 775        | 775        | 775        | 775        | 775        | 775        | 775        | 775        |
| C                    | mm | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       | 1690       |
| D                    | mm | 1000       | 1000       | 1000       | 1400       | 1400       | 1400       | 1400       | 1400       |
| E                    | mm | 830        | 830        | 830        | 830        | 830        | 830        | 830        | 830        |
| F                    | mm | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       | 1855       |
| Net weight           | kg | 243,0      | 243,0      | 256,0      | 325,0      | 325,0      | 385,0      | 385,0      | 385,0      |
| Weight for transport | kg | 253,0      | 253,0      | 266,0      | 340,0      | 340,0      | 400,0      | 400,0      | 400,0      |

Aermec reserves the right to make any modifications deemed necessary.  
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### Aermec S.p.A.

Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## COMPLEMENTARY PRODUCTS

Aermec also offers a range of specific solutions that meet a whole host of air conditioning requirements, as well as those relating to installation under particular structural conditions.

## COMPLEMENTARY PRODUCTS

|   |  | Air flow rate<br>(m <sup>3</sup> /h) | Cool. Cap.<br>(kW) | Heat. Cap.<br>(kW) | Page |
|---|--|--------------------------------------|--------------------|--------------------|------|
| <b>DHW Systems and solar kits</b>         |  |                                      |                    |                    |      |
| <b>GSA - KSA - CXS</b>                    | DHW systems, solar kits with high efficiency panels and vacuum solar manifolds |                                      |                    |                    | 1022 |
| <b>Thermal Buffers tank</b>               |  |                                      |                    |                    |      |
| <b>SAF</b>                                | Thermal Buffer tank kit with instantaneous Domestic Hot Water production       | -                                    | -                  | -                  | 1026 |
| <b>SAP</b>                                | Buffer tank with capacity from 75 to 3500 litres                               | -                                    | -                  | -                  | 1028 |
| <b>Plug&amp;Play hydronic kit</b>         |  |                                      |                    |                    |      |
| <b>WST</b>                                | Hydronic kit plug & play   | -                                    | 80-1500            | -                  | 1031 |
| <b>Cooling towers</b>                     |  |                                      |                    |                    |      |
| <b>TRA</b>                                | Cooling towers   | -                                    | -                  | -                  | 1034 |
| <b>Remote condensers - Dry coolers</b>    |  |                                      |                    |                    |      |
| <b>new Remote condensers - Dry Cooler</b> |  | -                                    | 8-2200             | -                  | 1037 |
| <b>Water cooled condensing unit</b>       |  |                                      |                    |                    |      |
| <b>FW-R</b>                               | Water-cooled air conditioner   | -                                    | 2,9-4,0            | 4,3-5,2            | 1043 |
| <b>CWX-CWXM</b>                           | Water motocondensing unit  | -                                    | 2,7-7,1            | -                  | 1045 |
| <b>Dehumidifier</b>                       |  |                                      |                    |                    |      |
| <b>DMT</b>                                | Dehumidifier   | -                                    | -                  | -                  | 1048 |
| <b>DMH -DMV</b>                           | Dehumidifier   | -                                    | -                  | -                  | 1052 |

# DHW SYSTEMS AND SOLAR KITS

## DHW systems, solar kits with high efficiency panels and vacuum solar manifolds

- Solar systems complete with storage tank for combination with a heat pump
- Solar kits without storage tank for combination with third-party storage tanks
- Ultra-high efficiency vacuum solar manifolds
- Optional anti-stagnation shading device



### DESCRIPTION

The Aermec GSA °E series solar systems for domestic hot water are designed for easy interaction with heat pump systems and contain vacuum solar manifolds, a solar station equipped with a high efficiency electronic circulator, solar control unit and double coil storage tank.

The additional coil for the supplementary source is dimensioned with a larger exchange surface and is suitable for combination with heat pumps.

The Aermec GSA °E series solar systems include ultra-high efficiency vacuum manifolds, which can be equipped with an optional anti-stagnation shading system. The solar manifolds are dimensioned based on the capacities of the storage tanks (300 litres or 500 litres) in order to guarantee a high share of renewable energy for the production of DHW and to optimise the system from an economic point of view.

Solar kits with the same dimensions of the complete systems but in a version without a storage tank are also available in order to combine them with third-party storage tanks (the suitability of the storage tanks must be checked by the designer in this case).

The complete systems and the kits without a storage tank must be completed with the necessary roof manifold clampings, which are available as accessories for the various types of roofs (pitched roof with shingles, with tiles, universal with screw connection and flat roof).

### VERSIONS

The vacuum solar manifolds are also available individually, in two sizes with 15 pipes and 21 pipes. Each size is available in the standard ° version and in the E version with the anti-stagnation shading device.

#### GSA complete solar system

The GSA °E complete solar systems are available in two sizes - 300 litres combined with a 21-pipe solar manifold and 500 litres combined with two solar manifolds, each with 15 pipes. Each size is available in the ° version (standard) and in the E version (with the anti-stagnation shading system).

| Field | Description            |
|-------|------------------------|
| 1,2,3 | GSA                    |
| 4,5,6 | Size<br>300, 500       |
| 7     | Version                |
| °     | Vacuum solar manifolds |

| Field | Description  |
|-------|--|
| E     | Complete solar system with vacuum collector with anti-stagnation |

#### Solar kits without storage tank

The KSA solar kits are available in two sizes (size with a single 21-pipe manifold and size with two manifolds, each with 15 pipes). Each size is available in the standard ° version and in the E version with the anti-stagnation shading device.

| Field | Description  |
|-------|--|
| 1,2,3 | KSA  |
| 4,5   | Size<br>21, 30   |
| 6     | Version  |
| °     | Solar kit with vacuum collector  |
| E     | Complete solar kit with vacuum collector with anti-stagnation darkening device |

#### Vacuum solar manifolds

The vacuum solar manifolds are also available individually, in two sizes with 15 pipes and 21 pipes. Each size is available in the standard ° version and in the E version with the anti-stagnation shading device.

| Field | Description   |
|-------|---|
| 1,2,3 | CXS   |
| 4,5   | Size<br>15, 21  |
| 6     | Version   |
| °     | Vacuum solar manifolds  |
| E     | Complete vacuum solar collector with anti-stagnation shading device |

## ACCESSORIES

**CSB:** Basic set + cover.

**CSP:** Basic set + cover.

**KSB:** Basic set (for panel string termination; already included in the systems and kits).

**KSP:** Plus set (for panel connection; already included in the systems and kits).

**MIX10:** 10 liter tank of pre-mixed antifreeze solution for topping up and/or filling solar systems with vacuum collectors

**MIX20:** 20 liter tank of pre-mixed antifreeze solution for topping up and/or filling solar systems with vacuum collectors

**STC (x1):** Clamping for vacuum manifold (with or without Eclipse) on a pitched roof with tiles.

**STC21:** Clamping for 1 vacuum manifold with 21 pipes (with or without Eclipse) on a pitched roof with tiles.

**STC30:** Clamping for 2 vacuum manifold with 15 pipes each (with or without Eclipse) on a pitched roof with tiles.

**STP (x1):** Clamping for vacuum manifold (with or without Eclipse) on a flat roof.

**STP21:** Clamping for 1 vacuum manifold with 21 pipes (with or without Eclipse) on a flat roof.

**STP30:** Clamping for 2 vacuum manifold with 15 pipes (with or without Eclipse) on a flat roof.

**STT (x1):** Clamping for vacuum manifold (with or without Eclipse) on a pitched roof with shingles.

**STT21:** Clamping for 1 vacuum manifold with 21 pipes (with or without Eclipse) on a pitched roof with shingles.

**STT30:** Clamping for 12 vacuum manifolds with 15 pipes each (with or without Eclipse) on a pitched roof with shingles.

**STV15:** Clamping for 1 vacuum manifold with 15 pipes (with or without Eclipse) on a pitched roof with screw connection.

**STV21:** Clamping for 1 vacuum manifold with 21 pipes (with or without Eclipse) on a pitched roof with screw connection.

**STV30:** Clamping for vacuum manifold (with or without Eclipse) on a pitched roof with screw connection.

## ACCESSORIES COMPATIBILITY

### Clamping for a manifold on a pitched roof with shingles

| Accessory | GSA300E | GSA300° | GSA500E | GSA500° |
|-----------|---------|---------|---------|---------|
| STT (x1)  | •       | •       |         |         |
| STT (x2)  |         |         | •       | •       |
| Accessory | KSA21E  | KSA21°  | KSA30E  | KSA30°  |
| STT (x1)  | •       | •       |         |         |
| STT (x2)  |         |         | •       | •       |

### Clamping for a manifold on a pitched roof with tiles

| Accessory | GSA300E | GSA300° | GSA500E | GSA500° |
|-----------|---------|---------|---------|---------|
| STC (x1)  | •       | •       |         |         |
| STC (x2)  |         |         | •       | •       |
| Accessory | KSA21E  | KSA21°  | KSA30E  | KSA30°  |
| STC (x1)  | •       | •       |         |         |
| STC (x2)  |         |         | •       | •       |

### Clamping for a manifold on a pitched roof with screw connection

| Accessory | GSA300E | GSA300° | GSA500E | GSA500° |
|-----------|---------|---------|---------|---------|
| STV (x1)  | •       | •       |         |         |
| STV (x2)  |         |         | •       | •       |
| Accessory | KSA21E  | KSA21°  | KSA30E  | KSA30°  |
| STV (x1)  | •       | •       |         |         |
| STV (x2)  |         |         | •       | •       |

### Clamping for a manifold on a flat roof

| Accessory | GSA300E | GSA300° | GSA500E | GSA500° |
|-----------|---------|---------|---------|---------|
| STP (x1)  | •       | •       |         |         |
| STP (x2)  |         |         | •       | •       |
| Accessory | KSA21E  | KSA21°  | KSA30E  | KSA30°  |
| STP (x1)  | •       | •       |         |         |
| STP (x2)  |         |         | •       | •       |

### Basic set (for panel string termination) and plus set (for the connection of two solar panels)

| Accessory | CXS15E | CXS15° | CXS21E | CXS21° |
|-----------|--------|--------|--------|--------|
| CSB       | •      | •      | •      | •      |
| CSP       | •      | •      | •      | •      |
| KSB       | •      | •      | •      | •      |
| KSP       | •      | •      | •      | •      |

The accessories are compatible with the solar manifolds, but are not compatible with the GSA solar systems or with the KSA solar kits because they are already included.

## PERFORMANCE SPECIFICATIONS

### GSA complete solar system

|   |                | GSA300°    | GSA300E    | GSA500°    | GSA500E    |
|---|----------------|------------|------------|------------|------------|
| <b>Technical features</b>                           |                |            |            |            |            |
| Solar manifolds                                     | no./type       | 1 x CXS21° | 1 x CXS21E | 2 x CXS15° | 2 x CXS15E |
| Gross surface                                       | m <sup>2</sup> | 4,45       | 4,45       | 6,36       | 6,36       |
| Opening surface                                     | m <sup>2</sup> | 4,02       | 4,02       | 5,74       | 5,74       |
| Input current surface                               | m <sup>2</sup> | 5,39       | 5,39       | 7,70       | 7,70       |
| <b>Hydraulic components</b>                         |                |            |            |            |            |
| Storage tank (DHW)                                  | l              | 300        | 300        | 500        | 500        |
| Expansion vessel number                             | no.            | 1          | 1          | 1          | 1          |
| Expansion vessel capacity                           | l              | 24         | 24         | 40         | 40         |
| Recommended dimension based on the number of people | no.            | 3-5        | 3-5        | 5-7        | 5-7        |

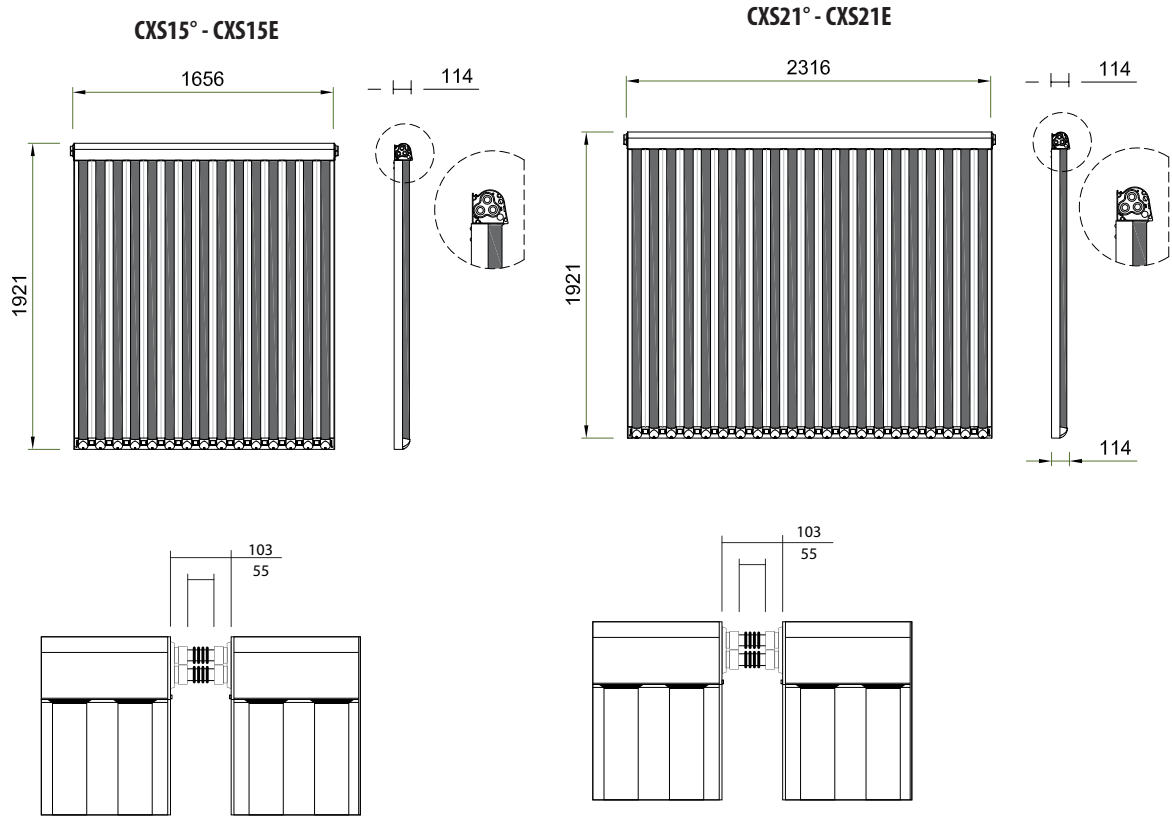
### KSA solar system

|                             |                | KSA21°     | KSA21E     | KSA30°     | KSA30E     |
|-----------------------------|----------------|------------|------------|------------|------------|
| <b>Technical features</b>   |                |            |            |            |            |
| Solar manifolds             | no./type       | 1 x CXS21° | 1 x CXS21E | 2 x CXS15° | 2 x CXS15E |
| Gross surface               | m <sup>2</sup> | 4,45       | 4,45       | 6,36       | 6,36       |
| Opening surface             | m <sup>2</sup> | 4,02       | 4,02       | 5,74       | 5,74       |
| Input current surface       | m <sup>2</sup> | 5,39       | 5,39       | 7,70       | 7,70       |
| <b>Hydraulic components</b> |                |            |            |            |            |
| Expansion vessel number     | no.            | 1          | 1          | 1          | 1          |
| Expansion vessel capacity   | l              | 24         | 24         | 40         | 40         |

