

Фанкойлы WFC

Технические характеристики



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The innovation for heat pump system solutions

WFC

Whispering Fan Coil

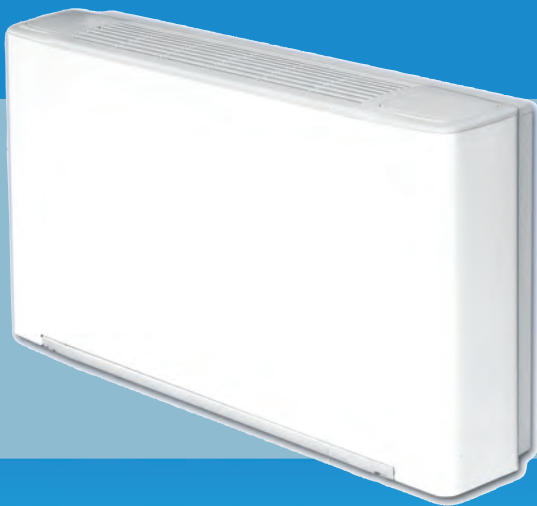
- Comfort heat in winter
- Comfort cooling in summer

Power range up to 3.2 kW at air 22 °C - water 35 °C

Power range up to 4.8 kW at air 22 °C - water 40 °C

Cooling power range up to 7.3 kW at air 26 °C - water 7 °C

Available in 9 sizes for all standard arrangements.



- + ultra quiet, highly efficient
- + 3-stage variable
- + energy-saving fan drives
- + Air circulation filter for improved hygiene
- + electrostatic allergy filter (optional)



WFC Fan Coils - designed for residential and commercial applications, hydraulic supply. Efficiency-optimised for low temperature operation with heat pump system solutions. Temperature level close to floor heating - optimal for air conditioning during summer.

WFC - THE ULTRA QUIET FAN COIL

The use of innovative development technology and modern industrial design focuses on the advantages of the **WFC**, such as power, dimensions, noise generation, low energy consumption, simple installation and maintenance.

The **WFC** series features numerous practical model variants and accessories, Eurovent tested and certified.

Variable installation options: depending on model, installation on wall, floor or ceiling is possible as well.

All types are equipped with ventilation units whose energy consumption is up to 40 % less than that of standard devices and provide the option of variable speed control or three-stage control.

Upon request it is possible to install a patented class D electronic filter according to DIN 11254. Its power is comparative to the initial power of a traditional mechanical filter class F9 according to DIN EN 779. The electrostatic filter system removes air pollution, such as cigarette smoke, pollen and other biological organisms in a reliable manner.

The product is supplemented by a variety of accessories that are usually intended for fan convective systems.

**Housing-
subtle design with high strength**



Construction

Housing

The housing is made of hot-dipped and painted sheet steel. The reversible outlet grille, made of plastic with rigid ribs, is fastened at the top.

Standard colours:

- Front part, side walls and outlet grille: RAL 9003 (white)
- Additional colours for the object equipment are available at extra cost.

Inner part

Made of galvanised sheet steel, consisting of two side panels and rear panel, with insulating mat.

Filter

Regenerative filter made of polyester fibres with synthetic resin finishing.

The frame made of galvanised sheet steel is held in place by guides that are attached to the inner part and facilitate disassembly. A plastic front panel in the colour of the outlet grille allows visual inspection of the filter.

Fan unit

Consisting of particularly quiet, suction radial fans, with statically and dynamically balanced aluminium impellers, directly mounted on the motor shaft.

Electric motor

Single-phase motor with six speed levels, three of which are connected, mounted on elastic vibration dampers and equipped with continuously energised condenser, heat protection with automatic reset, protection type IP 20, class B. The speed levels connected at the factory are indicated in the following tables with MIN, MED and MAX.

Heat exchanger register

Consisting of copper tubes and aluminium fins that are mechanically rolled into the tubes. Register connections 1/2" with internal thread.

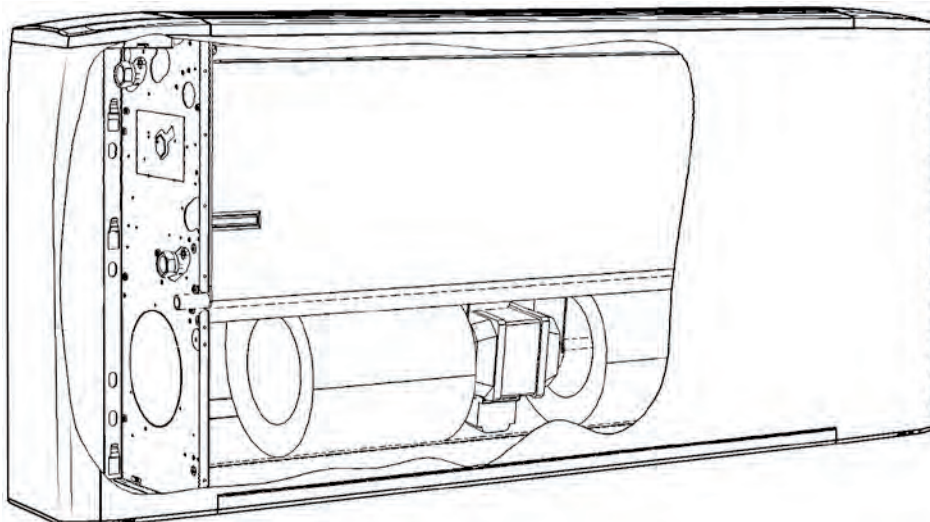
The heat exchanger is not suitable for installation in environments with corrosive atmosphere, which can cause corrosion of aluminium. The registers are reversible: i.e. the side of the connections can be reversed during installation on site.

Flow and return connections are located on the left side (looking at the unit). Upon request, the unit is also available with connections at the right front side. This change can also be performed without any problems on site, during the installation.

Condensate pan

Made of plastic, in L-shape and attached to the inner part.

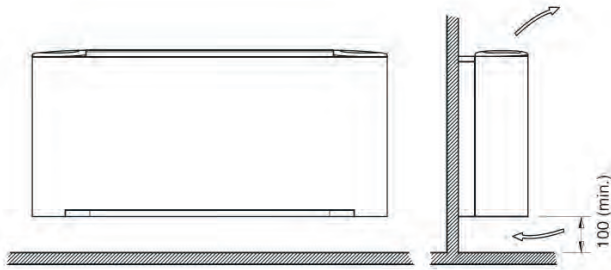
The condensate drain has a \varnothing of 15 mm.



Models

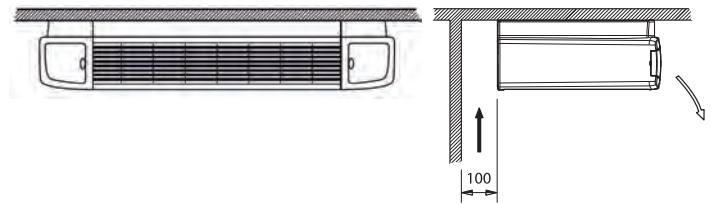
WFC-W

Vertical housing – Wall mounting



WFC-W

Horizontal housing – Ceiling mounting



Note: The W model can also be installed horizontally. Please note: 100 mm distance for air inlet!

