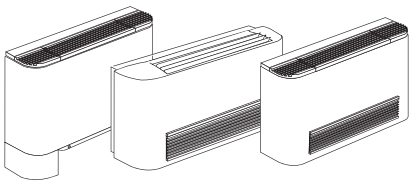
FCX

FAN COIL
SILENT & EFFICIENT

Floor, ceiling & ducted installation
Applicable with VMF management system, Plasmacluster filter option

THE AERMEC FAN COILS

Fan coils and Aermec: a combination where the company and trademark identify the products, and vice versa. In this particular air-conditioning sector, Aermec's name is synonymous with "leader": a primary company in Italy, and amongst the first in Europe. A position of leadership resulting from long-term experience consolidated over the years.



WIDE RANGE

The range consists of 14 sizes for various versions, ensuring extreme installation versatility. The complete line of accessories meets every customisation requirement. All the units have been designed taking full advantage of Aermec's multi-year experience, built up from the daily contact with specialised experts. The Aermec fan coils are, in fact, really easy to instal in a system. Their unending reliability is guaranteed by Aermec's long-term experience.

EFFICIENT HEATING

Unlike other types of heaters, the low functioning inertia ensures that these fan coils react to air temperature variations immediately. This means a steady room temperature, even when the conditions change, plus notable energy savings as heat is only supplied when it's needed. At the same time, the continuous control of the supply water temperature prevents irritating cold currents during the winter period.

VERY QUIET OPERATION

FCX fully respects your hearing, as it works with a degree of silence that's at the top of this category: no clicks or ticking of mechanical parts.

ATTENTION TO HEALTH AND AIR QUALITY

Unique of its kind, the U version of the Aermec fan coil is fitted with a head with air distribution fins that can be entirely closed up to

FCX-U CEILING-MOUNTING OR FREE-STANDING VERSION

- **FCX-U:** universal floor or wall/ceiling mounting. Adjustable air distribution grille except for models 62, 82 und 102. Compatible with the VMF system

- **FCX-UA: u**niversal floor or wall/ceiling mounting. Grille with fixed fins. Compatible with the VMF system

- **FCX-UE:** universal floor or wall/ceiling mounting with direct expansion coil. Adjustable air distribution grille, except for models 62, 82 and 102.

prevent the accumulation of dust when the system is unused. When the fins close, the fan coil switches off automatically. FCX version A is now available with the Plasmacluster device: an exclusive system that eliminates bacteria, viruses, mildew, dust mites, pollen and dust. The Plasmacluster purifier restores the correct equilibrium of positive and negative ions in closed environments, freshening up the air and ensuring healthy conditions. Asthma, dermatitis and many breathing problems are often caused by pollution, dust mites, pollen and pet hair. Plasmacluster guarantees perfectly cleaned air in closed environments, acting as a valid aid against the spread of allergens. In terms of maintenance, the FCX only needs regular cleaning of the air filter (easily removed, then rinsed under running water).

SPEED AND SAVINGS

The FCX fan coil quickly provides the ideal temperature, with healthier, cleaner air and just the right degree of humidity, both in summer and winter. Constant temperature control is guaranteed by the ambient probe on the protective cabinet. This means the specific temperature can be adjusted for each separate room, bringing considerable energy savings.

SAFETY

Full compliance with accident prevention regulations: the EC mark, the absence of sharp corners, no moving parts within reach, electric connections with double insulation, the impossibility that outer parts may reach dangerous temperatures - these features all help to make Aermec fan coil operation absolutely safe in every type of environment, whether residential or industrial.

FCX-A FREE-STANDING VERSION

- **FCX-A: v**ertical free-standing with switch

- **FCX-AS: v**ertical free-standing without switch. Compatible with the VMF system

- **FCX-ACT: v**ertical free standing with electronic thermostat

- **FCX-APC:** vertical free-standing with elec-tronic thermostat and Plasmacluster purifier

- **FCX-B:** front suction, without selector. Compati-ble with the VMF system

ACCESSORIES*

• **AMP**: kit for the wall mounting installation of versions FCX U and UE.

• **BC:** Auxiliary condensate drip tray. Use the BC 5-6 tray accessory if horizontal, or BC 4 if vertical.

BV: Single row hot water coil. Not available for 4-row versions or those with Plasmacluster.

• **DSC4:** Condensate drainage device for use when natural run-off is not possible.

• **PC:** Sheet metal panel to close rear of unit.

• **RX:** Armoured electric coil with safety thermostat. (Requires a thermostat with heater management). Not available for 4-row versions or those with Plasmacluster.

• **SE:** Manually operated fresh air intake louver.