### Only the solar panel

|  |                     | CXS15°       | CXS15E       | CXS21°       | CXS21E       |
|--|---------------------|--------------|--------------|--------------|--------------|
| <b>Technical features</b>  |                     |              |              |              |              |
| Vacuum pipes   | no.                 | 15           | 15           | 21           | 21           |
| Maximum number of coil manifolds                                     | no.                 | 6            | 6            | 6            | 6            |
| Connections  | no.                 | 6            | 6            | 6            | 6            |
| Connection dimensions  | Ø inch              | 3/4"M        | 3/4"M        | 3/4"M        | 3/4"M        |
| Opening surface  | m <sup>2</sup>      | 2,87         | 2,87         | 4,02         | 4,02         |
| Input current surface  | m <sup>2</sup>      | 3,85         | 3,85         | 5,39         | 5,39         |
| Gross surface  | m <sup>2</sup>      | 3,18         | 3,18         | 4,45         | 4,45         |
| Head insulation thickness, aluminised glass wool covering            | mm                  | 47           | 47           | 30           | 30           |
| Diameter - Vacuum pipe length  | mm                  | 58/47 - 1800 | 58/47 - 1800 | 58/47 - 1800 | 58/47 - 1800 |
| Recommended tilt   | °                   | 15 - 75°     | 15 - 75°     | 15 - 75°     | 15 - 75°     |
| Conductor radiator fluid content                                     | l                   | 3,28         | 3,28         | 3,75         | 3,75         |
| <b>Performances</b>  |                     |              |              |              |              |
| η <sub>0</sub> rendimento ottico (riferimento area lorda)            |                     | 0,615        | 0,615        | 0,609        | 0,609        |
| K1 transmission coefficient (gross area reference)                   | W/m <sup>2</sup> K  | 0,850        | 0,850        | 0,690        | 0,690        |
| K2 transmission coefficient (gross area reference)                   | W/m <sup>2</sup> K  | 0,009        | 0,009        | 0,005        | 0,005        |
| Nominal Power  | W                   | 1956         | 1956         | 2710         | 2710         |
| Angle of incidence correction factor                                 | K <sub>50°</sub>    | 1.14T/0.9L   | 1.14T/0.9L   | 1.14T/0.9L   | 1.14T/0.9L   |
| Heating capacity (opening ref.)                                      | kJ/m <sup>2</sup> K | 50,9         | 50,9         | 34,0         | 34,0         |
| Energy produced annually ISO 9806:2013 – Würzburg – Temperature 50°C | kWh                 | 2371         | 2371         | 2884         | 2884         |
| Energy produced annually ISO 9806:2013 – Würzburg – Temperature 75°C | kWh                 | 1929         | 1929         | 2499         | 2499         |
| Test Report ISO 9806:2013  |                     | Kiwa         | Kiwa         | Kiwa         | Kiwa         |
| DIN CERTCO Registration number                                       |                     | 16083 Rev.0  | 16083 Rev.0  | 16082 Rev.0  | 16082 Rev.0  |
| Flow Rate  | l/h                 | 127          | 127          | 200          | 200          |
| Stagnation temperature   | °C                  | 279          | 279          | 176          | 176          |
| Maximum pressure   | bar                 | 10           | 10           | 10           | 10           |

## DIMENSIONS



|                               |    | CXS15° | CXS15E | CXS21° | CXS21E |
|-------------------------------|----|--------|--------|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |        |        |
| A                             | mm | 1656   | 1656   | 2316   | 2316   |
| B                             | mm | 1921   | 1921   | 1921   | 1921   |
| C                             | mm | 114    | 114    | 114    | 114    |
| Empty weight                  | kg | 72     | 72     | 80     | 80     |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# SAF

## Thermal Buffer tank kit with instantaneous Domestic Hot Water production



- Various versions that make optimum use of the different energy sources
- Ease of installation, even in confined spaces
- Installing the indoor unit



### DESCRIPTION

SAF are the new thermo-buffer for the instantaneous production of domestic hot water (DHW). They integrate both the energy storage element and the heat exchanger, along with the control functions, into a single unit. The hot water is taken from the water main and heated instantaneously by means of a plate heat exchanger in stainless steel: the separation between the drinking water circuit and the water contained in the accumulator ensures maximum hygiene.

**In this way, the benefits of instant production are combined with those associated with buffer production.**

These devices are specifically designed and manufactured to be combined with heat pumps but also with traditional or biomass boilers, solar thermal systems and other renewable sources.

### VERSIONS

° Standard

S With supplementary energy source management

**T** Set up for use with supplementary energy source

In addition to these versions, an supplementary heater (accessory) is also provided to respond to increased heating requirements.

### FEATURES

- The SAF system is available with a range of thermo-accumulators with different capacities, (200-300-500l), in order to meet a whole host of different DHW requirements;
- The high-efficiency insulation prevents energy losses, to the advantage of the heat exchanger, allowing for significant reductions in running costs;
- The compactness and the new elegant and attractive design mean that it can be installed in restricted spaces, in indoor environments.

### ACCESSORIES

**KRX-SAF:** Supplementary electric heater with thermostat control from 1200W 230V/1/50Hz with connexion of 1" 1/2.

**VT:** Anti-vibration supports.

### Accessories compatibility

| Heat pump | Sizes    | Version      | Accessories mandatory |         |             |        | Recommended |         |
|-----------|----------|--------------|-----------------------|---------|-------------|--------|-------------|---------|
|           |          |              | SAF                   | MOD485K | MODU485-BL* | VMF-E5 | VTV160      | KRX-SAF |
| ANL       | 021-203  | H°-HP        | •                     | •       | •           | •      | •           | •       |
| ANLI      | 101      | H°-HP-HX (1) | •                     | -       | -           | -      | •           | •       |
| ANK       | 020-150  | H°-HP        | •                     | •       | •           | •      | •           | •       |
| NRK       | 090-0150 | 00-P1-P3     | •                     | •       | •           | •      | •           | •       |
| CL        | 025-200  | H°-HP        | •                     | •       | •           | •      | •           | •       |
| ANKI      | 020-080  | H°-HX (1)    | •                     | -       | -           | -      | •           | •       |
| WRL       | 026-161  | H° (1)       | •                     | -       | -           | -      | •           | •       |

\* To be installed on board of the heat pump.

(1) Units designed for the management domestic hot water: MOD485K and VMF-E5 accessories not required.

It is recommended not to combine the SAF with units with storage tank.

## CONFIGURATOR

| Field | Description   |
|-------|---|
| 1,2,3 | SAF   |
| 4,5,6 | Size<br>200, 300, 500                               |
| 7     | Version   |
| °     | Standard  |
| S     | With supplementary energy source management (1)     |
| T     | Set up for use with supplementary energy source (1) |
| 8     | Field for future development                        |
| °     | ...   |

(1) Version "S-T" not available for size 200

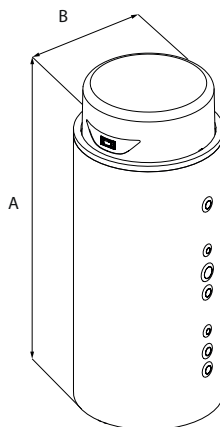
## PERFORMANCE SPECIFICATIONS

|                               |       | SAF200    | SAF300 | SAF300T | SAF300S | SAF500 | SAF500T | SAF500S |
|-------------------------------|-------|-----------|--------|---------|---------|--------|---------|---------|
| <b>Power supply</b>           |       |           |        |         |         |        |         |         |
| Power supply                  |       | 230V~50Hz |        |         |         |        |         |         |
| <b>Accumulation inertial</b>  |       |           |        |         |         |        |         |         |
| Storage tank capacity         | l     | 199       | 290    | 279     |         | 480    | 465     |         |
| Drinking water content        | l     | 0,85      | 0,85   | 0,85    | 0,85    | 0,85   | 0,85    | 0,85    |
| Coil water content            | l     | -         | -      | 10      | 10      | -      | 13      | 13      |
| Maximum operating pressure    | bar   | 6         | 6      | 6       | 6       | 6      | 6       | 6       |
| Losses through dispersion     | W     | 59        |        | 68      |         |        | 80      |         |
| Energy efficiency class (1)   | type  | B         |        |         |         |        |         |         |
| DHW minimum flow rate         | l/min | 2         | 2      | 2       | 2       | 2      | 2       | 2       |
| DHW maximum flow rate         | l/min | 35        | 35     | 35      | 35      | 35     | 35      | 35      |
| Maximum operating temperature | °C    | 95        | 95     | 95      | 95      | 95     | 95      | 95      |
| <b>Electric data</b>          |       |           |        |         |         |        |         |         |
| Minimum input power           | W     | 25        | 25     | 25      | 27      | 25     | 25      | 27      |
| Maximum input power           | W     | 75        | 75     | 75      | 127     | 75     | 75      | 127     |
| Minimum input current (2)     | A     | 0,14      | 0,14   | 0,14    | 0,18    | 0,14   | 0,14    | 0,18    |
| Maximum input current         | A     | 0.53      | 0.53   | 0.53    | 1.05    | 0.53   | 0.53    | 1.05    |

(1) In accordance with Standard UNI EN 16147:2011 and in accordance with Delegated Regulation 812/2013 and 814/2013

(2) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

## DIMENSIONS



|                               |    | SAF200 | SAF300 | SAF300T | SAF300S | SAF500 | SAF500T | SAF500S |
|-------------------------------|----|--------|--------|---------|---------|--------|---------|---------|
| <b>Dimensions and weights</b> |    |        |        |         |         |        |         |         |
| A                             | mm | 1315   | 1690   | 1690    | 1690    | 1740   | 1740    | 1740    |
| B                             | mm | 710    | 710    | 710     | 710     | 850    | 850     | 850     |
| Empty weight                  | kg | 75     | 89     | 96      | 101     | 116    | 131     | 136     |
| Weight functioning            | kg | 275    | 389    | 396     | 401     | 616    | 631     | 636     |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# SAP

## Storage tank



- Accumulation unit from 75 to 3500 litres



### DESCRIPTION

Accumulation unit - completely assembled pump to be used with a refrigerating unit with hydraulic connections to be made on site by the installer.

### FEATURES

- The base the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
- Pumps
- Pressure relief valve
- Completely insulated hydraulic circuit
- Pump magnet circuit-breaker protection

### Pumps

#### SAP 0075 - 0150:

5 pump models with water capacity up to 18000 l/h and with prevalence up to 140 kPa are available (max. 2 internally installed pumps).

#### SAP 0300 - 0500 - 0501 - 0750 - 1000:

8 pump models with water capacity up to 60000 l/h and with prevalence up to 200 kPa are available.

Pumping units with a reserve pump can also be included in these units.

#### SAP 1500 - 2000 - 3000:

10 pump models with water capacity up to 200000 l/h and with prevalence up to 300 kPa are available.

Pumping units with a reserve pump can also be included in these units.

### ACCESSORIES

**VT:** Anti-vibration supports.

**AVX:** Spring anti-vibration supports.

**RX:** 500 W armoured resistance, with thermostat and inserted in a dedicated fitting, it can be installed only at the factory.

**RXV:** 3kW armoured resistance, with thermostat and inserted in a dedicated fitting, it can be installed only at the factory.

### Accessories compatibility

#### Antivibration

| Accessory | SAP0075 | SAP0150 | SAP0300 | SAP0500 | SAP0501 | SAP0750 | SAP1000 |
|-----------|---------|---------|---------|---------|---------|---------|---------|
| VT2       |         |         |         |         |         |         |         |
| VT8       | •       | •       |         |         |         |         |         |

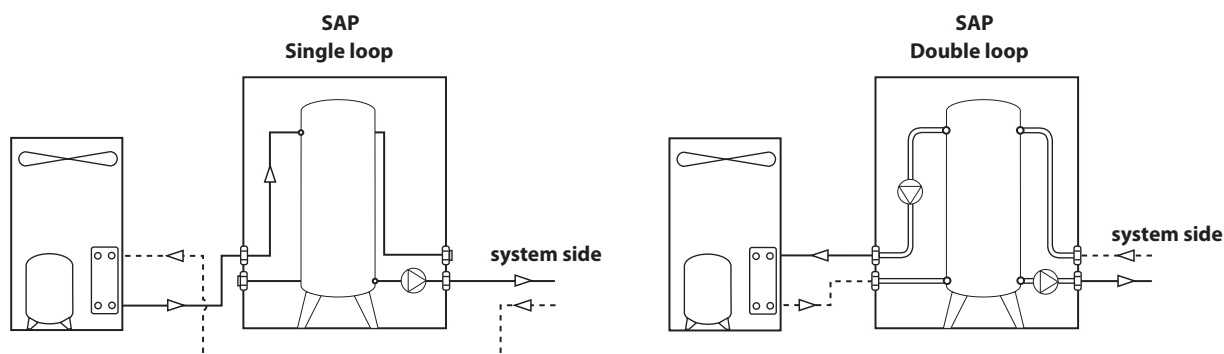
#### Antivibration

| Ver        | 1500   | 2500   | 3500   |
|------------|--------|--------|--------|
| IS, JS, KS | AVX206 | AVX210 | AVX214 |
| IZ, JZ, KZ | AVX203 | AVX208 | AVX212 |
| RS, WZ     | AVX202 | AVX208 | AVX212 |
| RZ, TZ     | AVX201 | AVX207 | AVX211 |
| TS         | AVX204 | AVX208 | AVX212 |
| US         | AVX204 | AVX208 | AVX213 |
| UZ, VZ, ZZ | AVX201 | AVX207 | AVX212 |
| VS         | AVX204 | AVX209 | AVX213 |
| WS, XS, YS | AVX205 | AVX209 | AVX213 |
| XZ, YZ     | AVX202 | AVX207 | AVX212 |

## Resistance

| Accessory | SAP0075 | SAP0150 | SAP0300 | SAP0500 | SAP0501 | SAP0750 | SAP1000 | SAP1500 | SAP2500 | SAP3500 |
|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| RX        | *       | *       | *       | *       | *       | *       | *       | *       | *       | *       |
| RXV       |         |         |         |         |         |         |         |         |         |         |

