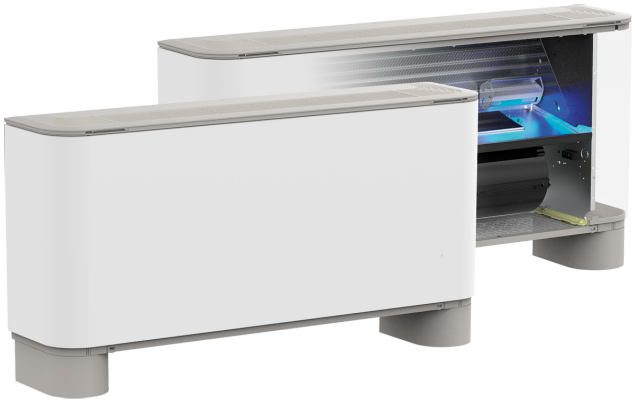
FCZ-H

Fan coil with the photocatalytic device, for universal and floor installation

- **Photocatalytic device**
- **Tested effectiveness against viruses, bacteria and allergens**
- **Active against the SARS-CoV-2 virus, even on surfaces**
- **Certifications VDI 6022**



DESCRIPTION

Fan coil with built-in **photocatalytic device**.

Active against the airborne Sars-CoV-2 virus (95%-99% abatement efficacy after 20 minutes of operation tested at the Virostatics laboratory in Alghero).

Active against the SARS-CoV-2 virus, even on surfaces - 84% effectiveness after 12 h (tests carried out in collaboration with the Department of Microbiology of the University of Padua).

Suitable for air conditioning in places requiring optimum hygiene levels, such as:
— Hospitals
— Dentists' surgeries
— Doctors' and vets' surgeries
— Analysis laboratories
— Waiting rooms
— Public premises

They can be installed in any type of 2-pipe system (version for 4-pipe systems available upon request) and in combination with any heat generator, even at low temperatures. Thanks to the availability of several versions and configurations, it's easy to find the right solution for every need.

VERSIONS

— **H** Unit with shell without thermostat - vertical and horizontal installation.
— **HP** Unit without shell and without thermostat - vertical and horizontal installation. Can also be supplied in a configuration equipped with a boosted asynchronous motor (HPO).
— **HT** Unit with shell and thermostat - vertical installation.

FEATURES

Case

Metallic protective cabinet with rustproofing polyester paint RAL 9003. The head with adjustable air distribution grille is made of plastic RAL 7047. When the grille closes, the fan coil automatically switches off.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase and asynchronous, mounted on anti-vibration supports, and has a permanently engaged condenser.
The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

■ *Apart from the traditional asynchronous motor, each unit can also be supplied with an inverter (brushless) motor. Refer to the relative FCZI - H datasheet*

Finned pack heat exchanger

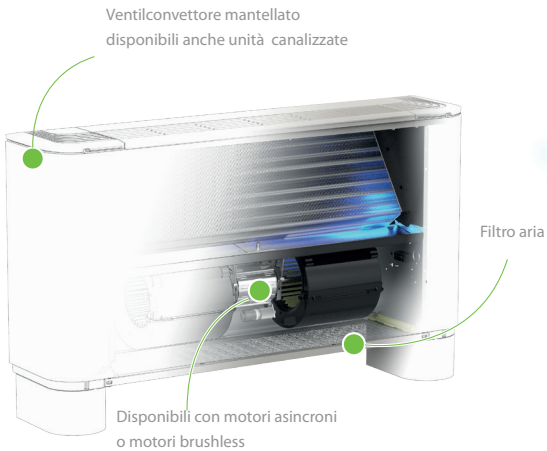
With copper pipes and aluminium louvers, the main heat exchanger has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The coil is not reversible during installation but, when ordering, you can choose units with the coil water connections on the right (at no extra charge).*

