

# 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. 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. 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.*

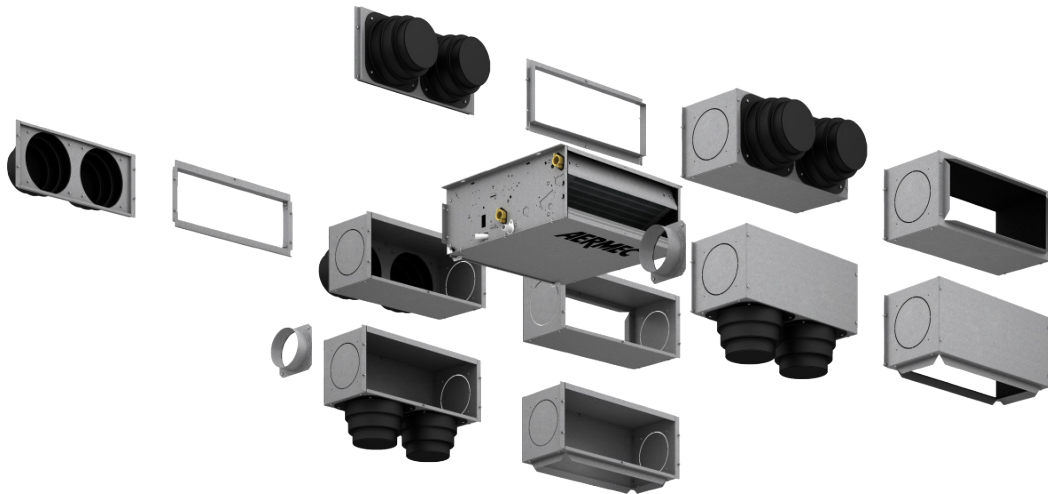
#### Air filter

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.

**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.

**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. 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

**SIT3Z:** Interface card that permits connecting the VMF-E19 thermostats to a fan coil with a high power motor.

**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-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-SIT3:** Interface card that permits connecting the VMF-E19 thermostats to a fan coil with a high power motor.

**VMF-SW:** Water temperature probe.

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

### 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 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.

**VCF44 - 45 - for the secondary coil:** The 3-way motorised valve kit for the secondary coil or an optional heat only 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.

**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.

### 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.

**KFV10:** Circular flanges kit for plenum.

## ACCESSORIES COMPATIBILITY

### Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AERS03IR (1)	.	*	*	*	*	*	*	*	*
PRO503	.	*	*	*	*	*	*	*	*
SA5 (2)	.	*	*	*	*	*	*	*	*
SIT3 (3)	.	*	*	*	*	*	*	*	*
SIT5 (4)	.	*	*	*	*	*	*	*	*
SWS (2)	.	*	*	*	*	*	*	*	*
TX (1)	.	*	*	*	*	*	*	*	*
WMT05	.	*	*	*	*	*	*	*	*
WMT06	.	*	*	*	*	*	*	*	*
WMT10	.	*	*	*	*	*	*	*	*

(1) Wall-mount installation.

(2) Probe for AERS03IR-TX thermostats, if fitted.

(3) Cards for AERS03IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

(4) Probe for AERS03IR-TX thermostats, if fitted.

### VMF system

Model	Ver	030	040	130	140	230	240	330	340
SIT3Z	.							*	*
VMF-E0X (1)	.	*	*	*	*	*	*	*	*
VMF-E19	.	*	*	*	*	*	*	*	*
VMF-E3	.	*	*	*	*	*	*	*	*
VMF-E4DX	.	*	*	*	*	*	*	*	*
VMF-E4X	.	*	*	*	*	*	*	*	*
VMF-IR	.	*	*	*	*	*	*	*	*
VMF-SIT3 (2)	.							*	*
VMF-SW	.	*	*	*	*	*	*	*	*
VMF-SW1	.	*	*	*	*	*	*	*	*

(1) Also the accessory VMF-SIT3 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

Accessory	VED030	VED130	VED230	VED330
BV030	*			
BV130		*		
BV162				*
BV230			*	

## 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
<b>3 way valve kit</b>								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-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

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
<b>2 way valve kit</b>								
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.

**Accessories for intake**

**Intake grids**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
GA22	*	*						
GA32			*	*				
GA42					*	*		
GA62							*	*

**Intake grid with filter and fixed louvers**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
GAF22	*	*						
GAF32			*	*				
GAF42					*	*		
GAF62							*	*

**External air shutter with manual control**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
SE20X	*	*						
SE30X			*	*				
SE40X					*	*		
SE80X							*	*

**Intake straight with rectangular flanges**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
RDA000V	*	*						
RDA100V			*	*				
RDA200V					*	*		
RDA300V							*	*

**Intake straight internally insulated, with circular flanges**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
RDAC000V	*	*						
RDAC100V			*	*				
RDAC200V					*	*		
RDAC300V							*	*

**Intake plenum with rectangular flanges**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
RPA000V	*	*						
RPA100V			*	*				
RPA200V					*	*		
RPA300V							*	*

**Intake plenum with circular flanges**

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
PA000V	*	*						
PA100V			*	*				
PA200V					*	*		
PA300V							*	*

## Delivery accessories

### Flow grid with adjustable louvers

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
GM22	.	.						
GM32			.	.				
GM42					.	.		
GM62							.	.

### Plenum with motor-driven dampers

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
MZC220	.	.						
MZC320			.	.				
MZC530					.	.		
MZC830							.	.

### Delivery plenum internally insulated, with circular flanges

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
PM000V	.	.						
PM100V			.	.				
PM200V					.	.		
PM300V							.	.

### Delivery plenum internally insulated, with rectangular flanges

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
RPM000V	.	.						
RPM100V			.	.				
RPM200V					.	.		
RPM300V							.	.

### Delivery straight internally insulated, with circular flanges

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
RDMC000V	.	.						
RDMC100V			.	.				
RDMC200V					.	.		
RDMC300V							.	.

### 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
<b>Heating performance 70 °C / 60 °C (1)</b>																									
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
<b>Heating performance 45 °C / 40 °C (2)</b>																									
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
<b>Cooling performance 7 °C / 12 °C (3)</b>																									
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
<b>Fan</b>																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m <sup>3</sup> /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
<b>Duct type fan coil sound data (4)</b>																									
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
<b>Water coil</b>																									
Water content main coil	l	0,7			1,0			1,1			1,5			1,5			2,1			1,8			2,3		
<b>Diameter hydraulic fittings</b>																									
Main coil	∅	3/4"																							
<b>Power supply</b>																									
Power supply		230V~50Hz																							

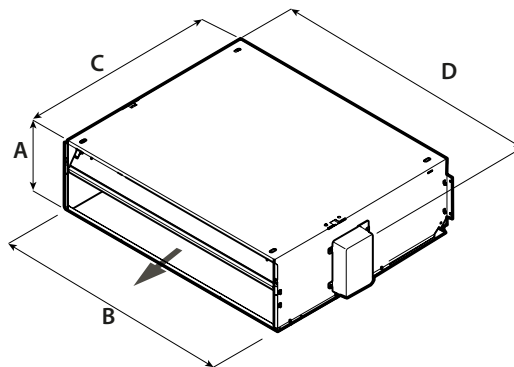
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C

(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
<b>Dimensions and weights</b>									
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

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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