

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.

Heat exchanger coil

With copper pipes and aluminium fins, the standard or oversized main coil and the possible secondary coil 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

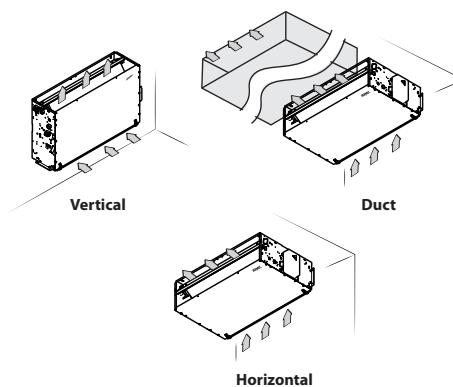
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

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

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	Size 2, 3, 4, 5, 7, 9
6	Main coil 0 Standard 5 Oversized
7	Secondary coil

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

AER503R: 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.

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. 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

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, VMF-E0X 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 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

VMF-SW: Water temperature probe.

VMF-SW1: Extra water probe to be used for 4-pipe systems.

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, 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.

Field	Description
0	Without coil
1	Standard
2	Oversized
8	Version
P	Flush-mounting, without cabinet
PR	Flush-mounting, without cabinet, with water connections on right-hand side

VCZ41: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZ4124: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZ42: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZ4224: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZ43: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCZ4324: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.

VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil or an optional heat only coil. 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: Single row hot water heat exchanger.

Installation accessories

AMP: Wall mounting kit

DSC: Condensate drainage device.

BC: Condensate drip.

BCZ: Condensate drip.

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

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: Delivery plenum with circular flanges. Sandwich structure in hot galvanised steel, with interposed polyurethane foam (40 kg/m3). The

4-pipe

	FCZI201P			FCZI301P			FCZI401P			FCZI501P			FCZI701P			FCZI901P			
	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	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 (2)																			
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																		
Fan motor	type																		
Number	no.	1				2				2				2				3	3
Air flow rate	m ³ /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 (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	50,0	57,0	62,0	51,0	57,0	62,0
Sound pressure	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
Water coil																			
Water content main coil	l	0,5			0,8			1,0			1,0			1,2			1,8		
Water content the secondary coil	l	0,2			0,3			0,3			0,3			0,4			0,7		
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø																		

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

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

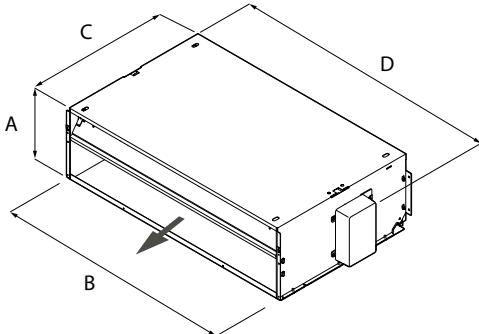
	FCZI201P			FCZI301P			FCZI401P			FCZI501P			FCZI701P			FCZI901P			
	1	2	3	L	M	H	1	2	3	L	M	H	1	2	3	L	M	H	
Heating performance 65 °C / 55 °C (1)																			
Heating capacity	kW	0,94	1,42	1,49	1,60	2,34	2,47	1,99	2,69	2,85	2,62	3,59	3,45	2,99	3,70	3,92	3,17	5,09	5,47
Water flow rate system side	l/h	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 (2)																			
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	2	3	3	3	3	3	3	3	3	3	3	3	3	
Air flow rate	m ³ /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 (3)																			
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	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	34,0	51,0	54,0
Water coil																			
Water content main coil	l	0,5	0,8	1,0	1,0	1,2	1,8												
Water content the secondary coil	l	0,2	0,3	0,3	0,3	0,4	0,7												
Diametre hydraulic fittings																			
Main coil	Ø	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	
Secondary coil	Ø						1/2"												

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

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

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DIMENSIONS



	FCZI200P	FCZI250P	FCZI300P	FCZI350P	FCZI400P	FCZI450P
Dimensions and weights						
A	mm	216	216	216	216	216
B	mm	522	522	753	753	973
C	mm	453	453	453	453	453
D	mm	562	562	793	793	1013
Net weight	kg	12	14	14	16	20
	FCZI500P	FCZI550P	FCZI700P	FCZI750P	FCZI900P	FCZI950P
Dimensions and weights						
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	24	29	31	32
	FCZI201P	FCZI202P	FCZI301P	FCZI302P	FCZI401P	FCZI402P
Dimensions and weights						
A	mm	216	216	216	216	216
B	mm	522	522	753	753	973
C	mm	453	453	453	453	453
D	mm	562	562	793	793	1013
Net weight	kg	13	14	15	16	21
	FCZI501P	FCZI502P	FCZI701P	FCZI702P	FCZI901P	
Dimensions and weights						
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	24	30	31	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