VED 030-340

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**

DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

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 electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
Fan housing in plastic material removable for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with 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.*

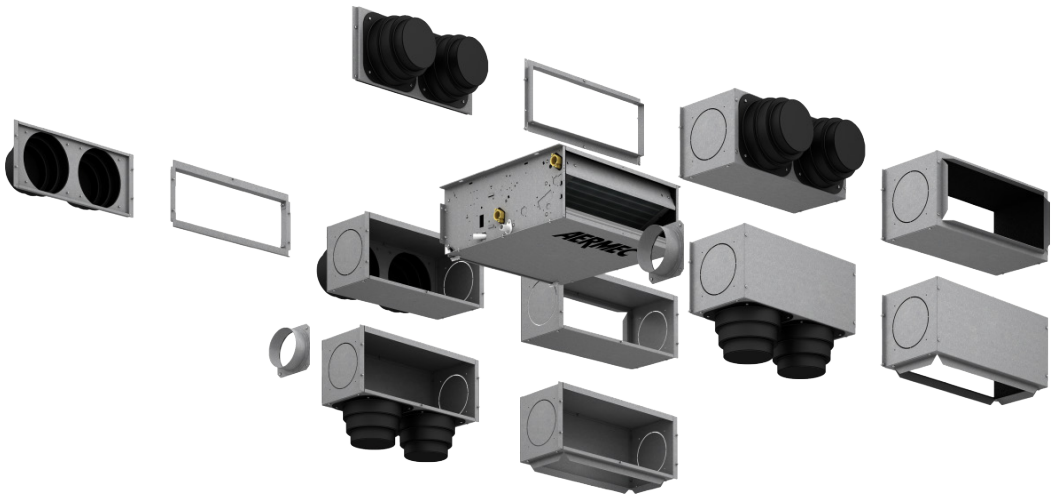
Air filter

Coarse 25% Class air filter, easy to remove and clean.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

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.
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).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF Components

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a 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-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-SIT3V: Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
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
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Valves and additional water coil

BV: Single row hot water heat exchanger.
VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the left, for installation in 4-pipe systems. 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. 230V power supply. Water connections: Valve body Ø G 3/4" male; Valve side connection tubes Ø G 3/4" female; Unit side connection tubes Ø G 3/4" male.
VCF41 - 42 - 43 - for main coil: 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.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. 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.
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.
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

AMP: Wall mounting kit
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.
DSC: Condensate drainage device.

Accessories for intake

GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
SE_X: External air shutter with manual control.
RDA_V: Straight intake connection with rectangular flange.
RDA_C: Straight intake connection with circular flanges.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

Delivery accessories

MZC: Plenum with motorised dampers.
MZCAC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.
MZCACV: Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
GM: Flow grid with adjustable louvers.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_C: Straight discharge internally insulated, with circular flanges.
RDM_V: Straight delivery coupling in galvanised sheet metal.
KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AER503IR (1)	.	•	•	•	•	•	•	•	•
PRO503	.	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•
SW3 (2)	.	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•
WMT05 (1)	.	•	•	•	•	•	•	•	•
WMT06 (1)	.	•	•	•	•	•	•	•	•
WMT10 (1)	.	•	•	•	•	•	•	•	•

(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.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	030	040	130	140	230	240	330	340
VMF-E0X (1)	.	•	•	•	•	•	•	•	•
VMF-E19 (1)	.	•	•	•	•	•	•	•	•
VMF-E3	.	•	•	•	•	•	•	•	•
VMF-E4DX	.	•	•	•	•	•	•	•	•
VMF-E4X	.	•	•	•	•	•	•	•	•
VMF-IO	.	•	•	•	•	•	•	•	•
VMF-IR	.	•	•	•	•	•	•	•	•
VMF-SIT3V (2)	.							•	•
VMF-SW	.	•	•	•	•	•	•	•	•
VMF-SW1	.	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.
(2) For the selection, consult the documentation for the thermostat and the fan coil.

