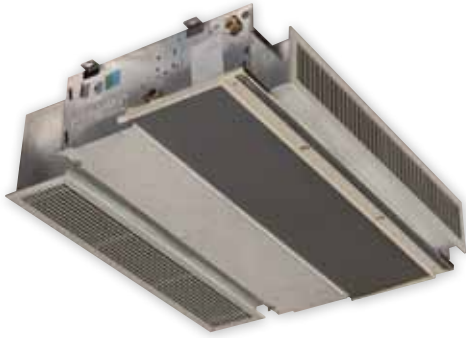
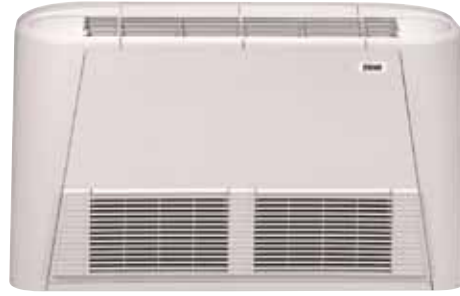


# > TOP FAN PLUS

## FAN COIL



### \* Units Series

#### Available versions

- VM-B bottom air intake
- VM-F frontal air intake
- VN ceiling concealed 6-speed
- VN-3V ceiling concealed 3-speed

#### Exchangers

- 3R with 3 rows
- 4R with 4 rows

### \* VB unit specifications

Fan coil unit complying with Machine Directive 89/392 EEC and amendments 91/368 EEC, 93/44 EEC, 93/68 EEC, Low-Voltage Directives 72/23 EEC and Electromagnetic Compatibility Directives EMC 89/36 EEC.

The fan coil unit is a terminal for the treatment of room air in the summer season (coil supplied with cold water) and in winter (coil supplied with hot water).

These units are suitable for indoor installation, very compact and amply configurable to meet the requirements of highly qualified designers.

The customer or the designer can find version with cabinet and with air intake from bottom (VM-B version) or with frontal air intake and version without cabinet ceiling concealed type with 6 speed fan for a short duct (VN version) or with 3 speed fan.

The careful design of the main components, refined styling and the versatility of the pro-

duct make it suitable for any type of installation in the residential, commercial or industrial context.

Installation therefore only requires the electrical and hydraulic connections.

#### Construction characteristics

■ **SUPPORT STRUCTURE:** in galvanised sheet metal of suitable thickness. There are slots at the back for fixing the unit.

■ **HEAT EXCHANGE COIL:** copper pipe type arranged in staggered rows to increase heat exchange and aluminium finning in 3 or 4 rows, locked by mechanical expansion of the pipes. The manifolds have air vents, water drain holes and housing for the supply water temperature probe. The connections are located on the left side panel (facing the unit). The possibility of turning the coil is provided for.

■ **CONDENSATE TRAY:** in thermoplastic material to prevent corrosion, it enables either vertical and horizontal unit installation. The drain hole is present on both sides.

■ **3-speed FAN-MOTOR (versions VM-B VM-F and VN-3V):** the electric motor, protected against overloads, has three speeds with running condenser always on, directly coupled to the fans and cushioned by elastic supports. The dual-intake centrifugal fans have long blades in order to obtain high air flow-rates with reduced revolutions.

■ **6-speed FAN-MOTOR (versions VN):**

the electric motor has 6 speeds one or three of which selectable during installation to adjust flow-rate and head to the system's characteristics and enable a short ducting in line with the product's characteristics.

■ **AIR FILTER:** regenerable simply by washing with water.

For the VM-B version it is provided with a continuous guide in plastic material to facilitate extraction operations.

For the VM-F version it is positioned in the front bottom air inlet grill.

For the VN and VN-3V version it is complete with frame and wire screen.

■ **CABINET (only VM-B and VM-F):** partly in epoxy powder coated steel sheet to ensure high protection against corrosion, and partly in anti-UV thermoplastic material. In the upper part there are air vents and the door for accessing the control panel, both in anti-UV thermoplastic material.

The VM-F version also has a front grill in anti-UV thermoplastic material for the air inlet.

