





Aermec participates in the EUROVENT program: FCH The products involved appear on the website www.eurovent-certification.com

Variable Multi Elew®

VMF



# GERMICIDAL LAMP INCORPORATED IDEAL FOR PLACES WHERE PERFECT HYGIENE IS REOUIRED 3–ROW COIL

## **Features**

lamp suitable for air conditioning in settings the type of installation requiring the highest degree of hygiene, such as:

- hospitals
- dentists' surgeries •
- doctors' and vets' surgeries •
- . analysis laboratories
- pharmaceutical companies
- waiting rooms
- beauticians
- homes
- offices .
- public premises

Fan coil with built-in photocatalytic bacterial Available in various configurations depending on • Electric motors with permanently inserted con-

#### Version with thermostat

FCZ-HT, furnished version for only vertical instal- • lation

### Version without thermostat

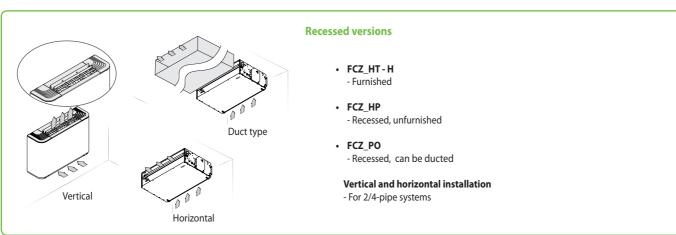
FCZ\_H: furnished version, for vertical and horizon- • tal installation

FCZ\_HP: non-furnished version, with 3-speed motor, for horizontal and vertical wall mounting. FCZ HPO: non-furnished version, with high-speed . motor, for horizontal and vertical wall mounting.

- · Casing RAL9003, Head RAL 7047
- · Three-speed centrifugal fan.

- densers
- Metallic protective cabinet with rustproofing polvester paint
- Adjustable air distribution grille. When the grille is closed, the fan coil automatically switches OFF
- Low loss of charge in the heat exchange batteries
- Ease of installation and maintenance
- Air filter class G2 for all versions; easy to pull out and clean.
- Shrouds can be pulled out and inspected for easy and effective cleaning
- Water connections can be reversed during installation stage
- All versions of the FCZ\_H series are supplied without a control panel.

## **Description of versions**



#### **Choice of unit**

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

#### Field Description

- 1.2.3 FCZ
- 4 Size
- 2-3-4-5-6-9 5 Main Battery
- - 0 Standard
  - 5 Oversized
- Secondary Battery
  - 0 No battery

### **Control panels**

6

A range of dedicated controls is available, on the wall or onboard the machine. It is essential to choose between these panels for simple and complete adjustment: for further details, refer to the dedicated info card.

#### Probes and dedicated accessories for the control panel

- SW3: water temperature probe that allows automatic season change in electronic thermostats with water-side changeover
- 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). <u>SIT3</u>: 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.

#### VMF System

- VMF-EOX: thermostat accessory mounted the fan coil flange, equipped as standard with air and water probes; manages systems with 2, 4 pipes, 2 pipes + Plasma Cluster, 2 pipes + UV lamp, 2 pipes + Resistor. Equipped with external contact to be used as remote ON-OFF at low voltage. This thermostat uses a 2-wire serial communication to create a single fan coil zone (1 master + maximum 5 slaves). The thermostat is protected by a fuse
- VMF-E2Z: User interface to be installed on-board with two switches: one for temperature and one for speed control
- VMF-E4X: Wall-mounted user interface used to control functions through the capacitive touch keyboard.
- VMF-E5: Recessed wall-mounted panel allowing control of functions through a capacitive keyboard of a complete hydronic system.
- VMF-E19: Thermostat for serial communication
- VMF-SW: water probe used if required in place of the

standard unit supplied with the VMF-E19 thermostat for mounting it up line of the valve.