## EXAMPLE OF A HYDRAULIC CONNECTION



## TECHNICAL DATA

|                              |        | SAP0075 | SAP0150 | SAP0300 | SAP0500 | SAP0501 | SAP0750 | SAP1000 | SAP1500 | SAP2500 | SAP3500 |
|------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Accumulation inertial</b> |        |         |         |         |         |         |         |         |         |         |         |
| Storage tank capacity        | l      | 75      | 150     | 300     | 500     | 500     | 750     | 1000    | 1500    | 2500    | 3500    |
| Pressure relief valve        | n°/bar | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     | 1/6     |
| <b>Expansion vessel</b>      |        |         |         |         |         |         |         |         |         |         |         |
| Expansion vessel capacity    | l      | 8       | 12      | 18      | 24      | 24      | 18      | 18      | 24      | 24      | 24      |
| Expansion vessel number      | no.    | 1       | 1       | 1       | 1       | 1       | 2       | 2       | 2       | 3       | 3       |
| <b>Hydraulic connections</b> |        |         |         |         |         |         |         |         |         |         |         |
| Connections (in/out)         | Type   | F       | F       | F       | F       | F       | F       | F       | -       | -       | -       |
| Sizes (in/out)               | Ø      | 1" 1/4  | 1" 1/2  | 2"      | 2" 1/2  | 2" 1/2  | 3"      | 3"      | -       | -       | -       |

## SAP pumps flanges diameter 1500 - 2500 - 3500

|      |             | Pump |     |     |     |     |     |     |     |     |     |
|------|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SAP  | Flange      | R    | T   | U   | V   | X   | Y   | W   | K   | J   | I   |
| 1500 | PN16UNI2278 | Ø    | 125 | 125 | 150 | 150 | 150 | 200 | 200 | 200 | 200 |
| 2500 | PN16UNI2279 | Ø    | 125 | 125 | 150 | 150 | 150 | 200 | 200 | 200 | 200 |
| 3500 | PN16UNI2280 | Ø    | 125 | 125 | 150 | 150 | 150 | 200 | 200 | 200 | 200 |

## PUMP ELECTRIC DATA

|                      |   | Pump |      |      |      |      |      |      |       |       |       |       |
|----------------------|---|------|------|------|------|------|------|------|-------|-------|-------|-------|
|                      |   | A    | B    | C    | E    | F    | G    | H    | I     | J     | K     | L     |
| Max absorbed power   | W | 275  | 330  | 614  | 895  | 1070 | 1550 | 2050 | 22000 | 17500 | 14500 | 3100  |
| Max absorbed current | A | 0,5  | 0,7  | 1,1  | 1,6  | 1,9  | 2,8  | 3,6  | 43,0  | 36,4  | 30,0  | 5,6   |
|                      |   |      |      |      |      |      |      |      |       |       |       |       |
|                      |   | M    | N    | P    | Q    | R    | T    | U    | V     | W     | X     | Y     |
| Max absorbed power   | W | 4100 | 1470 | 2600 | 5200 | 4000 | 5200 | 5800 | 8000  | 11500 | 9000  | 11000 |
| Max absorbed current | A | 7,2  | 2,6  | 4,4  | 8,8  | 8,5  | 11,5 | 15,5 | 15,5  | 22,5  | 22,5  | 22,5  |

## PUMP COMBINATIONS

| Pump combinations |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| SAP0075           | AZ | AE | AF | AZ | BC | BE | BF | BZ | ZC | ZE | ZF | ZZ |
| SAP0150           | AC | AE | AF | AZ | BC | BE | BF | BZ | CC | EC | CF | CZ |
|                   | AE | EE | EF | EZ | BF | FE | FF | FZ | ZC | ZE | ZF | ZZ |
| SAP0300           |    |    |    |    |    | CS | CZ | ES | EZ | FS | FZ | ZZ |
| SAP0500           |    |    |    | FS | FZ | GS | GZ | HS | HZ | PS | PZ | ZZ |
| SAP0501           |    |    |    | FS | FZ | GS | GZ | HS | HZ | PS | PZ | ZZ |
| SAP0750           |    |    |    | FS | FZ | GS | GZ | HS | HZ | LS | LZ | MS |
|                   |    |    |    |    | MZ | NS | NZ | PS | PZ | QS | QZ | ZZ |
| SAP1000           |    |    |    | LS | LZ | MS | MZ | NS | NZ | QS | QZ | ZZ |
| SAP1500           |    | IS | IZ | JS | JZ | KS | KZ | RS | RZ | TS | TZ | US |
|                   |    |    | UZ | VS | VZ | WS | WZ | XS | XZ | YS | YZ | ZZ |
| SAP2500           |    | IS | IZ | JS | JZ | KS | KZ | RS | RZ | TS | TZ | US |
|                   |    |    | UZ | VS | VZ | WS | WZ | XS | XZ | YS | YZ | ZZ |
| SAP3500           |    | IS | IZ | JS | JZ | KS | KZ | RS | RZ | TS | TZ | US |
|                   |    |    | UZ | VS | VZ | WS | WZ | XS | XZ | YS | YZ | ZZ |

The indicated combinations are the only ones foreseen, many capacity/prevalence combinations are available, we invite you to refer to the technical documentation.

A - B: Multi-speed circulators.

L - M - Q: Twin pumping unit.

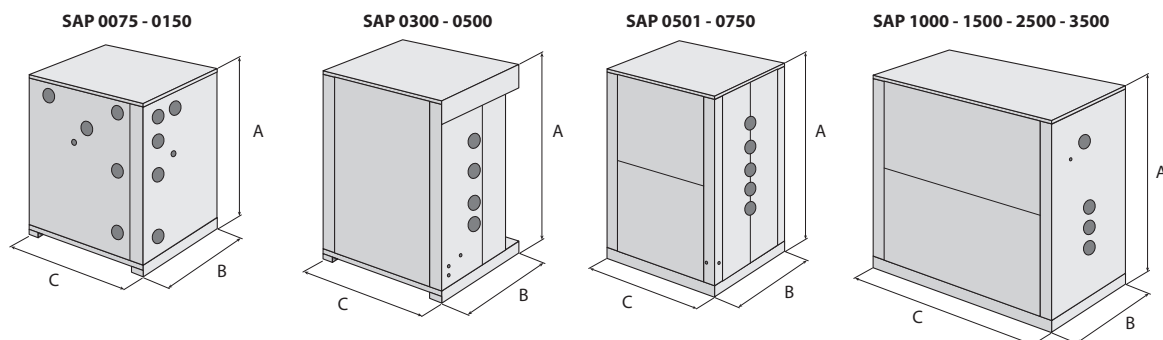
S: Pumping unit with reserve pump.

Z: Pump not present.

The first letter of the combination indicates the pump on the primary circuit.

The second letter of the combination indicates the pump on the secondary circuit.

## DIMENSIONS



|                        |    | SAP0075 | SAP0150 | SAP0300 | SAP0500 | SAP0501 | SAP0750 | SAP1000 | SAP1500 | SAP2500 | SAP3500 |
|------------------------|----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Dimensions and weights |    |         |         |         |         |         |         |         |         |         |         |
| A                      | mm | 1000    | 1000    | 1650    | 1650    | 1968    | 1968    | 2049    | 2049    | 2049    | 2049    |
| B                      | mm | 1000    | 1000    | 1100    | 1100    | 1000    | 1000    | 1000    | 1750    | 2000    | 2300    |
| C                      | mm | 700     | 700     | 1100    | 1100    | 1550    | 1550    | 2200    | 2200    | 2200    | 2200    |
| Empty weight           | kg | 120     | 135     | 190     | 230     | 310     | 400     | 445     | 510     | 655     | 730     |

The weight of the unit without ZZ pumps.

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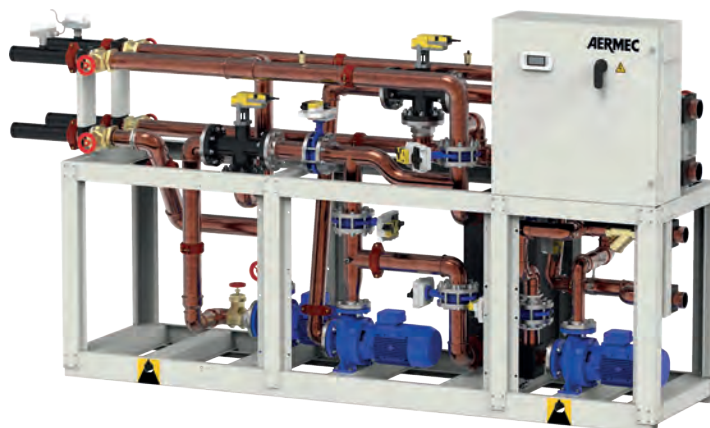
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Tel. 0442633111 - Telefax 044293577  
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# WST evo

## Plug & play hydronic kit

Cooling capacity 80 ÷ 1500 kW  
Water flow rate 17000 ÷ 260000 l/h

- Hydronic kit containing the main hydraulic components
- Easy installation
- ideal for industrial systems or data centres, where chilled water is required even during the winter
- Partial and total free cooling operation



### DESCRIPTION

Plug & play hydronic kit that includes the main hydronic and regulation components of a hydraulic system.

The WST are designed to facilitate installation in systems where chilled water production is required throughout the year, in combination with a water/water chiller and a dry cooler.

**Thanks to Aermec's 20-year experience in critical processes and the special software purposely developed, these units can manage all the components that make up the system:**

- The water-cooled chiller;
- The pumps (including the reserve ones, if installed) for both the system side and the source side;
- The speed of the dry cooler fans (in both mechanical operation and free cooling mode);
- The modulating valve for controlling the chiller condensation.

### OPERATION

#### Air-water chiller

When the outside air temperature is higher than the temperature of the system return water, the cooling capacity is provided by the chiller. The WST manages the dry cooler by modulating its fans on the basis of the chiller condensation pressure.

#### Free-cooling

When the outside air temperature is lower on the other hand, the WST commands free cooling mode which can be mixed (chiller + free cooling) or free cooling only (switching off the chiller) to exploit the water from the dry cooler to cool the system water in the dedicated heat exchanger.

### HYDRAULIC COMPONENTS OF THE DRY COOLER SIDE

- Water filter;
- Flow switches;
- Shut-off valve;
- Mixer valves;
- Bypass valve;
- Pumps;
- Butterfly valves (free cooling enabling);
- High-efficiency plate heat exchanger (free cooling);
- Water temperature probes.

### HYDRAULIC COMPONENTS OF THE CHILLER SIDE

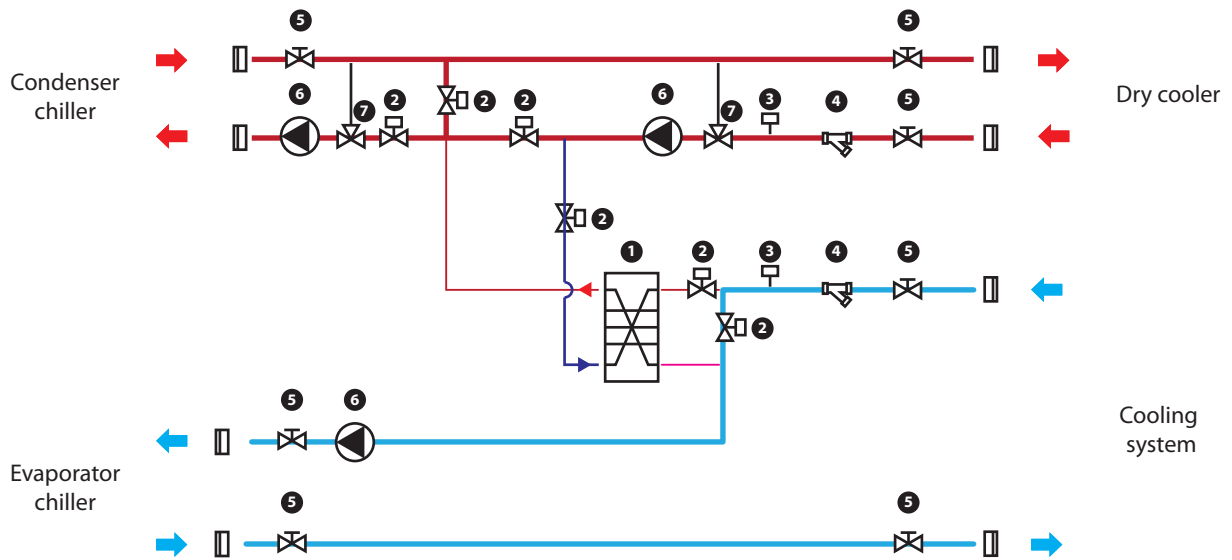
- Water filter;
- Flow switches;
- Shut-off valve;
- Pumps;
- Water temperature probes.

### REGULATION

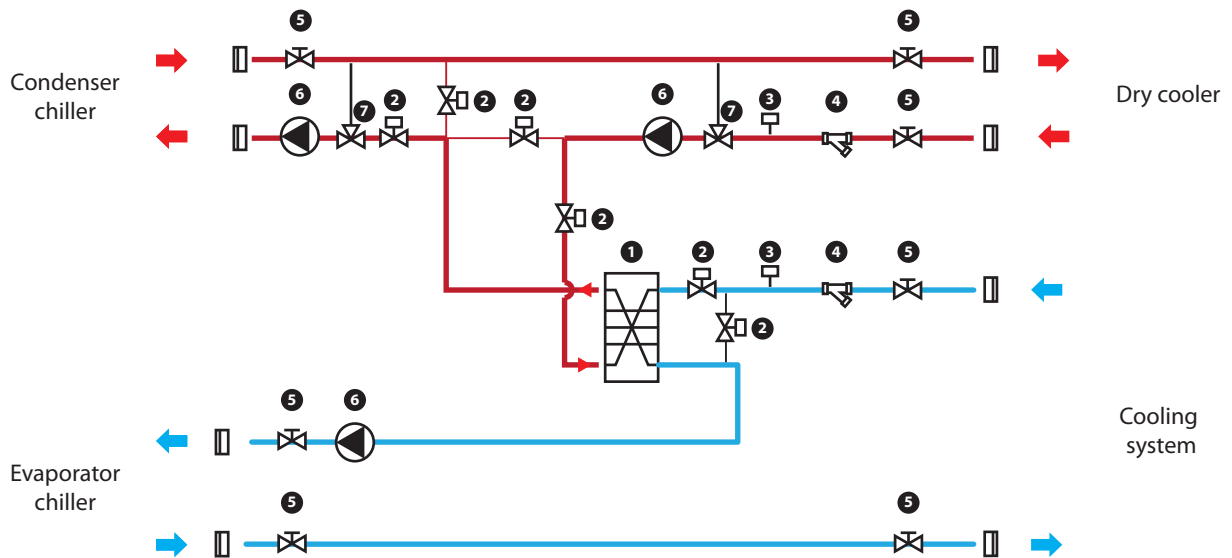
- Electronic microprocessor regulation with MODBUS protocol communication;
- **The AER485P1 accessory is supplied as standard with the WST. This accessory must necessarily be fitted in the chiller, so the units can communicate with each other;**
- Advanced electronics characterised by the continuous monitoring of various working and environmental parameters, so the operating mode (chiller/free cooling) can be switched as and when necessary. This limits the operating costs and ensures greater energy efficiency;
- Dry cooler fan management, to control the condensation pressure (chiller mode) or the recovered output (free cooling mode);
- Management of cold start-up via dry cooler fan modulation and the mixer valve;
- Structure and base in hot-dip galvanised sheet metal coated in epoxy powders RAL 9003.

