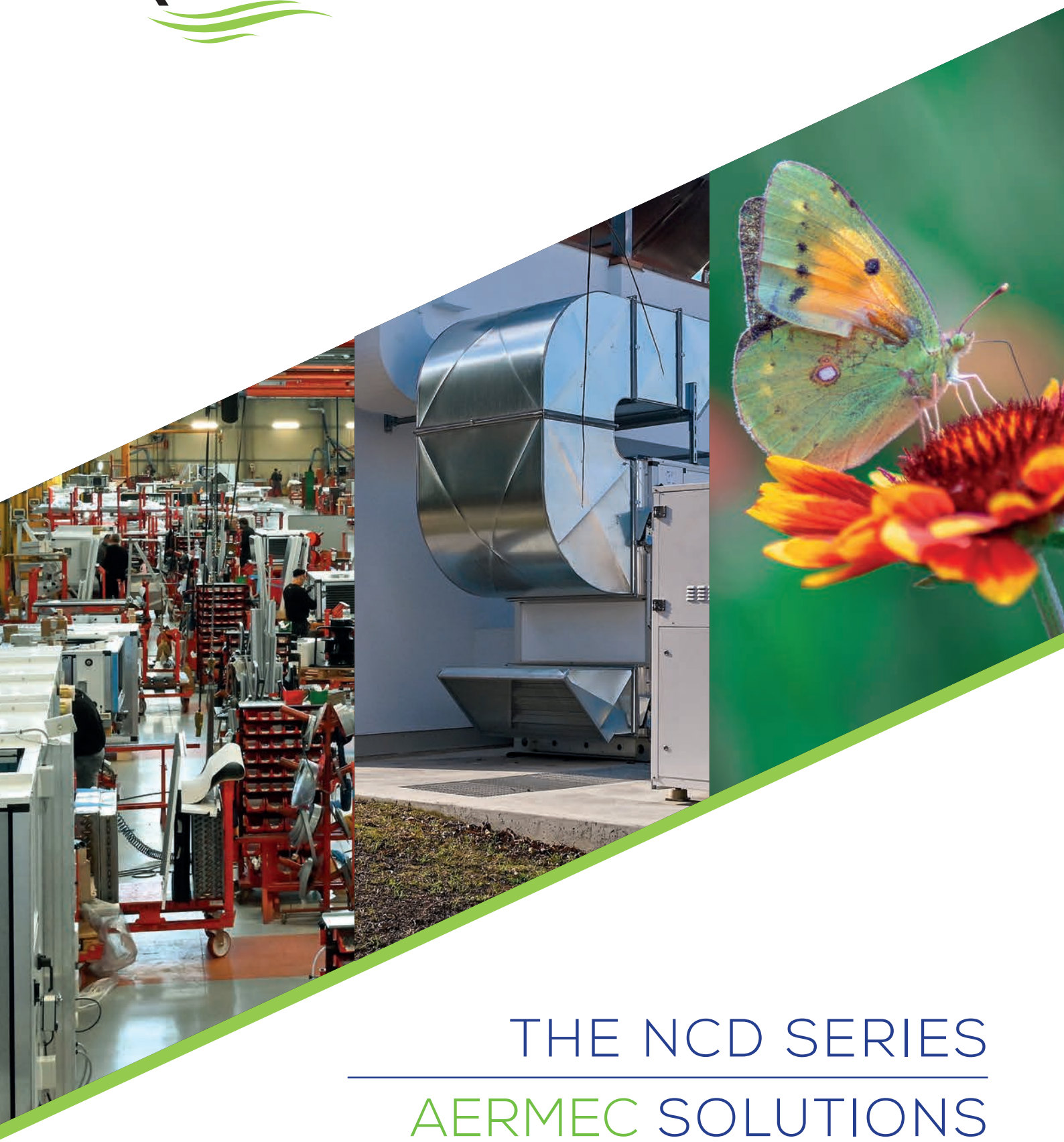
AERMEC



THE NCD SERIES

AERMEC SOLUTIONS FOR AIR TREATMENT

Aermec

+400
Million euro turnover

8
Production facilities

1700
Employees

6
International sales companies


+60
Sales Agencies in Italy
+80
Customer Service Centres
+70
Distributors worldwide