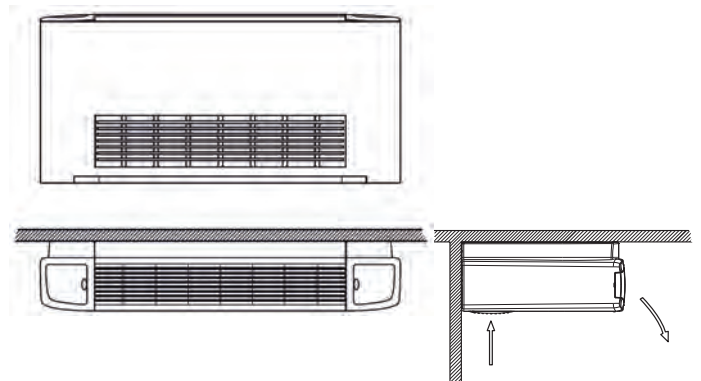
WFC-B

Vertical housing – floor mounting



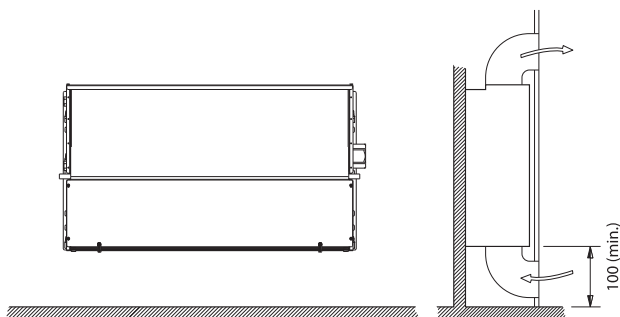
WFC-B

Horizontal housing – Ceiling mounting



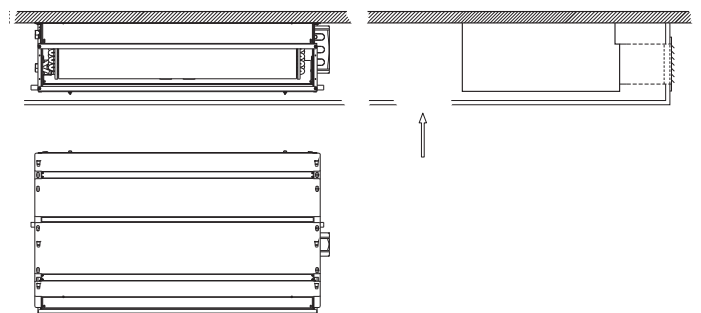
WFC-O

Vertical housing - partition wall mounting



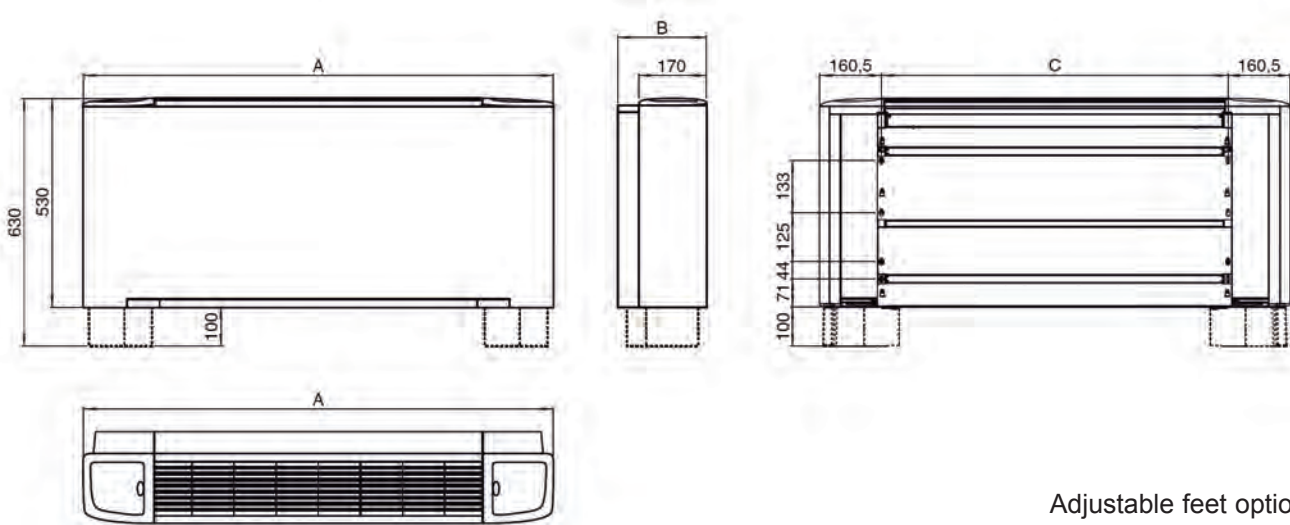
WFC-O

Horizontal housing - suspended ceiling mounting

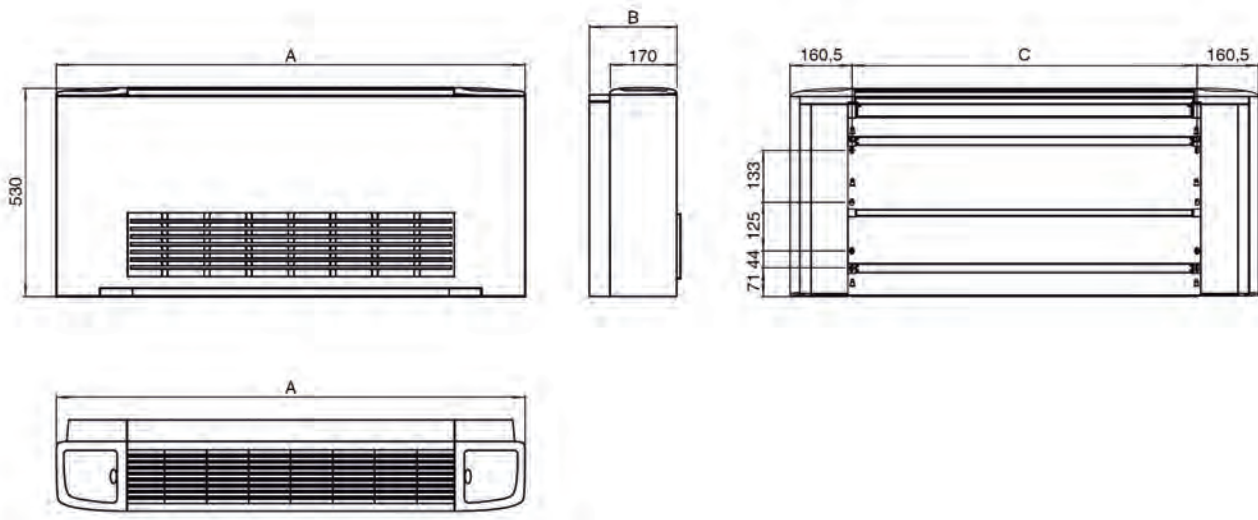


WFC - dimensions, weights, water volumes

WFC-W

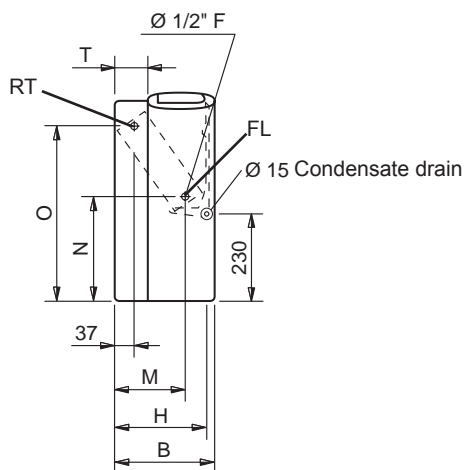


WFC-B



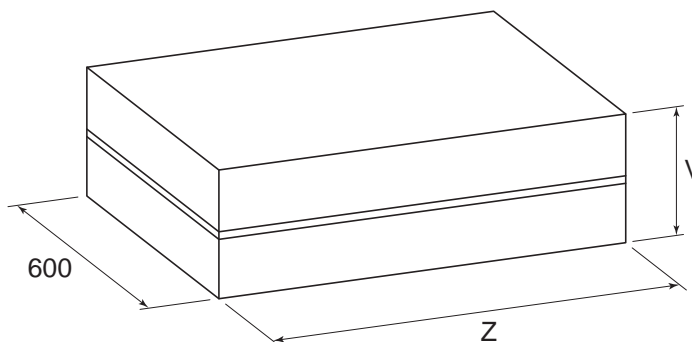
Connections:

4 rows of tubes



WFC-W, WFC-B dimensions, weights, water volumes

Packaging



Dimensions (mm)

MODEL	1	2	3	4	5	6	7	8	9
A	675	775	990	990	1205	1205	1420	1420	1420
B	225	454	225	225	225	225	225	255	255
C	354	145	669	669	884	884	1099	1099	1099
M	145	260	145	145	145	145	145	170	170
N	260	460	260	260	260	260	260	270	270
O	460	55	460	460	460	460	460	450	450
T	55	260	55	55	155	55	55	85	85
V	260	820	260	260	260	260	260	290	290
Z	720		1035	1035	1250	1250	1465	1465	1465

Weight (kg)

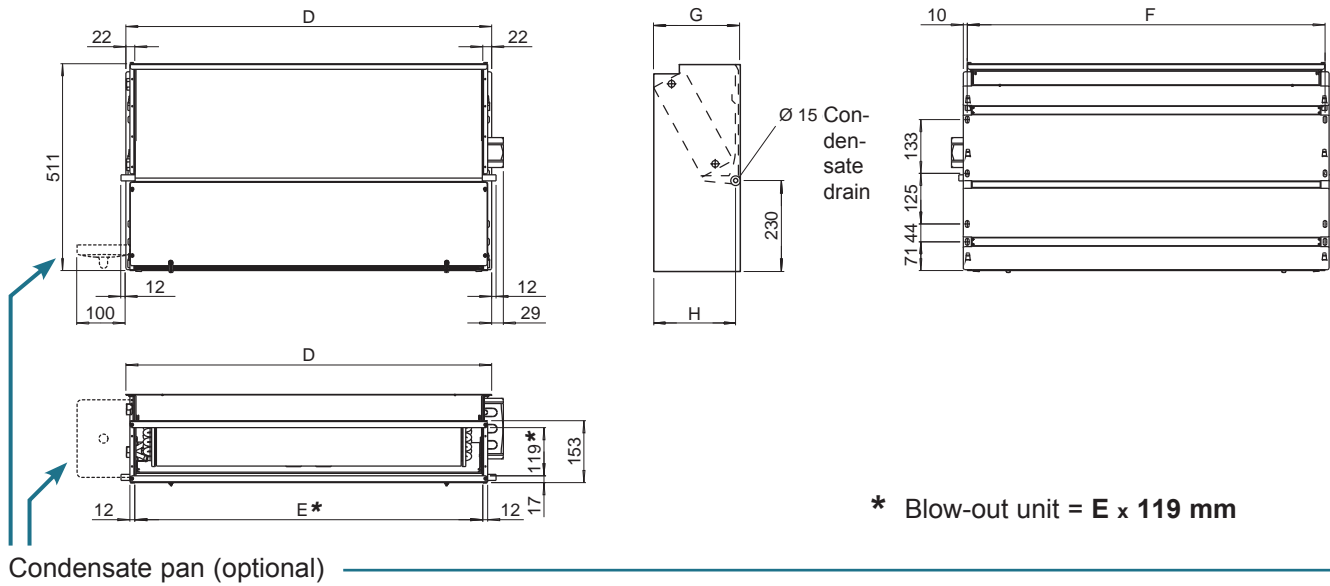
MODEL	Weight with packaging									Weight without packaging								
	1	2	3	4	5	6	7	8	9	1	2	3	5	7	9			
4 rows	14	18	24	25	27	28	34	45	46	13	16	21	22	24	25	30	41	42

Water content (l)

MODEL	1	2	3	4	5	6	7	8	9
4 rows	0.7	0.8	1.3	1.3	1.7	2.2	2.4	2.8	2.8

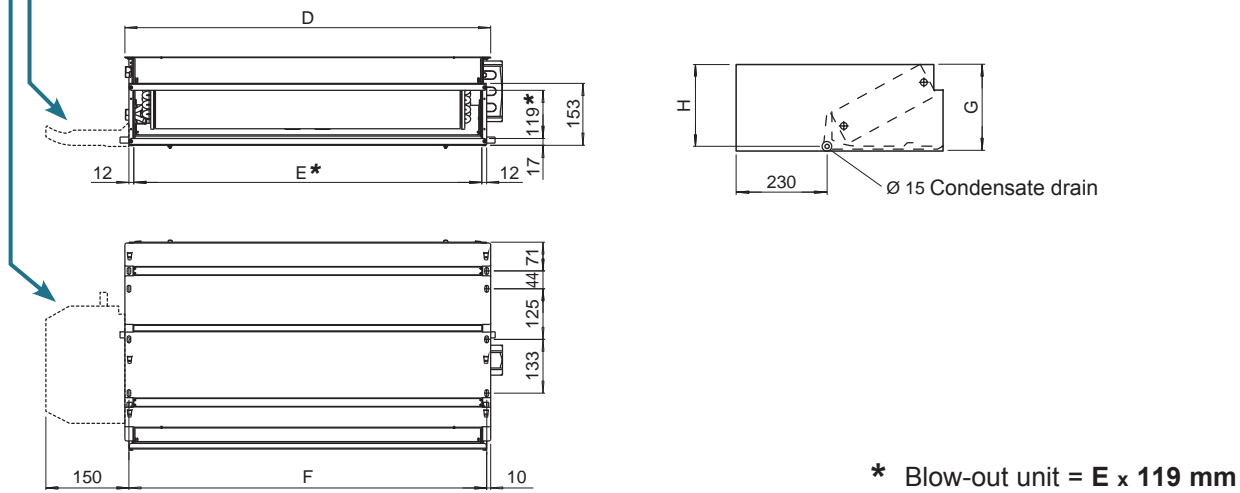
WFC-O - Dimensions, weights, water volumes

WFC-O



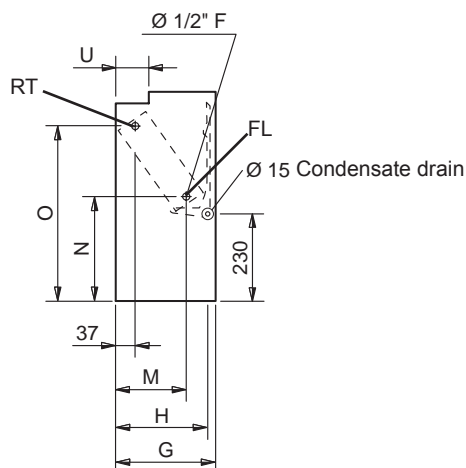
Condensate pan (optional)

