

VED 030I-340I

Fan coil unit for ducted installations



- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**
- **Total comfort: reduced temperature and humidity oscillations**
- **Electricity savings of 50% compared with a fan coil with multi-speed motor**



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. The casing is in aluminum with internal class 1 fire insulation and IP20 protection degree.

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. Brushless motor with continuous speed variation 0-100%. Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10V signal, coming from adjustment and control commands Aermec or from independent adjustment systems. This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room. The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

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.*

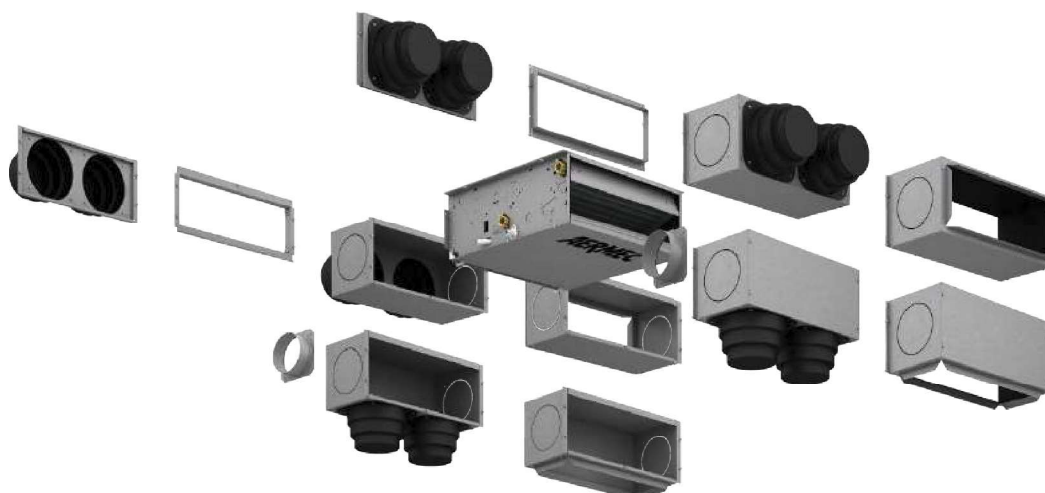
Air filter

Air filter Class G3, for easy removal and cleaning.

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



AER503: Wall-mounted panel.

SA5: Air temperature probe.

SW5: Water temperature probe.

SWAI: External air or water temperature probe.

WMT21: Electronic thermostat for inverter fancoils.

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-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: Expansion board that extends the availability of digital inputs and outputs (configured via the dip switches).

VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.

VMF-SW: Water temperature probe.

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

BV: Single row hot water heat exchanger.

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 coil: 3-way motorised valve kit for the main 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.

VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic com-

ponents. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

AMP: Wall mounting kit

DSC: Condensate drainage device.

ZXZ: Pair of stylish and structural gray feet with skirting board.

BC: Condensate drip.

GA: Intake grid with fixed louvers

GAF: Intake grid with filter and fixed louvers

GM: Flow grid with adjustable louvers.

VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the right, 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.

MZC: Plenum with motorised dampers.

RDA_V: Straight intake connection with rectangular flange.

RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

RDA_C: Straight intake connection with circular flanges.

PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

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.

KFV10: Circular flanges kit for plenum.

SE_X: External air shutter with manual control.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AER503	
SA5	
SW5	
SWAI (1)	
WMT21	

(1) Probe for thermostat WMT21.

VMF system

Model	Ver	030	040	130	140	230	240	330	340
VMF-E19I	
VMF-E4DX	
VMF-E4X	
VMF-I0	
VMF-L0N	
VMF-SW	
VMF-SW1	

(Heating only) additional coil

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

(1) Not available for sizes with oversized main coil.

Water valves

Valve Kit for 4 pipe systems with main coil

Model	Ver	030	040	130	140	230	240	330	340
VCF3X4L (1)					
VCF3X4LS (1)					
VCF3X4R (1)					
VCF3X4RS (1)					

(1) For more information about hydraulic connections, refer to the technical documentation.