The NCD Series

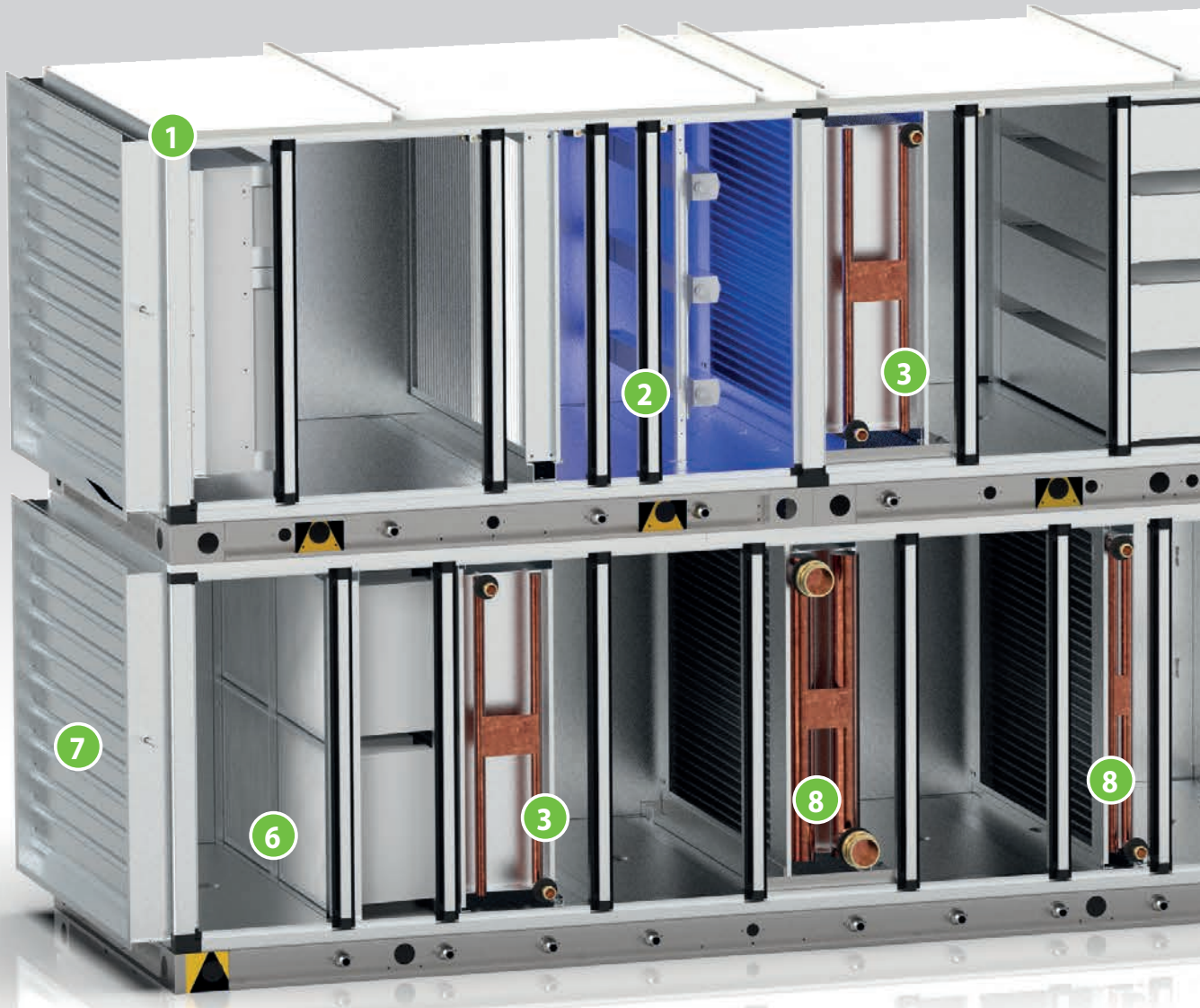
The air handling unit is the **heart** of the HVAC-R systems, whose purpose is to maintain precise control of thermo-hygrometric conditions and ensure a certain renewal and healthiness of the indoor air.

The **NCD series** is the result of the technical **competence** and Aermec's **know how** in the air conditioning sector.

The **NCD series** is characterized by a **modular construction**: in this way it is possible to **select** each air handling unit according to the **application**, from basic comfort to the more demanding treatment for hospitals, food, drinks and pharmaceutical industry.

The **NCD series**, which has **109 sizes**, is able to cover a wide range in terms of treated air flows, between **1,000 and over 100,000 m³/h**.

The interior view



1 CASING

Aluminum alloy frame, 50 mm thick paneling available in several materials and insulation in injected polyurethane or mineral wool.

2 GERMICIDAL LAMPS

Available with different levels of sanification depending on the application.

3 HEAT RECOVERY SYSTEMS

Static cross-flow; static with by-pass damper; static cross-flow with recirculation damper (group 3 dampers with recuperator); heat pipes; rotary; run-around coils.

4 SOUND ATTENUATORS

Horizontal or vertical configuration.