WFC-O Suspended ceiling mounting



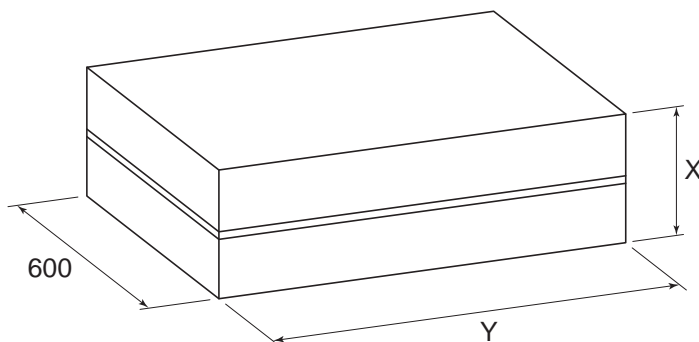
Connections:

4 rows of tubes



WFC-O - Dimensions, weights, water volumes

Packaging



Dimensions (mm)

MODEL	1	2	3	4	5	6	7	8	9
D	374	474	689	689	904	904	1119	1119	1119
E	330	430	645	645	860	860	1075	1075	1075
F	354	454	669	669	884	884	1099	1099	1099
G	218	218	218	218	218	218	218	248	248
H	205	205	205	205	205	205	205	235	235
M	145	145	145	145	145	145	145	170	170
N	260	260	260	260	260	260	260	270	270
O	460	460	460	460	460	460	460	450	450
U	65	65	65	65	65	65	65	95	95
X	260	260	260	260	260	260	260	290	290
Y	720	820	820	820	1035	1035	1250	1250	1250

Weight (kg)

MODEL	Weight with packaging									Weight without packaging								
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
4 rows	11	17	22	23	25	26	31	41	42	10	15	20	21	23	24	28	38	39

Water content (l)

MODEL	1	2	3	4	5	6	7	8	9
4 rows	0.7	0.8	1.3	1.3	1.7	2.2	2.4	2.8	2.8

Power

Operating data for heating
 Speed level: Min. standard
 Air inlet temperature T_k °C: 20.0
 Water inlet temperature °C: 35.0

Note:
 If necessary, our Back Office also provides technical data for deviating temperature ranges.

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	30	0.02	0.6	105	362	32	16
WFC 2	Min.	30	0.03	1.4	145	531	30	14
WFC 3	Min.	30	0.04	1.5	235	873	36	20
WFC 4	Min.	30	0.05	1.8	265	976	33	21
WFC 5	Min.	30	0.05	2.9	315	1138	31	22
WFC 6	Min.	30	0.07	4.2	415	1527	37	37
WFC 7	Min.	30	0.09	3.6	535	1883	42	54
WFC 8	Min.	30	0.11	2.4	655	2270	45	62
WFC 9	Min.	30	0.13	3.5	830	2789	50	92

Operating data for heating
 Speed level: Avg. standard
 Air inlet temperature T_k °C: 20.0
 Water inlet temperature °C: 35.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	30	0.03	1.2	175	561	39	25
WFC 2	Med.	30	0.04	2.7	220	765	40	22
WFC 3	Med.	30	0.05	1.9	270	1005	40	25
WFC 4	Med.	30	0.06	2.6	335	1228	39	28
WFC 5	Med.	30	0.08	5.9	495	1706	41	39
WFC 6	Med.	30	0.1	7.5	590	2106	46	55
WFC 7	Med.	30	0.12	5.8	735	2485	51	79
WFC 8	Med.	30	0.16	4.7	1020	3298	56	105
WFC 9	Med.	30	0.18	6	1210	3813	58	134

Operating data for heating
 Speed level: Max. standard
 Air inlet temperature T_k °C: 20.0
 Water inlet temperature °C: 35.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	30	0.03	1.7	220	680	45	33
WFC 2	Max.	30	0.05	4.1	295	976	47	32
WFC 3	Max.	30	0.07	3.4	385	1381	49	41
WFC 4	Max.	30	0.08	4.6	485	1694	47	44
WFC 5	Max.	30	0.1	8.8	650	2154	48	61
WFC 6	Max.	30	0.13	11.2	760	2648	52	78
WFC 7	Max.	30	0.14	8.1	925	2998	56	103
WFC 8	Max.	30	0.18	5.9	1200	3772	60	130
WFC 9	Max.	30	0.22	8.1	1500	4510	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 35.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	
WFC 1	Min.	30	0.01	0.4	105	297	32	16
WFC 2	Min.	30	0.02	1	145	437	30	14
WFC 3	Min.	30	0.03	1.1	235	721	36	20
WFC 4	Min.	30	0.04	1.3	265	805	33	21
WFC 5	Min.	30	0.04	2.1	315	940	31	22
WFC 6	Min.	30	0.06	3	415	1261	37	37
WFC 7	Min.	30	0.07	2.5	535	1553	42	54
WFC 8	Min.	30	0.09	1.7	655	1867	45	62
WFC 9	Min.	30	0.11	2.5	830	2291	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 35.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	
WFC 1	Med.	30	0.02	0.9	175	459	39	25
WFC 2	Med.	30	0.03	1.9	220	630	40	22
WFC 3	Med.	30	0.04	1.4	270	829	40	25
WFC 4	Med.	30	0.05	1.9	335	1012	39	28
WFC 5	Med.	30	0.07	4.2	495	1407	41	39
WFC 6	Med.	30	0.08	5.3	590	1738	46	55
WFC 7	Med.	30	0.1	4.1	735	2048	51	79
WFC 8	Med.	30	0.13	3.3	1020	2707	56	105
WFC 9	Med.	30	0.15	4.2	1210	3128	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 35.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	
WFC 1	Max.	30	0.03	1.2	220	556	45	33
WFC 2	Max.	30	0.04	2.9	295	802	47	32
WFC 3	Max.	30	0.05	2.4	385	1137	49	41
WFC 4	Max.	30	0.07	3.3	485	1394	47	44
WFC 5	Max.	30	0.08	6.3	650	1776	48	61
WFC 6	Max.	30	0.1	7.9	760	2183	52	78
WFC 7	Max.	30	0.12	5.8	925	2469	56	103
WFC 8	Max.	30	0.15	4.2	1200	3095	60	130
WFC 9	Max.	30	0.18	5.7	1500	3697	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	35	0.02	1.1	105	522	32	16
WFC 2	Min.	35	0.04	2.6	145	758	30	14
WFC 3	Min.	35	0.06	2.8	235	1243	36	20
WFC 4	Min.	35	0.07	3.2	265	1391	33	21
WFC 5	Min.	35	0.08	5.2	315	1621	31	22
WFC 6	Min.	35	0.1	7.7	415	2173	37	37
WFC 7	Min.	35	0.13	6.5	535	2686	42	54
WFC 8	Min.	35	0.16	4.5	655	3257	45	62
WFC 9	Min.	35	0.19	6.4	830	4008	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	35	0.04	2.3	175	812	39	25
WFC 2	Med.	35	0.05	4.9	220	1097	40	22
WFC 3	Med.	35	0.07	3.5	270	1433	40	25
WFC 4	Med.	35	0.08	4.8	335	1753	39	28
WFC 5	Med.	35	0.12	10.7	495	2435	41	39
WFC 6	Med.	35	0.14	13.6	590	3004	46	55
WFC 7	Med.	35	0.17	10.7	735	3552	51	79
WFC 8	Med.	35	0.23	8.7	1020	4749	56	105
WFC 9	Med.	35	0.26	11.2	1210	5499	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	35	0.05	3.2	220	988	45	33
WFC 2	Max.	35	0.07	7.5	295	1402	47	32
WFC 3	Max.	35	0.09	6.2	385	1974	49	41
WFC 4	Max.	35	0.12	8.5	485	2426	47	44
WFC 5	Max.	35	0.15	16.2	650	3080	48	61
WFC 6	Max.	35	0.18	20.4	760	3783	52	78
WFC 7	Max.	35	0.2	14.9	925	4292	56	103
WFC 8	Max.	35	0.26	11	1200	5439	60	130
WFC 9	Max.	35	0.31	15.1	1500	6516	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	35	0.02	0.8	105	456	32	16
WFC 2	Min.	35	0.03	2	145	664	30	14
WFC 3	Min.	35	0.05	2.2	235	1089	36	20
WFC 4	Min.	35	0.06	2.5	265	1219	33	21
WFC 5	Min.	35	0.07	4.1	315	1421	31	22
WFC 6	Min.	35	0.09	6.1	415	1904	37	37
WFC 7	Min.	35	0.11	5.2	535	2353	42	54
WFC 8	Min.	35	0.14	3.5	655	2850	45	62
WFC 9	Min.	35	0.17	5.1	830	3506	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	35	0.03	1.8	175	709	39	25
WFC 2	Med.	35	0.05	3.9	220	960	40	22
WFC 3	Med.	35	0.06	2.8	270	1256	40	25
WFC 4	Med.	35	0.07	3.8	335	1535	39	28
WFC 5	Med.	35	0.1	8.5	495	2134	41	39
WFC 6	Med.	35	0.13	10.8	590	2632	46	55
WFC 7	Med.	35	0.15	8.5	735	3112	51	79
WFC 8	Med.	35	0.2	6.8	1020	4153	56	105
WFC 9	Med.	35	0.23	8.8	1210	4807	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 40.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	35	0.04	2.6	220	862	45	33
WFC 2	Max.	35	0.06	6	295	1227	47	32
WFC 3	Max.	35	0.08	4.9	385	1729	49	41
WFC 4	Max.	35	0.1	6.7	485	2123	47	44
WFC 5	Max.	35	0.13	12.8	650	2698	48	61
WFC 6	Max.	35	0.16	16.2	760	3314	52	78
WFC 7	Max.	35	0.18	11.8	925	3759	56	103
WFC 8	Max.	35	0.23	8.7	1200	4756	60	130
WFC 9	Max.	35	0.27	11.9	1500	5695	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	40	0.03	1.7	105	681	32	16
WFC 2	Min.	40	0.05	4	145	985	30	14
WFC 3	Min.	40	0.08	4.3	235	1612	36	20
WFC 4	Min.	40	0.09	5	265	1804	33	21
WFC 5	Min.	40	0.1	8.1	315	2102	31	22
WFC 6	Min.	40	0.13	11.9	415	2815	37	37
WFC 7	Min.	40	0.17	10.1	535	3487	42	54
WFC 8	Min.	40	0.2	7	655	4241	45	62
WFC 9	Min.	40	0.25	10	830	5224	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	40	0.05	3.6	175	1063	39	25
WFC 2	Med.	40	0.07	7.6	220	1427	40	22
WFC 3	Med.	40	0.09	5.5	270	1859	40	25
WFC 4	Med.	40	0.11	7.5	335	2275	39	28
WFC 5	Med.	40	0.15	16.6	495	3162	41	39
WFC 6	Med.	40	0.19	21.1	590	3899	46	55
WFC 7	Med.	40	0.22	16.6	735	4617	51	79
WFC 8	Med.	40	0.3	13.6	1020	6198	56	105
WFC 9	Med.	40	0.34	17.6	1210	7183	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	40	0.06	5.1	220	1296	45	33
WFC 2	Max.	40	0.09	11.8	295	1827	47	32
WFC 3	Max.	40	0.12	9.7	385	2565	49	41
WFC 4	Max.	40	0.15	13.3	485	3156	47	44
WFC 5	Max.	40	0.19	25.2	650	4004	48	61
WFC 6	Max.	40	0.23	31.7	760	4915	52	78
WFC 7	Max.	40	0.27	23.2	925	5584	56	103
WFC 8	Max.	40	0.34	17.2	1200	7105	60	130
WFC 9	Max.	40	0.41	23.7	1500	8520	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	40	0.03	1.4	105	615	32	16
WFC 2	Min.	40	0.04	3.3	145	889	30	14
WFC 3	Min.	40	0.07	3.6	235	1456	36	20
WFC 4	Min.	40	0.08	4.2	265	1630	33	21
WFC 5	Min.	40	0.09	6.8	315	1899	31	22
WFC 6	Min.	40	0.12	10	415	2544	37	37
WFC 7	Min.	40	0.15	8.5	535	3151	42	54
WFC 8	Min.	40	0.18	5.8	655	3828	45	62
WFC 9	Min.	40	0.22	8.4	830	4716	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	40	0.05	3	175	959	39	25
WFC 2	Med.	40	0.06	6.4	220	1288	40	22
WFC 3	Med.	40	0.08	4.6	270	1679	40	25
WFC 4	Med.	40	0.1	6.2	335	2055	39	28
WFC 5	Med.	40	0.14	13.9	495	2857	41	39
WFC 6	Med.	40	0.17	17.7	590	3522	46	55
WFC 7	Med.	40	0.2	13.9	735	4171	51	79
WFC 8	Med.	40	0.27	11.3	1020	5594	56	105
WFC 9	Med.	40	0.31	14.7	1210	6483	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 45.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	40	0.06	4.3	220	1168	45	33
WFC 2	Max.	40	0.08	9.9	295	1650	47	32
WFC 3	Max.	40	0.11	8.1	385	2317	49	41
WFC 4	Max.	40	0.14	11.1	485	2850	47	44
WFC 5	Max.	40	0.17	21.1	650	3618	48	61
WFC 6	Max.	40	0.21	26.5	760	4440	52	78
WFC 7	Max.	40	0.24	19.4	925	5044	56	103
WFC 8	Max.	40	0.31	14.4	1200	6412	60	130
WFC 9	Max.	40	0.37	19.8	1500	7689	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	45	0.04	2.4	105	841	32	16
WFC 2	Min.	45	0.06	5.6	145	1211	30	14
WFC 3	Min.	45	0.09	6	235	1979	36	20
WFC 4	Min.	45	0.11	7	265	2217	33	21
WFC 5	Min.	45	0.12	11.4	315	2582	31	22
WFC 6	Min.	45	0.16	16.8	415	3457	37	37
WFC 7	Min.	45	0.2	14.3	535	4288	42	54
WFC 8	Min.	45	0.25	9.9	655	5224	45	62
WFC 9	Min.	45	0.31	14.2	830	6440	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	45	0.06	5.2	175	1315	39	25
WFC 2	Med.	45	0.08	10.8	220	1757	40	22
WFC 3	Med.	45	0.11	7.7	270	2284	40	25
WFC 4	Med.	45	0.13	10.5	335	2798	39	28
WFC 5	Med.	45	0.19	23.5	495	3889	41	39
WFC 6	Med.	45	0.23	29.8	590	4793	46	55
WFC 7	Med.	45	0.27	23.5	735	5681	51	79
WFC 8	Med.	45	0.36	19.3	1020	7647	56	105
WFC 9	Med.	45	0.42	25	1210	8867	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	45	0.08	7.3	220	1604	45	33
WFC 2	Max.	45	0.11	16.7	295	2252	47	32
WFC 3	Max.	45	0.15	13.6	385	3156	49	41
WFC 4	Max.	45	0.19	18.8	485	3885	47	44
WFC 5	Max.	45	0.23	35.7	650	4929	48	61
WFC 6	Max.	45	0.29	44.9	760	6047	52	78
WFC 7	Max.	45	0.33	32.8	925	6876	56	103
WFC 8	Max.	45	0.42	24.5	1200	8770	60	130
WFC 9	Max.	45	0.5	33.8	1500	10526	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Min.	45	0.04	2	105	773	32	16
WFC 2	Min.	45	0.05	4.8	145	1114	30	14
WFC 3	Min.	45	0.09	5.2	235	1821	36	20
WFC 4	Min.	45	0.1	6	265	2040	33	21
WFC 5	Min.	45	0.11	9.9	315	2377	31	22
WFC 6	Min.	45	0.15	14.5	415	3182	37	37
WFC 7	Min.	45	0.19	12.4	535	3947	42	54
WFC 8	Min.	45	0.23	8.5	655	4806	45	62
WFC 9	Min.	45	0.28	12.3	830	5925	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Med.	45	0.06	4.5	175	1209	39	25
WFC 2	Med.	45	0.08	9.3	220	1617	40	22
WFC 3	Med.	45	0.1	6.7	270	2102	40	25
WFC 4	Med.	45	0.12	9.1	335	2574	39	28
WFC 5	Med.	45	0.17	20.3	495	3580	41	39
WFC 6	Med.	45	0.21	25.8	590	4411	46	55
WFC 7	Med.	45	0.25	20.3	735	5230	51	79
WFC 8	Med.	45	0.34	16.6	1020	7035	56	105
WFC 9	Med.	45	0.39	21.6	1210	8158	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 50.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	dB(A)	Watt
WFC 1	Max.	45	0.07	6.3	220	1475	45	33
WFC 2	Max.	45	0.1	14.4	295	2072	47	32
WFC 3	Max.	45	0.14	11.8	385	2904	49	41
WFC 4	Max.	45	0.17	16.2	485	3575	47	44
WFC 5	Max.	45	0.22	30.8	650	4537	48	61
WFC 6	Max.	45	0.27	38.8	760	5565	52	78
WFC 7	Max.	45	0.3	28.4	925	6329	56	103
WFC 8	Max.	45	0.38	21.2	1200	8069	60	130
WFC 9	Max.	45	0.46	29.2	1500	9684	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Min.	50	0.05	3.1	105	1000	32	16
WFC 2	Min.	50	0.07	7.5	145	1437	30	14
WFC 3	Min.	50	0.11	8	235	2347	36	20
WFC 4	Min.	50	0.13	9.3	265	2629	33	21
WFC 5	Min.	50	0.15	15.2	315	3062	31	22
WFC 6	Min.	50	0.2	22.3	415	4099	37	37
WFC 7	Min.	50	0.24	19	535	5089	42	54
WFC 8	Min.	50	0.3	13.1	655	6208	45	62
WFC 9	Min.	50	0.37	19	830	7657	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Med.	50	0.07	6.9	175	1566	39	25
WFC 2	Med.	50	0.1	14.4	220	2087	40	22
WFC 3	Med.	50	0.13	10.3	270	2709	40	25
WFC 4	Med.	50	0.16	14	335	3319	39	28
WFC 5	Med.	50	0.22	31.2	495	4616	41	39
WFC 6	Med.	50	0.27	39.6	590	5687	46	55
WFC 7	Med.	50	0.32	31.2	735	6746	51	79
WFC 8	Med.	50	0.43	25.7	1020	9097	56	105
WFC 9	Med.	50	0.5	33.4	1210	10553	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 20.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Max.	50	0.09	9.8	220	1912	45	33
WFC 2	Max.	50	0.13	22.3	295	2678	47	32
WFC 3	Max.	50	0.18	18.1	385	3746	49	41
WFC 4	Max.	50	0.22	25	485	4615	47	44
WFC 5	Max.	50	0.28	47.4	650	5853	48	61
WFC 6	Max.	50	0.34	59.7	760	7179	52	78
WFC 7	Max.	50	0.39	43.7	925	8169	56	103
WFC 8	Max.	50	0.5	32.8	1200	10438	60	130
WFC 9	Max.	50	0.6	45.2	1500	12534	64	176