(Heating only) additional coil

Ver	030	040	130	140	230	240	330	340
.	BV030 (1)	-	BV130 (1)	-	BV230 (1)	-	BV162 (1)	-

(1) Not available for sizes with oversized main coil.
The accessory cannot be fitted on the configurations indicated with -

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
VCF3X4L	•	•	•		•		•	•
VCF3X4LS				•		•		
VCF3X4R	•	•	•		•		•	•
VCF3X4RS				•		•		

3 way valve kit

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
3 way valve kit								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43-VCF4324
Additional coil "BV"	VCF45-VCF4524	-	VCF45-VFC4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

2 way valve kit

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
2 way valve kit								
Main coil	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324
Additional coil "BV"	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

Combined adjustment and balancing valve cold side

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
VJP060	•	•	•	•				
VJP060M	•	•	•	•				
VJP090					•	•	•	•
VJP090M					•	•	•	•
VJP150							•	•
VJP150M							•	•

Installation accessories

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
AMP	•	•	•	•	•	•	•	•

Condensate drip

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
BCZ4	•	•	•	•	•	•	•	•
BCZ6	•	•	•	•	•	•	•	•

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
BC9	•	•	•	•	•	•	•	•

BCZ4 For vertical installation.
BCZ6 For horizontal installation.
BC9 For horizontal installation.

Condensate recirculation device

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
DSC4	•	•	•	•	•	•	•	•
DSCZ4	•	•	•	•	•	•	•	•

Accessories for intake

Intake grids

Ver	030	040	130	140	230	240	330	340
.	GA22	GA22	GA32	GA32	GA42	GA42	GA62	GA62

Intake grid with filter and fixed louvers

Ver	030	040	130	140	230	240	330	340
.	GAF22	GAF22	GAF32	GAF32	GAF42	GAF42	GAF62	GAF62

External air shutter with manual control

Ver	030	040	130	140	230	240	330	340
.	SE20X	SE20X	SE30X	SE30X	SE40X	SE40X	SE80X	SE80X

Intake straight with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RDA000V	RDA000V	RDA100V	RDA100V	RDA200V	RDA200V	RDA300V	RDA300V

Intake straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	RDAC000V	RDAC000V	RDAC100V	RDAC100V	RDAC200V	RDAC200V	RDAC300V	RDAC300V

Intake plenum with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RPA000V	RPA000V	RPA100V	RPA100V	RPA200V	RPA200V	RPA300V	RPA300V

Intake plenum with circular flanges

Ver	030	040	130	140	230	240	330	340
.	PA000V	PA000V	PA100V	PA100V	PA200V	PA200V	PA300V	PA300V

Delivery accessories

Plenum with motor-driven dampers

Ver	030	040	130	140	230	240	330	340
.	MZC220	MZC220	MZC320	MZC320	MZC530	MZC530	MZC830	MZC830

Electrical system with relays

Ver	030	040	130	140	230	240	330	340
.	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)

(1) It is mandatory to use MZCACV if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.

Electric plant

Ver	030	040	130	140	230	240	330	340
.	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC

Flow grid with adjustable louvers

Ver	030	040	130	140	230	240	330	340
.	GM22	GM22	GM32	GM32	GM42	GM42	GM62	GM62

Delivery plenum internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	PM000V	PM000V	PM100V	PM100V	PM200V	PM200V	PM300V	PM300V

Delivery plenum internally insulated, with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RPM000V	RPM000V	RPM100V	RPM100V	RPM200V	RPM200V	RPM300V	RPM300V

Delivery straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	RDMC000V	RDMC000V	RDMC100V	RDMC100V	RDMC200V	RDMC200V	RDMC300V	RDMC300V