Air filter

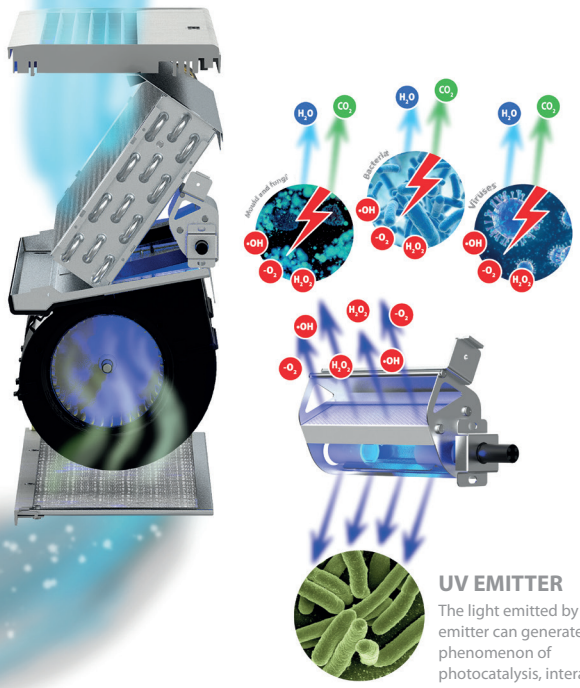
Air filter class **COARSE 25%** for all versions; easy to pull out and clean. Shrouds can be pulled out and inspected for easy and effective cleaning.

PHOTOCATALYTIC DEVICE AT THE HEART OF THE FAN COIL



TITANIUM DIOXIDE CATALYS

Titanium dioxide (TiO_2) has a high degree of thermal and chemical stability, isn't toxic for humans and isn't expensive, but at the same time it's easily procurable, widely available, bio-compatible, and highly sensitive to UV light. The catalyst has a honeycomb form and increases the photocatalysis reaction surface, thereby maximising and guaranteeing system efficiency. The interaction of the catalyst with the UV light (photocatalysis) creates and releases highly reactive and oxidising species (H_2O_2 and OH^-) that attack the polluting agents, breaking them down and eliminating them. The result is a powerful biocidal action with the decomposition of the VOC (Volatile Organic Compounds) and the release of harmless substances like CO_2 and H_2O.



FILTER

The filter holds back dust, ash and "natural allergens" like pollen, spores, etc.

UV EMITTER

The light emitted by the emitter can generate the phenomenon of photocatalysis, interacting with the titanium dioxide catalyser (TiO_2). The absorption level is 5,4W.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Configuration options FCZ - H

Field	Description
1,2,3	**FCZ**
4	**Size** 2, 3, 4, 5, 6, 9
5	**main heat exchanger**
0	Standard
5	Oversized
6	**Secondary heat exchanger**
0	Without coil
7	**Version**
H	Unit with shell without thermostat - vertical and horizontal mount
HP	Unit without shell and thermostat - vertical and horizontal mount
HPO	Unit without shell and thermostat with upgraded motor - vertical and horizontal mount
HPOR	Unit without shell and thermostat with upgraded motor - vertical and horizontal installation - water connections on the right
HPR	Unit without shell and thermostat - vertical and horizontal installation - water connections on the right
HR	Unit with shell without thermostat - vertical and horizontal installation - water connections on the right
HT	Unit with shell with thermostat - vertical mount
HTR	Unit with shell with thermostat - vertical mount - water connections on the right

ACCESSORIES

Control panels and dedicated accessories - FCZ-H

AER503IR: Flush-mounting thermostat with backlit display, capacitive key-pad 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 puri-

fying 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.
SA503: Wall-mountable ambient sensor, compatible with AER503IR.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
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).
TXB: 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

- *The fan coil can also be teamed up with the VMF system; please contact headquarters about compatibility with the various system components.*

Common accessories

VCZ: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic 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.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCF41 - 42 - 43 - for main heat exchanger: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic 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.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.
AMP: Wall mounting kit
DSC: 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.
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.
ZXZ: Pair of stylish and structural feet
BC: Condensate drip.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.
SPCZ: Brackets to fix the fan coil to the floor.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories - FCZ-H

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
AER503IR (1)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
PRO503	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SA503 (3)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
SIT3 (4)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SIT5 (5)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
TX (6)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
TXB (7)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mount installation.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Thermostat probe for AER503IR if available.
(4) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(5) Probe for AER503IR-TX thermostats, if fitted.
(6) 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.
(7) Installation on the fan coil.

