

VED 530I-741I

Fan coil unit for ducted installations



- Horizontal and vertical installation
- Ventilation group to 5 speed
- 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. 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.

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.

VCF45C - 47C - for main coil: Motorized 3-way valve kit for main coil. The kit consists of a 4-way 4-way valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

VCF45H - 47H - for heating only coil: Motorized 3-way valve kit for hot only coil. The kit consists of a 3-way 4-way valve, the actuator and its hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

VCF25C - for main coil: 2-way motorized valve kit for main coil. The kit consists of a valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.

VCF25H - for heating only coil: 2-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.

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.

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.

KFV10: Circular flanges kit for plenum.

Configurator

Field	Description
1,2,3	VED
4	Size 5, 7
5	Main coil
3	3-row coil
4	4-row coil
6	Secondary coil
0	Without coil
1	1-row coil for heating only
2	2-row coil for heating only

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	530	532	540	541	730	732	740	741
AER503
SA5
SW5
SWAI (1)
WMT21

(1) Probe for thermostat WMT21.

VMF system

Model	Ver	530	532	540	541	730	732	740	741
VMF-E19I
VMF-E4DX
VMF-E4X
VMF-IO
VMF-LON
VMF-SW
VMF-SW1

Water valves

3 way valve kit

Ver	530	532	540	541	730	732	740	741
.	VCF45C (1)	VCF45C (1)	VCF45C (1)	VCF45C (1)	VCF47C (1)	VCF47C (1)	VCF47C (1)	VCF47C (1)

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

3-way valve kit for heating only coil

Ver	530	532	540	541	730	732	740	741
.	-	VCF45H (1)	-	VCF45H (1)	-	VCF47H (1)	-	VCF47H (1)

(1) Power supply 230V - Hydraulic connections Ø 1/2"

The accessory cannot be fitted on the configurations indicated with -

2 way valve kit

Model	Ver	530	532	540	541	730	732	740	741
VCF25C (1)

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

2-way valve for heating only coil

Model	Ver	530	532	540	541	730	732	740	741
VCF25H (1)

(1) Power supply 230V - Hydraulic connections Ø 1/2"

2-way globe valves actuator excluded

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCT102	VCT202														

Actuator 230V

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCTA230															

Actuator 24V

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

Combined adjustment and balancing valve cold side

Model	Ver	530	532	540	541	730	732	740	741
VJP150 (1)
VJP150M (2)
VJP270M (2)

(1) 230V~50Hz

(2) 24V

VJP/VJP_M the compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

Accessories for intake

Intake straight with rectangular flanges

Ver	530	532	540	541	730	732	740	741
.	RDA450V	RDA450V	RDA450V	RDA450V	RDA670V	RDA670V	RDA670V	RDA670V

Intake plenum with rectangular flanges

Ver	530	532	540	541	730	732	740	741
.	RPA450V	RPA450V	RPA450V	RPA450V	RPA670V	RPA670V	RPA670V	RPA670V

Intake plenum with circular flanges

Ver	530	532	540	541	730	732	740	741
.	PA450V	PA450V	PA450V	PA450V	PA670V	PA670V	PA670V	PA670V

Delivery accessories

Plenum with motor-driven dampers

Ver	530	532	540	541	730	732	740	741
.	MZC5040	MZC5040	MZC5040	MZC5040	MZC7050	MZC7050	MZC7050	MZC7050

Delivery plenum internally insulated, with rectangular flanges

Ver	530	532	540	541	730	732	740	741
.	RPM450V	RPM450V	RPM450V	RPM450V	RPM670V	RPM670V	RPM670V	RPM670V

Delivery plenum internally insulated, with circular flanges

Ver	530	532	540	541	730	732	740	741
.	-	-	-	-	PM670V	PM670V	PM670V	PM670V

The accessory cannot be fitted on the configurations indicated with -

Circular flanges kit for plenum

Ver	530	532	540	541	730	732	740	741
.	KFV10							

PERFORMANCE SPECIFICATIONS

2-pipe

	VED530I			VED540I			VED730I			VED740I		
	1	2	3	1	2	3	1	2	3	1	2	3
	L	M	H	L	M	H	L	M	H	L	M	H

Heating performance 70 °C / 60 °C (1)

Heating capacity	kW	13,80	16,47	17,57	15,38	18,59	19,91	21,18	25,36	29,00	22,88	27,65	31,71
Water flow rate system side	l/h	1210	1444	1541	1349	1630	1746	1857	2224	2543	2007	2425	2781
Pressure drop system side	kPa	13	18	21	18	25	29	38	55	67	26	36	46