• **SIT 3 - 5:** Thermostat Interface Cards. They allow the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
SIT3: commands the 3 fan speeds and must be installed on each fan coil of the network; receives the commands from the selector or the SIT5 card.
SIT5: commands the 3 fan speeds and up to 2 valves (four pipes systems); sends the commands of the thermostat to the fan coils network.

• **SW3**: water temperature probe that gives the automatic season change feature to electronic thermostats supplied with water-side change over.
• **SWA:** SWA external probe accessory (length L = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) of the panel FMT20AW; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT20AW panel. Two SWA probes can be connected to the panel FMT20AW simultaneously.

• **VCF:** the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. For 3/4-row and 1-row coils (BV). Combine the SW3 probe with FCX ACT, too. Versions with 230V and 24V~50Hz power supply.

• **VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes. For 3/4-row and 1-row coils (BV). Combine the SW3 probe with FCX ACT, too. Versions with 230V and 24V~50Hz power supply.

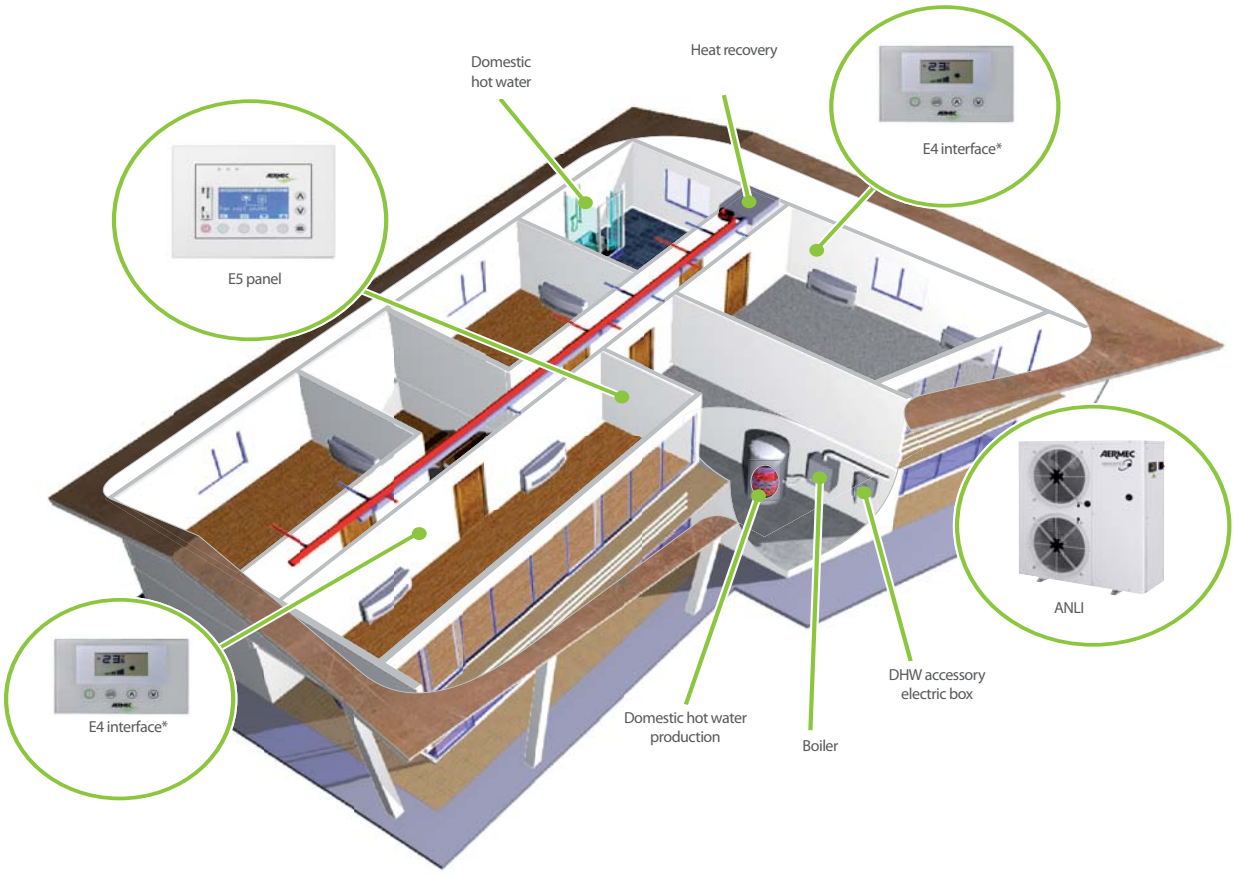
• **ZX:** Feet for floor-standing installations for A-AS-ACT-APC models.

