

FCX Fan coils Universal and floor installation



Aermec participate in the EUROVENT program: FCH the products are present on the site www.eurovent-certification.com

Variable Multi Flow

VMF



- housing: RAL 9002
- head and feet: RAL 7044

Features

Fan coils for heating, cooling, and dehumidifying. FCX is designed to maintain in time the set temperature, ensuring very low sound levels. Installed in any type of plant 2/4 tubes and in combination with any of the heat generator even at low temperatures.

Thanks to the availability of different versions, with front or lower air intake, with standard battery or increased, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

- Vertical installation:

FCX-A: vertical free-standing with switch

FCX-AS: vertical free-standing without switch. Compatible with the VMF system

FCX-ACT: vertical free standing with electronic thermostat

FCX-APC: (FCX 22, 24, 32, 34, 36, 42, 44, 50, 54, 56, 62, 64, 82, 84) vertical free-standing with electronic thermostat and Plasmacluster purifier

FCX-B: front suction, without selector. Compatible with the VMF system

- Vertical and horizontal installation:

FCX-U: universal floor or wall/ceiling mounting. Adjustable air distribution grille, except for models 62, 64, 82, 84 and 102. Compatible with the VMF system

FCX-UA: universal 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.

- Versions standar coil (FCX 17, 22, 32, 36, 42, 50, 56, 62, 82 and 102)
- Versions increased coil (FCX 24, 34, 44, 54, 64, and 84)
- 3-speed ventilating unit
- Full compliance with the accident prevention standards

- Rounded line
- Automatic fan coil switch-off with closure of the air distribution grille
- Broad range of controls
- Metallic protective cabinet with rustproofing polyester paint
- Quiet operation
- Low loss of charge in the heat exchange batteries
- Electric motors with permanently inserted condensers
- Ease of installation and maintenance
- Air filter easy to remove and clean
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase

VERSION	AVAILABLE SIZES															
FCX A	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX AS	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX ACT	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX APC	-	22	24	32	34	36	42	44	50	54	56	62	64	82	84	-
FCX B	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX U	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102
FCX UA	17	22	24	32	34	36	42	44	50	54	56	-	-	-	-	-
FCX UE	-	22	-	32	-	-	42	-	50	-	-	62	-	82	-	102

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 FMT21; 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 FMT21 panel. Two SWA probes can be connected to the panel FMT21 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.
- **VCF_X4:** The valve kits are designed for fan coil units with single coil, installed in a 4 pipe system with the "Cooling" and "Heating" circuits totally separated. The kit consists of 2 valves of 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. VCF1X4L Valve kit for left hand connection fan coil units. VCF1X4R Valve kit for right hand connection fan coil units. Power supply: 230V ~ 50Hz.
- **ZX:** Feet for floor-standing installations for A-AS-ACT-APC models.
- **Control panels⁽¹⁾ and VMF System⁽²⁾:** the characteristics are described on the appropriate card.