Heating performance 45 °C / 40 °C (2)

Heating capacity	kW	6,86	8,19	8,74	7,65	9,24	9,90	10,53	12,61	14,22	11,34	27,65	15,81
Water flow rate system side	l/h	1180	1409	1503	1316	1589	1703	1811	2169	2446	1950	2425	2719
Pressure drop system side	kPa	14	19	21	21	25	30	38	52	66	26	36	46

Cooling performance 7 °C / 12 °C (3)

Cooling capacity	kW	6,05	7,25	7,39	7,31	8,40	8,70	10,25	11,96	13,48	11,81	13,99	15,71
Sensible cooling capacity	kW	4,61	5,57	6,02	4,93	5,99	6,18	8,33	9,75	11,07	8,19	9,73	10,95
Water flow rate system side	l/h	1041	1247	1271	1257	1445	1496	1763	2057	2319	2031	2406	2702
Pressure drop system side	kPa	12	19	21	19	25	28	35	46	58	27	37	45

Fan

Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.	2			2			3			3		
Air flow rate	m ³ /h	1120	1400	1520	1100	1380	1500	1640	2040	2410	1600	2000	2358
High static pressure	Pa	32	50	58	32	50	56	32	50	69	32	50	69
Input power	W	115	160	205	115	160	205	147	241	370	147	241	370
Signal 0-10V	%	66	76	62	62	76	90	62	76	90	62	76	90

Duct type fan coil sound data (4)

Sound power level (inlet + radiated)	dB(A)	53,0	59,0	62,0	53,0	59,0	62,0	62,0	66,0	68,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	49,0	55,0	58,0	49,0	55,0	58,0	58,0	62,0	64,0	58,0	62,0	64,0

Diameter hydraulic fittings

Main coil	∅	3/4"										
Secondary coil	∅	-										

Power supply

Power supply	230V~50Hz												
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(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.

4-pipe

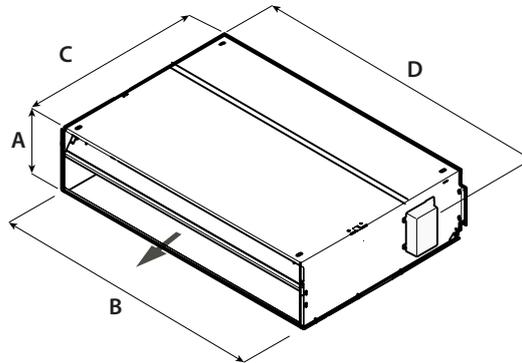
		VED541I			VED741I		
		1	2	3	1	2	3
		L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)							
Heating capacity	kW	6,70	7,62	7,90	10,57	11,88	12,96
Water flow rate system side	l/h	584	666	692	925	1040	1133
Pressure drop system side	kPa	19	24	26	17	21	25
Cooling performance 7 °C / 12 °C (2)							
Cooling capacity	kW	7,43	8,54	8,97	11,96	14,23	16,08
Sensible cooling capacity	kW	5,04	6,13	6,45	8,34	9,97	11,32
Water flow rate system side	l/h	1278	1469	1543	2057	2448	2766
Pressure drop system side	kPa	21	27	29	27	37	46
Fan							
Type	type	Centrifugal					
Fan motor	type	Inverter					
Number	no.	2			3		
Air flow rate	m ³ /h	1060	1360	1460	1600	2000	2350
High static pressure	Pa	32	50	56	32	50	69
Input power	W	106	163	185	138	240	363
Signal 0-10V	%	66	84	90	64	78	90
Duct type fan coil sound data (3)							
Sound power level (inlet + radiated)	dB(A)	53,0	59,0	62,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	49,0	55,0	58,0	58,0	62,0	64,0
Diameter hydraulic fittings							
Secondary coil	∅	1/2"					
Main coil	∅	3/4"					
Power supply							
Power supply		230V~50Hz					

(1) Room air temperature 20 °C d.b.; Water (in/out) 65 °C/55 °C;

(2) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °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



		VED530I	VED532I	VED540I	VED541I	VED730I	VED732I	VED740I	VED741I
Dimensions and weights									
A	mm	300	300	300	300	351	351	351	351
B	mm	1133	1133	1133	1133	1533	1533	1533	1533
C	mm	737	737	737	737	789	789	789	789
D	mm	1158	1158	1158	1158	1558	1558	1558	1558
Net weight	kg	42	47	47	47	58	58	61	61

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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