Ferroli

Top Fan Plus

Fan coil with centrifugal fan

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

CHARACTERISTICS

Product benefits

VM-B

VM-F

VN

- Series with centrifugal fan, available in 9 sizes and three versions
  VM-B with casing for vertical and horizontal installation and intake from below
  VM-F with casing for vertical and horizontal installation and front intake
  VN without casing for vertical and horizontal installation
- Covering cabinet obtained by integrating plastic parts and galvanised sheet metal parts, coated with epoxy powder
- Supporting structure made of galvanised steel
- Finned pack heat exchange coil with aluminium fins and copper pipes, brass manifolds specially designed to minimise pressure drops
- Air filter easy to remove and clean, regenerated by washing or blowing
- Fan unit with three-speed motor and aluminium fans
- Wide range of controls both to be installed on the machine and remotely on the wall

TECHNICAL DATA

Summary table - Specifications

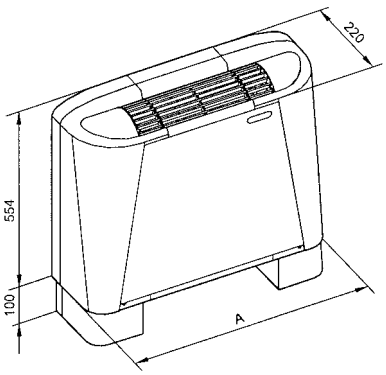
TOP FAN PLUS			15	20	30	40	50	60	80	100	120
Total cooling capacity	max (E)	w	1,100	1,400	2,100	2,800	3,400	4,000	4,900	6,100	6,850
	med	w	980	1,200	1,850	2,450	3,010	3,550	4,350	5,500	6,100
	min	w	770	950	1,450	1,900	2,390	2,800	3,600	4,400	5,000
Sensible cooling capacity	max (E)	w	850	1,060	1,620	2,060	2,420	2,900	3,800	4,630	5,300
	med	w	735	910	1,400	1,780	2,245	2,550	3,350	4,045	4,630
	min	w	560	705	1,090	1,390	1,710	1,985	2,735	3,155	3,720
Water flow rate	(E)	l/h	189	241	361	482	585	688	843	1,049	1,178
Dehumidification	max speed	g/h	350	490	670	1,050	1,150	1,550	1,600	2,100	2,200
Water side pressure drops	(E)	KPa	3.6	5.3	9.6	15.2	13.0	14.6	15.0	8.0	10.1
Thermal power	max	w	2,800	3,650	5,500	6,500	7,800	9,400	12,500	14,900	15,800
	med	w	2,400	3,150	4,550	5,450	6,600	7,900	10,800	12,500	13,270
	min	w	1,800	2,250	3,400	4,000	4,930	5,800	8,300	9,600	10,000
Water flow rate		l/h	241	314	473	559	671	808	1,075	1,281	1,359
Water side pressure drops	(E)	KPa	5.1	8.6	17.6	24.2	14.0	18.1	17.7	10.8	12.1
Thermal power (1)	(E)	w	1,700	2,050	3,200	3,850	4,300	5,100	7,200	8,080	9,300
Water side pressure drops	(E)	kPa	4.4	6.9	14.6	23	14	18	19.1	9.9	12.5
Thermal power of additional row	max (E)	w	1,250	1,650	2,550	3,150	3,690	4,100	5,050	6,200	6,950
	med	w	1,070	1,420	2,110	2,640	3,150	3,440	4,360	5,200	6,190
	min	w	860	1,130	1,750	2,150	2,320	2,820	3,480	4,250	4,800
Water flow rate		l/h	108	142	219	271	317	353	434	533	598
Water side pressure drops		kPa	1.8	3.0	8.7	13.2	4.0	4.1	6.88	12.8	16.1
Thermal power of electric resistance		w	800	800	1,500	1,500	2,200	2,200	2,200	2,600	2,600
Air flow rate	max	m^3/h	215	280	410	515	615	750	1,050	1,200	1,350
	med	m^3/h	170	210	310	400	510	600	850	970	1,070
	min	m^3/h	110	140	220	290	350	410	570	670	720
Fans		no.	1	1	1	1	2	2	2	2	2
Sound power (E)	max	dB(A)	43	47	50	54	51	55	62	61	64
	med	dB(A)	39	42	43	48	44	49	57	57	59
	min	dB(A)	32	35	36	41	36	38	48	49	51
Sound power (2)	max	dB(A)	34	38	41	45	42	46	53	52	55
	med	dB(A)	30	33	34	39	35	40	48	48	50
	min	dB(A)	23	26	27	32	27	29	39	40	42
Max motor power	(E)	w	30	38	33	60	40	70	120	120	160
Main coil connections	3R	ø	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Additional coil connections	1R	ø	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Water content	3R coil	l	0.82	0.82	1.26	1.26	1.88	1.88	1.88	2.42	2.42
	1R coil	l	0.22	0.22	0.36	0.36	0.50	0.50	0.50	0.64	0.64
Condensate discharge connection		ø	16	16	16	16	16	16	16	16	16