Accessories		Size															Versions	
		17	22	24	32	34	36	42	44	50	54	56	62	64	82	84		102
FMT10 • FMT21	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
KTLM	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PTI	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-UA-U(62 - 102)
PX • PX2 • PX2C6	(1) (3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXB1 • PXAI	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXAE	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
PXAR	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
TF1	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
TPF	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
WMT05 • WMT06 • WMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
VMF-E4 • VMF-E4D	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
VMF-E2	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-UA-U(62 - 102)
VMF-E0 • VMF-E1	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
AMP		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	U-UA-UE
AMP20		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	U-UA-UE
BC	4	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	A-AS-ACT-APC-B-U-UA-UE
	5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	U-UA-UE
	6											•	•	•	•	•	U-UA-UE	
BV	117	(4)	•															A-AS-B-U-UA-UE
	122	(4)		•														A-AS-B-U-UA-UE
	132	(4)			•		•											A-AS-B-U-UA-UE
	142	(4)						•		•								A-AS-B-U-UA-UE
	162	(4)												•		•		A-AS-B-U-UA-UE
DSC4		(5)(6)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	A-AS-ACT-APC-B-U-UA-UE
	17		•															A-AS-ACT-APC-B-UA
	18		•															U-UE
	22			•	•													A-AS-ACT-APC-B-UA
	23			•	•													U-UE
	32					•	•	•										A-AS-ACT-APC-B-UA
	33					•	•	•										U-UE
	42							•	•	•	•	•						A-AS-ACT-APC-B-UA
	43							•	•	•	•	•						U-UE
62												•	•	•	•	•	A-AS-ACT-B-U-UA-UE	
RX	17	(4)	•															AS-B-U-UA
	22	(4)		•														AS-B-U-UA-UE
	32	(4)			•		•											AS-B-U-UA-UE
	42	(4)						•										AS-B-U-UA-UE
	52	(4)								•		•						AS-B-U-UA-UE
SE	62	(4)											•		•		•	AS-B-U-UA-UE
	15X		•															A-AS-ACT-APC
	20X			•	•													A-AS-ACT-APC
	30X				•	•	•											A-AS-ACT-APC
	40X						•	•	•	•	•							A-AS-ACT-APC
SIT	80X												•	•	•	•	•	A-AS-ACT-APC
	3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA-UE
5		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA-UE
SW3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
SWA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	AS-B-U-UA
VCF	1X4L - 1X4R	(7)	•	•	•													AS-B-U-UA
	2X4L - 2X4R	(7)			•	•	•	•	•	•	•	•						AS-B-U-UA
	3X4L - 3X4R	(7)											•	•	•	•	•	AS-B-U-UA
	41-4124	(7)(8)	•	•	•													AS-ACT-APC-B-U-UA
	42-4224	(7)(8)			•	•	•	•	•	•	•	•						AS-ACT-APC-B-U-UA
	43-4324	(7)(8)				•	•	•	•	•	•	•		•	•	•	•	AS-ACT-APC-B-U-UA
44-4424	(7)(8)(9)	•	•	•			•	•	•	•	•						AS-B-U-UA	
45-4524	(7)(8)(9)											•		•			AS-B-U-UA	
VCFD	1-124	(7)(8)	•	•	•													AS-ACT-APC-B-U-UA
	2-224	(7)(8)			•	•	•	•	•	•	•	•						AS-ACT-APC-B-U-UA
	3-324	(7)(8)											•	•	•	•	•	AS-ACT-APC-B-U-UA
	4-424	(7)(8)(9)	•	•	•	•	•	•	•	•	•	•			•			AS-B-U-UA
ZX	5		•	•	•	•	•	•	•	•	•							A-AS-ACT-APC
	6												•	•	•	•	•	A-AS-ACT-APC

(1)(2) The characteristics are described on the appropriate card.
(3) PX2C6, PX2 panel in multiple 6-piece pack.
(4) Accessoires is not available in the model with Plasmacluster filter
(5) The DSC4 accessory is not compatible with AMP and BC4_5_6 accessories
(6) DSC4 and accessoires VMF-system tray cannot be installed together on a single fan coil.
(7) The VCF/VCFD valve and the BC4 tray cannot be installed together on a single fan coil.
(8) = VCF4124-4224-4324-4424-4524 / VCFD124-224-324-424 they are 24V
(9) Only for the BV 1-row coil accessory.