Image for illustrative purposes only. The arrangement of the components has no design intent.

5 FANS

Forward bladed fans or reverse (backward) bladed fans, EC motors.

6 FILTERS

Rigid bag or soft bag filters, roller, absolute, active carbon absorption or electrostatic, with removable cell prefilters.

7 DAMPERS

Partial or total section.

8 HEAT EXCHANGERS

Water coils, steam coils , direct expansion coils or electric coils.

9 HUMIDIFICATION

Adiabatic humidification; isothermal humidification.

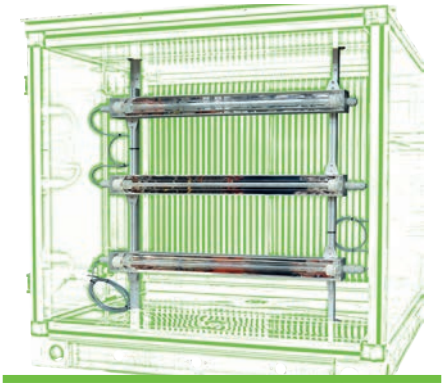
10 DROPLET SEPARATORS

Stainless steel, aluminum alloy or polypropylene.

The components

FANS
with forward or backward blades with airfoil designed to optimize performance and silence. For very high efficiency systems, the PLUG FAN version is available with anti-vibration supports and modulating EC motors directly coupled to the rotor.

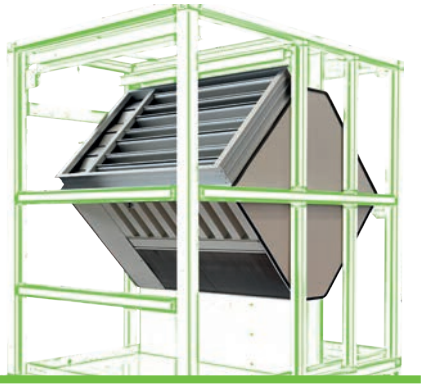
HEAT EXCHANGERS
with water coils, steam coils, direct expansion coil or electric coils. Sized for the required working conditions, available with copper or aluminum fins and protective treatments, with high efficiency and low pressure drops.



GERMICIDAL LAMPS
produce UVC rays to ensure a high degree of sanification, especially in the components most at risk with the formation of pathogens, such as heat exchanger coils or condensate collection trays. They can also be used to sterilize the entire air flow by sizing them according to the level of reduction of the microbial load needed.

DAMPERS
with total or partial section, in aluminum with bladed airfoil and low leakage values guaranteed by the gaskets.

SOUND ATTENUATORS
available in horizontal or vertical configuration to limit the noise emissions of the fans. They are made in rock wool protected with anti-mowing film and contained between galvanized steel expanded sheet.



HEAT RECOVERY SYSTEMS
available in different types: static cross-flow with bypass damper for "free-cooling" operation, and recirculation damper; heat pipes; rotary (sensitive or sensitive and latent recovery); run around coils to ensure the total absence of contact between the two air flows.

HUMIDIFICATION SYSTEMS
adiabatic (paper pack, PVC pack, with or without recirculation pump, atomized water, air washer); isotherms (network steam, autonomous steam producers).

PANELING WITH GASKETS
to limit leakage, with high thermal performance, and mechanical strength. The panels are made of materials (galvanized steel sheet - pre-painted galvanized steel - aluminum alloy - stainless steel) and insulators (injected polyurethane and rock wool) to ensure excellent thermal and acoustic performance.

FILTERS
available in all types usually installed to ensure compliance with current regulations relating to air quality in environments: rigid bag or soft bag filters, roller filters, absolute filters, active carbon absorption or electrostatic filters, with removable cell prefilters. Available for hygienic applications certified filters according to VDI 6022.

DROPLET SEPARATORS
removable laterally, carefully realized for maximum effectiveness of retaining water droplets. Available in stainless steel, aluminum alloy or polypropylene.

CONDENSATE TRAYS
also available with drainage panel equipped with a central drain, sideways extracted, to ensure the correct outflow of water without stagnation.

STRUCTURE
in aluminum alloy frame available with or without thermal break in an anodized version. The paneling is fixed to the aluminum frame with exclusive panel stops, in total absence of screws to ensure excellent air leakage.

Certified performance and quality

AERMEC participates in the voluntary **Eurovent** certification program of air handling units, which provides for a comparison between the technical characteristics declared by the manufacturer in the documentation and selection software and the results of tests conducted on real products.

