

# FFC

## Fan coils

Heating capacity from 3.430 to 17.020 W

Cooling capacity from 1.500 to 7.530 W

The fan coils in the FFC series are elegantly designed products that are very reliable and easy to install.

The wide range of models, the extensive availability of accessories and the possibility to have units in versions both with cabinets and ductable make it possible to meet the many requirements that might be encountered in system design in the civil sector.

Three versions are available: vertical wall version with cabinet (W), vertical floor version (cabinet with front air intake grill)(FV), horizontal ceiling version (cabinet with front air intake grill)(FO), concealed version without cabinet (C).



## > Versions

- FFCW** bottom intake with cabinet
- FFCFV** vertical version with front intake and cabinet
- FFCFO** horizontal version with front intake and cabinet
- FFCC** horizontal or vertical version without cabinet

## > Accessories

- BA** 1 row water heating coil
- KV11** 3 way valve set for 2-pipes system
- KV12** 3 way valve set for 4-pipes system
- PC1** OFF/3-speed switch
- PC2** OFF/3-speed switch, Winter/Summer switch, bulb room thermostat
- CR1** remote control 220V with OFF/Summer/Winter, 3 speeds switches
- CR2** remote control 220V with OFF/Summer/Winter and 3 speeds switches, electronic thermostat
- CR11** remote control 220V with OFF/Summer/Winter switch, 3 automatic speed, electronic thermostat, temperature display
- SDI** interface card to control 4 fan coils
- SMT1** minimum water temperature thermostat
- BCV** auxiliary drain pan for vertical versions
- BCO** auxiliary drain pan for horizontal versions
- ZC** prepainted feet H=90mm
- PCB** rear low closure panel (for FV and W versions without feet)

**Other accessories are available on request**



## >Main technical data

FFC model			12	13	14	15	16	18	20
Heating capacity	max.	W	3.430	4.330	5.510	6.140	7.980	12.160	17.020
	med.	W	3.060	3.870	4.920	5.490	7.230	11.030	15.650
	min.	W	2.440	3.090	3.930	4.380	5.870	8.950	13.140
Water flow rate		l/h	296	373	475	528	687	1.046	1.464
Water side pressure drop		kPa	13,4	14,9	17,2	22,7	31,0	27,8	35,9
Heating capacity 1R (BA)	max.	W	1.740	1.790	2.930	3.010	4.140	6.190	8.205
Water flow rate 1R (BA)		l/h	150	154	252	259	360	533	705
Water side pressure drop 1R (BA)		kPa	7,7	8,1	11,1	11,7	20,2	41,0	53,7
Total cooling capacity	max.	W	1.500	2.000	2.530	3.020	3.750	5.520	7.530
Sensible cooling capacity	max.	W	1.290	1.620	2.070	2.380	3.080	4.600	6.430
Water flow rate		l/h	258	344	435	520	645	950	1.296
Water side pressure drop		kPa	13,1	16,3	18,5	28,2	35,0	29,4	36,1
Air flow rate	max.	m <sup>3</sup> /h	350	360	435	447	647	975	1.431
	med.	m <sup>3</sup> /h	291	299	361	371	550	829	1.245
	min.	m <sup>3</sup> /h	200	205	248	255	388	585	930
Sound pressure level	max.	dB(A)	38	38	40	40	42	43	49
	med.	dB(A)	34	34	35	35	36	38	44
	min.	dB(A)	28	28	29	29	30	32	37
Max. motor power		W	45	45	65	65	85	120	140
Max. input current		A	0,20	0,20	0,30	0,30	0,40	0,55	0,65

cooling

heating

Supply voltage 230V (+/- 10%) – 1 – 50 Hz.  
 Heating performance: Water inlet 70°C, air outlet 20°C,  
 Dt water 10°C at maximum fan speed;  
 for the average and minimum fan speeds, water flow is as per the maximum speed.  
 Cooling performance: air inlet 27°C bs - 19°C bu, water inlet 7°C,  
 Dt water 5°C at maximum fan speed;  
 for the average and minimum fan speeds, water flow is as per the maximum speed.

🎵 Sound pressure level (A-weighted) measured in open space at 2 m.