- VMF-SW1: additional water probe to be used for 4-pipe

#### systems with the VMF-E19 thermostat for maximum control in the cold range

#### Water Valve Kit

- VCZ or VCF: Kit comprising a motor-driven 3-way Duct type installation accessories valve with insulating shell, couplings and pipes in insulated copper For main, standard or oversized battery. Versions with 230V and 24V~50Hz power supplies
- VCZD or VCFD: 2-way motor-driven valve kit with copper fittings and pipes. For main, standard or oversized battery. Versions with 230V and 24V~50Hz power sup-
- VJP/VJP\_M: 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, is available with

230V and 24V~50Hz power supply. The VJP is controlled by on-off logic with compatible

control panels (accessories) The VJP\_M is controlled by modulating logic with pan-

els not supplied by Aermec The design water flow rate is crucial to refine the

selection of the valve shown in the compatibility table

#### Installation accessories

- AMP: Wall mounting kit for FCZ\_H versions.
- DSC4: Condensate drainage device for use when natural run-off is not possible.
- PCZ: Sheet metal panel closing the rear of the unit.
- GA: Ceiling installation grille masking plumbing and electrical utilities. Also compatible for floor mounting. ZXZ: Pair of stylish structural feet

- Installation accessories
- AMP: Kit for overhang installation.
- BC: Auxiliary condensate drip tray.
- CHF: VentilCassaforma, galvanized sheet metal template for P versions used to implement a space for housing the fan coil directly on the wall.

- ZX: Pair of stylish structural feet
- DSC4: Condensate drainage device for use when natural run-off is not possible.

- PA: Plenum suction assembly in galvanised sheet metal, complete with suction couplings for circular-section ducts
- PA-F: Plenum suction assembly that allows intake and delivery on the same side; suitable for all installations where the machine needs to be positioned outside the air-conditioned rooms in order to minimise noise levels and facilitate maintenance operations.
- PM: Delivery plenum in galvanised sheet metal, externally insulated, complete with plastic delivery couplings for circular section ducts.
- RD: Straight delivery coupling for canalisation.
- RDA: Straight suction coupling for canalisation.
- RP: 90° delivery coupling for canalisation.
- RPA: 90° suction coupling for canalisation.
- RDA\_V: Straight intake fitting with rectangular flange. RDAC\_V: Straight intake fitting with circular flange
- RPA\_V: Intake plenum with rectangular flange
- RDMC\_V: Straight delivery fitting with circular flange. Insulated internally.
- PA\_V: Intake plenum with circular flanges. Plastic flang-
- RPM\_V: Delivery plenum with rectangular flange. Insulated internally
- PM\_V: Delivery plenum with circular flanges. Insulated internally. Plastic flanges
- KFV10: Circular flange kit for intake/delivery plenum.

#### Delivery and intake grilles:

- GA: Intake grille with fixed fins.
- GAF: Intake grille with fixed fins and filter.
- GM: Delivery grille with adjustable fins.

		Sizes available for 2-pipe system (Main Battery)													
FCZ H		200	300	400	500	600	900	950*							
Control panels and dec	licated accessories														
T-TOUCH	Н	•	•	•	•	•	•	•							
PTINZ	Н	•	•	•	•	•	•	•							
PXAE	all	•	•	•	•	•	•	•							
5W3		In combination with PXAE													
SIT3		In combination with PXAE													
SIT5		In combination with PXAE													
/MF System															
/MF-E0X		•	•	•	•	•	•	•							
/MF-E19		•	•	•	•	•	•	•							
/MF-E4X		•	•	•	•	•	•	•							
/MF-E5		•	•	•	•	•	•	•							
/MF-SW		•	•	•	•	•	•	•							
/MF-SW1		•	•	•	•	•	•	•							
Vater Valves **															
3-way valve kit															
'CZ41/4124	(2)	•													
/CZ42/4224	(2)		•	•	•	•									
/CZ43/4324	(2)						•	•							

\*\* Water valves can be combined with units if a control panel is also envisaged

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M

- 7,8,9 Version
  - H Furnished unit with 3 speed motor
  - HP Wall-mounted unit with 3-speed motor
  - HPO Wall-mounted unit with 7-speed motor

