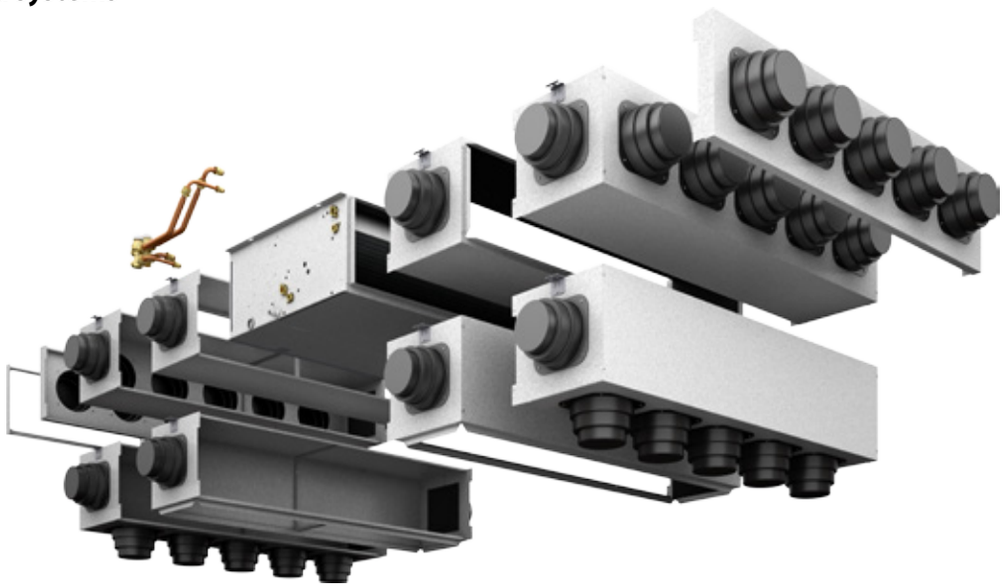
VED

Air handling terminal with cooling capacities from 8 to 18 kW
For ducted systems

AERMEC partecipates in the EUROVENT programme for: FCP
Check ongoing validity of certificate online: www.eurovent-certification.com

Variable Multi Flow®

VMF



- **HORIZONTAL AND VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **HEAT EXCHANGER ONLY WITH 1 OR 2 ROWS**
- **WIDE RANGE OF USEFUL STATIC PRESSURE**
- **5 SPEED VENTILATION UNIT**
- **INSPECTIONABLE FAN UNIT**
- **CLASS G3 AIR FILTER**
- **COIL REVERSIBILITY**

Choosing the unit

By appropriately combining the options available, it is possible to select the model that satisfies the specific system requirements.

Fields configurator:

1 2 3	4	5	6
Code	Size	Main coil n°. rows	Heating only coil n°. rows
VED	**5**	**3**	**2**

(VED532 = unit size 5, with Main Coil 3 Rows and Heating Coil 2 Rows)

Features

- Air handling terminal for ducted systems
- EUROVENT FCP Certification Program
- Horizontal and vertical installation
- Indoor installation
- Available in 4 sizes and 4 configurations
- Versions for 2 pipe systems with 3 or 4 row coil
- Versions for systems with 4 pipes with main coil with 3 or 4 rows and heating only coil with 1 or 2 rows
- Reversibility of the hydraulic connection in the installation phase
- Low pressure drop in the heat exchange coils
- 3-way valves accessories
- 2-way valves accessories for systems with variable water flow rate
- 5 speed fan unit (3 selectable)
- Wide range of useful static pressure
- Centrifugal fans in antistatic plastic. Due to their features, they allow to reduce the energy consumption with respect to normal fans
- Fans with wing-shaped profile studied to obtain high flow rate and static pressure performance and low noise emission at the same time
- Compatible with the VMF system
- Wide range of controls
- Wide range of accessories to satisfy all system requirements
- Rectangular flow flange already integrated into the framework
- Class G3 air filter with easy extraction and cleaning
- Internal insulation in Class 1 fire resistance
- IP20 protection rating
- Plastic augers, extractable for easy and efficient cleaning
- Easy installation and maintenance
- Full respect of the accident-prevention standards

Accessories

Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).
  SIT3: 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: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5**: Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1**: Thermostat for serial communication.
- **VMF-SW**: Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.
- **VMF-SIT 3** : Thermostat Interface Board
  VMF. Mandatory accessory on the VED unit supplied with VMF-E0 / E1 thermostat.

Valve kit

- **VCF4_C**: **Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4_H**: **Kit made up from motorised 3-way valves**, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- **VCF25C: Kit made up from motorised 2-way valves**, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP_M: 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, is available with 230V and 24V~50Hz power supply.
  The VJP is controlled by on-off logic with compatible control panels (accessories)
  The VJP_M is controlled by modulating logic with panels not supplied by Aermec
  The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.
- **VCT 2-way or 3-way valve The VCT valves do not have fittings and pipes for water connections.**
  These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.

Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA_V**: Straight intake connection with rectangular flange.
- **RDAC_V**: Straight intake connection with circular flanges.
- **RPA_V**: Intake plenum with rectangular flange.
- **RDMC_V**: Straight discharge with circular flanges. Internally insulated.
- **PA_V**: Intake plenum with circular flanges. Flanges in plastic material.
- **RPM_V**: Discharge plenum with rectangular flange. Internally insulated.
- **PM_V**: Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV**: Circular flanges kit for intake/discharge plenum.

For more details on the control panels and VMF system refer to the dedicated sheet

VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
Probes and accessories for control panels																	
PXAE		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05		•		•		•		•		•		•		•		•	
WMT06		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3		In combination with PXAE or PXAR															
SIT3	(1)	In combination with PXAE or WMT05-06-10															
SIT5	(2)	In combination with PXAE															
VMF System																	
VMF-E0		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SIT3	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valves																	
3 way valve kit																	
VCF45C		•	•	•	•	•	•	•	•								
VCF47C										•	•	•	•	•	•	•	•
3 way valve kit for heating coil only																	
VCF45H			•		•		•		•								
VCF47H											•		•		•		•
2 way valve kit																	
VCF25C		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2 way valve kit for heating coil only																	
VCF25H			•		•		•		•		•		•		•		•
Combined adjustment and balancing valve independent of pressure																	
VJP150/150M	(4)(5)	•	•	•	•	•	•	•	•								
VJP270M	(4)(5)									•	•	•	•	•	•	•	•
Kit valvola a due o tre vie																	
VCT (2 way)	(5)	VCT102		VCT102		VCT102		VCT102		VCT202		VCT202		VCT202		VCT202	
VCT (3 way)	(5)	VCT103		VCT103		VCT103		VCT103		VCT203		VCT203		VCT202		VCT403	
Plenum for duct installation																	
MZC5040		•	•	•	•	•	•	•	•								
MZC7050										•	•	•	•	•	•	•	•
RDA 450 V		•	•	•	•	•	•	•	•								
RDA 670 V										•	•	•	•	•	•	•	•
RPA 450 V		•	•	•	•	•	•	•	•								
RPA 670 V										•	•	•	•	•	•	•	•
PA 450 V		•	•	•	•	•	•	•	•								
PA 670 V										•	•	•	•	•	•	•	•
RPM 450 V		•	•	•	•	•	•	•	•								
RPM 670 V										•	•	•	•	•	•	•	•
PM 450 V		•	•	•	•	•	•	•	•								
PM 670 V										•	•	•	•	•	•	•	•
KFV		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) SIT3 Mandatory accessory on the VED units coupled to thermostats different to the VMF System
(2) SIT5 Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel
(3) VMF-SIT3 Mandatory accessory for coupling with VMF-E0 or VMF-E1
(4) VJP150M-VJP270M are 24Volt
(5) **The compatibility of the valves in the hot side of the system 4 tubes, check with the scope of the project water**

VED			430			440			530			540			630			640			730			740		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	15,97	13,85	10,47	18,11	15,36	11,45	17,57	16,47	13,80	19,91	18,59	15,38	27,02	22,67	18,63	32,69	27,74	22,45	29,00	25,36	21,18	31,71	27,65	22,88
Water flow rate	(1)	l/h	1401	1214	918	1588	1347	1004	1541	1444	1210	1746	1630	1349	2369	1988	1634	2867	2433	1969	2543	2224	1857	2781	2425	2007
Pressure drops	(1)	kPa	19	14	9	24	18	11	21	18	13	29	25	18	58	43	30	38	29	19	67	55	38	46	36	26
Heating capacity (45°C)	(2)	kW	7,95	6,89	5,21	9,01	7,64	5,69	8,74	8,19	6,87	9,90	9,25	7,65	13,44	11,28	9,27	16,26	13,80	11,17	14,43	12,62	10,54	15,77	13,76	11,38
Water flow rate	(2)	l/h	1379	1195	904	1563	1326	988	1517	1421	1191	1719	1604	1327	2332	1957	1608	2822	2395	1938	2503	2190	1828	2737	2387	1975
Pressure drops	(2)	kPa	18	14	9	23	17	11	20	17	13	28	24	17	56	42	29	37	28	18	65	53	37	45	35	25
Cooling Performance																										
Total cooling capacity	(3)	kW	6,95	6,15	4,68	8,01	7,06	5,34	7,76	7,39	6,16	8,97	8,54	7,43	12,53	10,70	8,89	15,07	12,76	10,43	13,85	12,20	10,40	16,08	14,23	11,96
Sensible cooling capacity	(3)	kW	5,36	4,71	3,54	5,73	5,04	3,78	6,02	5,71	4,72	6,45	6,13	5,04	10,30	8,75	7,22	10,58	8,91	7,24	11,44	9,99	8,48	11,32	9,97	8,34
Water flow rate	(3)	l/h	1195	1058	805	1378	1214	918	1335	1271	1060	1543	1469	1278	2155	1840	1529	2592	2195	1794	2382	2098	1789	2766	2448	2057
Pressure drops	(3)	kPa	17	13	8	22	17	10	21	19	12	28	25	19	48	36	26	41	30	21	58	46	35	45	37	27
Water content		l	2,82			3,76			2,82			3,76			4,38			5,84			4,38			5,84		
Fans																										
Fan - Centrifugal		n°	2			2			2			2			3			3			3			3		
Air flow rate		m³/h	1350	1130	790	1340	1100	780	1520	1400	1120	1500	1380	1100	2210	1800	1380	2180	1770	1370	2410	2040	1640	2350	2000	1600
High static pressure		Pa	72	50	24	70	50	24	58	50	32	56	50	32	75	50	30	75	50	30	69	50	32	69	50	32
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	61	57	51	61	57	51	62	59	53	62	59	53	68	64	59	68	64	62	68	66	62	68	66	62
Sound power level (outlet)		dB(A)	57	53	47	57	53	47	58	55	49	58	55	49	64	60	55	64	60	57	64	62	58	64	62	58
Diameter connections																										
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power		W	228	175	137	222	178	135	270	232	175	267	230	172	339	268	224	340	260	220	371	285	234	371	285	234
Max. input current		A	1,4			1,4			1,4			1,4			2,1			2,1			2,1			2,1		
Electrical wiring			V5	V3	V1	V5	V3	V1	V5	V3	V2	V5	V4	V2	V5	V3	V1	V5	V3	V1	V5	V3	V1	V5	V3	V1
Power supply		V/ph/Hz	230V~50Hz																							