## >Characteristics

**Frame** made of extremely thick galvanised steel-sheet with holes on it for mounting on wall/ceiling with thermo-acoustic inner insulation (M1 class).

**Covering cabinet** made of thick galvanised steel-sheet finished by a polyvinyl chloride film (RAL 9010) with supply grill made of ABS (RAL 7035) adjustable on two position

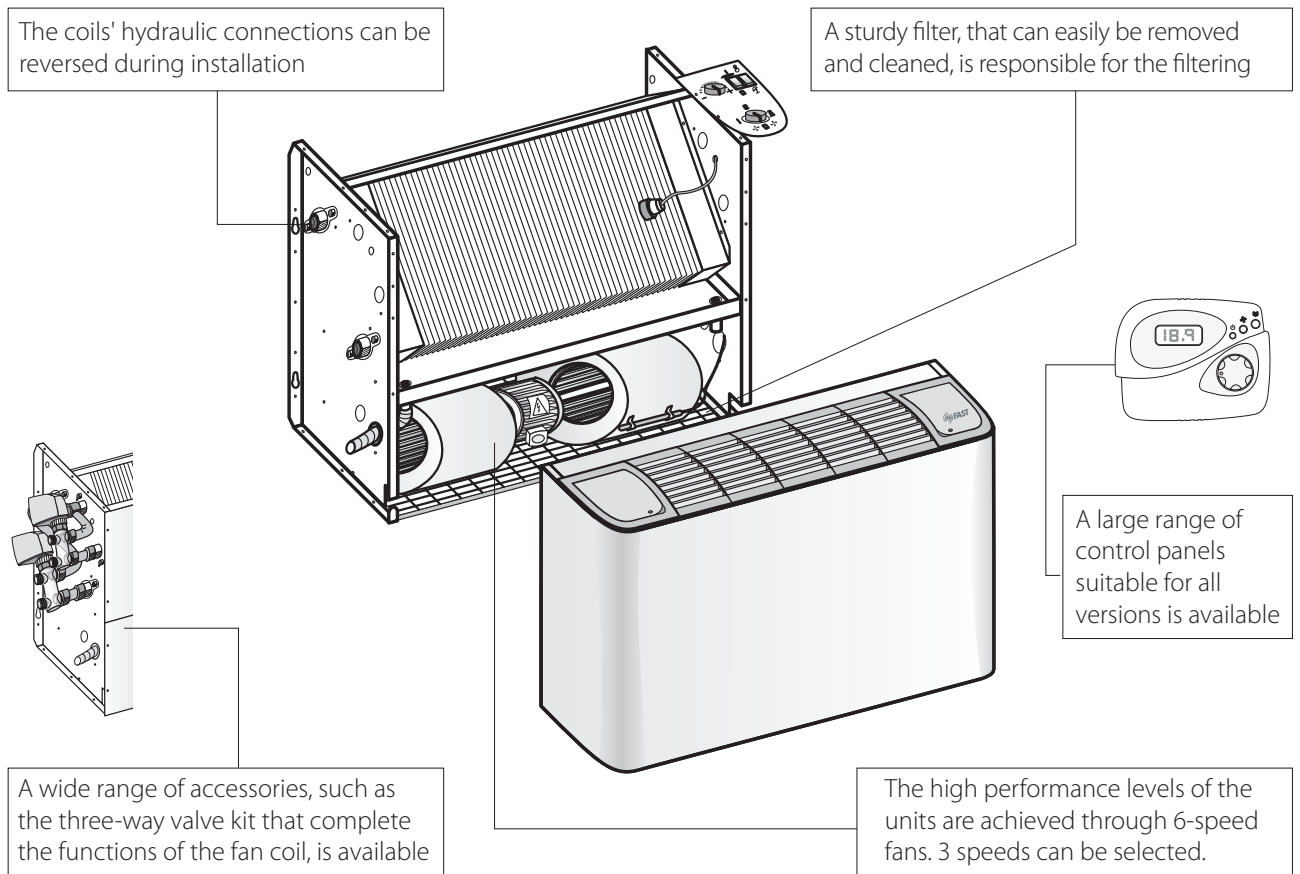
**G3 filter** (EN779) easy cleanable and removable.