• **Control panels and VMF System: the characteristics are described on the appropriate card.**

* For futhers informations, please refer to the technical sheet available in the web site www.aermec.com

VMF Variable Multi Flow: Total control - Green Comfort Noiselessness - Savings

VMF is the brand new system for managing and controlling the entire heating-air conditioning system and domestic hot water production. • The system allows the various elements of the system to interact: fan coils and possible integrated heating systems (solar, boiler, etc.)
The VMF hydronic system provides maximum comfort and maximum energy saving thanks to the CONTINUOUS VARIATION:
• of the refrigerant delivery inside the chiller/inverter heat pump
• of the treated air flow rate from the fan coil with brushless motor;
• of the water flow rate (controlling the inverter hydraulic pumps).
Furthermore, by using the ECONOMY mode, the VMF system adapts the function of each system element (chiller, fan coils, etc.) to obtain maximum energy efficiency.



As awarded by
The Chicago Athenaeum:
Museum of
Architecture and Design.

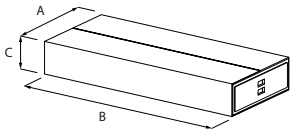
*** Winner for the International design Award "Good Design 2010" for the "Electronics"**

Technical data

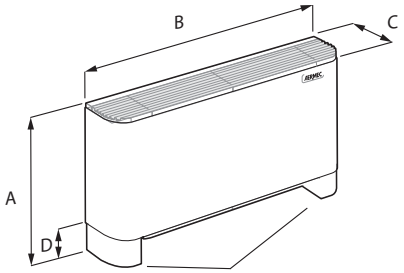
Mod FCX (A - AS - ACT - APC)		17	22	32 / 36	42	50 / 56	62	82	102
Height with feet	mm	563	563	563	563	563	688	688	688
Width	mm	640	750	980	1200	1200	1320	1320	1320
Feet height	mm	105	105	105	105	105	125	125	125
Depth	mm	220	220	220	220	220	220	220	220
Weight (without feet)	kg	13	15	20	24	24	34	34	34

Mod FCX (U - UE)		17	22	32 / 36	42	50 / 56	62	82	102
Height	mm	520	520	520	520	520	590	590	590
Width	mm	640	750	980	1200	1200	1320	1320	1320
Depth	mm	220	220	220	220	220	220	220	220
Weight	kg	13	15	20	24	24	34	34	34

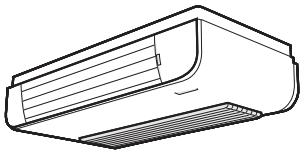
Mod FCX (UA/B)		17UA/B	22UA/B	32/36UA/B	42UA/B	50/56UA/B	62B	82B	102B
Height	mm	490	490	490	490	490	590	590	590
Width	mm	640	750	980	1200	1200	1320	1320	1320
Depth	mm	220	220	220	220	220	220	220	220
Weight	kg	13	15	20	24	24	34	34	34