NOTES: Power supply: 230-1-50 [V-F-Hz]

Heating:
Room Air temp.: 20°C - Inlet water temp.: 70°C, water Δt 10°C at maximum fan speed; for medium and low fan speed, water flow rate as in maximum speed. (1) Inlet water temp.: 50°C water flow rate as in cooling. Fan speed: max.

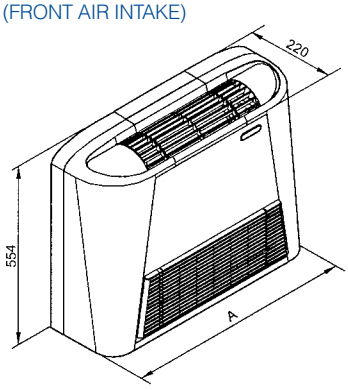
Cooling:
Room Air temp. : 27°C D.B. 19°C W.B. - Inlet water temp.: 7°C, water Δt 5°C at maximum fan speed; for medium and low fan speed, water flow rate as in maximum speed. Fan speed: max
(2) Sound pressure in an environment of 100 m3 with reverberation time of 0.5 sec.
(E): Data declared according to the Eurovent Certification programme

TOP FAN VM-B
(AIR INTAKE FROM BELOW)



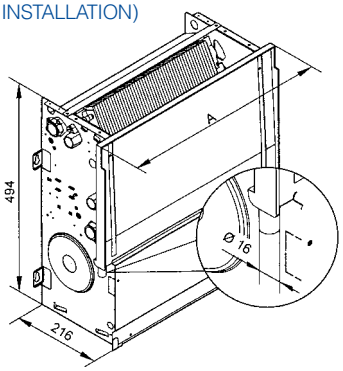
MODEL	A (mm)	WEIGHT (kg)
15 - 20	690	14
30 - 40	940	20
50 - 80	1,190	27
100 - 120	1,440	34

TOP FAN VM-F
(FRONT AIR INTAKE)



MODEL	A (mm)	WEIGHT (kg)
15 - 20	690	15
30 - 40	940	21
50 - 80	1,190	28
100 - 120	1,440	36

TOP FAN VN
(WITHOUT CASING FOR RECESSED INSTALLATION)



MODEL	A (mm)	WEIGHT (kg)
15 - 20	474	11
30 - 40	724	15
50 - 80	974	22
100 - 120	1,224	29

CONSTRUCTION FEATURES

New control panels

There are two series of panels available for this type of installation: **ON THE MACHINE** for installation of the fan coil on the floor (models VM-B, VM-F), **REMOTE ON THE WALL** for installation of the fan coil on the ceiling (models VM-B, VM-F) or false ceiling (model VN). Each of the series includes a switch or a series of options.

MASTER REMOTE TERMINAL

code: 20Z0444F

By means of the remote terminal, which can be installed on the wall and connected with three wires to the power module, it is possible to set all the operating parameters of the units. The display shows the room temperature (via an air probe integrated in the terminal) and the set-point, and features icons for indicating the state (on/off), operating mode (hot/cold/auto), fan speed (1/2/3/auto). Through the 4 keys, it is therefore possible to change the state, the operating mode, the set-point, and the fan speed. The display also shows any operating errors. The terminal is used to control a single fan coil while, through a serial connection, it acts as a master terminal and is able to manage a zone of fan coil units (maximum 16).