AERMEC's NCD have a dedicated line certified according to the German standard **VDI 6022** (Hygienic requirements for ventilation and air conditioning units), an internationally recognized standard. Compliance with the stringent technical guidelines of VDI 6022 ensures that the sizing of air handling units, the used materials, the installed components, the construction choices and more generally the entire production process are such as to make their cleaning easy, reduce microbial proliferation within them and ensure good resistance to detergents and disinfectants used during maintenance operations.

Among the main features of this series we remember the following: access sections to all components to allow easy inspection, panels and drainage trays to allow a rapid evacuation of water even during the maintenance and sanitization phases of the plant, antibacterial and stainless materials, certified steam humidifiers, Absolute filters H14 Prosafe®, electrostatic filters, sanitization systems with UVC lamps, photocatalytic lamps with catalytic structure consisting of a metal alloy with honeycomb matrix composed of TiO_2 (titanium dioxide), fans with hygienic painting, stainless steel silencers horizontally installed with lateral extraction for a more comfortable cleaning.

EUROVENT CERTIFIED PERFORMANCE
AHU N° 04.04.052
Range NCD
www.eurovent-certification.com

ERP ready | EU regulation 1253

HYGIENE STANDARD VDI 6022 HYGIENE STANDARD


AERMEC
EUROVENT
CERTIFIED
PERFORMANCE
AHU N° 04 04 062
Range NCD
www.eurovent-certification.com
ATTENZIONE - PERICOLO
ATTENTION - DANGER
VORSICHT - GEFAHR
ATTENTION - DANGER
CUIDADO - PELIGRO
PRESENZA DI ORGANI IN TENSIONE
ELECTRICALLY POWERED MACHINERY
SPANNUNGSFUEHRENDE BAUTEILE
MACHINES SOUS TENSION
PRESENCIA DE ORGANOS EN TENSIÓN
ORGANI IN MOVIMENTO
MACHINERY IN OPERATION
BEWEGLICHE MACHINENTEILE
MACHINES EN FONCTIONNEMENT
ÓRGANOS EN MOVIMIENTO
ATTENZIONE
PRIMA DELL' APERTURA DELLE PORTE IL VENTILATORE DEVE ESSERE SCONNESSO, ISOLATO E SI DEVE FERMARE. (MINIMO DUE MINUTI)
WARNING
BEFORE OPENING THE DOORS, THE FAN MUST BE SWITCHED OFF, ISOLATED AND ALLOWED TO RUNDOWN (TWO MINUTES MINIMUM)
VORSICHT
VOR DEM OEFFNEN DER TUERE MUSS DER VENTILATOR AUSGESCHALTET WERDEN UND STILL STEHEN(MIN.ZWEI MINUTEN)
ATTENTION
AVANT OUVERTURE DES PORTES METTRE HORS TENSION L'UNITE (ET TOUS SES ELEMENTS) - ATTENDRE 2 MINUTES L'ARRET DES VENTILATEURS (POST VENTILATION)
CUIDADO
ANTES DE ABRIR LAS PUERTAS, EL VENTILADOR TIENE QUE ESTAR DESCONECTADO, AISLADO Y ESTAR PARADO (MINIMO DOS MINUTOS)
AERMEC
Art./Cap.Nº
NCD15D
AERMEC
Art./Cap.Nº
NCD15D
1 / 1
KG 1346
PE
K1(11)
K1(14)
D1
24 V
GND
E1
10 V
Sequenza apertura maniglie
Handle opening sequence
2
1
3