Common accessories

3 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VCZ41 (1)	H,HP,HT	•	•										
VCZ4124 (2)	H,HP,HT	•	•										
VCZ42 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ4224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ43 (1)	H,HP,HT											•	•
VCZ4324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

2 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VCZD1 (1)	H,HP,HT	•	•										
VCZD124 (2)	H,HP,HT	•	•										

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VCZD2 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD3 (1)	H,HP,HT											•	•
VCZD324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VJP060 (1)	H,HP,HT	•	•	•	•								
VJP060M (2)	H,HP,HT	•	•	•	•								
VJP090 (1)	H,HP,HT					•	•	•	•	•	•		
VJP090M (2)	H,HP,HT					•	•	•	•	•	•		
VJP150 (1)	H,HP,HT											•	•
VJP150M (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

Wall mounting kit

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20
HP	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20

Condensate drainage

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
DSCZ4 (1)	HP	•	•	•	•	•	•	•	•	•	•	•	•

(1) DSCZ4 due to space problems inside the unit, the VCZ1-2-3-4 X4L/R valves cannot be mounted together with the amp/AMPZ accessories, with all the condensate collection trays. With the VMF-E19/E19I thermostats, please contact the head office.

Condensate drip

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HP, HT	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ6 (2)	BCZ6 (2)

(1) For vertical installation.
(2) For horizontal installation.

Ver	200	250	300	350	400	450	500	550	600	650	900	950
HP	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC9 (1)	BC9 (1)

(1) For horizontal installation.

Panel closing the rear of the unit

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HT	PCZ200	PCZ200	PCZ300	PCZ300	PCZ500	PCZ500	PCZ500	PCZ500	PCZ800	PCZ800	PCZ1000	PCZ1000

Grille also applicable for floor installation

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HP, HT	GA200	GA200	GA300	GA300	GA500	GA500	GA500	GA500	GA800	GA800	GA800	GA800

Metal supports for GA grille

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HP, HT	FIKIT200	FIKIT200	FIKIT300	FIKIT300	FIKIT500	FIKIT500	FIKIT500	FIKIT500	FIKIT800	FIKIT800	FIKIT800	FIKIT800

Ventilcassaforma

Ver	200	250	300	350	400	450	500	550	600	650	900	950
HP	CHF22	CHF22	CHF32	CHF32	CHF42	CHF42	CHF42	CHF42	CHF62	CHF62	CHF62	CHF62

Brackets to fix the fan coil to the floor.

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HT	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ

Pair of stylish structural feet

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H, HP, HT	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ

PERFORMANCE SPECIFICATIONS

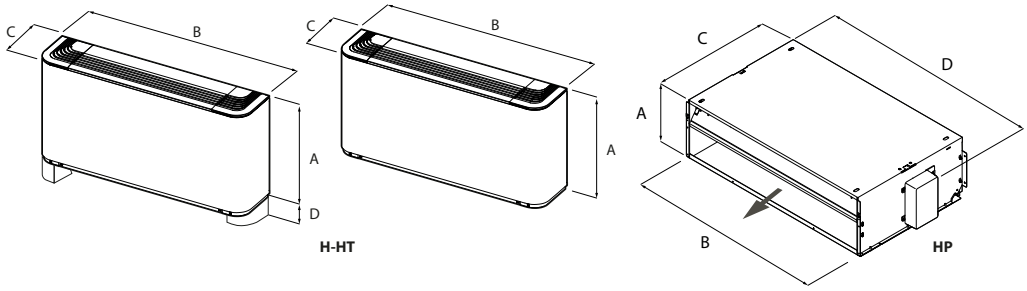
2-pipe

		FCZ200H			FCZ250H			FCZ300H			FCZ350H			FCZ400H			FCZ450H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82
Water flow rate system side	l/h	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685
Pressure drop system side	kPa	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88
Water flow rate system side	l/h	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675
Pressure drop system side	kPa	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16
Cooling performance 7 °C / 12 °C																			
Cooling capacity	kW	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03
Sensible cooling capacity	kW	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90
Water flow rate system side	l/h	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694
Pressure drop system side	kPa	7	13	18	8	17	25	8	13	18	11	18	25	10	17	24	9	15	22
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			2			2			2			2		
Air flow rate	m^3/h	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600
Input power	W	25	29	33	25	29	33	25	33	44	25	33	44	30	43	57	30	43	57
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings																			
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main heat exchanger	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Fan coil sound data (3)																			
Sound power level	dB(A)	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0
Sound pressure	dB(A)	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