3 way valve kit

Ver	030	040	130	140	230	240	330	340
	VCF43 (1)	VCF43 (1)	VCF43 (1)	VCF4324S (2)	VCF43 (1)	VCF4324S (2)	VCF43 (1)	VCF43 (1)

(1) 230V power supply - Hydraulic connection Ø 3/4"

(2) 24V power supply - Ø 3/4" hydraulic connections

2 way valve kit

Model	Ver	030	040	130	140	230	240	330	340
VCFD3 (1)	
VCFD324 (2)	
VCFD424 (2)	
VCFD4 (1)	

(1) 230V power supply - Hydraulic connection Ø 3/4"

(2) 24V power supply - Ø 3/4" hydraulic connections

Combined adjustment and balancing valve cold side

Model	Ver	030	040	130	140	230	240	330	340
VJP060 (1)					
VJP060M (2)					
VJP090 (1)						.	.		
VJP090M (2)						.	.		
VJP150 (1)								.	.
VJP150M (2)								.	.

(1) 230V~50Hz

(2) 24V

Installation accessories

Installation accessories

Ver	030	040	130	140	230	240	330	340
	AMP	AMP	AMP	AMP	AMP	AMP	AMP	AMP

Condensate drip

Model	Ver	030	040	130	140	230	240	330	340
BC4 (1)	
BC6 (2)	
BC9 (2)	

(1) For vertical installation. The tray cannot be installed at the same time as the VCF or VCFD valves, if present.

(2) For horizontal installation.

Accessories for intake

Intake grids

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

Intake grid with filter and fixed louvers

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

External air shutter with manual control

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

Intake straight with rectangular flanges

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

Intake straight internally insulated, with circular flanges

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

Intake plenum with rectangular flanges

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

Delivery accessories

Plenum with motor-driven dampers

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

Delivery straight internally insulated, with circular flanges

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

Delivery plenum internally insulated, with rectangular flanges

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

Delivery plenum internally insulated, with circular flanges

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

Circular flanges kit for plenum

Ver	030	040	130	140	230	240	330	340
I	KFV10	KFV10	KFV10	KFV10	KFV10	KFV10	KFV10	KFV10

PERFORMANCE SPECIFICATIONS

2-pipe

		VED030I			VED040I			VED130I			VED140I			VED230I			VED240I			VED330I			VED340I		
		1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	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	10,08	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	1,17	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	308	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	0,98	1,42	1,58	1,11	1,69	1,86	2,06	2,76	2,95	2,25	3,02	3,25	2,57	3,09	3,37	2,88	3,59	3,97	3,62	4,36	4,91	3,95	4,72	5,27
Sensible cooling capacity	kW	0,74	1,08	1,20	0,80	1,20	1,31	1,42	1,91	2,05	1,59	2,16	2,32	1,98	2,40	2,65	2,18	2,67	2,96	2,77	3,27	3,64	2,92	3,51	3,90
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	563	824	922
Pressure drop system side	kPa	3	7	9	5	12	14	15	27	41	11	20	23	25	36	44	16	31	37	10	14	18	34	21	26
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Inverter																							
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m ³ /h	161	256	285	160	249	277	287	397	434	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	12	29	36	12	29	36	17	33	45	17	33	45	24	40	53	24	40	53	35	60	86	35	60	86
Signal 0-10V	%	54	80	90	54	80	90	58	82	90	58	82	90	66	80	90	62	80	90	62	78	90	66	84	90
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
Diameter hydraulic fittings																									
Main coil	∅	3/4"																							
Power supply																									
Power supply		230V~50Hz																							

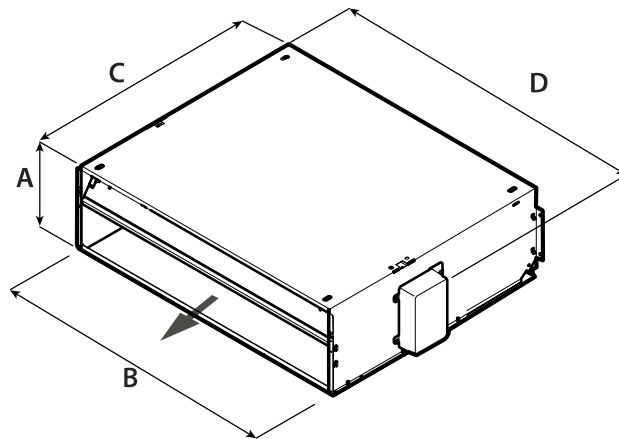
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(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



		VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
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	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148

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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