**The heat exchange coil** is been made from copper pipes and aluminium fins that are blocked through the mechanical expansion of the pipes. The manifolds are provided with reversable female connections and easily accessible air relief valves. The number of heat exchanger rows is three while in the

case of four-pipe systems, a one-row heating coil can be added.

A wide range of **control panels** (mounted on unit or remote) are available. These control the fan coils and all the fan coil functions.

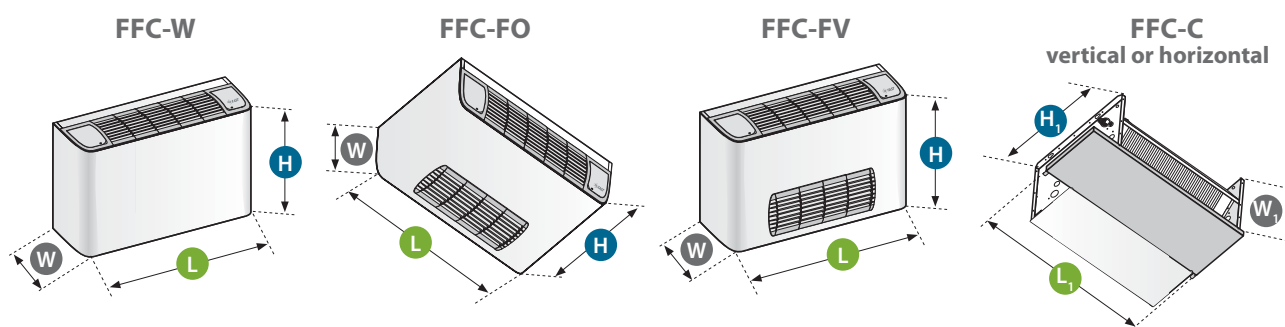
**The fan-motor assembly** consist of double intake radial fans (forward blades) with 230V-1ph-50Hz direct coupled electric motor.



## >Sizes and weights

FFC-W, FFC-FV, FFC-FO model			12	13	14	15	16	18	20
Length	<b>L</b>	mm	670	670	870	870	1.070	1.270	1.470
Width	<b>W</b>	mm	220	220	220	220	220	220	220
Height	<b>H</b>	mm	470	470	470	470	470	470	470
Weight		kg	13.5	14	16.4	17.2	22.5	26	30

FFC - C model			12	13	14	15	16	18	20
Length	<b>L<sub>1</sub></b>	mm	545	545	745	745	945	1.145	1.345
Width	<b>W<sub>1</sub></b>	mm	215	215	215	215	215	215	215
Height	<b>H<sub>1</sub></b>	mm	450	450	450	450	450	450	450
Weight		kg	10.7	11.2	13.5	14.3	19.5	22.9	26.8



## >Accessories compatibility

		12	13	14	15	16	18	20	Vers.
<b>BA</b>	12	○	○	-	-	-	-	-	all
	14	-	-	○	○	-	-	-	all
	16	-	-	-	-	○	-	-	all
	18	-	-	-	-	-	○	-	all
	20	-	-	-	-	-	-	○	all
<b>KV11</b>		○	○	○	○	○	○	○	all
<b>KV12</b>		○	○	○	○	○	○	○	all
<b>PC1</b>		○	○	○	○	○	○	○	W-FV
<b>PC2</b>		○	○	○	○	○	○	○	W-FV
<b>CR1</b>		○	○	○	○	○	○	○	all
<b>CR2</b>		○	○	○	○	○	○	○	all
<b>CR11</b>		○	○	○	○	○	○	○	all
<b>SDI</b>		○	○	○	○	○	○	○	all
<b>SMT1</b>		○	○	○	○	○	○	○	all
<b>BCV</b>		○	○	○	○	○	○	○	vertical
<b>BCO</b>		○	○	○	○	○	○	○	horizontal
<b>ZC</b>		○	○	○	○	○	○	○	W
<b>PCB</b>	12	○	○	-	-	-	-	-	W (without ZC) FV
	14	-	-	○	○	-	-	-	W (without ZC) FV
	16	-	-	-	-	○	-	-	W (without ZC) FV
	18	-	-	-	-	-	○	-	W (without ZC) FV
	20	-	-	-	-	-	-	○	W (without ZC) FV

● Standard, ○ Optional, - Not available.