

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. 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 1-10 V 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 heat exchanger has female gas water connections on the left side and the manifolds have 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

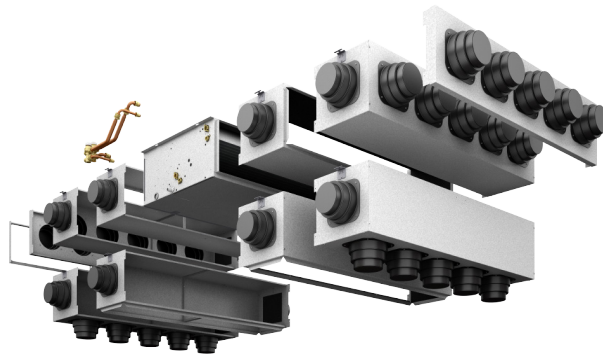
Air filter Class G3, for easy removal and cleaning.

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.

PRO503: Wall box for AER503IR and VMF-E4 thermostats.

SA5: air probe kit (L = 15 m) with probe-locking cable grommet.

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).

WMT21: Electronic thermostat for inverter fancoils.

AerSuite

The AerSuite application is used to remotely control the DI24 user interface, with VMF-E19/VMF-E19I thermostats, using Smart Devices with iOS and Android operating systems.

This is an application for Smartphones and Tablets with which the user can access and control the system operation remotely.

For more information about the use of the application and the available functions, refer to the respective documentation on the website.



VMF system

The VMF-E19I accessory must be factory installed

DI24: Flush-mounted interface (503 box) with 2.4" touch screen display to be combined with VMF-E19, VMF-E19I accessories. It allows you to regulate and monitor the temperature inside rooms precisely and on time; in addition to accessing and interacting with your system's operating information, parameters and alarms, it allows you to set time slots. Thanks to its Wi-Fi connection, DI24 in combination with the AerSuite APP (available for Android and iOS) can also be remotely controlled. All programming and most functions are done in a simple and intuitive way using the APP. To allow for customization of the interface so that it seamlessly integrates with the style of any home, DI24 is compatible with switch plates from major brands available on the market. For more information, please refer to our documentation. However, a switch plate with its graphite gray support, DI24CP, is also available as a separate accessory in our catalog.

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, 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-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the 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

VMHI: The VMHI panel can be used as a user interface for VMF-E19/E19I thermostats, GLFxN/M or GLLxN grids, or as an interface for the MZC system. What determines the function to be performed by the user interface is determined by its correct parametrisation and by following the electrical connections between interface and thermostat or interface and plenum.

Water valves

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 - 47CS - for main heat exchanger: 3-way motorised valve kit for the main heat exchanger. 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.

VCF45H - 47H - for heating only heat exchanger: 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 - 25CS - 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.

BCV: Condensate drip.

Installation accessories

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.

Configurator

Field	Description
1,2,3	VED
4	Size 5, 7
5	main heat exchanger
3	3-row coil
4	4-row coil

KFV: Circular flanges kit for plenum.

MZCBC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with a brushless motor.

Field	Description
6	Secondary heat exchanger
0	Without coil
1	1-row coil for heating only
2	2-row coil for heating only
7	Fans

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	VED530I	VED540I	VED730I	VED740I
AER503IR	*	*	*	*
PRO503	*	*	*	*
SA5	*	*	*	*
SW5	*	*	*	*
TX	*	*	*	*
WMT21	*	*	*	*

Accessory	VED532I	VED541I	VED732I	VED741I
AER503IR	*	*	*	*
PRO503	*	*	*	*
SA5	*	*	*	*
SW5	*	*	*	*
TX	*	*	*	*

VMF system

Accessory	VED530I	VED540I	VED730I	VED740I
DI24	*	*	*	*
VMF-E19I	*	*	*	*
VMF-E3	*	*	*	*
VMF-E4DX	*	*	*	*
VMF-E4X	*	*	*	*
VMF-I0	*	*	*	*
VMF-IR	*	*	*	*
VMF-SW	*	*	*	*
VMF-SW1	*	*	*	*
VMHI	*	*	*	*

Accessory	VED532I	VED541I	VED732I	VED741I
DI24	*	*	*	*
VMF-E19I	*	*	*	*
VMF-E3	*	*	*	*
VMF-E4DX	*	*	*	*
VMF-E4X	*	*	*	*
VMF-I0	*	*	*	*
VMF-IR	*	*	*	*
VMF-LON	*	*	*	*
VMF-SW	*	*	*	*
VMF-SW1	*	*	*	*
VMHI	*	*	*	*

The VMF-E19I accessory must be factory installed

Water valves

3 way valve kit

	VED530I	VED540I	VED730I	VED740I
3 way valve kit				
Main heat exchanger	VCF45C	VCF45C	VCF47C	VCF47CS
Secondary heat exchanger for four pipes	-	-	-	-

	VED532I	VED541I	VED732I	VED741I
3 way valve kit				
Main heat exchanger	VCF45C	VCF45C	VCF47C	VCF47CS
Secondary heat exchanger for four pipes	VCF45H	VCF45H	VCF47H	VCF47H