Power

Operating data for heating

Speed level: Min. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Min.	50	0.04	2.8	105	931	32	16
WFC 2	Min.	50	0.06	6.6	145	1339	30	14
WFC 3	Min.	50	0.1	7	235	2186	36	20
WFC 4	Min.	50	0.12	8.2	265	2449	33	21
WFC 5	Min.	50	0.14	13.4	315	2854	31	22
WFC 6	Min.	50	0.18	19.7	415	3820	37	37
WFC 7	Min.	50	0.23	16.8	535	4743	42	54
WFC 8	Min.	50	0.28	11.6	655	5783	45	62
WFC 9	Min.	50	0.34	16.8	830	7134	50	92

Operating data for heating

Speed level: Avg. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Med.	50	0.07	6.1	175	1458	39	25
WFC 2	Med.	50	0.09	12.7	220	1945	40	22
WFC 3	Med.	50	0.12	9.1	270	2524	40	25
WFC 4	Med.	50	0.15	12.4	335	3093	39	28
WFC 5	Med.	50	0.21	27.6	495	4303	41	39
WFC 6	Med.	50	0.25	35	590	5300	46	55
WFC 7	Med.	50	0.3	27.6	735	6288	51	79
WFC 8	Med.	50	0.4	22.7	1020	8477	56	105
WFC 9	Med.	50	0.47	29.5	1210	9834	58	134

Operating data for heating

Speed level: Max. standard

Air inlet temperature T_k °C: 22.0

Water inlet temperature °C: 55.0

Heating	Speed	Water	Water	Water	Air	Total	Lw	Mot.
		RLt°C	l/s	kPa	m³/h		W	dB(A)
WFC 1	Max.	50	0.08	8.7	220	1781	45	33
WFC 2	Max.	50	0.12	19.7	295	2495	47	32
WFC 3	Max.	50	0.17	16	385	3490	49	41
WFC 4	Max.	50	0.2	22.1	485	4300	47	44
WFC 5	Max.	50	0.26	41.9	650	5456	48	61
WFC 6	Max.	50	0.32	52.7	760	6690	52	78
WFC 7	Max.	50	0.36	38.6	925	7615	56	103
WFC 8	Max.	50	0.46	28.9	1200	9726	60	130
WFC 9	Max.	50	0.56	39.9	1500	11680	64	176

Operating limits

Max. water inlet temperature..... +85 °C

Min. water inlet temperature. +5 °C

Note: If temperatures below 5 °C are to be reached, it is essential that you contact our technical support before proceeding.

Maximum operating pressure. 10 bar

Note:

The max. installation height of the WFC-O model is 2.8 m.

When heating, special focus is on rooms with particular low floor temperature (e.g. lower than 5 °C). In this case the floor can cool down the lower layer of air to a level that can stop the even distribution of warm air.