## **Compatibility of accessories**

					Sizes availabl	e for 2-pipe system	(Main Batterv)		·
FCZ H			200	300	400	500	600	900	950*
2-way valve kit			200		100				
VCZD1/124		(2)	•						
VCZD2/224		(2)		•	•	•	•		
VCZD3/324		(2)						•	•
Combined Adjustment and Balan	ring Valve k	(it		I					
VJP060	ang tarter		•	•					
VJP090					•	•	•		
VJP150					•	•	•		
		(2)					•	•	•
VJP060M		(2)	•	•					
VJP090M		(2)			•	•	•		
VJP150M		(2)					•	•	•
Installation accessories				1				1	
AMP20			•	•	•	•			
AMPZ			•	•	•	•	•	•	
DSC4	P-PO	(3)	•	•	•	•	•	•	
CHF22	Р		•						
CHF32	Р			•					
CHF42	P			-	-				
					•	•			
CHF62	Р						•	•	
BCZ4	P-PO	(4)	•	•	•	•	•	•	
BCZ5	P-PO	(5)	•	•	•	•	•	•	
BCZ6	P-PO	(5)							•
BC8	P-PO	(5)	•	•	•	•	•	•	
BC9	P-PO	(5)							•
Rear closure panels				*					
PCZ100									
PCZ200			•						
PCZ300				•					
PCZ500				-	•	•			
PCZ800					•	•			
							•		
PCZ1000								•	
Grille for ceiling installation								1	
GA100									
GA200			•						
GA300				•					
GA500					•	•			
GA800							•	•	
Plenum for duct type installation									
RDA000V	PO		•						
RDA100V	PO			•					
RDA200V	PO				•	•			
RDA200V	PO				-		•	•	•
							•	•	•
RPA000V	PO		•						
RPA100V	PO			•					
RPA200V	PO				•	•			
RPA300V	PO						•	•	•
RDAC000V	PO		•						
RDAC100V	PO			•					
RDAC200V	PO				•	•			
RDAC300V	PO						•	•	•
PA000V	PO		•						
PA100V	PO			•					
PA100V PA200V	PO		<u> </u>	•			<u> </u>		
					•	•			<u> </u>
PA300V	PO						•	•	•
PM000V	PO		•						
PM100V	PO			•					
PM200V	PO				•	•			
PM300V	PO						•	•	•
RPM000V	PO		•						
RPM100V	PO		<u> </u>	•			1		
RPM100V RPM200V	PO			•					
					•	•			<u> </u>
RPM300V	PO						•	•	•
RDMC000V	PO		•						
RDMC100V	PO			•					
RDMC200V	PO				•	•			
RDMC300V	PO						•	•	•
Stylish structural feet									
ZXZ			•	•	•	•	•	•	
•				1	1			1	

\*\* Water valves can be combined with units if a control panel is also envisaged
(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M
(3) The DSC4 accessory is not compatible with the AMPZ accessory and VCZ series 1-2-3-4 X4L-R valves
(4) For vertical installation. The basin is not compatible with VCZ-VCZD / VCF-VCFD valves
(5) For horizontal installation