		FCZ500H			FCZ550H			FCZ600H			FCZ650H			FCZ900H			FCZ950H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	5,27	7,31	8,50	5,82	8,34	9,75	6,50	8,10	10,00	7,19	9,15	11,50	10,77	13,35	15,14	11,20	14,42	17,10
Water flow rate system side	l/h	462	641	745	510	731	855	570	710	877	631	802	1008	945	1171	1328	982	1264	1500
Pressure drop system side	kPa	12	21	28	10	20	26	12	18	26	14	21	31	12	17	22	16	25	33
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	2,62	3,63	4,22	2,89	4,14	4,85	3,32	4,03	4,97	3,57	4,55	5,72	5,35	6,64	7,53	5,57	7,17	8,50
Water flow rate system side	l/h	455	631	734	502	720	842	561	699	863	621	790	993	930	1152	1307	967	1245	1476
Pressure drop system side	kPa	12	21	28	10	20	26	12	18	26	14	20	31	12	17	22	15	24	33
Cooling performance 7 °C / 12 °C																			
Cooling capacity	kW	2,68	3,69	4,25	2,91	4,13	4,79	3,22	3,90	4,65	3,95	4,80	5,67	4,29	5,00	6,91	5,77	7,32	8,60
Sensible cooling capacity	kW	1,94	2,73	3,18	2,07	2,98	3,49	2,56	3,17	3,92	2,78	3,43	4,12	2,97	3,78	5,68	3,80	4,87	5,78
Water flow rate system side	l/h	460	634	731	501	711	824	554	671	800	595	825	975	738	860	1189	992	1259	1479
Pressure drop system side	kPa	13	23	29	12	22	28	14	19	26	15	21	28	10	13	22	15	23	30
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	2			2			3			3			3			3		
Air flow rate	m^3/h	400	600	720	400	600	720	520	720	900	520	720	900	700	930	1140	700	930	1140
Input power	W	38	52	76	38	52	76	38	60	91	38	60	91	59	80	106	59	80	106
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings																			
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main heat exchanger	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Fan coil sound data (3)																			
Sound power level	dB(A)	42,0	51,0	56,0	42,0	51,0	56,0	42,0	51,0	57,0	42,0	51,0	57,0	51,0	57,0	62,0	51,0	57,0	61,0
Sound pressure	dB(A)	34,0	43,0	48,0	34,0	43,0	48,0	34,0	43,0	49,0	34,0	43,0	49,0	43,0	49,0	54,0	43,0	49,0	53,0
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			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) 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



Size			200	250	300	350	400	450	500	550	600	650	900	950
Dimensions and weights														
A	H,HT	mm	486	-	486	-	486	-	486	-	486	-	591	591
	HP	mm	216	-	216	-	216	-	216	-	216	-	216	216
B	H,HT	mm	750	-	980	-	1200	-	1200	-	1320	-	1320	1320
	HP	mm	562	-	793	-	1013	-	1013	-	1147	-	1147	1147
C	H,HT	mm	220	-	220	-	220	-	220	-	220	-	220	220
	HP	mm	453	-	453	-	453	-	453	-	453	-	558	558
D	H,HT	mm	90	-	90	-	90	-	90	-	90	-	90	90
	HP	mm	522	-	753	-	973	-	973	-	1122	-	1122	1122
Empty weight	H,HT	kg	15	-	17	-	23	-	22	-	29	-	34	34
	HP	kg	12	-	14	-	20	-	23	-	29	-	32	32

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