Flow rates in registers with 4 rows of tubes (l/h)

MODEL	WFC 1	WFC 2	WFC 3	WFC 4	WFC 5	WFC 6	WFC 7	WFC 8	WFC 9
Minimum	100	100	150	150	150	150	200	300	300
Maximum	650	750	1000	1000	1000	1500	2000	2000	2250

Technical data of electric motors (maximum current and power consumption)

MODEL		WFC 1	WFC 2	WFC 3	WFC 4	WFC 5	WFC 6	WFC 7	WFC 8	WFC 9
230/1 50Hz	W	33	40	49	57	61	88	103	130	176
	A	0.16	0.18	0.23	0.26	0.27	0.39	0.47	0.58	0.78

Power data for cooling

Speed level: **Min. standard**

Air inlet temperature Tk °C: 25.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Min.	12	0.03	1.4	105	567	445	32	16
WFC 2	Min.	12	0.04	3.7	145	855	651	30	14
WFC 3	Min.	12	0.07	4	235	1403	1056	36	20
WFC 4	Min.	12	0.07	4.6	265	1561	1180	33	21
WFC 5	Min.	12	0.09	7.9	315	1872	1410	31	22
WFC 6	Min.	12	0.12	10.9	415	2416	1829	37	37
WFC 7	Min.	12	0.14	9.4	535	3030	2317	42	54
WFC 8	Min.	12	0.16	5.7	655	3413	2678	45	62
WFC 9	Min.	12	0.2	7.9	830	4117	3275	50	92

Speed level: **Avg. standard**

Air inlet temperature Tk °C: 25.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Med.	12	0.04	2.9	175	852	692	39	25
WFC 2	Med.	12	0.06	6.8	220	1212	941	40	22
WFC 3	Med.	12	0.08	5.1	270	1606	1215	40	25
WFC 4	Med.	12	0.09	6.7	335	1941	1483	39	28
WFC 5	Med.	12	0.13	15.7	495	2765	2121	41	39
WFC 6	Med.	12	0.16	18.7	590	3286	2527	46	55
WFC 7	Med.	12	0.19	15	735	3942	3060	51	79
WFC 8	Med.	12	0.23	10.4	1020	4828	3893	56	105
WFC 9	Med.	12	0.26	13.1	1210	5505	4499	58	134

Speed level: **Max. standard**

Air inlet temperature Tk °C: 25.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Max.	12	0.05	4.1	220	1025	850	45	33
WFC 2	Max.	12	0.07	10.4	295	1535	1212	47	32
WFC 3	Max.	12	0.1	8.7	385	2180	1676	49	41
WFC 4	Max.	12	0.13	11.6	485	2644	2058	47	44
WFC 5	Max.	12	0.17	23.5	650	3478	2708	48	61
WFC 6	Max.	12	0.19	27.2	760	4068	3174	52	78
WFC 7	Max.	12	0.23	20.7	925	4737	3730	56	103
WFC 8	Max.	12	0.26	12.9	1200	5452	4451	60	130
WFC 9	Max.	12	0.31	17.1	1500	6395	5319	64	176

If necessary, our Back Office also provides technical data for deviating temperature ranges.

Power data for cooling

Speed level: **Min. standard**

Air inlet temperature T_k °C: 25.0

Water inlet temperature °C: 15.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Min.	19	0.01	0.4	105	230	230	32	16
WFC 2	Min.	19	0.02	1	145	337	337	30	14
WFC 3	Min.	19	0.03	1.1	235	548	548	36	20
WFC 4	Min.	19	0.04	1.2	265	613	613	33	21
WFC 5	Min.	19	0.04	2.1	315	730	730	31	22
WFC 6	Min.	19	0.06	3	415	949	949	37	37
WFC 7	Min.	19	0.07	2.6	535	1202	1202	42	54
WFC 8	Min.	19	0.08	1.6	655	1380	1380	45	62
WFC 9	Min.	19	0.1	2.3	830	1691	1691	50	92

Speed level: **Avg. standard**

Air inlet temperature T_k °C: 25.0

Water inlet temperature °C: 15.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Med.	19	0.02	0.9	175	354	354	39	25
WFC 2	Med.	19	0.03	1.9	220	486	486	40	22
WFC 3	Med.	19	0.04	1.4	270	631	631	40	25
WFC 4	Med.	19	0.05	1.9	335	768	768	39	28
WFC 5	Med.	19	0.07	4.3	495	1097	1097	41	39
WFC 6	Med.	19	0.08	5.2	590	1308	1308	46	55
WFC 7	Med.	19	0.09	4.2	735	1582	1582	51	79
WFC 8	Med.	19	0.12	3.1	1020	1994	1994	56	105
WFC 9	Med.	19	0.14	4	1210	2301	2301	58	134

Speed level: **Max. standard**

Air inlet temperature T_k °C: 25.0

Water inlet temperature °C: 15.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Max.	19	0.03	1.3	220	434	434	45	33
WFC 2	Max.	19	0.04	3	295	626	626	47	32
WFC 3	Max.	19	0.05	4.2	385	819	819	49	41
WFC 4	Max.	19	0.06	3.3	485	1066	1066	47	44
WFC 5	Max.	19	0.08	6.7	650	1401	1401	48	61
WFC 6	Max.	19	0.1	7.8	760	1643	1643	52	78
WFC 7	Max.	19	0.11	6	925	1927	1927	56	103
WFC 8	Max.	19	0.14	3.9	1200	2276	2276	60	130
WFC 9	Max.	19	0.16	5.3	1500	2715	2715	64	176

If necessary, our Back Office also provides technical data for deviating temperature ranges.

Power data for cooling

Speed level: **Min. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Min.	12	0.03	2.2	105	726	506	32	16
WFC 2	Min.	12	0.05	5.6	145	1081	738	30	14
WFC 3	Min.	12	0.08	6	235	1767	1197	36	20
WFC 4	Min.	12	0.09	6.9	265	1968	1337	33	21
WFC 5	Min.	12	0.11	11.8	315	2352	1594	31	22
WFC 6	Min.	12	0.15	16.3	415	3040	2069	37	37
WFC 7	Min.	12	0.18	14.2	535	3820	2620	42	54
WFC 8	Min.	12	0.21	8.7	655	4344	3036	45	62
WFC 9	Min.	12	0.25	12.1	830	5253	3713	50	92

Speed level: **Avg. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Med.	12	0.05	4.6	175	1098	786	39	25
WFC 2	Med.	12	0.07	10.4	220	1538	1066	40	22
WFC 3	Med.	12	0.1	7.6	270	2025	1377	40	25
WFC 4	Med.	12	0.12	10.2	335	2454	1680	39	28
WFC 5	Med.	12	0.17	23.6	495	3486	2398	41	39
WFC 6	Med.	12	0.2	28.1	590	4147	2858	46	55
WFC 7	Med.	12	0.24	22.7	735	4983	3460	51	79
WFC 8	Med.	12	0.29	16.1	1020	6171	4409	56	105
WFC 9	Med.	12	0.34	20.3	1210	7047	5090	58	134

Speed level: **Max. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 7.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa	m³/h	W	W	dB(A)	Watt
WFC 1	Max.	12	0.06	6.4	220	1325	965	45	33
WFC 2	Max.	12	0.09	15.9	295	1954	1373	47	32
WFC 3	Max.	12	0.13	13.1	385	2760	1899	49	41
WFC 4	Max.	12	0.16	17.7	485	3355	2332	47	44
WFC 5	Max.	12	0.21	35.5	650	4395	3059	48	61
WFC 6	Max.	12	0.25	41.1	760	5144	3586	52	78
WFC 7	Max.	12	0.29	31.4	925	5998	4214	56	103
WFC 8	Max.	12	0.33	20	1200	6979	5035	60	130
WFC 9	Max.	12	0.39	26.5	1500	8201	6008	64	176

If necessary, our Back Office also provides technical data for deviating temperature ranges.

Power data for cooling

Speed level: **Min. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 15.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Min.	19	0.02	0.6	105	293	293	32	16
WFC 2	Min.	19	0.03	1.5	145	427	427	30	14
WFC 3	Min.	19	0.04	1.6	235	692	692	36	20
WFC 4	Min.	19	0.05	1.9	265	775	775	33	21
WFC 5	Min.	19	0.05	3.2	315	922	922	31	22
WFC 6	Min.	19	0.07	4.5	415	1199	1199	37	37
WFC 7	Min.	19	0.09	4	535	1521	1521	42	54
WFC 8	Min.	19	0.1	2.5	655	1759	1759	45	62
WFC 9	Min.	19	0.13	3.6	830	2159	2159	50	92

Speed level: **Avg. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 15.0

Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Med.	19	0.03	1.4	175	455	455	39	25
WFC 2	Med.	19	0.04	2.9	220	617	617	40	22
WFC 3	Med.	19	0.05	2.1	270	798	798	40	25
WFC 4	Med.	19	0.06	2.8	335	973	973	39	28
WFC 5	Med.	19	0.08	6.6	495	1388	1388	41	39
WFC 6	Med.	19	0.1	7.9	590	1656	1656	46	55
WFC 7	Med.	19	0.12	6.4	735	2006	2006	51	79
WFC 8	Med.	19	0.15	4.8	1020	2550	2550	56	105
WFC 9	Med.	19	0.18	6.2	1210	2946	2946	58	134

Speed level: **Max. standard**

Air inlet temperature Tk °C: 27.0

Water inlet temperature °C: 15.0

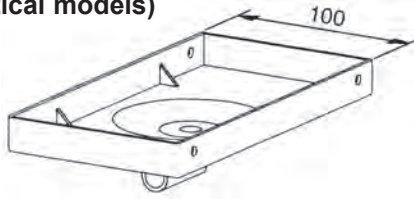
Relative humidity: 50 %

Cooling	Speed	Water	Water	Water	Air	Total	Sensib	Lw	Mot.
		RLt°C	l/s	kPa			m³/h	W	
WFC 1	Max.	0.03	2	220	558	558	45	33	33
WFC 2	Max.	0.05	4.6	295	797	797	47	32	32
WFC 3	Max.	0.07	3.7	385	1101	1101	49	41	41
WFC 4	Max.	0.08	5	485	1066	1066	47	44	44
WFC 5	Max.	0.11	10.1	650	1776	1776	48	61	61
WFC 6	Max.	0.12	11.8	760	2084	2084	52	78	78
WFC 7	Max.	0.15	9.1	925	2447	2447	56	103	103
WFC 8	Max.	0.17	6	1200	2915	2915	60	130	130
WFC 9	Max.	0.21	8.3	1500	3482	3482	64	176	176

If necessary, our Back Office also provides technical data for deviating temperature ranges.