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

2 way valve kit

	VED530I	VED540I	VED730I	VED740I
2 way valve kit				
Main heat exchanger	VCF25C	VCF25C	VCF25C	VCF25CS
Secondary heat exchanger for four pipes	-	-	-	-
	VED532I	VED541I	VED732I	VED741I
2 way valve kit				
Main heat exchanger	VCF25C	VCF25C	VCF25C	VCF25CS
Secondary heat exchanger for four pipes	VCF25H	VCF25H	VCF25H	VCF25H

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

2-way globe valves actuator excluded

Accessory	VED530I	VED540I	VED730I	VED740I
VCT102	•	•		
VCT202			•	•
Accessory	VED532I	VED541I	VED732I	VED741I
VCT102	•	•		
VCT202			•	•

Actuator 230V

Accessory	VED540I	VED730I	VED740I	
VCTK	•	•	•	
Accessory	VED532I	VED541I	VED732I	VED741I
VCTK	•	•	•	•

Actuator 24V

Accessory	VED540I	VED730I	VED740I	
VCTKM	•	•	•	
Accessory	VED532I	VED541I	VED732I	VED741I
VCTKM	•	•	•	•

Combined adjustment and balancing valve cold side

Accessory	VED530I	VED540I	VED730I	VED740I
VJP150	•	•		
VJP150M	•	•		
VJP270M			•	•
Accessory	VED532I	VED541I	VED732I	VED741I
VJP150	•	•		
VJP150M	•	•		
VJP270M			•	•

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

Condensate drip

Accessory	VED530I	VED540I	VED730I	VED740I
BCV45	•	•		
BCV67			•	•
Accessory	VED532I	VED541I	VED732I	VED741I
BCV45	•	•		
BCV67			•	•

Accessories for intake**Intake straight with rectangular flanges**

Accessory	VED530I	VED540I	VED730I	VED740I
RDA450V	•	•		
RDA670V			•	•
Accessory	VED532I	VED541I	VED732I	VED741I
RDA450V	•	•		
RDA670V			•	•

Intake plenum with rectangular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
RPA450V	•	•		
RPA670V			•	•
Accessory	VED532I	VED541I	VED732I	VED741I
RPA450V	•	•		
RPA670V			•	•

Intake plenum with circular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
PA450V	.	.	.	.
PA670V				
Accessory	VED532I	VED541I	VED732I	VED741I
PA450V	.	.	.	.
PA670V				

Delivery accessories**Delivery plenum internally insulated, with rectangular flanges**

Accessory	VED530I	VED540I	VED730I	VED740I
RPM450V	.	.	.	.
RPM670V				
Accessory	VED532I	VED541I	VED732I	VED741I
RPM450V	.	.	.	.
RPM670V				

Delivery plenum internally insulated, with circular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
PM450V	.	.	.	.
PM670V				
Accessory	VED532I	VED541I	VED732I	VED741I
PM450V	.	.	.	.
PM670V				

Circular flanges kit for plenum

Accessory	VED530I	VED540I	VED730I	VED740I
KFV	.	.	.	.
Accessory	VED532I	VED541I	VED732I	VED741I
KFV	.	.	.	.

MZC**Plenum with motor-driven dampers**

Accessory	VED530I	VED540I	VED730I	VED740I
MZC5040	.	.	.	.
MZC7050				
Accessory	VED532I	VED541I	VED732I	VED741I
MZC5040	.	.	.	.
MZC7050				

Electric plant

Accessory	VED540I	VED730I	VED740I
MZCBC	.	.	.
Accessory	VED532I	VED541I	VED732I
MZCBC	.	.	.

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													
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 (3)													
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 heat exchanger	∅	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) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

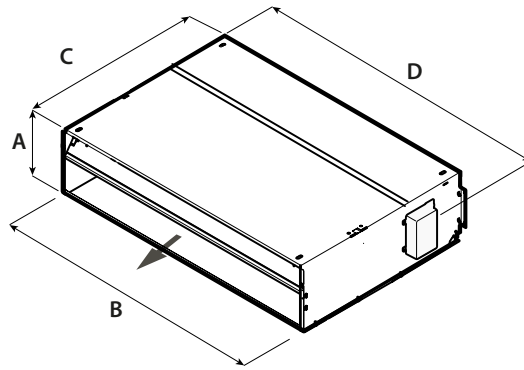
4-pipe

	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							
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 (2)							
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							
Main heat exchanger	∅	3/4"					
Secondary heat exchanger	∅	1/2"					
Power supply							
Power supply		230V~50Hz					

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

(2) 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	VED540I	VED730I	VED740I
Dimensions and weights					
A	mm	300	300	351	351
B	mm	1133	1133	1533	1533
C	mm	737	737	789	789
D	mm	1158	1158	1558	1558
Net weight	kg	42,0	47,0	58,0	61,0
		VED532I	VED541I	VED732I	VED741I
Dimensions and weights					
A	mm	300	300	351	351
B	mm	1133	1133	1533	1533
C	mm	737	737	789	789
D	mm	1158	1158	1558	1558
Net weight	kg	47,0	47,0	58,0	61,0

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.

Aermec S.p.A.
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia
Tel. 0442633111 - Telefax 044293577
www.aermec.com