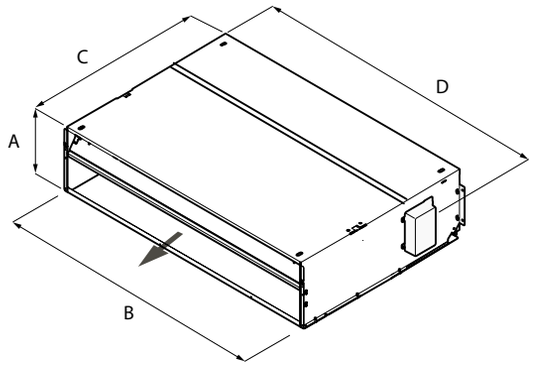
VED			441			541			641			741		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
4 pipe configuration														
Heating capacity (65°C)	(4)	kW	7,29	6,68	5,53	7,91	7,61	6,68	12,28	11,05	9,62	12,96	11,88	10,57
Water flow rate	(4)	l/h	638	585	484	692	666	584	1075	967	842	1133	1040	925
Pressure drops	(4)	kPa	23	19	14	26	24	19	23	19	15	25	21	17
Cooling Performance														
Total cooling capacity	(3)	kW	8,01	7,06	5,35	8,97	8,54	7,43	15,07	12,76	10,43	16,08	14,23	11,96
Sensible cooling capacity	(3)	kW	5,73	5,04	3,78	6,45	6,13	5,04	10,58	8,91	7,24	11,32	9,97	8,34
Water flow rate	(3)	l/h	1378	1214	918	1543	1469	1278	2592	2195	1794	2766	2448	2057
Pressure drops	(3)	kPa	22	18	11	28	25	19	41	30	21	45	37	27
Water content std. coil		l	3,76			3,76			5,84			5,84		
Water content additional coil		l	0,94			0,94			1,46			1,46		
Fan														
Fan - Centrifugal		n°	2			2			3			3		
Air flow rate		m³/h	1250	1060	750	1460	1360	1060	2110	1730	1340	2350	2000	1600
High static pressure		Pa	70	50	25	56	50	32	75	50	30	69	50	32
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	61	57	51	62	59	53	68	64	62	68	66	62
Sound power level (outlet)		dB(A)	57	53	47	58	55	49	64	60	57	64	62	58
Diameter connections														
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	215	175	130	266	229	170	340	264	223	372	288	227
Max. input current		A	1,4			1,4			2,1			2,1		
Electrical wiring			V5	V3	V1	V5	V4	V2	V5	V3	V1	V5	V3	V1
Power supply		V/ph/Hz	230V~50Hz											

VED	from VED430 to VED741				
Speed - fan	V5	V4	V3	V2	V1
motor connected	L1	L2	L3	L4	L5

Note: The speed of associates may differ from the standard factory configuration.
for more information refer to the program selection and the technical documentation available on the website www.aermec.com

H max. speed; **M** med.speed; **L** min.speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Dimensional data (mm)



VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
A	mm	300	300	300	300	300	300	300	300	351	351	351	351	351	351	351	351
B	mm	1133	1133	1133	1133	1133	1133	1133	1133	1533	1533	1533	1533	1533	1533	1533	1533
C	mm	737	737	737	737	737	737	737	737	789	789	789	789	789	789	789	789
D	mm	1158	1158	1158	1158	1158	1158	1158	1158	1558	1558	1558	1558	1558	1558	1558	1558
Weight	Kg	41	46	43	46	42	47	47	47	57	57	60	60	58	64	61	64

Code : SVEDUY.04 / 1612

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