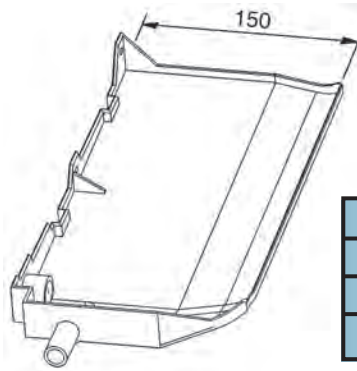
Extension condensate pan

(for vertical models)



VERSION	WFC
MODEL	W, B, O (vertical)
ITEM NO.:	Z17875

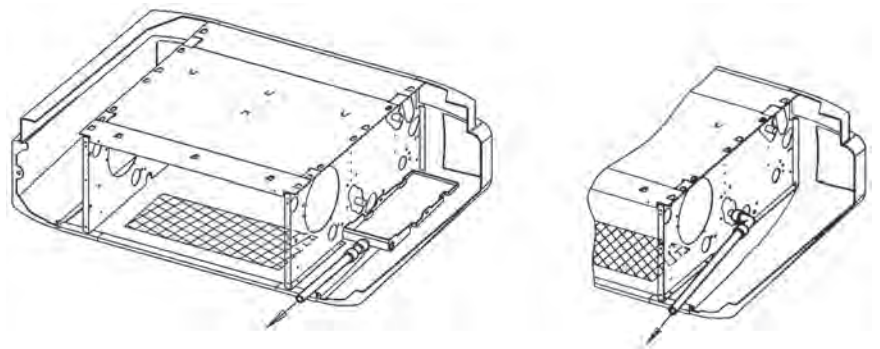
(for horizontal models)



VERSION	WFC	
MODEL	B, O (horizontal)	
CONNECTION	LEFT	RIGHT
ITEM NO.:	Z17876	Z17877

Condensate drain with quick connection

(allows reliable draining of condensate)

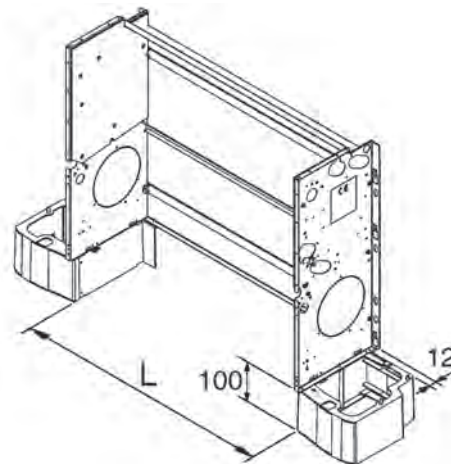


VERSION	WFC
MODEL	B, O
ITEM NO.:	Z17878

Adjustable feet

VERSION	WFC
MODEL	W

SIZE	L	ITEM NO.:
1	330	Z17879
2	430	Z17880
3 - 4	645	Z17881
5 - 6	860	Z17882
7	1119	Z17883
8 - 9	1119	Z17884

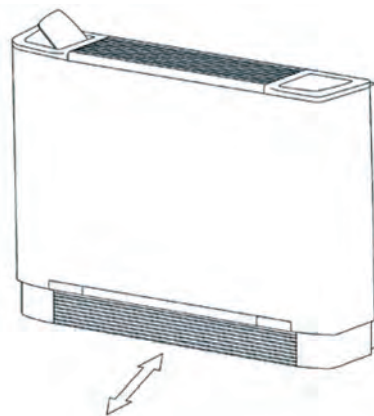


Grille

Lower detachable aluminium inlet grille
(for mounting with adjustable feet)

VERSION	WFC
MODEL	W

SIZE	ITEM NO.:
1	Z17886
2	Z17887
3 - 4	Z17888
5 - 6	Z17889
7 - 8 - 9	Z17890

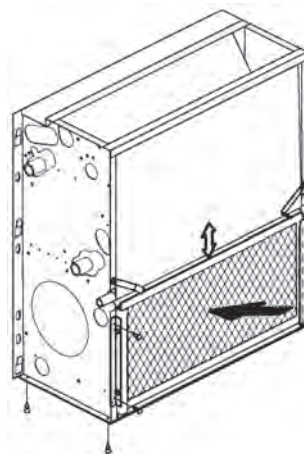


Kit for front intake

Flush floor panel with filter guides.

VERSION	WFC
MODEL	0

SIZE	ITEM NO.:
1	Z17891
2	Z17892
3 - 4	Z17893
5 - 6	Z17894
7 - 8 - 9	Z17895

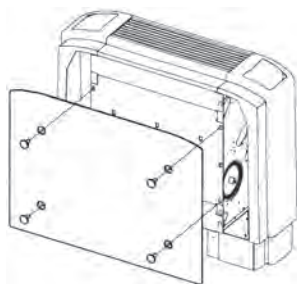


Rear panel

for vertical systems

VERSION	WFC
MODEL	W, B

SIZE	ITEM NO.:
1	Z17896
2	Z17897
3 - 4	Z17898
5 - 6	Z17899
7 - 8 - 9	Z17900

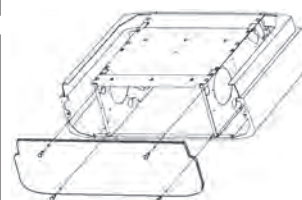


Floor panel

for horizontal systems

VERSION	WFC
MODEL	B

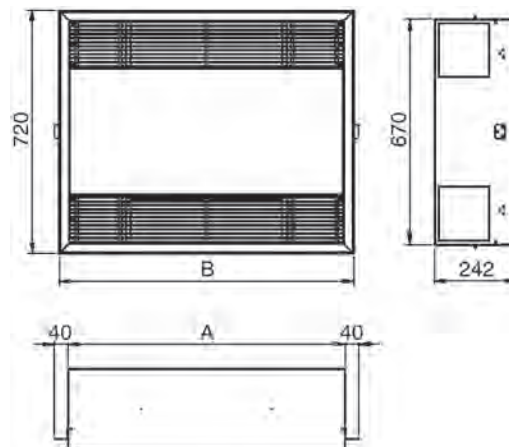
SIZE	ITEM NO.:
1	Z17901
2	Z17902
3 - 4	Z17903
5 - 6	Z17904
7	Z17905
8 - 9	Z17906



Wall mount kit (suspended ceiling, etc.)

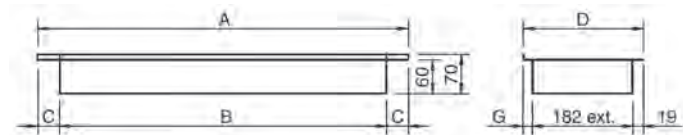
VERSION	WFC
MODEL	O

SIZE	TYPE	A	B	ITEM NO.
1		-	-	-
2	IM-2	825	874	Z17907
3 - 4	IM-3/4	1040	1089	Z17908
5 - 6	IM-5/6	1255	1304	Z17909
7	IM-7	1470	1519	Z17910
8 - 9		-	-	-



Horizontal flange connection, inside

Can be used in combination with air inlet grille (galvanised steel).

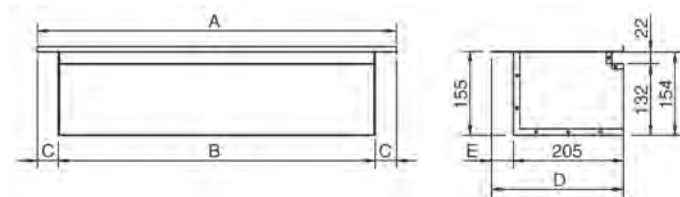


SIZE	TYPE	A	B	C	D	G	ITEM NO.
1	FRO-1	354	290	32	217	16	Z17977
2	FRO-2	454	390	32	217	16	Z17917
3 - 4	FRO-3/4	669	590	39.5	217	16	Z17918
5 - 6	FRO-5/6	884	790	47	217	16	Z17919
7	FRO-7	1099	990	54.5	217	16	Z17920
8 - 9	FRO-8/9	1099	990	54.5	247	46	Z17921

VERSION	WFC
MODEL	O

Flange connection inside (90°)

Can be used in combination with air intake grille (galvanised steel).

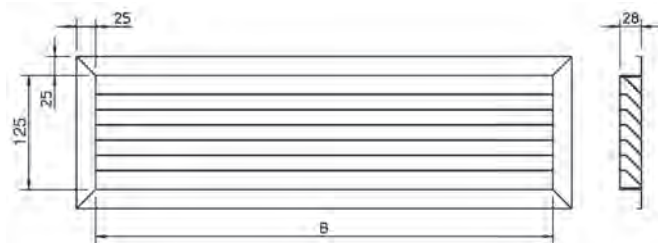


SIZE	TYPE	A	B	C	D	E	ITEM NO.
1	FR90-1	354	290	32	216	11	Z17922
2	FR90-2	454	390	32	216	11	Z17923
3 - 4	FR90-3/4	669	590	39.5	216	11	Z17924
5 - 6	FR90-5/6	884	790	47	216	11	Z17925
7	FR90-7	1099	990	54.5	216	11	Z17926
8 - 9	FR90-8/9	1099	990	54.5	246	41	Z17927

VERSION	WFC
MODEL	O

Intake grille

Can be used in combination with flange connection inside (90°) (anodised aluminium).

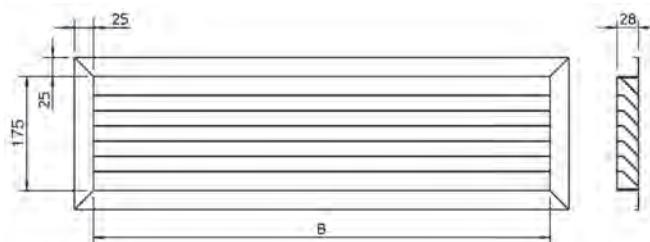


SIZE	TYPE	DESCRIPTION	B	ITEM NO.
1	GRAP-1	Grille 325x175	275	Z17928
2	GRAP-2	Grille 425x175	375	Z17929
3 - 4	GRAP-3/4	Grille 625x175	575	Z17930
5 - 6	GRAP-5/6	Grille 825x175	775	Z17931
7 - 9	GRAP-7/9	Grille 1025x175	975	Z17932

VERSION	WFC
MODEL	O

Intake grille

Can be used in combination with flange connection inside (anodised aluminium).

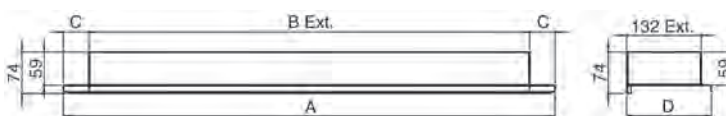


SIZE	TYPE	DESCRIPTION	B	ITEM NO.:
1	GRAG-1	Grille 325x225	275	Z17933
2	GRAG-2	Grille 425x225	375	Z17934
3 - 4	GRAG-3/4	Grille 625x225	575	Z17935
5 - 6	GRAG-5/6	Grille 825x225	775	Z17936
7 - 9	GRAG-7/9	Grille 1025x225	975	Z17937

VERSION	WFC
MODEL	O

Horizontal outer flange (straight)

(galvanised steel)

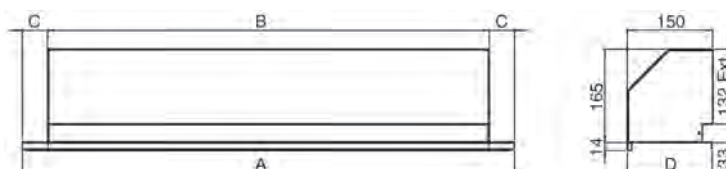


SIZE	TYPE	A	B	C	D	ITEM NO.:
1	FMD-1	352	290	31	152	Z17938
2	FMD-2	452	390	31	152	Z17939
3 - 4	FMD-3/4	667	590	38.5	152	Z17940
5 - 6	FMD-5/6	882	790	46	152	Z17941
7	FMD-7	1097	990	53.5	152	Z17942
8 - 9	FMD-8/9	1097	990	53.5	179	Z17943

VERSION	WFC
MODEL	O

Flange connection outside 90°

Insulated with polyethylene liner (galvanised steel).

