

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. 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. 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.*

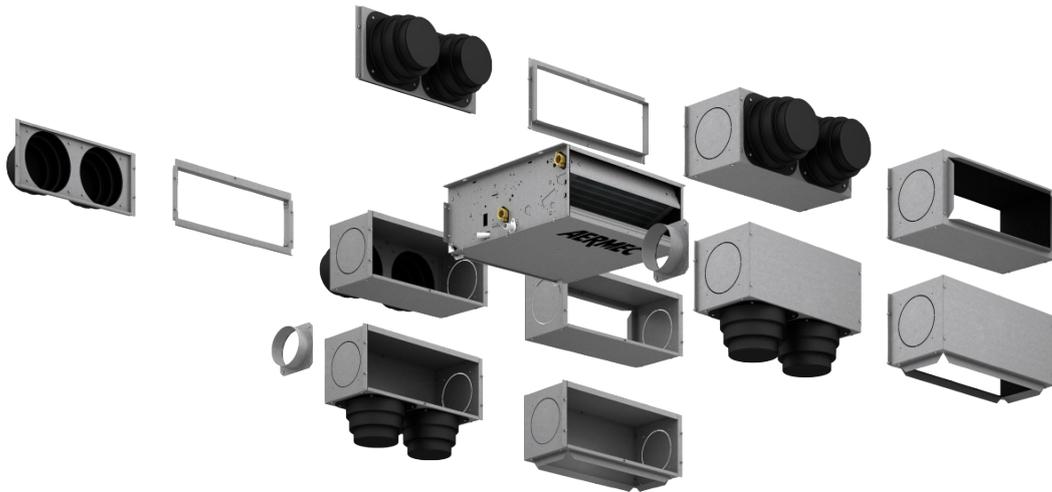
Air filter

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



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.

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.

SWA1: External air or water temperature probe.

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).

WMT21: Electronic thermostat for inverter fancoils.

VMF Components

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-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 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

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

BC: Condensate drip.

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

GM: Flow grid with adjustable louvers.

MZC: Plenum with motorised dampers.

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.

KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
AER503IR
PRO503
SA5
SW3
SW5
SWAI
TX
WMT21

VMF system

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
VMF-E19I
VMF-E3
VMF-E4DX
VMF-E4X
VMF-IO
VMF-IR
VMF-LON
VMF-SW
VMF-SW1

(Heating only) additional coil

Accessory	VED030I	VED130I	VED230I	VED330I
BV030	.			
BV130		.		
BV162				.
BV230			.	

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
VCF3X4L
VCF3X4LS				.		.		
VCF3X4R
VCF3X4RS				.		.		

3 way valve kit

	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
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-VCF4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

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

2 way valve kit

	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
2 way valve kit								
Main coil	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

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

VJP060 - 090 - 150 (230V~50Hz); VJP060M-090M-150M (24V)

Installation accessories

Wall mounting accessories

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED340I
AMP

Condensate drip

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
BC24	*	*	*	*	*	*	*	*
BC26	*	*	*	*	*	*	*	*
Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
BC9	*	*	*	*	*	*	*	*

BC24 For vertical installation.
 BC26 For horizontal installation.
 BC9 For horizontal installation.

Condensate drainage

Ver	030	040	130	140	230	240	330	340
I	DSC4							

Accessories for intake

Intake grids

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
GA22	*	*						
GA32			*	*				
GA42					*	*		
GA62							*	*

Intake grid with filter and fixed louvers

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
GAF22	*	*						
GAF32			*	*				
GAF42					*	*		
GAF62							*	*

External air shutter with manual control

Ver	030	040	130	140	230	240	330	340
I	SE20X (1)	SE20X (1)	SE30X (1)	SE30X (1)	SE40X (1)	SE40X (1)	SE80X (1)	SE80X (1)

(1) The SE accessories must be combined with the design and structural feet.

Intake straight with rectangular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RDA000V	*	*						
RDA100V			*	*				
RDA200V					*	*		
RDA300V							*	*

Intake straight internally insulated, with circular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RDAC000V	*	*						
RDAC100V			*	*				
RDAC200V					*	*		
RDAC300V							*	*

Intake plenum with rectangular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RPA000V	*	*						
RPA100V			*	*				
RPA200V					*	*		
RPA300V							*	*

Intake plenum with circular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
PA000V	*	*						
PA100V			*	*				
PA200V					*	*		
PA300V							*	*

Delivery accessories

Outlet grille with adjustable louvers

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
GM22	*	*						
GM32			*	*				
GM42					*	*		
GM62							*	*

Plenum with motor-driven dampers

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
MZC220	.	.						
MZC320			.	.				
MZC530					.	.		
MZC830							.	.

Delivery plenum internally insulated, with circular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
PM000V	.	.						
PM100V			.	.				
PM200V					.	.		
PM300V							.	.

Delivery plenum internally insulated, with rectangular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RPM000V	.	.						
RPM100V			.	.				
RPM200V					.	.		
RPM300V	.						.	.

Delivery straight internally insulated, with circular flanges

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RDMC000V	.	.						
RDMC100V			.	.				
RDMC200V					.	.		
RDMC300V							.	.

Straight delivery coupling

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
RDM000V	.	.						
RDM100V			.	.				
RDM200V					.	.		
RDM300V							.	.

Circular flanges kit for plenum

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
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																									
Type	type	Gas - F																							
Main coil	Ø	3/4"																							
Power supply																									
Power supply		230V~50Hz																							

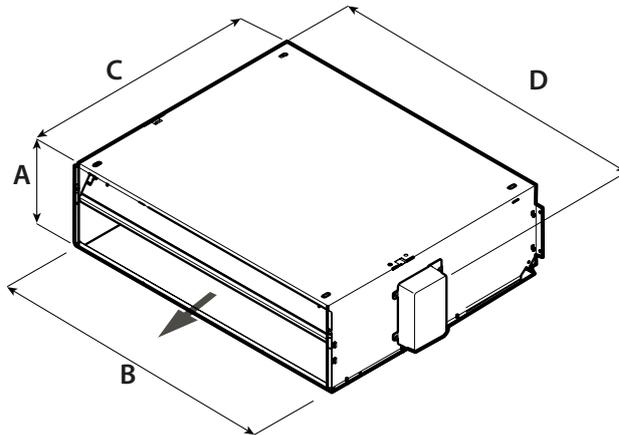
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(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



		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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