## OPERATING MODE

### Mechanical operation (chiller)



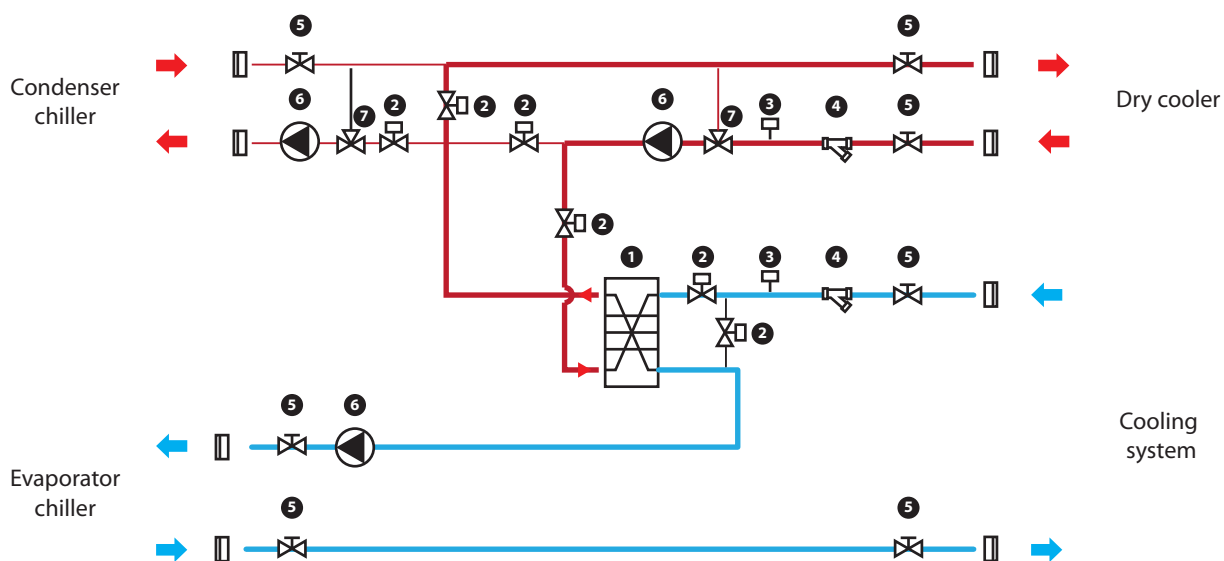
### Mixed operation (chiller + free cooling)



#### Key:

- |   |                       |   |                |
|---|-----------------------|---|----------------|
| 1 | Plate heat exchanger  | 4 | Water filter   |
| 2 | 2-way butterfly valve | 5 | Shut-off valve |
| 3 | Flow switch           | 6 | Pump           |
|   |                       | 7 | Mixing valve   |

## Operation in free-cooling only



### Key:

- 1 Plate heat exchanger
- 2 2-way butterfly valve
- 3 Flow switch

- 4 Water filter
- 5 Shut-off valve
- 6 Pump
- 7 Mixing valve

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Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
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[www.aermec.com](http://www.aermec.com)



# TRA

## Cooling towers

Capacity from 49,53 up to 1084,88 kW



### FEATURES

- Available in **17 different sizes**;
- Entirely built of fibre-glass reinforced resin to avoid corrosion problems with surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather;
- Limited to the three largest sizes (TRA850, TRA850L, TRA950, TRA950L, TRA1100, TRA1100L) the bearing structure is made of hot galvanised steel with 22 mm thick fibreglass reinforced resin sandwich panels, with support foam material inside. In this way, as well achieving good mechanical strength the sound of the water flowing is muffled. Surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather;
- Self-bearing structure;
- **Exchange pack and drip separator** made of self-extinguishing PVC;
- PVC **water distribution pipes** with polypropylene nozzles;
- **Hydrometer**: when there is not water flow rate measuring device, this instrument makes possible to have an approximate indication of the flow rate of the water in circulation based on the nozzle load drop;
- Plastic **bleed tap**;
- **Axial high efficiency fan** with several blades;
- **Water drip pan**, waterproof and water resistant made of fibreglass reinforced polyester resin with multi layer glass material;
- **Personal protection grill** made of AISI 304 on the fan outlet.

## PERFORMANCE SPECIFICATIONS

|  |      | TRA50 | TRA70 | TRA90 | TRA110 | TRA130 | TRA170 | TRA200 | TRA240 | TRA300 | TRA400 |
|--|------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Cooling towers performances (1)</b> |      |       |       |       |        |        |        |        |        |        |        |
| Capacity                               | kW   | 49,53 | 69,06 | 88,60 | 107,44 | 125,58 | 168,14 | 197,67 | 242,09 | 302,33 | 405,32 |
| Air flow rate                          | m³/h | 4500  | 4500  | 8100  | 8100   | 8100   | 12600  | 12600  | 18100  | 18100  | 28350  |
| Water flow rate                        | l/h  | 7100  | 9900  | 12700 | 15400  | 18000  | 24100  | 28330  | 34700  | 43300  | 58100  |
| Pressure drop                          | kPa  | 42    | 32    | 52    | 32     | 42     | 28     | 35     | 23     | 40     | 28     |

|  |      | TRA500 | TRA550 | TRA600 | TRA750 | TRA850 | TRA850L | TRA950 | TRA950L | TRA1100 | TRA1100L |
|--|------|--------|--------|--------|--------|--------|---------|--------|---------|---------|----------|
| <b>Cooling towers performances (1)</b> |      |        |        |        |        |        |         |        |         |         |          |
| Capacity                               | kW   | 488,37 | 574,19 | 604,88 | 767,44 | 856,74 | 856,74  | 941,86 | 941,86  | 1084,88 | 1084,88  |
| Air flow rate                          | m³/h | 28350  | 36000  | 45350  | 45350  | 58000  | 58000   | 58000  | 58000   | 67000   | 67000    |
| Water flow rate                        | l/h  | 70000  | 82300  | 86700  | 110000 | 122800 | 122800  | 135000 | 135000  | 155500  | 155500   |
| Pressure drop                          | kPa  | 40     | 55     | 30     | 48     | 49     | 49      | 25     | 25      | 32      | 32       |

(1) Inlet air temperature 23,5 °C b.u., Inlet water temperature 35 °C, Outlet water temperature 29 °C

## GENERAL DATA

|                               |     | TRA50 | TRA70 | TRA90 | TRA110 | TRA130 | TRA170 | TRA200 | TRA240 | TRA300 | TRA400 |
|-------------------------------|-----|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>General data</b>           |     |       |       |       |        |        |        |        |        |        |        |
| Motor power                   | kW  | 0,55  | 0,75  | 0,75  | 0,75   | 1,10   | 1,10   | 1,50   | 1,50   | 2,20   | 2,20   |
| Motor poles                   | no. | 4     | 4     | 4     | 4      | 6      | 6      | 6      | 6      | 6      | 6      |
| Motor poles (double polarity) | no. | 4/8   | 4/8   | 4/8   | 4/8    | 6/12   | 6/12   | 6/8    | 6/8    | 6/8    | 6/8    |
| Nozzles                       | no. | 1     | 1     | 1     | 1      | 1      | 1      | 1      | 4      | 4      | 4      |

### Fans

|        |     |   |   |   |   |   |   |   |   |   |   |
|--------|-----|---|---|---|---|---|---|---|---|---|---|
| Number | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|--------|-----|---|---|---|---|---|---|---|---|---|---|

|                               |     | TRA500 | TRA550 | TRA600 | TRA750 | TRA850 | TRA850L | TRA950 | TRA950L | TRA1100 | TRA1100L |
|-------------------------------|-----|--------|--------|--------|--------|--------|---------|--------|---------|---------|----------|
| <b>General data</b>           |     |        |        |        |        |        |         |        |         |         |          |
| Motor power                   | kW  | 4,00   | 5,50   | 4,00   | 5,50   | 5,50   | 5,50    | 5,50   | 5,50    | 7,50    | 7,50     |
| Motor poles                   | no. | 6      | 6      | 6      | 6      | 8      | 8       | 8      | 8       | 8       | 8        |
| Motor poles (double polarity) | no. | 6/12   | 6/12   | 6/12   | 8/16   | 8/16   | 8/16    | 8/16   | 8/16    | 8/16    | 8/16     |
| Nozzles                       | no. | 4      | 4      | 9      | 9      | 16     | 16      | 16     | 16      | 16      | 16       |

### Fans

|        |     |   |   |   |   |   |   |   |   |   |   |
|--------|-----|---|---|---|---|---|---|---|---|---|---|
| Number | no. | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|--------|-----|---|---|---|---|---|---|---|---|---|---|

## SOUND DATA

|                       |       | TRA50 | TRA70 | TRA90 | TRA110 | TRA130 | TRA170 | TRA200 | TRA240 | TRA300 | TRA400 |
|-----------------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| <b>Sound data (1)</b> |       |       |       |       |        |        |        |        |        |        |        |
| Sound pressure        | dB(A) | 52    | 52    | 54    | 54     | 54     | 54     | 54     | 55     | 55     | 57     |

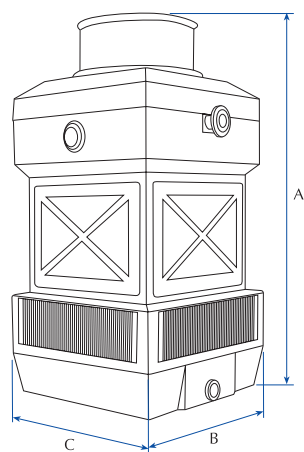
|                       |       | TRA500 | TRA550 | TRA600 | TRA750 | TRA850 | TRA850L | TRA950 | TRA950L | TRA1100 | TRA1100L |
|-----------------------|-------|--------|--------|--------|--------|--------|---------|--------|---------|---------|----------|
| <b>Sound data (1)</b> |       |        |        |        |        |        |         |        |         |         |          |
| Sound pressure        | dB(A) | 57     | 58     | 61     | 61     | 62     | 56      | 62     | 56      | 64      | 57       |

(1) Sound pressure: Values refer to measurements in accordance with ISO 3744 standard, performed in free field and in absence of background noise, with average hydraulic load. Sound pressure level at a distance of 15 m from the tower, measured at 1.5 meters above the ground. Tolerance on values +/-2 dbA.

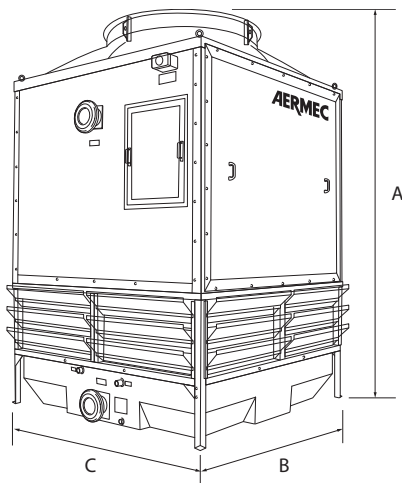
**The size up 50 to 750 are only available in the silenced versions.**

■ Power supply: 230V ~ 3 50Hz, 400V ~ 3N 50Hz.

DIMENSIONS



TRA 50-750



TRA 850-1100  
TRA 850L-1100L

|                        |    | TRA50 | TRA70 | TRA90 | TRA110 | TRA130 | TRA170 | TRA200 | TRA240 | TRA300 | TRA400 |
|------------------------|----|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| Dimensions and weights |    |       |       |       |        |        |        |        |        |        |        |
| A                      | mm | 2110  | 2110  | 2595  | 2595   | 2595   | 2800   | 2800   | 2860   | 2860   | 3140   |
| B                      | mm | 800   | 800   | 1000  | 1000   | 1000   | 1200   | 1200   | 1400   | 1400   | 1740   |
| C                      | mm | 800   | 800   | 1000  | 1000   | 1000   | 1200   | 1200   | 1400   | 1400   | 1740   |
| Empty weight           | kg | 75    | 75    | 85    | 95     | 95     | 170    | 170    | 210    | 210    | 410    |

|                        |    | TRA500 | TRA550 | TRA600 | TRA750 | TRA850 | TRA850L | TRA950 | TRA950L | TRA1100 | TRA1100L |
|------------------------|----|--------|--------|--------|--------|--------|---------|--------|---------|---------|----------|
| Dimensions and weights |    |        |        |        |        |        |         |        |         |         |          |
| A                      | mm | 3140   | 3380   | 3450   | 3450   | 3650   | 3900    | 3650   | 3900    | 3650    | 3900     |
| B                      | mm | 1740   | 1900   | 2100   | 2100   | 2030   | 2030    | 2030   | 2030    | 2360    | 2360     |
| C                      | mm | 1740   | 2100   | 2300   | 2300   | 2360   | 2360    | 2360   | 2360    | 2360    | 2360     |
| Empty weight           | kg | 410    | 500    | 555    | 580    | 850    | 850     | 815    | 815     | 915     | 915      |

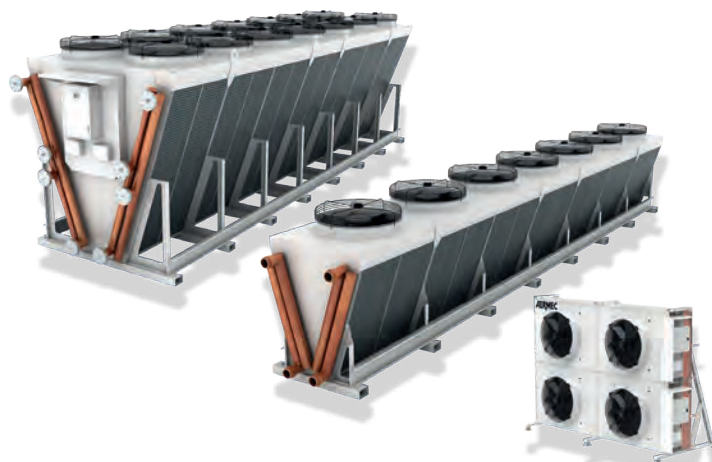
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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# Remote condensers - Dry Cooler

Cooling capacity 8 ÷ 2200 kW

- Simple to use and install
- Wide range of powers
- Easy to handle and transport
- Can be installed both horizontally and vertically



## DESCRIPTION

DryCoolers and Condensers are air-cooled units used in air conditioning, refrigeration and industrial applications. They are typically installed outdoors, in a remote location, e.g. on roofs, squares, etc. These units consist of one or more heat exchangers installed on two types of structures:

- **Type V:** generally consisting of two heat exchangers installed in a 'V' shape and fans positioned above them.
- **Table type:** generally consisting of a horizontally or vertically positioned heat exchanger and fans with a vertical axis of rotation relative to the finned pack.