**\* Main accessories/Options**

**ADJUSTMENT CONTROLS**

**INSTALLATION ON UNIT**

- Cabinet switch
- Cabinet standard thermostat
- Cabinet advanced thermostat

**REMOTE INSTALLATION**

- Remote switch
- Remote standard thermostat
- Remote advanced thermostat

**COMMON ACCESSORIES**

- Hot-start consent thermostat
- 4XUT system
- 8SF Zone Master control
- 8SF main power module
- 8SF Local unit
- Expansion for systems with 4 pipes
- Expansion electrical heater management
- KNX expansion
- Supplementary tray vertical installation
- Supplementary tray horizontal installation
- 3-way valve main coil 3-4 R
- 2-way valve main coil 3-4 R
- Supplementary coil heating only
- 3-way valve supplementary coil
- 2-way valve supplementary coil
- Single-phase electrical heater
- Condensate drain pump

**VM-B and VM-F ACCESSORIES**

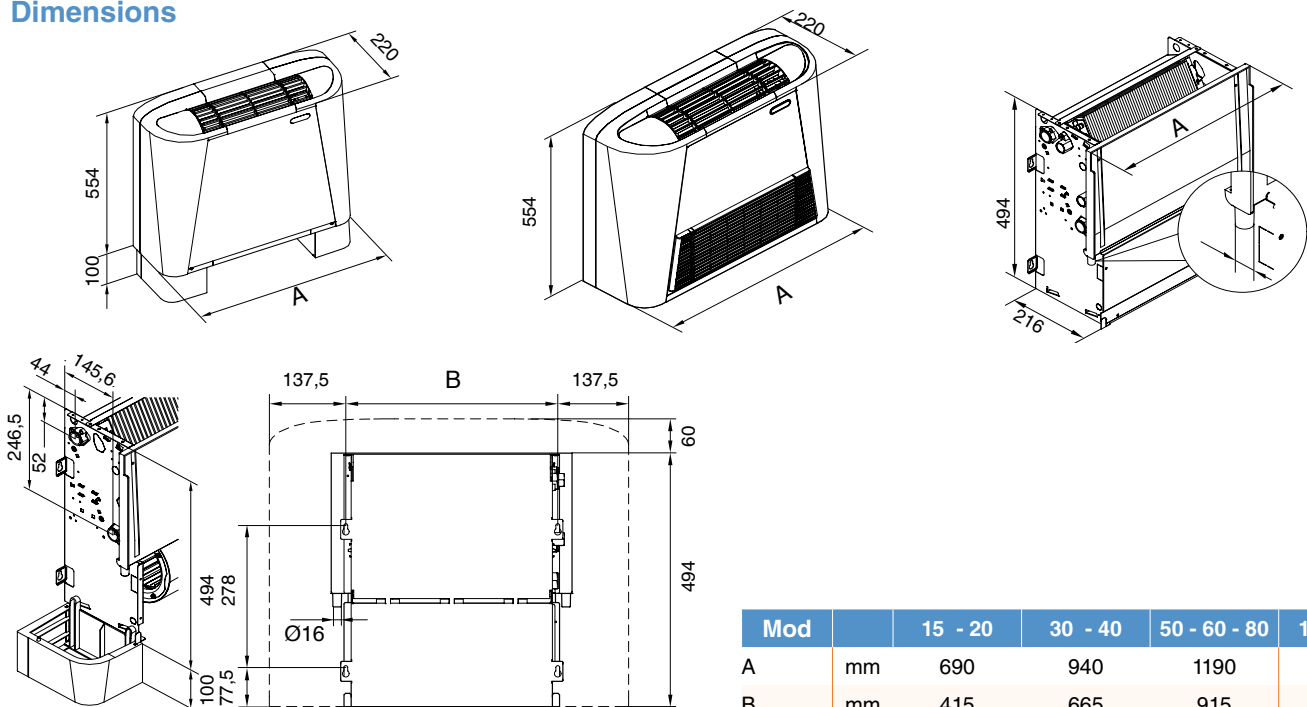
- Support feet (VM-B only)
- Adjustable fins
- Outside air inlet damper with front grill (VM-B only)
- Damper motor with single-phase power supply (VM-B only)
- Rear closing panel

**VN and VN-3V ACCESSORIES**

- Inlet grill
- Straight inlet flange
- Perpendicular inlet flange
- Straight outlet flange
- Perpendicular outlet flange
- Inlet plenum
- Outlet plenum
- Outlet grill