## **Technical data**

FCZ_H				200			300			400			500			600			900			950*	
Fan speed			н	М	L	H	М	L	н	M	L	H	М	L	Н	М	L	н	М	L	H	М	L
Heating performance																							
2-pipe systems																							
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	5,50	4,46	3,47	7,15	5,74	4,32	8,50	7,31	5,27	10,00	8,10	6,50	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	324	258	177	482	391	304	627	503	379	745	641	462	877	710	570	1328	1171	945	1500	1264	982
pressure drops	(1)	kPa	18,0	12,0	6,0	18,0	12,0	7,0	24,0	16,0	9,0	28,0	21,0	12,0	26,0	17,8	12,0	22,0	17,4	12,0	33,0	24,5	15,5
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,73	2,21	1,72	3,55	2,85	2,14	4,22	3,63	2,62	4,97	4,03	3.32	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(2)	l/h	319	254	174	475	385	299	617	495	373	734	631	455	863	699	561	1307	1152	930	1476	1245	967
pressure drops	(2)	kPa	17,5	12,0	6,0	17,5	12,0	8,0	23,5	16,0	9,5	28,0	21,0	12,0	25,5	17,5	12,0	21,5	17,0	12,0	33,0	24,0	15,0
Cooling performance																							
Total cooling output	(3)	kW	1,60	1,28	0,89	2,65	2,17	1,68	3,60	2,92	2,20	4,25	3,69	2,68	4,65	3,90	3,22	6,91	5,00	4,29	8,60	7,32	5,77
Sensitive cooling output	(3)	kW	1,33	1,05	0,71	2,04	1,65	1,26	2,67	2,14	1,59	3,18	2,73	1,94	3,92	3,17	2,56	5,68	3,78	2,97	5,78	4,87	3,80
Cooling capacity (latent)	(3)	kW	0,27	0,23	0,18	0,61	0,52	0,42	0,93	0,78	0,61	1,07	0,96	0,74	0,73	0,73	0,66	1,23	1,22	1,32	2,82	2,45	1,97
Water flow rate	(3)	l/h	275	221	153	456	374	288	619	503	379	731	634	460	800	671	554	1189	860	738	1479	1259	992
pressure drops	(3)	kPa	18,0	12,5	6,5	18,0	13,0	8,0	24,0	16,5	10,0	29,0	22,5	13,0	26,0	19,0	13,5	22,0	12,5	9,5	30,0	22,5	15,0
Fan																							
Centrifugal fan		no.		1			2			2			2			3			3			3	
Air flow rate		m³/h	290	220	140	450	350	260	600	460	330	720	600	400	920	720	520	1140	930	700	1140	930	700
Noise levels																							
Sound power	(4)	dB(A)	51	46	35	48	41	34	51	44	37	56	51	42	57	51	42	62	57	51	61	57	51
Sound pressure		dB(A)	43	38	27	40	33	26	43	36	29	48	43	34	49	43	34	54	49	43	53	49	43
Connections diameter																							
Main Battery																							
Standard coil		Ø		1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"	
Oversized battery		Ø		/			/			/			/			/			/			/	
Electrical characteristics																							
Absorbed power		W	33	29	25	44	33	25	57	43	30	76	52	38	91	60	38	106	80	59	106	80	59
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1									

H maximum speed; M average speed; L minimum speed

 $\ensuremath{^*}$  Size 950 is only available for HP and HPO versions

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

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

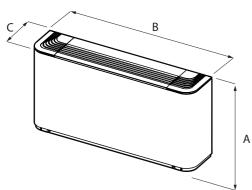
(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power: Aermec determines sound power values on the basis of measurements made in accordance with UNI EN 16583:15, as required for EUROVENT certification.

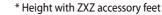
Sound pressure (weighted A) measured in room with volume V = 85 m<sup>3</sup>, reverberation time t = 0.5s direction factor Q = 2; distance r=2.5m.

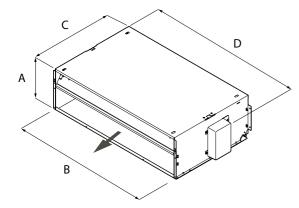
FCZ_H		200			300			400			500			600			900			950*	
Fan speed	Н	М	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L	Н	М	L
Heating performance																					
Power supply										23	30V~50F	Ηz									

## **Sizes and weights**



	200	300	400	500	600	900
onfiguration	ns					
mm	486	486	486	486	486	591
mm*	576	576	576	576	576	681
mm	750	980	1200	1200	1320	1320
mm	220	220	220	220	220	220
kg	15	17	23	22	29	34
	mm mm* mm	mm         486           mm*         576           mm         220	mm         486         486           mm*         576         576           mm         750         980           mm         220         220	mm         486         486         486           mm*         576         576         576           mm         750         980         1200           mm         220         220         220	mm         486         486         486         486           mm*         576         576         576           mm         750         980         1200         1200           mm         220         220         220         220	mm486486486486486mm*576576576576mm750980120012001320mm220220220220220





FCZ-HP/H	IPO	200	300	400	500	600	900	950					
Dimensions for all configurations													
А	mm	216	216	216	216	216	216	216					
В	mm	562	793	1013	1013	1147	1147	1147					
С	mm	453	453	453	453	453	558	558					
D*	mm	522	753	973	973	1122	1122	1122					
Weight	kg	12	14	20	23	29	32	32					

\* Maximum overall dimensions

Aermec S.p.A. Via Roma, 996 - 37040 Bevilacqua (VR) - Italia Tel. 0442633111 - Telefax 044293577 www.aermec.com