The use of these units, in most cases, is necessary to control the temperature of the outlet fluid or to keep the condensing pressure of the refrigerant used under control. These units are generally equipped with air flow regulation systems, which allow the heat exchange to be adapted to changing environmental conditions (day, night, summer, winter, etc.).

Since the units are installed outdoors, they are subject to all environmental characteristics. There are several regulations that classify outdoor environments. The main categories are:

- Rural area
- Urban area
- Coastal area
- Industrial area
- Coastal-industrial area

These areas, in turn, can be further divided, as they can create specific micro-environments, which are the sum of one or more of the above-mentioned categories.

In addition to these classifications, there are also further severe situations due to the significant presence of pollutants such as, for example, sulphur oxides typical of climatic zones with intense acid rain (e.g. northern Europe) or areas near volcanoes, etc. All these pollutants can significantly change the pH of the environment, making deposits on the units extremely corrosive.

Another factor to consider is TOW (time of wetness), which is the amount of time that there is a constant presence of humidity above 80% with a temperature above 0 °C. These are just a few examples of environmental situations that require a thorough analysis of the installation before making a technical choice.

In addition, instructions on maintenance and cleaning methods should also be considered in the following cases:

- after a shipment of units by sea
- when operating the unit in particularly dirty places

The correct definition of the corrosive environment has a direct impact on the choice of heat exchanger materials, structure and fans to be used. Aermec is able to offer specific technical solutions for each of these cases and to test new construction solutions in cases not previously mentioned.

**We recommend using the Aercooler selection programme available on the website [www.aermec.com](http://www.aermec.com).**

## EVERY DETAIL IS DESIGNED TO ENSURE THE BEST PERFORMANCE

### LIFTING EYES

Aermec has designed the lifting eyes to ensure a correct and easy handling of the dry cooler in compliance with safety standards.

### CROSS AND LONGITUDINAL SECTIONS OF EACH PART

Each fan module is separated from the other thanks to panels in order to avoid air by-pass and to optimize the efficiency of the heat exchanger. In this way the correct and proportional functioning of each module is granted.



### PAINTED CASING

Standard painted casing with C4 protection-class, designed in galvanized steel which is oven painted with polyurethanic resins to guarantee a perfect durability over time.

### COVERS ON HEADERS AND RETURN BEND SIDES

A protection cover on the headers side and a closing cover on the return bend side of the coil avoid any damage even to the most fragile parts.

### NITROGEN FILLING WITH FLANGE AND COUNTERFLANGE

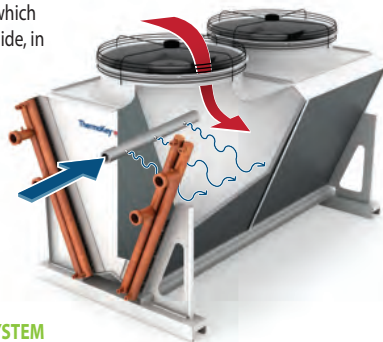
In order to verify the correct pressure of the circuit, the unit is supplied with a nitrogen charge, which can be checked on the manometer mounted in factory.

## OPTIONS

(Optional)

### SPRAY J CLEANING SYSTEM

On V-type units Aermec has designed a Cleaning System with internal nozzles which sprays water from the inside to the outside, in order to clean the heat exchanger.



(Optional)

### SELF-DRAINING AND DRAINABLE SYSTEM

automatic drain system designed to prevent the risk of freezing of the ynned coil during the winter.

(Optional)

### STAINLESS STEEL TUBES, FINS AND CASING

AERMEC can also produce heat exchangers completely in 304 or 316L stainless steel for special applications (particularly aggressive environments) or fluids ..

(Optional)

### ADIABATIC COOLING SYSTEMS: HIGH EFFICIENCY TO MEET THE MOST DEMANDING CONDITIONS

#### ■ AFS - AIR FRESH SYSTEM

adiabatic cooling system equipped with special high-pressure nozzles which allows to compensate for the peaks of power to be dissipated, with minimum water consumption for maximum of 500 hours per year.

#### ■ WFS - WET FIN SYSTEM

hybrid cooling system which allows a complete flexibility of operation, working at low pressure (2-3 bars) and for a very high number of hours per year (up to 1000).

#### ■ EPS - EVAPORATIVE PANEL SYSTEM

The evaporative panel system completes Aermec offer for adiabatic cooling. Thanks to an homogeneous and adjustable distribution of water on the panels this system allows to reach a high saturation level and therefore an efficient capacity increase with low water consumption (hours per year 8000).

## DRY COOLERS RANGE



### Performance range:

### WTE

#### Capacity from 8 to 890 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

#### Fans

Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 1-10 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted



### Performance range:

### WTE

#### Capacity from 45 to 1123 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

#### Fans

Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted



### Performance range:

### WTR

#### Capacity from 45 to 1123 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

#### Fans

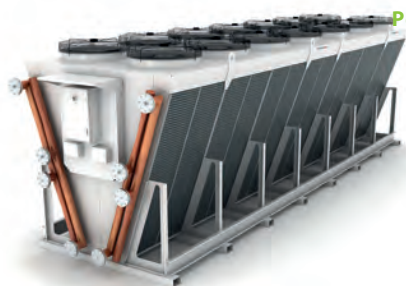
Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted



## WDR



### Performance range:

### Capacity from 70 to 961 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

### Fans

Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

### Benejts

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

## WGA



### Performance range:

### Capacity from 290 to 2219 kW

### Fans

Diameter Ø 800, 900, 1000 mm, AC or EC motor

### Benejts

- **EPS (Evaporative Panel System)**
- Maximum performance, minimum footprint
- High efficiency geometry
- Modular design, 8-20 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories

## REMOTE CONDENSERS



### Performance range:

### Capacity from 10 to 1200 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

### Fans

Diameter Ø 500, 630, 800 mm, AC or EC motor

### Benejts

- High efficiency geometry
- Modular design, 1-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

## CSE



### Performance range:

#### Capacity from 45 to 1123 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

#### Fans

Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

## CVR



### Performance range:

#### Capacity from 70 to 961 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

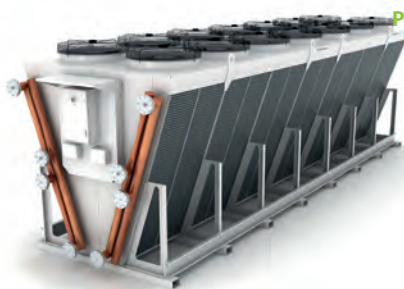
#### Fans

Diameter Ø 500, 630, 800, 900, 1000 mm, AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories
- Casing in galvanized steel, powder painted

## CDR



### Performance range:

#### Capacity from 100 to 19515 kW

(ethylene glycol 35%, Tw1=40°C, Tw2=35°C, T1=25°C)

#### Fans

Diameter Ø 900 AC or EC motor

#### Benefits

- High efficiency geometry
- Modular design, 2-16 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- AFS (Air Fresh System), WFS (Wet Fin System) e EPS (Evaporative Panel System) disponibili su richiesta
- Casing in galvanized steel, powder painted



## CGA



### Performance range:

**Capacity from 290 to 2219 kW**

#### Fans

Diameter Ø 800, 900, 1000 mm, AC or EC motor

#### Benefits

- **EPS (Evaporative Panel System)**
- Maximum performance, minimum footprint
- High efficiency geometry
- Modular design, 8-20 fans
- 8 sound levels
- Piping in copper or stainless steel AISI 304 or AISI 316L
- Finned pack available in a wide range of materials
- Complete range of accessories

## MODULAR MICROCHANNEL



### Performance range:

**Capacity for each module up to 120 kW**

#### Fans

Diameter Ø 800 mm, AC or EC motor

#### Modules

From 1 module on

#### Benefits

- Compactness (maximum length of 2245 mm)
- Low installation costs
- Regulation or partialisation of the whole unit
- Lower environmental impact
- Less weight
- Less fluid use
- Easy-to-clean microchannel core
- Core coating possibility in case of aggressive ambient

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Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FW-R

## Water-cooled air conditioners

Cooling capacity 2,9 kW  
Heating capacity 4,3 kW

- Silent operation
- Reduced water consumption
- Low electrical power consumption



### DESCRIPTION

FW-R series integrated system air conditioners are independent appliances designed and built to create and maintain optimum room comfort conditions.

Discreetly and elegantly styled, these remarkably quiet units are ideal for installation in the home or commercial premises.

Equipped with a water-cooled condenser, the unit appliances perform all typical cooling, dehumidification, ventilation and air filtration functions while offering particular benefits in terms of ease of application and installation.

Suitable also for winter operation when equipped with an electric heater or hot water coil; console air conditioners are able to provide different microclimates within the same room because each appliance can be adjusted independently; low running costs are assured by fast arrival at the required room temperature because of the low thermal inertia of the system; quiet operation and thermal efficiency are also promoted by the heat and sound insulation of the compressor bay.

All appliances are factory assembled and individually tested.

**Installation requires mandatory coupling with the TL3 Remote Control Kit accessory; the IR receiver can be installed either on-board or recessed in the wall.**

### FEATURES

- High efficiency rotary compressor
- Reduced dimensions
- Automatic temperature adjustment
- Reduced water consumption

### ACCESSORIES COMPATIBILITY

#### Remote controller (mandatory accessory)

| Accessory | FW130R | FW160R |
|-----------|--------|--------|
| TL3       | •      | •      |

#### Electric coil

| Accessory | FW130R | FW160R |
|-----------|--------|--------|
| BR26      | •      | •      |



- 1 IR on board receiver
- 2 IR wall-mounted receiver
- 3 TL3: Kit Mandatory accessory

### ACCESSORIES

**TL3:** Mandatory accessory, remote control, essential for unit operation. The kit consists of a remote control, an I.R. signal receiver, the 8-metre long connection cable, a rectangular recessed Modulo 503 box (of which only one is engaged by the receiver, the other 2 modules are also available for other uses) and a white-coloured cover plate. The IR receiver can be installed: on board the unit (the IR receiver is housed under the grid, invisible from the outside); recessed in the wall and connected to the unit (with the dedicated 8-metre cable).

**BR26:** Armoured electric coil with safety thermostat.

**BVR1:** Single row hot water heat exchanger.

## Hot water coil

| Accessory | FW130R | FW160R |
|-----------|--------|--------|
| BVR1      | .      | .      |

## PERFORMANCE SPECIFICATIONS

|   |                          | FW130R                           | FW160R |
|---|--------------------------|----------------------------------|--------|
| <b>Cooling (room air temperature 27 °C D.B. ; 19 °C W.B., water temperature (in/out) 30°C / 35 °C, maximum speed)</b> |                          |                                  |        |
| Cooling capacity  | W (max.)                 | 2900                             | 4000   |
| Energy Efficiency Class   |                          | A                                | A      |
| EER   |                          | 4,08                             | 4,65   |
| Moisture removed  | l/h                      | 1,78                             | 1,78   |
| Total input electric power  | W                        | 710                              | 860    |
| Input current   | A                        | 3,55                             | 4,02   |
| <b>Heating - BVR1 (room air temperature 20 °C, Entering water temperature 70°C, maximum speed)</b>                    |                          |                                  |        |
| Heating capacity with water coil (BVR1)   | W                        | 4350                             | 5200   |
| Heating capacity with water coil (BVR1)   | l/h                      | 600                              | 600    |
| Pressure drops (BVR1)   | kPa                      | 12,6                             | 12,6   |
| Heating capacity electric coil (BR26)   | W                        | 1200                             | 1200   |
| <b>Fans data</b>  |                          |                                  |        |
| Number of fans  | n.                       | 2                                | 2      |
| Air flow rate   | m <sup>3</sup> /h (max.) | 470                              | 690    |
|   | m <sup>3</sup> /h (med.) | 390                              | 525    |
|   | m <sup>3</sup> /h (min.) | 270                              | 375    |
| Fans speed  | g/m (max.)               | 800                              | 1140   |
|   | g/m (med.)               | 660                              | 885    |
|   | g/m (min.)               | 500                              | 665    |
| <b>General technical data</b>   |                          |                                  |        |
| Sound pressure  | dB(A)                    | 44,0                             | 47,5   |
| Water consumption at 30-35°C  | l/h                      | 586                              | 804    |
| Condenser pressure drops  | kPa                      | 22                               | 40     |
| Refrigerant gas   | Type/GWP                 | R410A / 2088kgCO <sub>2</sub> eq |        |
| Refrigerant gas charge  | g                        | 750                              | 830    |
| Nominal electric power *  | W                        | 1120                             | 1500   |
| Nominal input current *   | A                        | 4,97                             | 6,65   |
| Peak current  | A                        | 18                               | 32     |
| Hydraulic connections   | ø                        | 1/2" F                           | 1/2" F |

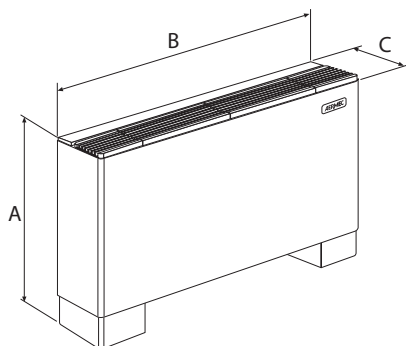
Power supply = 230V ~ 50Hz

Sound pressure measured in an 85 m<sup>3</sup> semi-reverberant test chamber with reverberation time Tr = 0.5s

\* In accordance with EN-60335

Data declared in accordance with EN-14511

## DIMENSIONS



|                               |    | FW130R | FW160R |
|-------------------------------|----|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |
| A                             | mm | 723    | 723    |
| B                             | mm | 1121   | 1121   |
| C                             | mm | 242    | 242    |
| Empty weight                  | kg | 63     | 67     |

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Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
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www.aermec.com

# CWX-CWXM

## Water motocondensing unit

Cooling capacity 2,7 ÷ 7,1 kW



- Functioning only in cooling mode
- Internal installation



### VERSIONS

**CWX:** condensing unit for cooling only MONOSPLIT

**CWXM:** condensing unit cold only DUALSPLIT

### DESCRIPTION

#### CWX power module

- Available in 4 versions with different potentiality
- The versions are realised using R410A refrigerant gas
- Only cold operation with water condensation
- Outdoor unit with rotary compressor
- Refrigerant lines with flared connections
- Refrigerant lines up to 15m