3V POWER MODULE

code: 20Z04470

Module to be installed on each unit, it is able to activate the three fan speeds as well as any hot and cold valves. Through a micro-switch, it is able to manage different system configurations, 2 or 4 pipes or solutions with electric resistance integration.
It manages heating and cooling and accepts presence status inputs of the place to be air-conditioned. It receives the settings directly from one of the two Master controllers, either fitted on the machine or remote or from a serial connection with other units belonging to a single group of terminals with Master Slave setting.

MASTER TERMINAL ON MACHINE

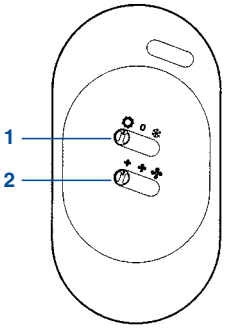
code: 20Z04450

It has the same functions as the remote terminal, in this case it must be installed on the machine, under one of the fan coil side panels.

SLAVE TERMINAL ON MACHINE

code: 20Z04460

In the case of Master-Slave application, it allows the slave units to modify some of the settings defined by the Master unit, such as local set-point and fan speed. Other modes are instead reserved for the Master control.
The Slave terminal cannot be used to control a single fan coil.

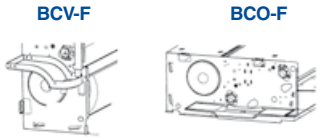


SWITCH

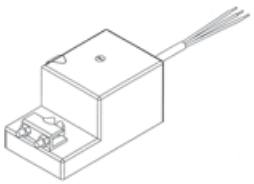
It has a selector (1) for the Summer / Off / Winter function, while the second one (2) selects the Min / Med / Max fan speed.
Available in two different versions:
- for cabinet installation **CM-F** **(code: 19E2A11B)**
- for remote installation **CMR-F** **(code: 19E2A07B)**