Common Data		15	20	30	40	50	60	80	100	120	
N° fan		1	1	1	1	2	2	2	2	2	N°
Air flow rate	max.	215	280	410	515	615	750	1050	1200	1350	m³/h
	med.	170	210	310	400	510	600	850	970	1070	m³/h
	min	110	140	220	290	350	410	570	670	720	m³/h
VN-3V external static pressure		0	0	0	0	0	0	0	0	0	Pa
VN external static pressure		20	20	40	40	40	50	50	30	30	Pa
Heating capacity electrical heater		800	800	1500	1500	2200	2200	2200	2600	2600	W
VM-B unit weight	3 rows	15	15	21	21	28	28	28	36	36	kg
VM-F unit weight	3 rows	14	14	20	20	27	27	27	34	34	kg
VN e VN-3V unit weight	3 rows	11	11	15	15	22	22	22	29	29	kg
VM-B unit weight	4 rows	15,8	15,8	22,5	22,5	30	30	30	39	39	kg
VM-F unit weight	4 rows	14,8	14,8	21,5	21,5	29	29	29	37	37	kg
VN e VN-3V unit weight	4 rows	11,8	11,8	16,5	16,5	24	24	25	32	32	kg
Condensation draining connections		16	16	16	16	16	16	16	16	16	Ø

**Dimensions**



Mod		15 - 20	30 - 40	50 - 60 - 80	100 - 120
A	mm	690	940	1190	1440
B	mm	415	665	915	1165

**3 rows coil data**

		15	20	30	40	50	60	80	100	120	
Total Cooling Capacity *	max. (E)	1100	1400	2100	2800	3400	4000	4900	6100	6850	W
	med.	980	1200	1850	2450	3010	3550	4350	5500	6100	W
	min	770	950	1450	1900	2390	2800	3600	4400	5000	W
Sensible Cooling Capacity *	max. (E)	850	1060	1620	2060	2420	2900	3800	4630	5300	W
	med.	735	910	1400	1780	2245	2550	3350	4045	4630	W
	min	560	705	1090	1390	1710	1985	2735	3155	3720	W
Dehumidifying max speed		350	490	670	1050	1150	1550	1600	2100	2200	g/h
Water flow rate * (E)		189	241	361	482	585	688	843	1049	1178	l/h
Water pressure drop (E)		4,4	6,9	14,6	23	14	18	19,1	9,9	12,5	Kpa
Heating Capacity **	max. (E)	2800	3650	5500	6500	7800	9400	12500	14900	15800	W
	med.	2400	3150	4550	5450	6600	7900	10800	12500	13270	W
	min	1800	2250	3400	4000	4930	5800	8300	9600	10000	W
Water flow rate **		241	314	473	559	671	808	1075	1281	1359	l/h
Water pressure drop **		5,1	8,6	17,6	24,2	14	18,1	17,7	10,8	12,1	Kpa
Heating Capacity *** (E)		1700	2050	3200	3850	4300	5100	7200	8080	9300	W
Water pressure drop ***(E)		3,6	5,3	9,6	15,2	13	14,6	15	8	10,1	Kpa
Heating capacity of supplementary coil	max. (E)	1250	1650	2550	3150	3690	4100	5050	6200	6950	W
	med.	1070	1420	2110	2640	3150	3440	4360	5200	6190	W
	min	860	1130	1750	2150	2320	2820	3480	4250	4800	W
Water flow rate		108	142	219	271	317	353	434	533	598	l/h
Water pressure drop		1,8	3	8,7	13,2	4	4,1	6,88	12,8	16,1	Kpa
N° fan		1	1	1	1	2	2	2	2	2	N°
Max power input motor (E)		30	38	33	60	40	70	120	120	160	W
Sound power level (E)	max.	43	47	50	54	51	55	62	61	64	dB(A)
	med.	39	42	43	48	44	49	57	57	59	dB(A)
	min	32	35	36	41	36	38	48	49	51	dB(A)
Sound pressure level	max.	34	38	41	45	42	46	53	52	55	dB(A)
	med.	30	33	34	39	35	40	48	48	50	dB(A)
	min	23	26	27	32	27	29	39	40	42	dB(A)
Water connection 3R	F	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	Ø
Water connection 1R	F	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	Ø
Water content 3R coil		0,82	0,82	1,26	1,26	1,88	1,88	1,88	2,42	2,42	l
Water content 1R coil		0,22	0,22	0,36	0,36	0,5	0,5	0,5	0,64	0,64	l

NOTES:

\* Room Air T=27°C D.B. / 19°C W.B. , IN/OUT water 7°/12°C, nominal air flow-rate; For medium and minimum fan speed, water delivery as in maximum speed.