#### CWXM power module

- Available in 2 versions with different potentiality
- The versions are realised using R410A refrigerant gas
- Only cold operation with water condensation
- Outdoor unit with rotary compressor
- Refrigerant lines with flared connections

- Refrigerant lines up to 10m

#### Indoor unit CWX\_W

- Wall indoor unit for wall installation with infrared ray remote control supplied;
- Air flow louvers adjustable horizontally and motorised deflecting louvers, which can be activated by remote control to direct the outlet air flow vertically, with fixed (LV) or floating (SW) positions
- Particularly quiet operation
- Microprocessor control
- Programmable switch-on/off timer
- Air filter that can be easily removed and regenerated
- Night time well-being (SLEEP) function
- Operating mode: cooling, dehumidification and fan only
- Autorestart function after interruption of electricity
- Tangential fan with 3 directly selectable speeds
- Energy saving (ECONO) and fast cooling (TURBO) mode
- Display on front panel showing the functioning modes and the temperature

## PERFORMANCE SPECIFICATIONS

| Indoor units                             |          | CWX250W                             | CWX350W | CWX500W | CWX700W | CWX350W+ CWX350W | CWX500W+ CWX500W |
|--|----------|-------------------------------------|---------|---------|---------|------------------|------------------|
| Power module                             |          | CWX250                              | CWX350  | CWX500  | CWX700  | CWXM520          | CWXM720          |
| Cooling capacity                         | W        | 2750                                | 3400    | 5200    | 6700    | 4826             | 7100             |
| Total input power                        | W        | 637                                 | 778     | 1330    | 1860    | 1279             | 1780             |
| Total input current                      | A        | 2,86                                | 3,56    | 6,02    | 9,28    | 5,80             | 9,00             |
| EER                                      | W/W      | 4,32                                | 4,37    | 3,91    | 3,60    | 3,77             | 3,99             |
| Water flow rate at (in/out)<br>30°C/35°C | l/h      | 572                                 | 705     | 1091    | 1446    | 1066             | 1510             |
| Water pressure drop                      | kPa      | 21                                  | 32      | 74      | 125     | 68               | 127              |
| Water flow rate at (in) 15°C             | l/h      | 102                                 | 122     | 225     | 308     | 190              | 255              |
| Refrigerant gas                          | Type/GWP | R410A / 2087,5 kgCO <sub>2</sub> eq |         |         |         |                  |                  |
| Refrigerant gas charge                   | kg       | 0,65                                | 0,75    | 0,85    | 0,97    | 0,90             | 1,10             |
| Rated power input (1)                    | W        | 1500                                | 1500    | 2300    | 2650    | 2300             | 2650             |
| Moisture removed                         | l/h      | 1,08                                | 1,18    | 1,96    | 2,38    | 1,00             | 1,30             |
| Air flow rate                            | max      | m <sup>3</sup> /h                   | 445,00  | 537     | 882     | 1010             | 537              |
|  | average  | m <sup>3</sup> /h                   | 428,00  | 501     | 828     | 935              | 501              |
|  | min      | m <sup>3</sup> /h                   | 404,00  | 467     | 776     | 842              | 467              |
| Sound power (indoor unit)                | max      | dB(A)                               | 51,0    | 51,0    | 56,0    | 58,0             | 51,0             |
|  | average  | dB(A)                               | 50,0    | 50,0    | 55,0    | 56,0             | 50,0             |
|  | min      | dB(A)                               | 49,0    | 48,0    | 53,0    | 54,0             | 48,0             |

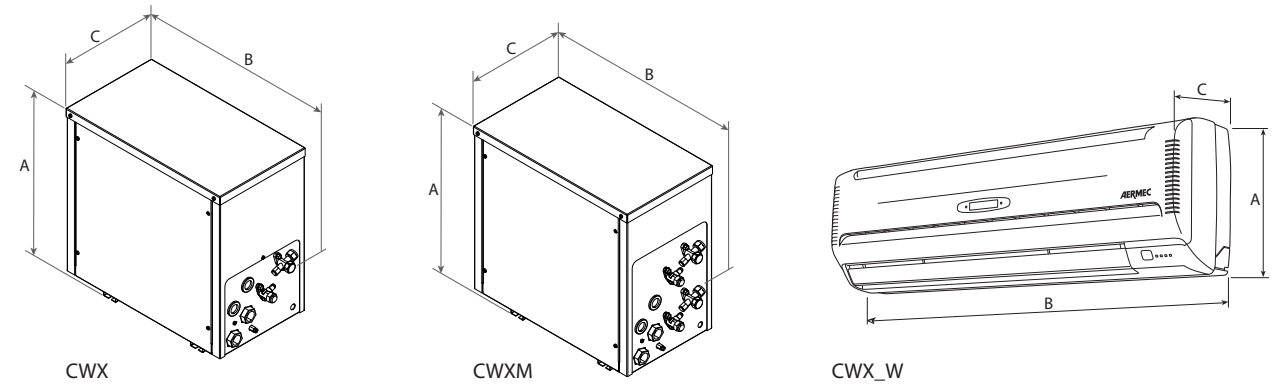
| Power module            |                      | CWX250          | CWX350      | CWX500      | CWX700      | CWXM520     | CWXM720     |
|-------------------------|----------------------|-----------------|-------------|-------------|-------------|-------------|-------------|
| Sound power             | dB(A)                | 52,0            | 56,0        | 59,0        | 59,0        | 59,0        | 59,0        |
| Compressor              | type                 | Rotary          | Rotary      | Rotary      | Rotary      | Rotary      | Rotary      |
| Refrigerant connections | Φ liquid             | inch            | 1/4"        | 1/4"        | 1/4"        | 1/4"        | 1/4"        |
|                         | Φ gas                | inch            | 3/8"        | 1/2"        | 1/2"        | 5/8"        | 1/2"        |
| Refrigerant lines       | Φ liquid             | mm (inch)       | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") | 6,35 (1/4") |
|                         | Φ gas                | mm (inch)       | 9,52 (3/8") | 12,7 (1/2") | 12,7 (1/2") | 15,9 (5/8") | 12,7 (1/2") |
|                         | Max pipe length      | m               | 15          | 15          | 15          | 10 + 10     | 10 + 10     |
|                         | Max level difference | m               | 7           | 7           | 7           | 5           | 5           |
| Hydraulic connections   | F                    | 3/4"            | 3/4"        | 3/4"        | 3/4"        | 3/4"        | 3/4"        |
| Power supply            | V ~ Hz               | 220-240V ~ 50Hz |             |             |             |             |             |

(1) The rated power input, is the maximum input electrical power from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

### Rated conditions (Cooling EN-14511):

- room air temperature 27 °C D.B. ; 19 °C W.B.
- water temperature (in/out) 30°C / 35 °C
- maximum speed
- pipe length 5m

DIMENSIONS



| CWX                    |    | CWX250 | CWX350 | CWX500 | CWX700 |
|------------------------|----|--------|--------|--------|--------|
| Dimensions and weights |    |        |        |        |        |
| A                      | mm | 450    | 450    | 450    | 570    |
| B                      | mm | 470    | 470    | 470    | 470    |
| C                      | mm | 260    | 260    | 260    | 260    |
| Weight                 | kg | 32     | 35     | 38     | 49     |

| CWXM                   |    | CWXM520 | CWXM720 |
|------------------------|----|---------|---------|
| Dimensions and weights |    |         |         |
| A                      | mm | 585     | 585     |
| B                      | mm | 470     | 470     |
| C                      | mm | 260     | 260     |
| Weight                 | kg | 41      | 52      |

| CWX_W                  |    | CWX250W | CWX350W | CWX500W | CWX700W |
|------------------------|----|---------|---------|---------|---------|
| Dimensions and weights |    |         |         |         |         |
| A                      | mm | 298     | 305     | 360     | 360     |
| B                      | mm | 880     | 990     | 1172    | 1172    |
| C                      | mm | 205     | 210     | 220     | 220     |
| Weight                 | kg | 11      | 12      | 18      | 20      |

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**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## DMT

## Dehumidifier portable

Dehumidifying capacity 0,40 l/h ÷ 1,00 l/h



- **New R290 natural refrigerant gas.**
- **Compact, manoeuvrable and silent.**
- **Modern design to blend with all furnishing styles.**
- **Removes up to 24 litres of humidity in 24 hours.**



### DESCRIPTION

The portable dehumidifiers of the DMT range are ideal for dehumidifying domestic rooms, cellars, and places where clothes are hung out to dry, reducing the humidity to optimum levels to avoid any risk of physical discomfort and damage to the building due to the formation of mould.

They fit in with any type of furnishings thanks to their compact, elegant design, and even have wheels so they can easily be moved from one room to another and installed where needed (plug & play).

Equipped with a specific tray for collecting the humidity removed from the room during operation.

The on-board control panel with led display and indicator lights, allows you to set the required temperature set-point easily and accurately.

### FEATURES

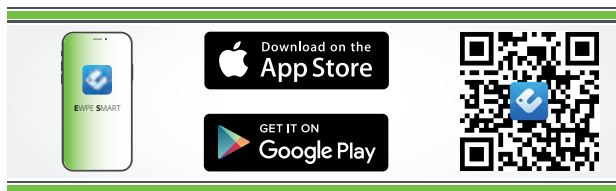
#### Operation

The dehumidifier takes in the excess humidity via the recovery grille and releases humidity-free air, thereby ensuring a healthier, more comfortable environment.

In addition, its functions enable easy control of the humidity level, keeping it constant over time.

### Smart APP Ewpe

DMT160 model is equipped with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the dehumidifier can be directly controlled from a distance on your smartphone or tablet and is possible via Cloud, using a wireless router connected to the Internet.



### Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



### DMT160

- New R290 natural refrigerant gas.
- On-board control panel with led display and indicator lights.
- Visual display of the humidity setting and that read in the room.
- Particularly quiet operation.
- Regenerable air filter easy to remove and clean.
- Alarm signal for filter cleaning.
- Alarm signal for condensate discharge tray full or badly positioned.
- Possibility to continuously drain off the condensate without using the tray supplied.
- Auto switch-off function: the unit stops operating when the condensate discharge tray is full or badly positioned, or when it has reached the defined work set-point.
- Auto-restart function.
- Timer for programming switch-off and switch-on.
- WiFi function

### DMT240

- New R290 natural refrigerant gas.
- On-board control panel with led display and indicator lights.
- Visual display of the humidity setting and that read in the room.
- Particularly quiet operation.
- Regenerable air filter easy to remove and clean.
- Alarm signal for filter cleaning.
- Alarm signal for condensate discharge tray full or badly positioned.
- Possibility to continuously drain off the condensate without using the tray supplied.
- Auto switch-off function: the unit stops operating when the condensate discharge tray is full or badly positioned, or when it has reached the defined work set-point.
- Auto-restart function.
- Timer for programming switch-off and switch-on.
- Auto function: automatic drying mode. The unit automatically sets the most comfortable humidity.

### ACCESSORIES AS STANDARD

#### DMT160-240

- Swivel wheels
- Power supply + Schuko plug
- Condensate discharge coupling



## PERFORMANCE SPECIFICATIONS

|  |                   | DMT160          | DMT240  |
|--|-------------------|-----------------|---------|
| <b>Nominal performance (1)</b>                   |                   |                 |         |
| Dehumidifying capacity                           | l/h               | 0,66            | 1,00    |
| Input power                                      | W                 | 370             | 390     |
| <b>Nominal performance (Standard EN 810) (2)</b> |                   |                 |         |
| Dehumidifying capacity                           | l/h               | 0,40            | 0,48    |
| Input power                                      | W                 | 315             | 325     |
| Input current                                    | A                 | 1,7             | 1,8     |
| <b>Electric data</b>                             |                   |                 |         |
| Rated power input (3)                            | W                 | 510             | 460     |
| Rated current input (3)                          | A                 | 3,0             | 3,0     |
| <b>Compressor</b>                                |                   |                 |         |
| Type   | type              | Reciprocating   |         |
| Refrigerant                                      | type              | R290            |         |
| Refrigerant charge                               | g                 | 65              | 65      |
| Potential global heating                         | GWP               | 3               |         |
| Equivalent CO <sub>2</sub>                       | t                 | 0,20            | 0,20    |
| <b>Fan</b>                                       |                   |                 |         |
| Type   | type              | Centrifugal     |         |
| <b>Air flow rate</b>                             |                   |                 |         |
| Maximum  | m <sup>3</sup> /h | 170             | 220     |
| Minimum  | m <sup>3</sup> /h | 145             | 155     |
| <b>Sound power</b>                               |                   |                 |         |
| Maximum  | dB(A)             | 53,0            | 56,0    |
| Minimum  | dB(A)             | 51,0            | 54,0    |
| <b>Sound pressure (4)</b>                        |                   |                 |         |
| Maximum  | dB(A)             | 39,0            | 44,0    |
| Minimum  | dB(A)             | 37,0            | 42,0    |
| <b>Condensate drainage basin</b>                 |                   |                 |         |
| Capacity   | l                 | 2,6/3,0         | 2,6/3,0 |
| <b>Performances</b>                              |                   |                 |         |
| Application area                                 | m <sup>2</sup>    | 22~28           | 36~42   |
| <b>Power supply cable</b>                        |                   |                 |         |
| Type of power supply cable                       | Type              | Schuko          |         |
| <b>Power supply</b>                              |                   |                 |         |
| Power supply                                     |                   | 220-240V ~ 50Hz |         |

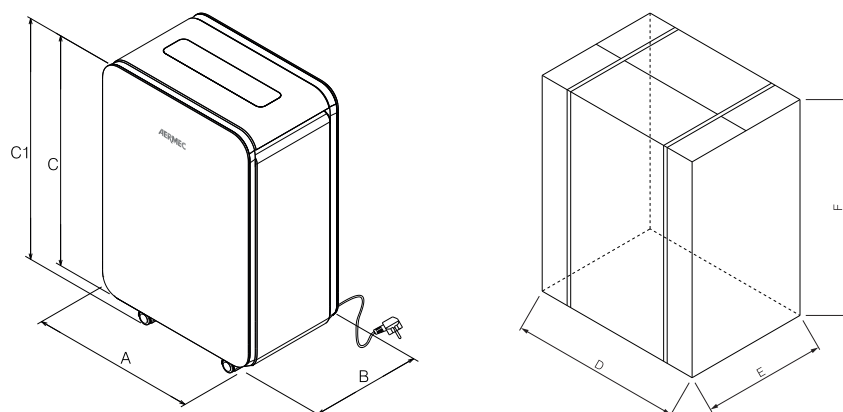
(1) Indoor air temperature 30°C D.B. / 27°C W.B.

(2) Indoor air temperature 27°C b.s./21°C b.u. (Tested according to EN 810)

(3) Tested according to EN 60335.