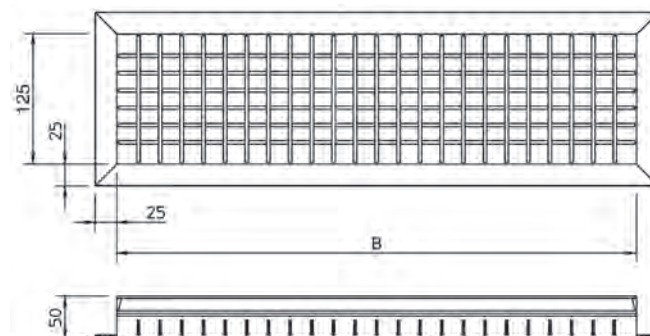


SIZE	TYPE	A	B	C	D	ITEM NO.:
1	FM90-1	352	290	31	152	Z17944
2	FM90-2	452	390	31	152	Z17945
3 - 4	FM90-3/4	667	590	38.5	152	Z17946
5 - 6	FM90-5/6	882	790	46	152	Z17947
7	FM90-7	1097	990	53.5	152	Z17948
8 - 9	FM90-8/9	1097	990	53.5	179	Z17949

VERSION	WFC
MODEL	O

Outlet grille

Can be used in combination with outlet flange (straight) or outlet flange (90°) (anodised aluminium).

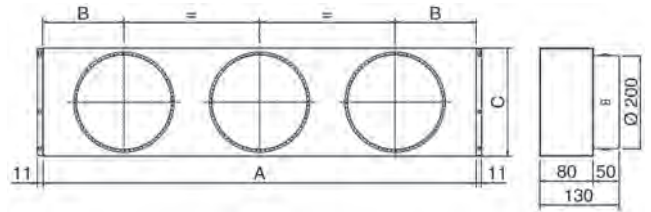


SIZE	TYPE	B	ITEM NO.
1	BMA-1	275	Z17950
2	BMA-2	375	Z17951
3 - 4	BMA-3/4	575	Z17952
5 - 6	BMA-5/6	775	Z17953
7 - 9	BMA-7/9	975	Z17954

VERSION	WFC
MODEL	O

Intake plenum with round collar

Material made of galvanised steel with polyethylene insulation.



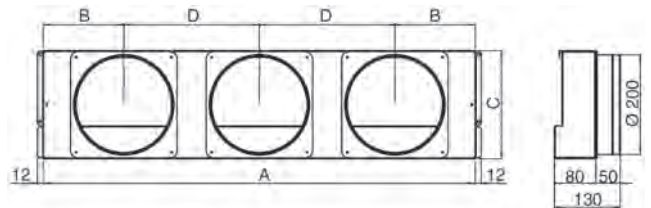
SIZE	TYPE	A	B	C	ROUND COLLARS	ITEM NO.
1	PRC-1	332	166	216	N° 1	Z17955
2	PRC-2	432	112	216	N° 2	Z17956
3 - 4	PRC-3/4	647	116	216	N° 2	Z17957
5 - 6	PRC-5/6	862	161	216	N° 3	Z17958
7	PRC-7	1077	188.5	216	N° 3	Z17959
8 - 9	PRC-8/9	1077	188.5	246	N° 3	Z17960

All air shafts are supplied with locking devices for connection to air duct.

VERSION	WFC
MODEL	O

Outlet plenum with round collars

Material made of galvanised steel with polyethylene insulation.



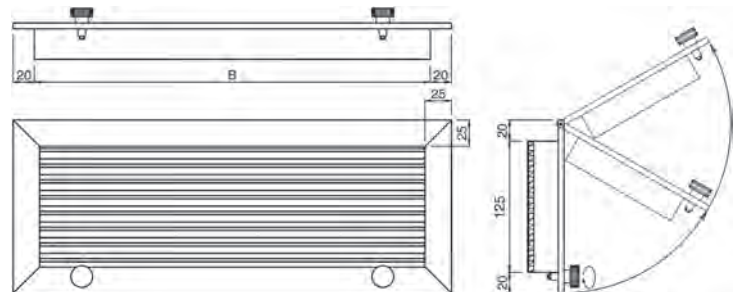
SIZE	TYPE	A	B	C	D	ROUND COLLARS	ITEM NO.
1	PCM-1	330	165	215	/	N° 1	Z17961
2	PCM-2	430	107	215	216	N° 2	Z17962
3 - 4	PCM-3/4	645	166	215	313	N° 2	Z17963
5 - 6	PCM-5/6	860	160	215	270	N° 3	Z17964
7	PCM-7	1075	190	215	347.5	N° 3	Z17965
8 - 9	PCM-8/9	1075	190	245	347.5	N° 3	Z17966

All air shafts are supplied with locking devices for connection to air duct.

VERSION	WFC
MODEL	O

Intake grille with filter

Suitable for 90° connection flange. Material made of anodised aluminium.

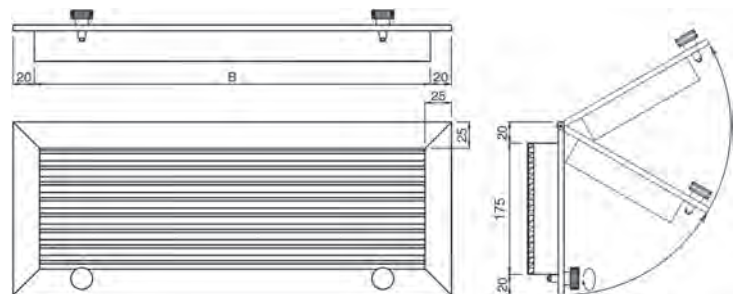


SIZE	TYPE	B	ITEM NO.
1	GRAFP-1	275	Z17967
2	GRAFP-2	375	Z17968
3 - 4	GRAFP-3/4	575	Z17969
5 - 6	GRAFP-5/6	775	Z17970
7 - 9	GRAFP-7/9	975	Z17971

VERSION	WFC
MODEL	O

Intake grille with filter

Suitable for horizontal flange connection. Material made of anodised aluminium.



SIZE	TYPE	B	ITEM NO.
1	GRAFG-1	275	Z17972
2	GRAFG-2	375	Z17973
3 - 4	GRAFG-3/4	575	Z17974
5 - 6	GRAFG-5/6	775	Z17975
7 - 9	GRAFG-7/9	975	Z17976

VERSION	WFC
MODEL	O

Electronic control on unit

- + Manual changeover between the 3 fan speeds, without thermostat control.

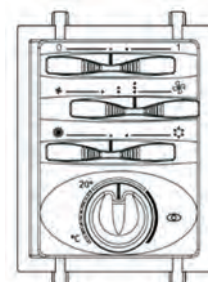
TYPE	ITEM NO.
MV-3V	Z17760



Electronic control on unit

- + Manual changeover between the 3 fan speeds.
- + Manual changeover of seasonal cycle (SUMMER - WINTER).
- + Temperature control (ON-OFF) of fan.
- + Temperature control (ON-OFF) of valve.

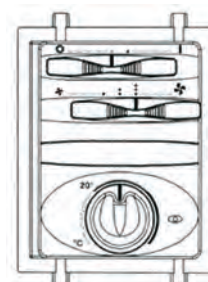
TYPE	ITEM NO.
TMV-S	Z17985



Electronic control on unit

- + Manual changeover between the 3 fan speeds.
- + Possible changeover of seasonal cycle (SUMMER – WINTER) via an external electrical phase signal (central).
- + Temperature control (ON-OFF) of fan.
- + Temperature control (ON-OFF) of valve.

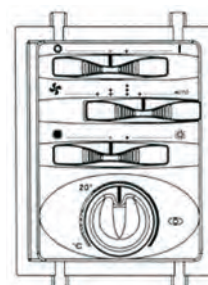
TYPE	ITEM NO.
TMV-C	Z17979



Electronic control on unit

- + Manual or automatic changeover between the 3 fan speeds.
- + Manual changeover of seasonal cycle (SUMMER - WINTER).
- + Temperature control with automatic changeover between the 3 fan speeds and stopping when target value is reached.
- + Temperature control (ON-OFF) of valve.
- + Temperature control (ON-OFF) of fan and simultaneously of water valve.
- + Possible changeover of seasonal cycle (SUMMER – WINTER) via an external electrical phase signal (central).

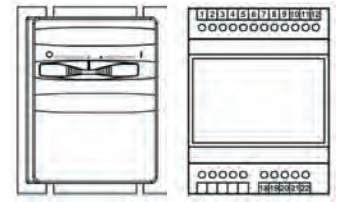
TYPE	ITEM NO.
TMV-AU	Z17885



Selection switch for speed

- + Selection switch for speed.
- + Allows simultaneous control of several (max. 8) fan convectors by means of signal from only one thermostat control (one selection switch for each unit).
- + Selection switch for TMO-T, TMO-T-AU

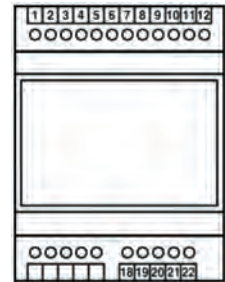
TYPE	ITEM NO.
SEL-V	Z17980



Selection switch for speed

- + Selection switch for speed.
- + Allows simultaneous control of several (max. 8) fan convectors by means of signal from only one thermostat control (one selection switch for each unit).
- + Selection switch for TMO-T, TMO-T-AU

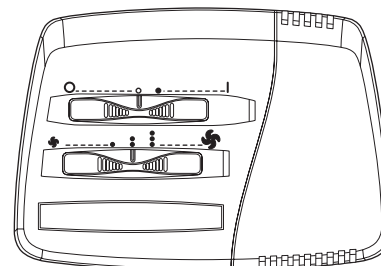
TYPE	ITEM NO.
SEL-O	Z17981



Electronic wall control

- + Manual changeover between the 3 fan speeds, without thermostat control.

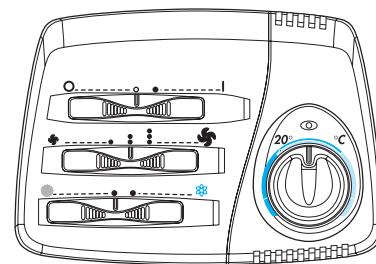
TYPE	ITEM NO.
MO-3V	Z17989



Electronic wall control

- + Manual changeover between the 3 fan speeds.
- + Manual changeover of seasonal cycle (SUMMER - WINTER).
- + Temperature control (ON-OFF) of fan.
- + Temperature control (ON-OFF) of valve.
- + Possible changeover of seasonal cycle (SUMMER – WINTER) via an external electrical phase signal (central).

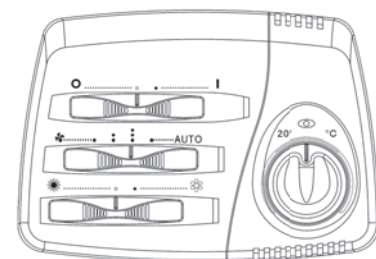
TYPE	ITEM NO.
TMO-T	Z17990



Electronic wall control

- + Manual or automatic changeover between the 3 fan speeds.
- + Manual changeover of seasonal cycle (SUMMER - WINTER).
- + Temperature control (ON-OFF) of fan.
- + Temperature control (ON-OFF) of valve.
- + Temperature control (ON-OFF) of fan and simultaneously of water valve.
- + Possible changeover of seasonal cycle (SUMMER – WINTER) via an external electrical phase signal (central).