\*\* Room Air T=20°C D.B. , IN/OUT water 70°/60°C, nominal air flow-rate; for medium and minimum fan speed, water delivery as in maximum speed.

\*\*\* Room Air T=20°C D.B. , inlet water 50°C, water delivery as in cooling; Values referred to nominal air flow-rate.

SWL : Sound power levels, referred to 1x10-12 W in dB(A), measured in accordance with Standard ISO 9614 and certified according to the Eurovent certification programme. Eurovent certification (E) only refers to the Total Sound Power in dB(A) which is therefore the only binding acoustic data.

SPL : sound pressure in a 100 m3 place with reverberation time of 0.5 seconds.

(E) Declared data according to the certification programme LCP EUROVENT

**NEW**

4 rows coil data

		15-4	20-4	30-4	40-4	50-4	60-4	80-4	100-4	120-4	
Total Cooling Capacity *	max.	1400	1760	2790	3580	4050	4890	6450	7450	8200	W
	med.	1220	1460	2290	2940	3510	4020	5680	6620	7160	W
	min	900	1090	1700	2200	2500	2980	4000	5020	5250	W
Sensible Cooling Capacity *	max.	1050	1305	2060	2580	2950	3540	4950	5580	6210	W
	med.	890	1050	1640	2070	2510	2900	4200	4850	5330	W
	min	620	770	1200	1560	1770	2130	2910	3600	3820	W
Dehumidifying max speed		500	650	1050	1450	1580	1930	2330	2650	2850	g/h
Water flow rate *		240,8	302,72	479,88	615,76	696,6	841,08	1109,4	1281,4	1410,4	l/h
Water pressure drop		6	9	9	14	14	21	36	19	23	Kpa
Heating Capacity **	max.	3050	3950	5880	6950	8350	10100	13200	15800	16900	W
	med.	2580	3300	4730	5750	7260	8270	11300	13400	14310	W
	min	1900	2400	3600	4430	5460	6080	8450	10250	10500	W
Water flow rate **		262,3	339,7	505,68	597,7	718,1	868,6	1135,2	1358,8	1453,4	l/h
Water pressure drop **		5	8	7	10	11	16	27	15	18	Kpa
Heating Capacity ***		1850	2380	3460	4250	5000	5800	8100	9300	10500	W
Water pressure drop ***		5	8	8	13	12	18	32	16	20	Kpa
N° fans		1	1	1	2	2	2	2	2	2	N°
Max power input motor		35	38	55	76	75	85	144	163	200	W
Sound power level	max.	45	48	52	54	53	55	61	63	65	dB(A)
	med.	39	42	45	47	46	50	58	59	60	dB(A)
	min	32	35	39	41	37	39	48	51	52	dB(A)
Sound pressure level	max.	36	39	43	45	44	46	52	54	56	dB(A)
	med.	30	33	36	38	37	41	49	50	51	dB(A)
	min	23	26	30	32	28	30	39	42	43	dB(A)
Water connection 4R	F	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	"
Water content 4R coil		1,09	1,09	1,68	1,68	2,51	2,51	2,51	3,23	3,23	l

NOTES:

\* Room Air T=27°C D.B. / 19°C W.B. , IN/OUT water 7°/12°C, nominal air flow-rate; For medium and minimum fan speed, water delivery as in maximum speed.

\*\* Room Air T=20°C D.B. , IN/OUT water 70°/60°C, nominal air flow-rate; for medium and minimum fan speed, water delivery as in maximum speed.

\*\*\* Room Air T=20°C D.B. , inlet water 50°C, water delivery as in cooling; Values referred to nominal air flow-rate.

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SPL : sound pressure in a 100 m3 place with reverberation time of 0.5 seconds.