(4) Sound pressure measured according to EN 12102 standard, in semi anechoic chamber at a distance of 1 m from the source.

## DIMENSIONS AND WEIGHTS



### Dimensions and weights

|                               |    | DMT160 | DMT240 |
|-------------------------------|----|--------|--------|
| <b>Dimensions and weights</b> |    |        |        |
| A                             | mm | 351    | 351    |
| B                             | mm | 240    | 240    |
| C                             | mm | 489    | 489    |
| C1                            | mm | 522    | 522    |
| D                             | mm | 392    | 392    |
| E                             | mm | 286    | 286    |
| F                             | mm | 525    | 525    |
| Net weight                    | kg | 15,5   | 15,5   |
| Weight for transport          | kg | 16,5   | 16,5   |

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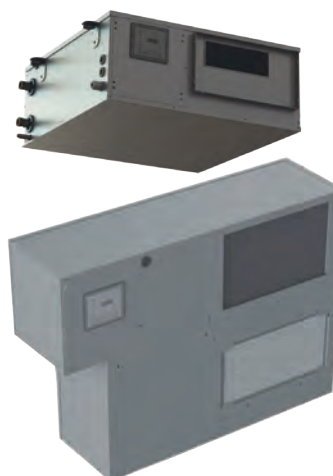
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
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## DMH - DMV

## Dehumidifier for radiant air-conditioning systems

Dehumidifying capacity 22 l/24h ÷ 36 l/24h

- Better performance compared to traditional dehumidifiers
- Reduced consumption
- Prevents the formation of condensate on the surface of the pavement
- Unit only for indoor installation



### DESCRIPTION

Dehumidifiers are refrigerant cycle machines combined with radiant air-conditioning systems, from which they draw a certain water flow rate to increase the dehumidification efficiency and reduce electricity consumption.

The cooling systems employ chilled water at temperatures between 15°C and 20°C, which is enough to take the rooms to the desired temperature, but not suitable for dehumidification. To lower the latter, you would need water at 7°C, resulting in a reduction in the performance of the water chiller compared to when the water is produced at 15-20°C.

Water-cooled refrigerant cycle dehumidifiers are used to keep the air humidity at optimal values (55-65%) in rooms, with the following benefits compared to other systems:

- They employ the chilled water available in the radiant panel system;
- They are used to process the air without modifying its temperature and, therefore, without affecting the operation of the radiant panels and their adjustment system.
- They prevent the formation of condensation on the floor surface in radiant air conditioning systems.

### FEATURES

**Structure:** galvanised sheet metal panels, lined on the inside with a sound-proofing polyethylene covering.

**Filter section:** 12 mm thick synthetic filtering baffle made with a galvanised sheet metal frame, efficiency class ISO 16890 COARSE 50% (G3 EN 779), can be removed from the front.

**Cooling circuit:** consisting of a R134a alternative refrigerant compressor, freon filter, expansion capillary, evaporator and condenser with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame (for "-C" cooling versions, with "I" integration, water-freon condenser).

**Hydraulic circuit:** with pre-treatment and post-cooling coils featuring with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame; for "-C" cooling versions, plate water condenser (no post-cooling); stainless steel condensate drip tray extended to the whole treatment.

**Fan:** double intake centrifugal fan with blades facing forwards, with multi-speed motor directly coupled; 3 different electrical connections available (H/M/L) for the functioning speed; the manufacturer's default setting is medium (M) speed.

### ACCESSORIES

**DMUM:** Wall mounted environment humidistat.

**DMWB:** Outer casing for vertical model. Vertical installation.

**DMFP:** Front panel for outer casing. Vertical installation.

## PERFORMANCE SPECIFICATIONS

|  |       | DMV220                        | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 |
|--|-------|-------------------------------|---------|--------|---------|---------|---------|---------|--------|
| Performances (1)                             |       |                               |         |        |         |         |         |         |        |
| Condensed humidity                           | l/24h | 22                            | 22      | 22     | 22      | 22      | 36      | 36      | 36     |
| Power at the evaporator                      | W     | 1020                          | 1020    | 1050   | 1050    | 1050    | 1480    | 1480    | 1480   |
| Power dissipated with water                  | W     | 870                           | 1820    | 870    | 1820    | 1820    | 2680    | 2680    | 1540   |
| Nominal water flow rate                      | m³/h  | 240                           | 240     | 240    | 240     | 240     | 390     | 390     | 390    |
| Water pressure drop                          | kPa   | 3                             | 3       | 3      | 3       | 3       | 10      | 10      | 10     |
| Available sensitive power                    | W     | -                             | 840     | -      | 840     | 840     | 1340    | 1340    | -      |
| Total input power                            | W     | 350                           | 350     | 350    | 350     | 350     | 580     | 580     | 580    |
| Input current                                | A     | 2,0                           | 2,0     | 2,0    | 2,0     | 2,0     | 3,2     | 3,2     | 3,2    |
| Fan  |       |                               |         |        |         |         |         |         |        |
| Type   | type  | Centrifugo doppia aspirazione |         |        |         |         |         |         |        |
| Available fan speeds                         |       | H / M / L                     |         |        |         |         |         |         |        |
| Nominal fan setting                          |       | M                             |         |        |         | L       |         |         |        |
| Air flow rate                                | m³/h  | 220                           | 220     | 220    | 220     | 220     | 360     | 360     | 360    |
| High static pressure                         | Pa    | 0                             | 0       | 20     | 20      | 20      | 20      | 20      | 20     |
| Compressor                                   |       |                               |         |        |         |         |         |         |        |
| Type   | type  | Ermetico alternativo          |         |        |         |         |         |         |        |
| Refrigerant                                  | type  | R134a                         |         |        |         |         |         |         |        |
| Refrigerant charge                           | g     | 340                           | 270     | 340    | 340     | 270     | 460     | 410     | 460    |
| Operating limits                             |       |                               |         |        |         |         |         |         |        |
| Intake air temperature                       | °C    |                               |         |        |         | 15 ~ 32 |         |         |        |
| Water inlet temperature (dehumidifying mode) | °C    |                               |         |        |         | 10 ~ 21 |         |         |        |
| Sound data                                   |       |                               |         |        |         |         |         |         |        |
| Sound pressure level (1 m)                   | dB(A) | 39,0                          | 39,0    | 42,0   | 42,0    | 42,0    | 47,0    | 47,0    | 47,0   |

(1) At nominal air flow rate at the following conditions: ambient air 26°C BS, RH 65%; incoming water temperature 15°C

### Condensed humidity with ambient temperature of 26°C

|   |       | DMV220 | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 |
|---|-------|--------|---------|--------|---------|---------|---------|---------|--------|
| <b>Hydraulic circuit water temperature 21°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 12     | 12      | 12     | 12      | 12      | 20      | 20      | 20     |
| <b>Hydraulic circuit water temperature 18°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 14     | 14      | 14     | 14      | 14      | 22      | 22      | 22     |
| <b>Hydraulic circuit water temperature 15°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 15     | 15      | 15     | 15      | 15      | 25      | 25      | 25     |
| <b>Hydraulic circuit water temperature 21°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 17     | 17      | 17     | 17      | 17      | 28      | 28      | 28     |
| <b>Hydraulic circuit water temperature 18°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 19     | 19      | 19     | 19      | 19      | 31      | 31      | 31     |
| <b>Hydraulic circuit water temperature 15°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 22     | 22      | 22     | 22      | 22      | 36      | 36      | 36     |

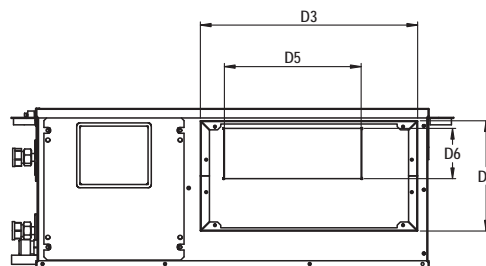
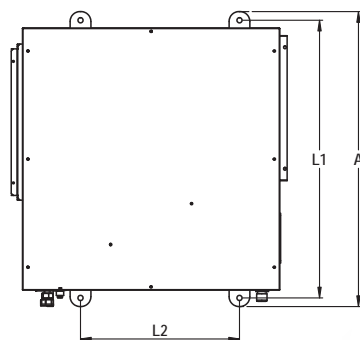
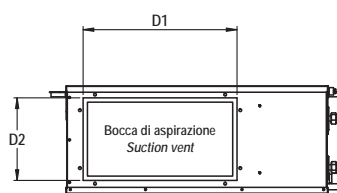
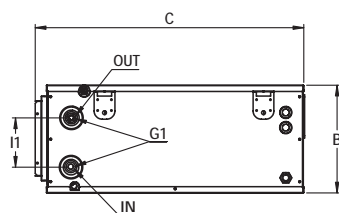
### Condensed humidity with ambient temperature of 24°C

|   |       | DMV220 | DMV220I | DMH220 | DMH220C | DMH220I | DMH360C | DMH360I | DMH360 |
|---|-------|--------|---------|--------|---------|---------|---------|---------|--------|
| <b>Hydraulic circuit water temperature 21°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 10     | 10      | 10     | 10      | 10      | 17      | 17      | 17     |
| <b>Hydraulic circuit water temperature 18°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 12     | 12      | 12     | 12      | 12      | 19      | 19      | 19     |
| <b>Hydraulic circuit water temperature 15°C - Relative humidity 55%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 13     | 13      | 13     | 13      | 13      | 21      | 21      | 21     |
| <b>Hydraulic circuit water temperature 21°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 14     | 14      | 14     | 14      | 14      | 23      | 23      | 23     |
| <b>Hydraulic circuit water temperature 18°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 17     | 17      | 17     | 17      | 17      | 27      | 27      | 27     |
| <b>Hydraulic circuit water temperature 15°C - Relative humidity 65%</b> |       |        |         |        |         |         |         |         |        |
| Condensed humidity  | l/24h | 18     | 18      | 18     | 18      | 18      | 30      | 30      | 30     |

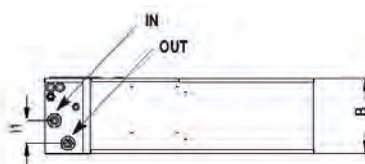
#### Operating limits

- Intake air temperature 15 ~ 30°C
- Hydraulic circuit water temperature 12 ~ 20°C

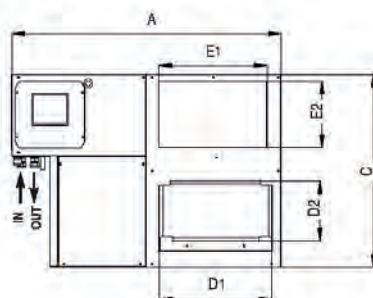
## DIMENSIONS AND WEIGHTS



DMH220 / DMH220C / DMH220I  
DMH360 / DMH360C / DMH360I



DMV220 / DMV220I



|                               |    | DMH220 | DMH220C | DMH220I | DMV220 | DMV220I | DMH360 | DMH360C | DMH360I |
|-------------------------------|----|--------|---------|---------|--------|---------|--------|---------|---------|
| <b>Dimensions and weights</b> |    |        |         |         |        |         |        |         |         |
| A                             | mm | 680    | 680     | 680     | 850    | 850     | 775    | 775     | 775     |
| B                             | mm | 250    | 250     | 250     | 240    | 240     | 270    | 270     | 270     |
| C                             | mm | 623    | 623     | 623     | 615    | 615     | 623    | 623     | 623     |
| D1                            | mm | 337    | 337     | 337     | 337    | 337     | 437    | 437     | 437     |
| D2                            | mm | 172    | 172     | 172     | 172    | 172     | 192    | 192     | 192     |
| D3                            | mm | 335    | 335     | 335     | -      | -       | 435    | 435     | 435     |
| D4                            | mm | 170    | 170     | 170     | -      | -       | 195    | 195     | 195     |
| D5                            | mm | 210    | 210     | 210     | -      | -       | 250    | 250     | 250     |
| D6                            | mm | 77     | 77      | 77      | -      | -       | 95     | 95      | 95      |
| E1                            | mm | -      | -       | -       | 350    | 350     | -      | -       | -       |
| E2                            | mm | -      | -       | -       | 215    | 215     | -      | -       | -       |
| I1                            | mm | 115    | 115     | 115     | 75 (1) | 75 (1)  | 125    | 125     | 125     |
| L1                            | mm | 640    | 640     | 640     | -      | -       | 745    | 745     | 745     |
| L2                            | mm | 370    | 370     | 370     | -      | -       | 370    | 370     | 370     |
| G1                            | Ø  | 1/2" F | 1/2" F  | 1/2" F  | 1/2" F | 1/2" F  | 1/2" F | 1/2" F  | 1/2" F  |
| Net weight                    | kg | 35,0   | 35,0    | 35,0    | 40,0   | 40,0    | 40,0   | 40,0    | 40,0    |

(1) Pre-shearing for hydraulic and electrical connections on the side, rear and bottom panel

Aermec reserves the right to make any modifications deemed necessary.  
All data is subject to change without notice. Aermec does not assume  
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Tel. 0442633111 - Telefax 044293577  
www.aermec.com



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Ph. +355 4 2224339 - Fax. +355 4 2224339 - info@aermekalbania.com

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**AIRMEC ALGERIE** - 312 Avenue Hamid Kebladj - Hammamet  
Ph. + 213 23 15 76 46 - Fax + 213 21 95 61 48 - airmec\_algerie@yahoo.fr

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Morro Bento Luanda - Ph. +244 222 469 105 - Fax +244 222 469 024 -  
geral.angola@cest.pt

## ARGENTINA

**TROX ARGENTINA SA.** - Timbo 2610 - Parque Industrial Burzaco -  
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fernando.cani@trox-latinamerica.com

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**LLC LID MECH** - Avan, Babajanyan 15/1 Yerevan - Ph. +374 99 19 31 99  
info@santech.am  
**Renome LTD** - M. Xorenatci str. 116/16 - Yerevan - Ph +374 60445310  
Fax +374 60445310 - renomeclima@mail.ru

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**COSAIR PRODUCTS PTY LTD** - Unit 10, 35 Birch Street - Condell Park  
NSW 2200 - Ph. +61 297964668 - Fax +61 297964669  
mcosgrove@cosair.com.au

## AUSTRIA

**AERSYS GMBH** - Brown Boveri Strasse 8/Stg. 1/5 - 2351 Wiener  
Neudorf - Ph. +43 (0)2236 387 770- office@aersys.at

## BANGLADESH

**AERMEC SOUTH ASIA** - 49, 3rd Cross GMR layout, Sanjaynagar  
566094 Bangalore - Ph. +91-9620031789 - debasis@aermec.com  
**AERMEC SOUTH ASIA** - 13/A Choudhury Para Lane Ballavpur - 712201  
Serampore Hooghly (West Bengal) - Ph. +91 9836030720 /+8801965583865  
archan@aermec.com