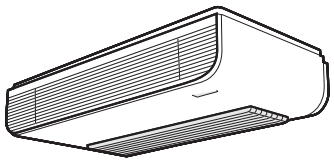


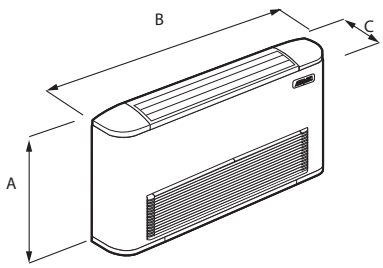
PACKAGING design example

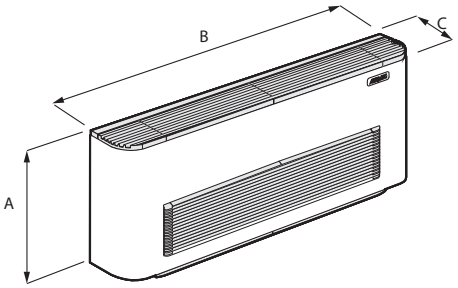


ZX accessory









FCX			17			22			24			32			34			36			42			44		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance - 2 pipe configuration																										
Heating capacity (70°C)		kW	2,30	2,03	1,69	2,96	2,53	1,91	3,91	3,10	2,10	5,35	4,07	3,17	5,96	4,80	3,73	6,41	4,98	4,19	6,62	5,52	4,06	8,60	6,93	5,20
Water flow rate		l/h	201	178	148	260	222	167	343	272	184	470	357	278	523	421	327	563	437	367	581	484	356	754	608	456
Pressure drops	(1)	kPa	3	2	1	6	4	3	4	3	1	20	12	8	11	7	5	23	15	11	15	11	6	22	15	9
Heating capacity (50°C)	(2)	kW	1,36	1,20	0,99	1,77	1,51	1,13	2,32	1,84	1,25	3,16	2,40	2,06	3,55	2,86	2,22	3,80	2,95	2,48	3,96	3,30	2,43	4,95	4,14	3,17
Water flow rate	(2)	l/h	172	144	112	258	210	144	298	236	174	413	316	267	482	392	303	482	370	311	585	478	397	765	617	463
Pressure drops	(2)	kPa	2	2	1	6	5	2	3	2	1	16	10	7	9	7	4	9	7	6	15	13	8	23	15	9
Heating capacity (45°C)	(3)	kW	1,14	1,01	0,84	1,47	1,26	0,95	1,95	1,54	1,04	2,66	2,02	1,57	2,97	2,39	1,85	3,19	2,48	2,08	3,29	2,75	2,02	4,28	3,45	2,59
Water flow rate	(3)	l/h	198	175	146	256	218	165	338	268	181	462	351	273	515	414	322	554	430	362	571	477	351	742	598	449
Pressure drops	(3)	kPa	2	2	1	5	4	2	4	3	1	19	12	8	10	7	4	23	14	11	14	10	6	21	14	9
4 Pipe configuration with Additional Heat Exchanger																										
Heating capacity	(4)	kW	1,40	1,20	0,99	1,77	1,51	1,13	/	/	/	2,85	2,45	2,03	/	/	/	2,85	2,45	2,03	3,46	3,41	2,66	/	/	/
Water flow rate	(4)	l/h	123	105	87	155	132	99	/	/	/	250	215	178	/	/	/	250	215	178	303	299	233	/	/	/
Pressure drops	(4)	kPa	3	2	2	6	5	3	/	/	/	16	12	8	/	/	/	16	12	8	21	20	14	/	/	/
Cooling Performance																										
Total cooling capacity	(5)	kW	1,00	0,84	0,65	1,50	1,22	0,84	1,73	1,37	1,01	2,40	1,84	1,55	2,80	2,28	1,76	2,80	2,15	1,81	3,40	2,78	2,31	4,45	3,59	2,69
Sensible cooling capacity	(5)	kW	0,83	0,69	0,51	1,24	1,00	0,67	1,38	1,09	0,76	1,90	1,57	1,11	2,13	1,72	1,25	2,20	1,82	1,28	2,76	2,11	1,63	3,30	2,64	1,96
Water flow rate	(5)	l/h	172	144	112	258	210	144	298	236	174	413	316	267	482	392	303	482	370	311	585	478	397	765	617	463
Pressure drops	(5)	kPa	3	2	1	6	5	3	3	2	1	28	17	13	14	10	6	28	17	13	14	10	7	40	27	16
Fans																										
Fan		type/n°	centrifugal/1									centrifugal/2														
Air flow rate		m³/h	200	160	110	290	220	140	290	220	140	450	350	260	450	350	260	450	350	260	600	460	330	600	460	330
Sound data																										
Sound power level	(6)	dB(A)	45	38	31	50	43	31	50	43	31	48	41	34	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure level		dB(A)	37	30	23	42	35	23	42	35	23	40	33	26	40	33	26	40	33	26	43	36	31	43	36	31
Diameter connections																										
Standard coil		Ø	1/2"			1/2"			/			1/2"			/			3/4"			3/4"			/		
Additional coil		Ø	1/2"			1/2"			/			1/2"			/			1/2"			1/2"			/		
Increased coil		Ø	/			/			3/4"			/			3/4"			/			/			3/4"		
Electrical Features																										
Absorbed power		W	35	29	19	25	22	19	33	29	25	44	33	25	44	34	28	44	33	25	57	43	30	57	43	30
Max. input current		A	0,16			0,12			0,25			0,21			0,45			0,21			0,28			0,51		
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz	230V~50Hz																							
Energy Efficiency classification (EUROVENT)																										
FCEER			E			E			E			D			D			D			D			D		
FCCOP	(7)		E			E			E			D			D			D			D			D		