Integrated and configurable control system

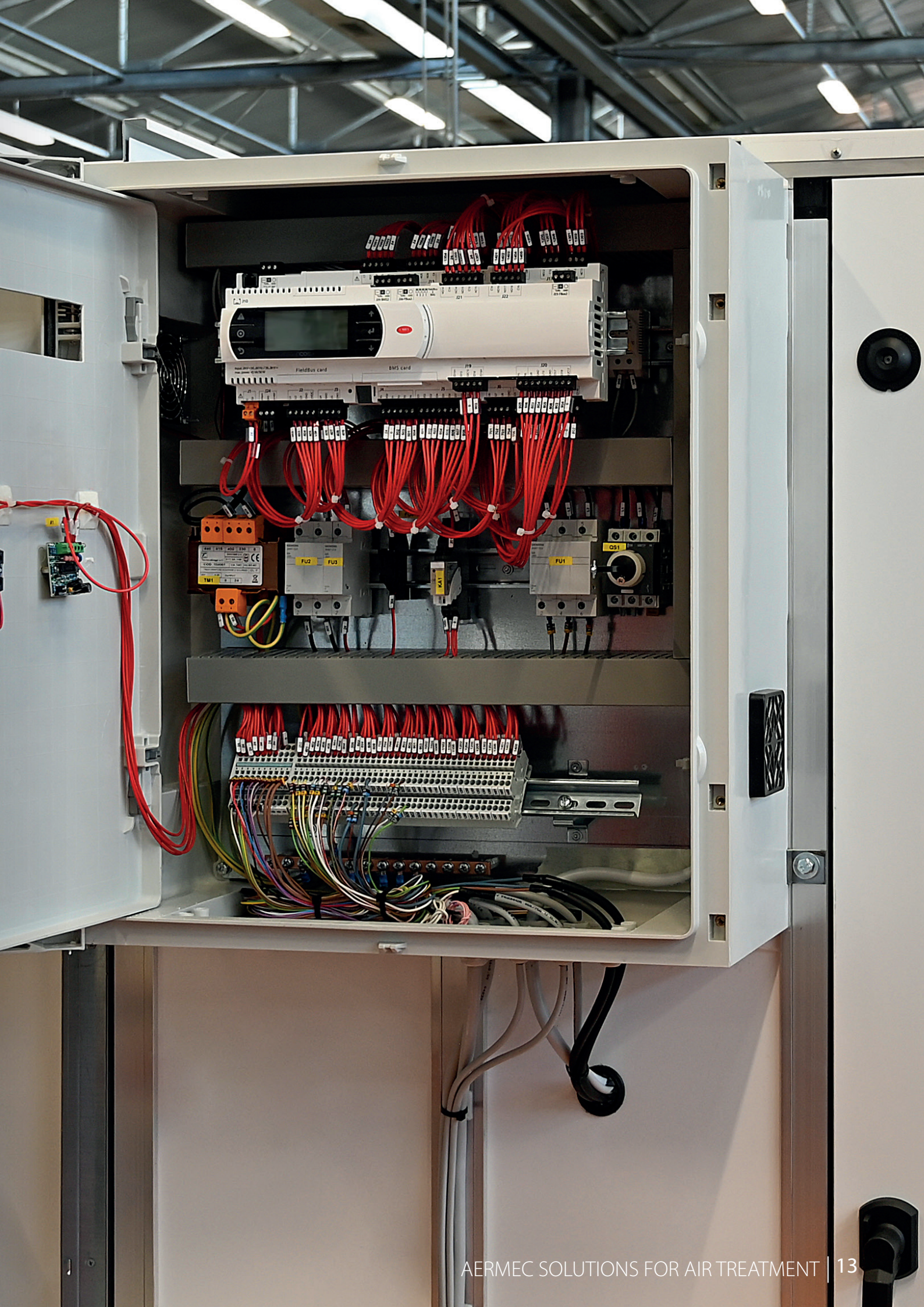
The air handling units can be equipped with a control system, electrical power panel and fully wired and factory-tested field elements. The unit thus becomes a "plug and play" solution.

In agreement with the Designer/Customer, the best solutions are studied in response to the needs of the application. The units configuration with integrated adjustment system can be directly done through the innovative selection program. The integration of the control system with the agreed characteristics takes place at the factory.

The electrical connection of power and signals between the sections of the air handling unit is made using connectors with obligatory interlocking. Finally, dry run tests are carried out. The units will then be accompanied by Declaration of Conformity according to the applicable directives, power wiring diagram, technical manual of the regulator, manuals and instruction sheets of the components of the chosen configuration.

Possible CUSTOMIZED MANAGEMENT FUNCTIONS:

- Automatic management of free-cooling, free-heating, recirculation damper, "washing" function of the environment through mixing chambers with two and three shutters;
- Management of adiabatic or steam humidification;
- Management of heat recovery systems (static plate, rotary, run around coils, indirect adiabatic);
- Ventilation management with single or double motor, double or inverter fan head;
- Automatic management of a possible condensing unit to be combined with direct expansion coils;
- Management of time slots;
- High interfacing with Modbus protocol and others on request;
- Supervision system for unit's management.


FieldBus card
BMS card
FU2
FU3
FU1
QS1
KA1
TM1

Applications and references

Industrial

Service Sector

Health Care

Food / Beverage

Winemaking

Chemical

Museums

Wellness / SPA

Education

Fair

Government

Sport / Leisure

Hotels

Agriculture

Commercial

Belfius
Namur (Belgium)
Service Sector

Mercedes
Madrid (Spain)
Industrial

ESA - European Space Agency
Kourou (French Guiana)
Government

Wimbledon Centre Court
London (United Kingdom)
Sport / Leisure

Humanitas Centro Catanese di Oncologia
Catania (Italy)
Health Care

Nestlé
Santa Fe (Argentina)
Food / Beverage

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