## BELGIUM

**ENERWIN S.P.R.L.** - Avenue Vésale 20 B - 1300 WAVRE - Ph. +32 10 232650 -  
Fax +32 10 812608 - bernard.mendel@enerwin-aermec.be

## BELARUS

**RiaBaltEngineering OÜ** - Tuukri TN 19-3145 Kesklinna Linnaosa - 10152  
Tallinn -Tel. +375 44 570 08 47 - prnv@rialbalt.com

## BRASIL

**TROX DO BRASIL** - Rua Cyro Correia Pereira 300 - CIC - Curitiba -  
Ph. +55 413316-8418 - Fax +55 413316-8490  
fernando.cani@trox-latinamerica.com

## BOLIVIA

**CONSULCAD INGENIERIA SRL** - Av. Demetrio Canelas, Edif. Amistad PB  
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h\_astulla@consulcadsrl.com

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Ph. +359 32 906 906 - Fax +359 32 906 900 - ataro@ataro.bg

## BUTHAN

**AERMEC SOUTH ASIA** - 13/A Choudhury Para Lane Ballavpur  
712201 Serampore Hooghly (West Bengal) - Ph. +91 9836030720 /  
+880 1965583865 - archan@aermec.com  
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566094 Bangalore - Ph +91 -9620031789 - debasi@aermec.com

## CANADA

**AERMEC NORTH AMERICA** - 8953 Woodbine Avenue - Markham  
ON CA L3R 0J9 - Ph. +1 833-4237632 - info@aermec-na.com

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**AERMEC SOUTH AMERICA SPA** - Calle Canal La Punta 8770 - TOP  
SPACE BODEGA 42 - RENCA - 8640000 SANTIAGO - Ph. 56 2 2943.3355 -  
contacto@aermec.cl

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Mob. +573108749386 - paul.arredondo@aermec.com

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mariterm@mariterm.hr  
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mariterm-zagreb@mariterm.hr  
**MARITERM d.o.o.** - Divkovićeva 2b 52100 PULA Ph +385 52 556 864  
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**ROYAL ENGINEERING CO. LTD** - 6 Trachona Str. - Dhali Industrial Area  
1662 Nicosia - P.O. Box 20689 - Ph. +357 22612199 - Fax +357 22610272  
royaleng@cytanet.com.cy

## CZECH REPUBLIC

**COMPLETE CZ spol. s.r.o.** - V Rovínách 520/46 - 140 00 Praha 4  
Ph. +420 273 132 520 - Fax +420 246 030032 - info@completecz.cz

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Tallinn - Tel. +375 44 570 08 47 - prnv@rialbalt.com

## FINLAND

**AERMEC SUOMI OY** - Hautakorventie 9, 90620 Oulu - Ph. +358 40 149 3449  
veli-matti.rasanen@aermec.fi  
**AERMEC SUOMI OY** - Mikrokatu 1, 70210 Kuopio - Ph +358 40 674 2509  
ilpolaitinen@aermec.fi

## FRANCE

**AERMEC SAS** - PARC VISIONIS II - Rue du Developpement - 01090  
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**AERMEC SAS - Ile de France** - 80 Avenue du Général De Gaulle -  
91170 - Viry Chatillon - Ph. +33 1 60478348 - Fax +33 1 69436368  
gianni.delfabbro@aermec.fr  
**DIMENA SARL** - 88 Rue Du Moulineau - 33320 Eysines  
Ph. +33-5-57876429 - Fax +33-5-56798900 - contact@dimena.fr  
**S.TE FRANCE CLIM** - 41 rue Pierre Sémar - 57300 Hagondange  
Ph. +33 3 87517505 - Fax +33 3 87517514 - france.clim@laposte.net  
**T.C.A.** - Avenue des Maurettes - 06270 Villeneuve Loubet  
Ph. +33 4 92133666 - Fax +33 4 93208304 - tca06@tca.fr  
**T.C.A.** - 19 Rue M. Bastié Z.I. de la Lauze - 34430 St Jean De Vedas  
Ph. +33 4 67473690 - Fax +33 4 67479851 - tca34@tca.fr  
**T.C.A.** - 213 route de la Valentine aux 3 lucs - 13011 Marseille  
Ph. +33 4 91191919 - Fax +33 467479851 - tca13@tca.fr

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Ph. +995 591757550 - Sh.k@thermorum.com

## GERMANY

**AERMEC Deutschland GmbH** - Am Gierath 4 - 40885 Ratingen  
Ph. +49 2102 91000 - Fax +49 2102 910010 - info@aermec-deutschland.de  
**NOVATHERM KLIMAGERÄTE GmbH** - Dieselstrasse 40 - 30827 Garbsen  
Berenbostel - Ph. +49 5131 49670 - Fax +49 5131 496767  
hannover@novatherm.de

## GHANA

**Seepacs Engineering Limited** - Private Mail Bag, 25 - Cantonment Post  
Office Accra - Ph. +233 (0302) 817180 - Fax +233 (0302) 813454  
s.bruno@seepacseng.com

## GREECE

**CALDA ENERGY S.A.I.C.** - 100 Tatoiou Str, Metamorfossi - 14452  
Athens - Ph./Fax +30 210 28 43 - Fax + 30 210 28 43 - calda@otenet.gr

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**AERKOEL BV** - Deltazijde 4K - 1261 ZM Blaricum  
Ph. +31 850 731 001 - y.mols@aerkoel.nl

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**OKTOKLIMA** - Királyok útja 27 - 1039 Budapest  
Ph. +36 1 4332360 - oktoklima@oktoklima.hu

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Thomson Road - Wanchai - Ph. +2865 2088 - Fax +2529 7255  
general@luckym.hk

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**VÖRUKAUP** - Lambhagavegi 5 - 113 Reykjavík - Ph. +354 516-2600  
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## INDIA

**AERMEC SOUTH ASIA** - 149, 3rd Cross GMR layout, Sanjaynagar  
566094 Bangalore - Ph. +91-9620031789 - debasis@aermec.com  
**AERMEC SOUTH ASIA** - 13/A Choudhury Para Lane Ballavpur  
712201 Serampore Hooghly (West Bengal)  
Ph. +91 9836030720 / +880 1965583865 - archan@aermec.com

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Ph. + 225 22 42 26 03 - cybat.direction@gmail.com

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Ph. +38349777148 - bardhzeka@gmail.com

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Tikva, 697100 - Ph. +972-3-9283422 - Fax +972-3-5566188  
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**NIT Ltd** - Savanoriu av. 151 - 03150 Vilnius - Ph. +370 5 2728552  
Fax +370 5 2728559 - andrius@nit.lt

## LUXEMBOURG

**ENERWIN S.P.R.L.** - Avenue Vésale 20 B - 1300 WAVRE  
Ph. +32 10 232650 - Fax +32 10 812608  
bernard.mendel@enerwin-aermec.be  
**S.TE FRANCE CLIM** - 41 rue Pierre Sépard - 57300 Hagondange  
Ph. +33 3 87517505 - Fax +33 3 87517514 - france.clim@laposte.net

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Langhus - Ph. +47 23 16 95 00 - post@tco.as  
**THERMO CONTROL AS** (Skedsmo office) - Marenlundveien 5, 2020  
Skedsmokorset - Ph. +47 63 87 07 50 - post.skedsmo@tco.as  
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**THERMO CONTROL AS** (Trondheim office) - avdeling Midt-Norge

Østre Rosten 68B, 7075 Tiller - Ph. +47 73 02 10 60 - firmapost-midt@tco.as

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Tromsø - Ph. +47 975 99 992 - firmapost-nord@tco.as

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Harstad - Ph. +47 77 00 24 90 - firmapost-nord@tco.as

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Tower, F-11 Markaz - Islamabad

Ph. +92-51-2102688-89 - Fax +92-51 2102690

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Model Town Ext - Lahore

Ph. +92-42-35219051-52 - Fax +92-42-35219053

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Ph. +92-21-34982027 - Fax +92-21-34982028

## PERU

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Ph. +51 14472681 - Fax +51 14 45 0833 - jchavarri@airlan.es

## POLAND

**Aermec Polska Sp. z o.o.** - Krzysztofa Kolumba 31 - 02-288 Warszawa

Ph. +48 22 463 43 43 - aermec@aermec.pl

## PORTUGAL

**CEST - COMÉRCIO E INDÚSTRIA, LDA** - Av. Almirante Gago

Coutinho Ouressa Parque Arm. 13, 2725-322 Mem Martins

h. +351 219253330 - Fax +351 219253338 - geral@cest.pt

## QATAR

**ELEC QATAR W.L.L.** - Office 1, Capital Complex, Bldg 446, Street 340,

Salwa Road, Zone 55 - P.O. Box 31584 - DOHA

Ph. +974 4431.9282 - Fax +974 4431.9282

## ROMANIA

**AVANT'SYS GREEN ENERGY** - Strada Duzilor 24 - Bucharest 021472

Ph. +40 21 350 1359 - office@avantsys-promoterm.ro

**Clima Tech S.R.L.** - Strada Vasile Voiculescu 14, Bucharest

h. +40 21 323 2266 - office@clima-tech.ro

## REPUBLIC OF IRELAND

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Ph. +381 113187383 - akting@eunet.rs

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Ph. +65 6225 3602 - Fax +65 6818 6316 - comm@novus.com.sg

## SLOVAKIA

**KLIMA TEAM s.r.o.** - Trnavska 63 - 82101 Bratislava

Ph. +421 2 43293969 - Fax +421 2 43420079 - mail@klimateam.sk

## SLOVENIA

**BOSSPLAST D.O.O.** - Pod Jelsami 5 - 1290 GROSUPLJE

Ph. +386 1 7810 550 - jernej.rose@bossplast.com

## SOUTH AFRICA

**AERSA (PTY) Ltd.** - 2 Square Road - Stikland Industrial - Bellville 7530

Ph. +27 21 9057979 - Fax +27 21 9057976 - sales@aersa.co.za

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## SOUTH AMERICA

**AERMEC SOUTH AMERICA SPA** - Calle Canal La Punta 8770 - TOP

SPACE BODEGA 42 - RENCA - 8640000 SANTIAGO

Ph. 56 2 2943.3355 - ramon.morales@aermec.cl

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(Vizcaya) Ph. +34944760139 - Fax +3494752402 - rcoteron@airlan.es

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Vértice) 3B 28041 Madrid - Ph. +34914732765 - Fax +34914732581

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Barcelona - Ph. +34664548540 - Fax +34932780224



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Isla Edificio 2, Pl 1º, Mod. 9 41703 Pol. Ind. Ctra. De la Isla, Sevilla (Sevilla)

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**AIRLAN (Delegación Baleares)** - c/ Teixidors 6 - 7009 Pol Ind. Son

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38107 Santa Cruz de Tenerife (Tenerife)

Ph. +34922214563 - Fax +34922217985

## SRI LANKA

**AERMEC SOUTH ASIA** - 13/A Choudhury Para Lane Ballavpur - 712201

Serampore Hooghly (West Bengal) - Ph. +91 9836030720 / +880 1965583865 -

archan@aermec.com

**AERMEC SOUTH ASIA** - 149 3rd Cross GMR layout, Sanjaynagar

566094 Bangalore - Ph +91 -9620031789 - debasi@aermec.com

## STATE OF PALESTINE

**ENGINEERING CENTER FOR HEATING AND AIR CONDITIONING** -

Industrial Zone Ramallah - Ramallah - Ph. +970 2 2959975

Fax +970 2 2963439 - info@engineering-center.com

## SYRIA

**SINJAB TRADING EST** - Murshe Khater st. PO BOX 5358 - 5073

Damascus - Ph. +963 11 4424541 - Fax 963-11-4412862

sinjabest@gmail.com

## SWEDEN

**KYLMA AB** - Box 8213 -163 08 SPÅNGA - Ph. +46 8 59890805

Fax +46 8 59890891 - Mikael.Magnusson@kylma.se

**AIRCOIL AB** - Angsvagen 22 - 67232 ARJÅNG

Ph. +46 573 711045 - Fax. +46 573 711811 - info@aircoil.se

## SWITZERLAND

**TCA THERMOCLIMA AG** - Piccardstr. 13 - 9015 St. Gallo

Ph. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch

**TCA THERMOCLIMA AG** - Industriestrasse, 15- 4554 Etziken

Ph. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch

**KATALTHERM SERVICE S.A.** - Via alla Gerra, Cp 54 - 6930 Bedano

Ph. +41 91 935 22 22 - Fax +41 91 935 22 24 - info@kataltherm.ch

## THAILAND

**TEAM TECHNOLOGY CONSULTANTS & SERVICE CO.,LTD**

14 Soi Suanfarang. Prachacheng Rd. Bang Sue. - 10800 Bangkok

Ph. +66 29133924 - Fax +66 814450862 - bamroongj@gmail.com

## TUNISIA

**CODIFET S.A.R.L.** - 7 Rue de la Chimie Z.I. SIDI REZIG - 2033 Megrine

Ph. +216 71 433035 - Fax +216 71 433239 - contact@codifet.com

## TURKEY

**AIR TRADE CENTER** - Ibrahim Karaoglanoglu Caddesi No: 101 - 34418

Seyrantepe / Istanbul - Ph. 90(0)2122834510 - Fax 90(0)2122783964

atc.turkey@airtradecentre.com

## UKRAINE

**CLIMHOUSE LLC** - 18th Sadovaya Street, building 1 - 04128 Kiev -

Ph. +38 050 495 85 95 - sales@climhouse.com

## URUGUAY

**ASUAN SA** - Alejandro Schroeder 6407- 11500 Montevideo -

Ph. +598 26015947 - ventas@asuan.net

## UNITED ARAB EMIRATES

**QTM** - 1202 Grosvenor Business Tower - Dubai - Ph. +971 4 453 1707 -

aermec@qtmesco.com

## UNITED KINGDOM

**AERMEC UK LIMITED** - Unit 11, The Quad - Airport Business Park

Southend Cherry Orchard Way - Rochford-Essex

Ph. +44 0203 008 5940 - Fax +44 0203 008 5941

uksales@aermec.co.uk

## USA

**AERMEC NORTH AMERICA** - 49W 45th St New York - NY 10036

Ph. +1 833-4237632 - info@aermec-na.com

## VIETNAM

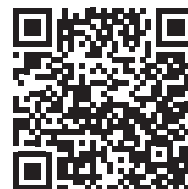
**BACH KHOA EQUIPMENT INTERNATIONAL JSC.** - 790 Su Van Hanh St.,

Ward Dist.10 - Ho Chi Minh City - Ph. +84 903 999 357 - info@bkic.vn

**BACH KHOA EQUIPMENT INTERNATIONAL JSC.** - No. 35, Lane 45, Tran Thai

Tong St. Cau Giay Dist. - Hanoi - Ph. +84 915 141 176 - info@bkic.vn

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