FCX			50			54			56			62			64			82			84			102		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance - 2 pipe configuration																										
Heating capacity (70°C)		kW	8,19	7,53	5,02	10,10	8,76	6,24	9,65	8,43	6,06	12,92	10,94	8,33	14,30	11,50	8,50	15,14	13,35	10,77	17,10	14,42	11,20	17,02	15,24	12,56
Water flow rate		l/h	719	660	440	886	768	547	846	740	531	1133	960	730	1254	1009	746	1328	1171	945	1500	1265	982	1493	1337	1102
Pressure drops	(1)	kPa	15	13	6	23	18	10	42	34	18	15	11	7	23	15	9	21	16	11	31	23	15	43	35	25
Heating capacity (50°C)	(2)	kW	4,87	4,48	3,00	6,10	5,22	3,70	5,38	4,84	3,68	7,50	6,43	4,88	8,40	6,80	5,04	7,96	6,86	5,20	10,20	8,60	6,70	10,00	9,00	7,44
Water flow rate	(2)	l/h	721	604	432	855	743	533	791	662	475	836	752	554	1092	896	674	1189	860	738	1479	1259	992	1311	1183	979
Pressure drops	(2)	kPa	15	11	6	22	17	9	22	20	15	9	7	4	18	13	8	21	12	9	31	23	15	33	27	19
Heating capacity (45°C)	(3)	kW	4,08	3,75	2,50	5,02	4,36	3,10	4,80	4,20	3,01	6,43	5,44	4,14	7,11	5,72	4,23	7,53	6,64	5,36	8,51	7,17	5,57	8,47	7,58	6,25
Water flow rate	(3)	l/h	707	650	433	872	756	539	833	728	523	1115	945	719	1234	993	734	1307	1152	930	1476	1245	967	1469	1316	1084
Pressure drops	(3)	kPa	14	12	6	22	17	9	40	33	17	15	11	7	22	15	9	20	16	11	30	22	14	41	34	24
4 Pipe configuration with Additional Heat Exchanger																										
Heating capacity	(4)	kW	4,38	3,94	3,22	/	/	/	4,38	3,94	3,22	5,49	4,70	3,87	/	/	/	6,41	6,30	5,30	/	/	/	6,81	6,23	5,43
Water flow rate	(4)	l/h	384	346	282	/	/	/	384	346	282	482	412	339	/	/	/	562	553	465	/	/	/	597	547	476
Pressure drops	(4)	kPa	35	30	21	/	/	/	35	30	21	16	12	10	/	/	/	15	14	11	/	/	/	19	16	13
Cooling Performance																										
Total cooling capacity	(5)	kW	4,19	3,51	3,51	4,97	4,32	3,10	4,60	3,85	2,76	4,86	4,37	3,22	6,35	5,21	3,92	6,91	5,00	4,29	8,60	7,32	5,77	7,62	6,88	5,69
Sensible cooling capacity	(5)	kW	3,00	2,54	1,79	3,54	3,06	2,17	3,50	3,07	2,12	3,98	3,30	2,44	5,03	4,10	3,06	5,68	3,78	2,97	5,78	4,87	2,80	5,53	5,35	4,42
Water flow rate	(5)	l/h	721	604	432	855	743	533	791	662	475	836	752	554	1092	896	674	1189	860	738	1479	1259	992	1311	1183	979
Pressure drops	(5)	kPa	19	14	8	26	21	12	38	28	15	17	14	8	13	9	6	22	12	9	30	22	15	37	31	22
Fans																										
Fan		type/n°	centrifugal/2									centrifugal/3														
Air flow rate		m³/h	720	600	400	720	600	400	720	600	400	920	720	520	920	720	520	1140	930	700	1140	930	700	1140	930	700
Sound data																										
Sound power level	(6)	dB(A)	56	51	42	56	51	42	56	51	42	57	51	42	57	51	42	62	57	51	62	57	51	66	61	56
Sound pressure level		dB(A)	48	43	34	48	43	34	48	43	34	49	43	34	49	43	34	54	49	43	54	49	43	58	53	48
Diameter connections																										
Standard coil		Ø	3/4"			/			3/4"			3/4"			/			3/4"			/			3/4"		
Additional coil		Ø	1/2"			/			1/2"			1/2"			/			1/2"			/			1/2"		
Increased coil		Ø	/			3/4"			/			/			3/4"			/			3/4"			/		
Electrical Features																										
Absorbed power		W	67	46	34	76	52	38	76	52	38	82	61	40	91	60	38	106	80	59	106	80	59	131	100	80
Max. input current		A	0,35			0,36			0,35			0,4			0,48			0,49			0,62			0,58		
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz	230V~50Hz																							
Energy Efficiency classification (EUROVENT)																										
FCEER			D			D			D			D			D			D			D			D		
FCCOP	(7)		D			D			D			D			D			D			D			D		

H max. speed; **M** med.speed; **L** min.speed

(1) Room air 20°C b.s.; 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) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 70°C/60°C (EUROVENT)

(5) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(6) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

(7) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

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