CONSTRUCTION FEATURES

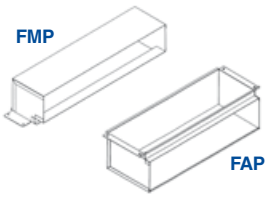
Accessories



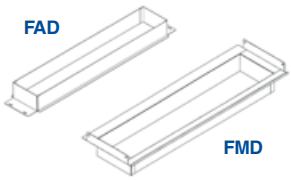
VERTICAL
AND HORIZONTAL TRAY



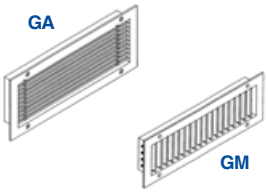
MS-F MOTOR FOR
DAMPER



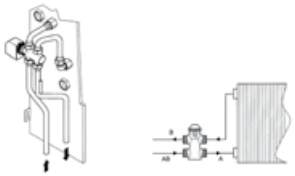
90° INTAKE
AND DELIVERY FLANGE



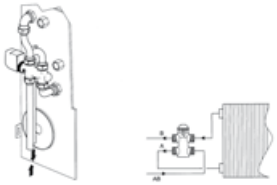
STRAIGHT INTAKE
AND DELIVERY FLANGE



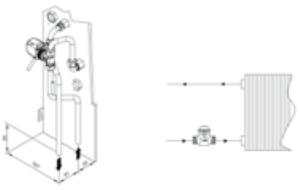
INTAKE GRID
AND DELIVERY GRID



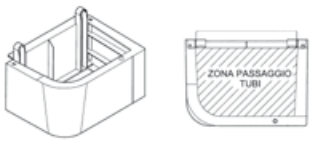
VB1 ON-OFF VALVE KIT
FOR 1R COIL



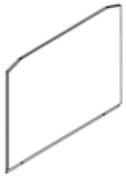
VB3 ON-OFF VALVE KIT
FOR 3R COIL



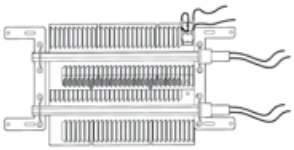
VB1-F 2-WAY VALVE KIT
FOR 1R COIL



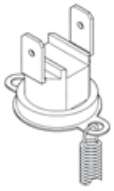
PA FEET



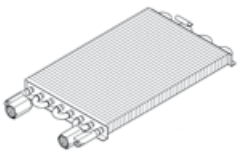
PC REAR CLOSURE
PANEL



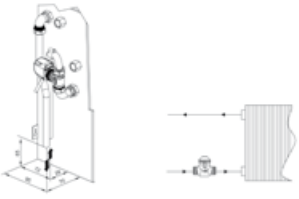
RE ELECTRIC
RESISTANCE



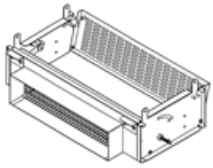
TC CONTROL THERMOSTAT
(only for SWITCH **CMR-F** and **CM-F**)



BS ADDITIONAL
1R COIL



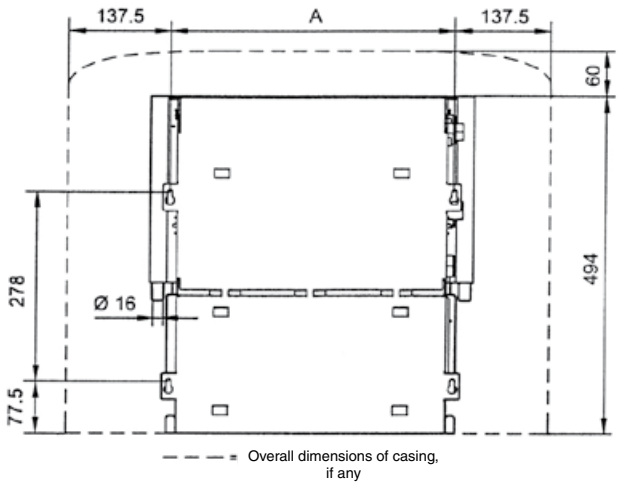
VB3-F 2-WAY VALVE KIT
FOR 3R COIL



SR-F INTAKE
DAMPER

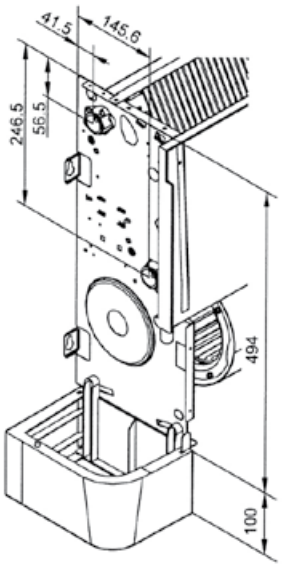
CONSTRUCTION FEATURES

Fixing and connections

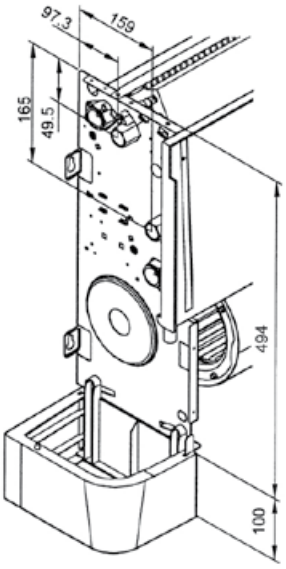


HYDRAULIC CONNECTIONS

MAIN COIL



ADDITIONAL COIL



ITEM	UM	15 - 20	30 - 40	50 - 60 - 80	100 - 120
A	mm	415	665	915	1165

NOTES

NOTICE FOR SALES AGENTS:
In view to constantly improve its production range and customer satisfaction levels, the Company hereby specifies that aesthetic and/or dimensional features, specifications and accessories may be subject to changes.

Please place the utmost care to ensure all technical and/or sales documents (lists, catalogues, brochures, etc.) provided to the final Customer are updated according to the latest edition.

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