Technical data

Mod.	FCX	Vel.	17	22	24	32	34	36	42	44	50	54	56	62	64	82	84	102	
HEATING PERFORMANCE (2 PIPE CONFIGURATION)																			
Heating capacity (70°C)	(1)	W	H	2296	2960	3912	5354	5964	6413	6618	8600	8191	10100	9648	12919	14300	15140	17100	17019
	(1)	W	M	2033	2531	3103	4065	4801	4983	5521	6930	7529	8759	8434	10942	11501	13349	14421	15242
	(1)	W	L	1686	1906	2097	3165	3728	4188	4062	5200	5021	6241	6056	8327	8499	10771	11198	12558
Water flow rate	(1)	l/h	H	201	260	343	470	523	563	581	754	718	886	846	1133	1254	1328	1500	1493
	(1)	l/h	M	178	222	272	357	421	437	484	608	660	768	740	960	1009	1171	1295	1337
	(1)	l/h	L	148	167	184	278	327	367	356	456	440	547	531	730	745	945	982	1101
Pressure drop	(1)	kPa	H	3	6	4	20	11	13	15	22	15	23	42	17	23	21	32	43
	(1)	kPa	M	2	4	3	12	7	10	11	15	13	18	33	12	16	16	23	34
	(1)	kPa	L	1	3	1	8	5	8	6	9	6	9	19	7	9	11	15	24
Heating capacity (50°C)	(2)	W	H	1360	1770	2320	3160	3550	3800	3960	4950	4870	6100	5380	7500	8400	7960	10200	10000
	(2)	W	M	1200	1510	1840	2400	2860	2950	3300	4140	4480	5220	4840	6430	6800	6860	8600	9000
	(2)	W	L	990	1130	1250	2060	2220	2480	2430	3170	3000	3700	3680	4880	5040	5200	6700	7440
Water flow rate	(2)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1479	1311
	(2)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259	1183
	(2)	l/h	L	112	144	174	267	303	311	397	463	432	533	475	554	674	738	992	979
Pressure drop	(2)	kPa	H	2	6	3	16	9	9	15	23	15	22	22	9	18	21	31	33
	(2)	kPa	M	2	5	2	10	7	7	13	15	11	17	20	7	13	12	23	27
	(2)	kPa	L	1	2	1	7	4	6	8	9	6	9	15	4	8	9	15	19
HEATING PERFORMANCE (4 PIPE CONFIGURATION - with additional heat exchanger)																			
Heating capacity (70°C)	(3)	W	H	1400	1770	-	2850	-	-	3460	-	4380	-	-	5490	-	6410	-	6810
	(3)	W	M	1200	1510	-	2450	-	-	3410	-	3940	-	-	4700	-	6300	-	6230
	(3)	W	L	990	1130	-	2030	-	-	2660	-	3220	-	-	3870	-	5300	-	5430
Water flow rate	(3)	l/h	H	123	155	-	250	-	-	303	-	384	-	-	482	-	562	-	597
	(3)	l/h	M	105	132	-	215	-	-	299	-	346	-	-	412	-	553	-	547
	(3)	l/h	L	87	99	-	178	-	-	233	-	282	-	-	339	-	465	-	476
Pressure drop	(3)	kPa	H	3	6	-	16	-	-	21	-	35	-	-	16	-	15	-	19
	(3)	kPa	M	2	5	-	12	-	-	20	-	30	-	-	12	-	14	-	16
	(3)	kPa	L	2	3	-	8	-	-	14	-	21	-	-	10	-	11	-	13
COOLING PERFORMANCE (2 and 4 PIPE CONFIGURATIONS)																			
Total cooling capacity	(4)	W	H	1000	1500	1730	2400	2800	2800	3400	4450	4190	4970	4600	4860	6350	6910	8600	7620
	(4)	W	M	840	1220	1370	1840	2280	2150	2780	3590	3510	4320	3850	4370	5210	5000	7320	6880
	(4)	W	L	650	840	1010	1550	1760	1810	2310	2690	2510	3100	2760	3220	3920	4290	5770	5690
Sensible cooling capacity	(4)	W	H	830	1240	1380	1900	2130	2200	2760	3300	3000	3540	3500	3980	5030	5680	5780	5530
	(4)	W	M	690	1000	1090	1570	1720	1820	2110	2640	2540	3060	3070	3300	4100	3780	4870	5350
	(4)	W	L	510	670	760	1110	1250	1280	1630	1960	1790	2170	2120	2440	3060	2970	2800	4420
Water flow rate	(4)	l/h	H	172	258	298	413	482	482	585	765	721	855	791	836	1092	1189	1479	1311
	(4)	l/h	M	144	210	236	316	392	370	478	617	604	743	662	752	896	860	1259	1183
	(4)	l/h	L	112	144	174	267	303	311	397	463	432	533	475	554	674	738	992	979
Pressure drop	(4)	kPa	H	3	6	3	28	14	28	14	40	19	26	38	17	13	22	30	37
	(4)	kPa	M	2	5	2	17	10	17	10	27	14	21	28	14	9	12	22	31
	(4)	kPa	L	1	3	1	13	6	13	7	16	8	12	15	8	6	9	15	22
Air flow rate		m ³ /h	H	200	290	290	450	450	600	600	720	720	720	920	920	1140	1140	1300	
		m ³ /h	M	160	220	220	350	350	460	460	600	600	600	720	720	930	930	1120	
		m ³ /h	L	110	140	140	260	260	330	330	400	400	400	520	520	700	700	900	
Fans		type																	centrifugal
		n°		1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3
		W	H	35	25	33	44	44	44	57	57	67	76	76	82	91	106	106	131
Absorbed power		W	M	29	22	29	33	34	33	43	43	46	52	52	61	60	80	80	100
		W	L	19	19	25	25	28	25	30	30	34	38	38	40	38	59	59	80
		(A)		0,16	0,12	0,25	0,21	0,45	0,21	0,28	0,51	0,35	0,36	0,35	0,40	0,48	0,49	0,62	0,58
Sound power level	(5)	dB(A)	H	45	50	51	48	48	48	51	55	56	56	56	57	57	61	61	66
	(5)	dB(A)	M	38	43	46	41	41	41	44	50	51	53	51	51	51	56	57	61
	(5)	dB(A)	L	31	31	35	34	36	34	37	41	42	44	42	42	44	51	51	56
Sound pressure level	(6)	dB(A)	H	37	42	43	40	40	43	47	48	48	48	48	49	49	53	53	58
	(6)	dB(A)	M	30	35	38	33	33	33	36	42	43	43	43	43	43	48	49	53
	(6)	dB(A)	L	23	23	27	26	28	26	29	33	34	36	34	34	34	36	43	43
Water content		l		0,6	0,8	1,0	1,1	1,5	1,5	1,5	1,9	1,5	1,9	1,9	2,5	3,4	2,5	3,4	2,5
Coil connections		ø (4R)		-	-	3/4"	-	3/4"	-	-	3/4"	-	3/4"	-	-	3/4"	-	3/4"	-
		ø (3R)		1/2"	1/2"	-	1/2"	-	3/4"	3/4"	-	3/4"	-	3/4"	-	3/4"	-	3/4"	-
		ø (1R)		1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-	1/2"	1/2"	-	1/2"	-	1/2"
Speed connected		H	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3
		M	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2	V2
		L	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1	V1
Power supply																			230V/1/50Hz