Straight delivery coupling

Ver	030	040	130	140	230	240	330	340
.	RDM000V	RDM000V	RDM100V	RDM100V	RDM200V	RDM200V	RDM300V	RDM300V

Circular flanges kit for plenum

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
KFV10	•	•	•	•	•	•	•	•

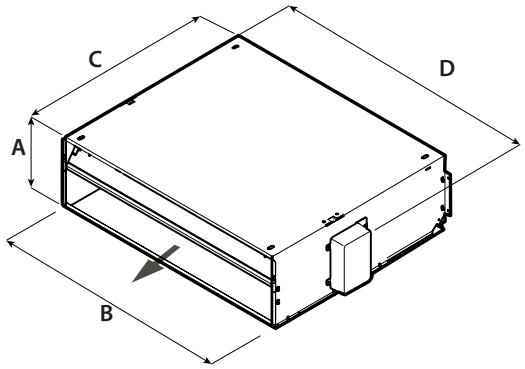
PERFORMANCE SPECIFICATIONS

2-pipe

		VED030			VED040			VED130			VED140			VED230			VED240			VED330			VED340		
		1	4	6	1	4	6	1	4	6	1	4	6	1	3	6	1	3	6	1	3	7	1	3	7
		L	M	H	L	M	H	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	1,82	3,37	3,69	2,37	3,57	3,92	4,40	5,83	6,29	4,52	6,09	6,58	5,35	6,50	7,16	5,80	7,14	7,91	7,81	9,34	10,51	8,31	10,02	10,95
Water flow rate system side	l/h	160	296	323	207	313	343	386	512	552	396	534	577	469	570	628	509	626	694	685	819	921	729	878	960
Pressure drop system side	kPa	3	7	9	4	10	12	13	22	26	9	16	18	27	30	37	18	26	32	9	13	16	22	28	32
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,90	1,67	1,83	1,18	1,77	1,94	2,18	2,90	3,12	2,24	3,02	3,27	2,66	3,23	3,56	2,88	3,55	3,93	3,88	4,64	5,22	3,98	4,98	5,44
Water flow rate system side	l/h	157	291	318	204	208	338	380	504	543	390	526	568	462	561	618	501	616	683	674	807	907	718	865	945
Pressure drop system side	kPa	3	8	9	5	11	13	15	24	28	10	16	19	26	29	36	18	27	32	10	14	17	13	20	23
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,97	1,41	1,56	1,10	1,68	1,84	2,05	2,74	2,91	2,24	3,00	3,22	2,55	3,07	3,33	2,86	3,57	3,93	3,62	4,35	4,90	3,92	4,72	5,26
Sensible cooling capacity	kW	0,73	1,07	1,18	0,79	1,19	1,29	1,41	1,89	2,01	1,58	2,14	2,30	1,96	2,38	2,61	2,16	2,65	2,92	2,74	3,26	3,63	2,89	3,50	3,89
Water flow rate system side	l/h	170	250	279	193	296	327	358	480	515	390	525	566	445	538	588	499	624	691	633	760	860	685	824	922
Pressure drop system side	kPa	3	7	9	5	12	14	15	27	31	11	20	23	25	36	44	16	31	37	10	14	18	16	21	26
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m^3/h	161	256	285	160	249	277	287	397	433	280	386	420	417	524	590	406	509	570	572	704	805	563	685	775
High static pressure	Pa	21	50	61	21	50	61	26	50	60	26	50	60	32	50	64	32	50	63	33	50	66	34	50	64
Input power	W	23	38	59	23	38	58	34	53	76	34	52	75	43	57	93	43	57	92	63	75	104	63	74	107
Electrical wiring		V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V3	V6	V1	V3	V6	V1	V3	V7	V1	V3	V7
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	44,0	52,0	54,0	44,0	52,0	54,0	47,0	53,0	55,0	47,0	53,0	55,0	49,0	54,0	57,0	49,0	54,0	57,0	49,0	55,0	58,0	49,0	55,0	58,0
Sound power level (outlet)	dB(A)	40,0	48,0	50,0	40,0	48,0	50,0	42,0	48,0	50,0	42,0	48,0	50,0	44,0	49,0	52,0	44,0	49,0	52,0	45,0	51,0	54,0	45,0	51,0	54,0
Water coil																									
Water content main coil	l	0,7			1,0			1,1			1,5			1,5			2,1			1,8			2,3		
Diametre hydraulic fittings																									
Main coil	Ø	3/4"																							
Power supply																									
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



		VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
Dimensions and weights									
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	560	560	560	560	560	560	560	560
D	mm	576	576	807	807	1027	1027	1148	1148

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