

# 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 vesion)



### 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.

#### Heat exchanger coil

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

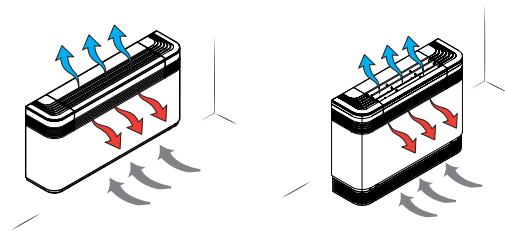
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

**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 2, 3, 4, 5
6	Main coil
0	Standard
7	Secondary coil
0	Without coil
8	Version
D	Dualjet with thermostat TXBI on-board the system

Field	Description
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).

### 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-E2Z:** User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.

**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-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-E0X, 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-E0X/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. 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. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. 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. 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:** Metal supports for vertical installation of the GA grille.

**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 (1)	DS	*	*	*	*

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

### VMF system

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

Model	Ver	200	300	400	500
VMF-E19I	DS	*	*	*	*
VMF-E2Z	DS	*	*	*	*
VMF-E3	DS,DT	*	*	*	*
VMF-E4DX	DS,DT	*	*	*	*
VMF-E4X	DS,DT	*	*	*	*
VMF-IO	DS	*	*	*	*
VMF-IR	DS	*	*	*	*

Model	Ver	200	300	400	500
VMF-SW	DS	.	.	.	.
VMHI	DS	.	.	.	.

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

### 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	
<b>Heating performance 70 °C / 60 °C (1)</b>													
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
<b>Heating performance 45 °C / 40 °C (2)</b>													
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
<b>Cooling performance 7 °C / 12 °C (3)</b>													
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
<b>Fan</b>													
Type	type	Centrifugal											
Fan motor	type	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
<b>Fan coil sound data (4)</b>													
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	dB(A)	23,0	35,0	42,0	26,0	33,0	40,0	29,0	36,0	53,0	34,0	43,0	48,0
<b>Water coil</b>													
Water content main coil	l	0,5			0,8			1,0			1,0		
<b>Diameter hydraulic fittings</b>													
Main coil	∅	1/2"			3/4"			3/4"			3/4"		
<b>Power supply</b>													
Power supply		230V~50Hz											

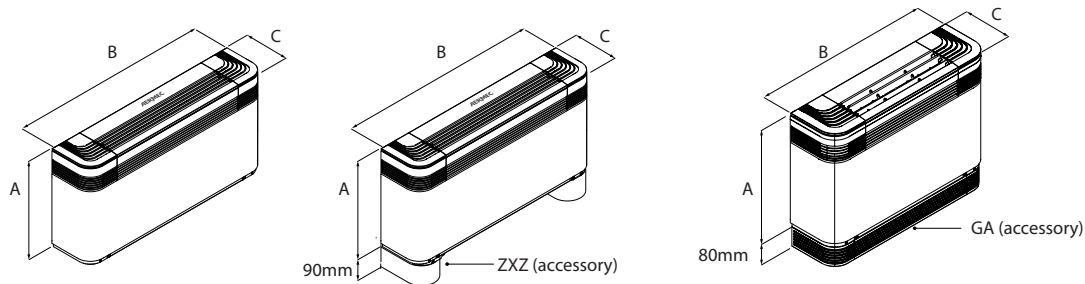
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

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

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

## 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	kq	15	17	23	22

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.

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