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

Heating mode

2 pipes system configuration

(1) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

2 pipes system configuration (EUROVENT)

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

4 pipes system configuration (with additional heat exchanger) (EUROVENT)

(3) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

Cooling mode (EUROVENT)

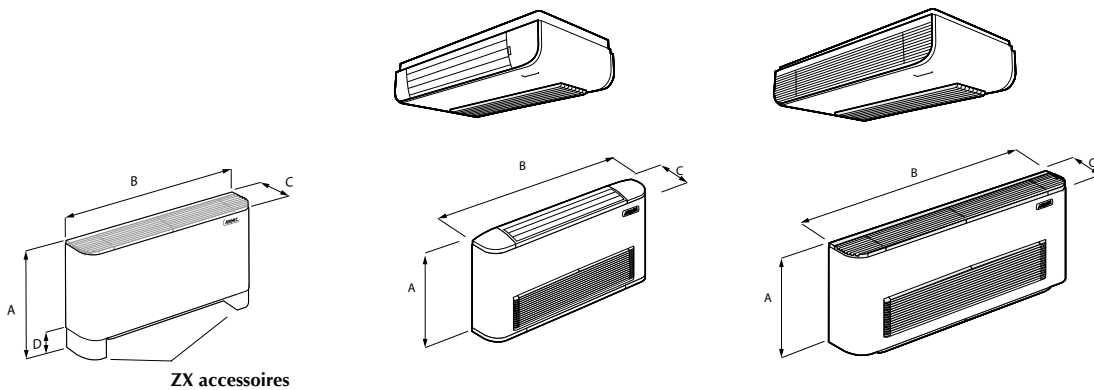
(4) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; ΔT water 5°C

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

(6) 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

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

Dimensions and Weight



(standard and increased coil)

FCX_A
FCX_AS
FCX_ACT
FCX_APC

FCX_U 17-22-32-36-42-50-56 (standard coil)
FCX_U 24-34-44-54 (increased coil)
FCX_UE 22-32-42-50 (standard coil)

FCX_B

FCX_UA 17-22-32-36-42-50-56 (standard coil)
FCX_UA 24-34-44-54 (increased coil)
FCX_U 62-82-102 (standard coil)
FCX_U 64-84 (increased coil)
FCX_U 62-82-102 (standard coil)

Mod FCX (A - AS - ACT - APC)			17	22 / 24	32/34/36	42/44	50/54/56	62/64	82/84	102
Height with feet	A	mm	563	563	563	563	563	688	688	688
Width	B	mm	640	750	980	1200	1200	1320	1320	1320
depth	C	mm	220	220	220	220	220	220	220	220
Feet height	D	mm	105	105	105	105	105	125	125	125
Weight (without feet)		kg	13	15	20	24	24	34	34	34

Mod FCX (U - UE)			17	22 / 24	32/34/36	42/44	50/54/56	62/64	82/84	102
Height	A	mm	520	520	520	520	520	590	590	590
Width	B	mm	640	750	980	1200	1200	1320	1320	1320
depth	C	mm	220	220	220	220	220	220	220	220
Weight		kg	13	15	20	24	24	34	34	34

Mod FCX (UA)			17	22 / 24	32/34/36	42/44	50/54/56
Height	A	mm	490	490	490	490	490
Width	B	mm	640	750	980	1200	1200
depth	C	mm	220	220	220	220	220
Weight		kg	13	15	20	24	24

Mod FCX (B)			17	22 / 24	32/34/36	42/44	50/54/56	62 / 64	82 / 84	102
Height	A	mm	490	490	490	490	490	590	590	590
Width	B	mm	640	750	980	1200	1200	1320	1320	1320
depth	C	mm	220	220	220	220	220	220	220	220
Weight		kg	13	15	20	24	24	34	34	34