TYPE	ITEM NO.
TMO-T-AU	Z17859



Electronic filter system CRYSTALL (optional) - available as of 10/2010

The development of the electronic filter system CRYSTALL is the result of an innovative project that combines the functions of air purification and treatment in only one unit. To meet the growing demand for improved air treatment and comfort in living and working areas, the fan convector is supplemented by a factory-installed, patented electronic filter that features an entirely new design.

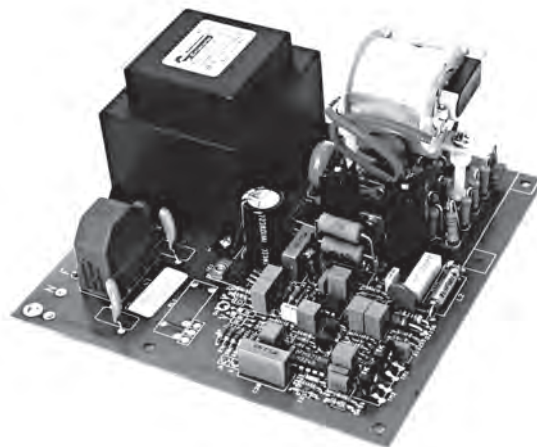
Today, people spend 80 % of their life indoors. Within the framework of increasing our sense of well being, the indoor air quality ("IAQ") presents the challenge of the coming years. The electronic filter system CRYSTALL consists of two elements: an electronic panel active filter at the intake part of the fan convector, and an electronic circuit board for control and settings, attached to the inner structure.

All electrical connections are prepared at the factory: thus, the installation of a fan convector with electronic filter CRYSTALL is the same as that of a regular fan convector: the only difference is in regard to installation height, for which the size of the filter must be considered. CRYSTALL can be installed on all fan convector series and versions.



Electronic panel active filter

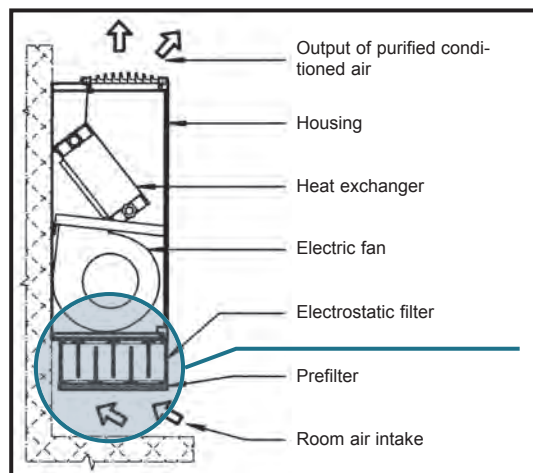
The filter element consists of two parts: the first part consists of electrodes and insulating elements which form a self-supporting, ionising frame, whereas the second part consists of sturdy, special extruded aluminium sections (collectors). Both parts are located in a box that slides on lateral telescopic guides to facilitate removal of the filter and its maintenance. When the box is pulled out, a micro switch is triggered that disconnects the electrodes. A LED shows the regular function of the filter and whether it requires cleaning (flashing LED). The collector can be cleaned with water and regular cleaning agents, or with a steam jet (for more detailed information, refer to maintenance manual).



Electronic board

Controls and regulates all functions of the electronic filter. It is protected against malfunctions of the electronic filter and supplies the electrodes with a constant voltage in case of fluctuations in the supply voltage ($\pm 15\%$). The transformer is designed with physically separated primary and secondary windings at different coils. The energy consumption depends on the size of the corresponding fan convector and has a maximum value of about 0.02 kW.

Functional principle of electronic filter CRYSTALL



First, the suctioned air flows through a mechanical prefilter, which separates particles in the size of $>50 \mu\text{m}$ (dust, insects, etc.). Next, the smaller particles ($50 \pm 0.01 \mu\text{m}$) are subjected to a strongly ionising and polarising field (phase 1).

When the particles charged this way flow through the second filter stage, they are repelled by the anode and attracted by the collecting surface, where they are kept in place by a strong induced electric field (phase 2). Thus, the air discharged from the unit is free of contaminating parts.

Indoor air quality (IAQ)

Indoor Air Quality (IAQ) refers to all procedures and methods that aim at improving the quality of the air we breath in our living and working areas at all points:

temperature, purity, relative humidity, electric charge, etc.

Thanks to the new patented electronic filter, the CRYSTALL device completely removes all hazardous substances in the air, such as: cigarette smoke, dust, fibres, microbiological substances, like bacteria, fungi, etc. that are harmful to our health (source OMS, *** PM 2.5).

Purified air not only results in increased well being, but also in energy savings.

This is due to the fact that fresh air supply - which represents increased consumption - is significantly reduced when restoring the ideal climatic conditions (only the air volume needed to reach the optimal CO_2 level is required - source ASHRAE STD 62-89).

Furthermore, the recirculated air of CRYSTALL can be referred to as fresh air according to the new STD ASHRAE 62-89R standard, and added to the required minimum.

Purifying the air with the filter CRYSTALL also does not interfere with the living space, since the dimensions of the fan convector remain practically unchanged (only 10 cm higher).

The placement of the electronic filter allows simple and efficient maintenance. Since the filter can simply be washed, it virtually offers unlimited durability. The modular nature of the filter components and their simple installation make this system extremely compatible from an economical viewpoint in comparison to other filters available on the market.

During the transitional period, when the rooms require neither cooling nor heating, the unit functions as simple air purifier.

The concentration of floating particles contained in one litre of air ranges from 4,000 in the mountains to 400,000 in living areas. The reference unit for measuring the particle size is the micron (μm); $1 \mu\text{m} = 0.001 \text{ mm}$.

As can be seen, the electronic filter is the only filter capable of separating particles in the size below $1 \mu\text{m}$ (which make up more than 99 % the particles found in the air) without impairing the unit's air supply rate (the additional pressure losses are actually irrelevant).

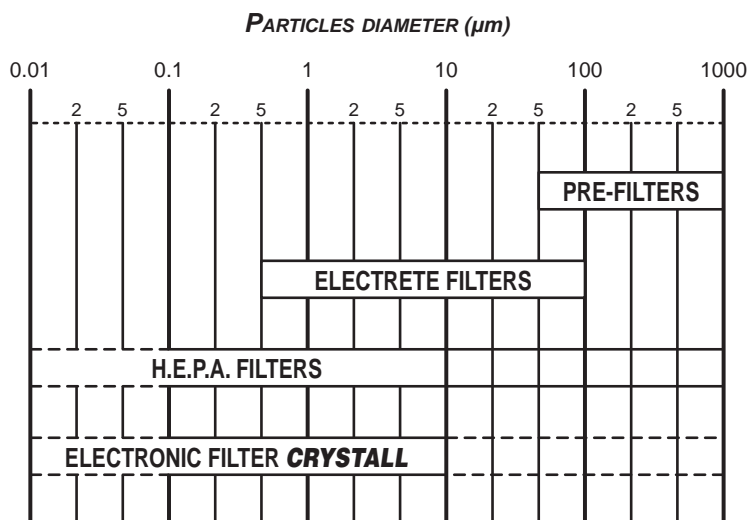
The mechanical absolute filters cannot be used on the fan convector because they result in unacceptable pressure losses.

The filter cloth made of PP with electrostatic charge (passive electret filter type), which is used in some cases for certain units, such as fan convectors or split systems, has the disadvantage that it is quickly saturated, loses efficiency at high humidity, and causes strong pressure losses which increase even further when filter is saturated.

Particles that can be found indoors. Size and level of hazard.

POLLUTANTS	INDOOR SOURCE	OUTDOOR SOURCE	INDOOR CONCENTRATION	INDOOR/OUTDOOR RATIO	ENVIRONMENTS
CARBON MONOXIDE	fuel-burning equipment, internal combustion engines, defective heating boilers	industrial processes, motor traffic, combustion processes	100 mg/kg 10-100 ppm	>> 1	houses, offices, shops, cars
BREATHABLE PARTICLES	naked flames, cigarettes, sprays, aerosols, kitchen fumes, condensation of volatile substances	combustion, fragmentation of solid substances of animal, vegetable and mineral origin	0.1-0.7 mg/m ³	>> 1	homes, offices, cars, restaurants, bars, public facilities
ORGANIC VAPOURS	combustion, solvents, artificial resins, insecticides, aerosols	//	NA	> 1	homes, offices, bars, restaurants, public facilities, hospitals
NITROGEN DIOXIDE	gas ring, water heater, dryer combustion	motor traffic	0.2-1 mg/m ³	>> 1	homes
SULPHUR DIOXIDE	heater burners	heating, motor traffic	0.02 mg/m ³		
TOTAL SUSPENDED PARTICLES WITHOUT SMOKERS	re-suspension of heating system combustion	//	0.1/1 mg/m ³	1	homes, offices, restaurants, transport vehicles
SULPHATES	kitchen rings		0.005 mg/m ³	< 1	
FORMALDEHYDE	insulation items, plastic resins, furniture finishing	//	0.05/1 mg/kg	> 1	homes, offices
RADON	construction materials, ground, groundwater	//	0.1/200 nCi/m ³	>> 1	cellars, homes, buildings
ASBESTOS	insulation and cladding	//	< 10 ⁶ fibres m ³	1	homes, schools, offices
MINERAL AND SYNTHETIC FIBRES	plastics, fabrics, carpets, drapes	fragmentation of solid substances	NA	//	homes, schools, offices
CARBON DIOXIDE	combustion, human and animal respiration	//	3 g/kg	>> 1	homes, schools, offices
MICRO-ORGANISMS	people, animals, insects, plants, fungi, humidifiers, air conditioners, dehumidifiers	pollen, bacteria, virus	NA	> 1	homes, schools, hospitals, offices

Filter capacity of the most common filters according to particle size



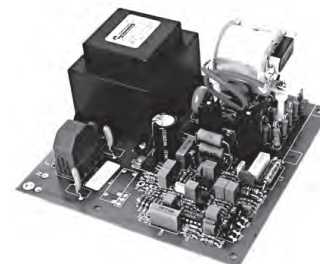
Simplified method for selecting unit (filter CRYSTALL)

The following table allows the selection of a suitable size, based on room size and number of occupants, under the assumption of certain contamination levels. If the fan convector is equipped with a three-way valve, a smaller unit can be selected since the fan remains energised, consequently increasing filter efficiency (Fr=1).

- Presence of 50 % smokers
- Consumption of 1 cigarette/hour per smoker
- Desired CO₂ concentration = 0.1 %
- Desired concentration of pollution particles = 60 µg/m³

* Hypothesis with mean value of 4-fold air exchange.

Note: On fan convectors without valve it is assumed that the motor runs 60 % of the time, since it is controlled by the room thermostat.



CRYSTALL FSC-FST			CRYSTALL FSR			without valve		incl. valve	
Type	Engine speed	Air volume m ³ /h	Type	Engine speed	Air volume m ³ /h	Persons	Volume m ³	Persons	Volume m ³
						max	max	max	max
			FSR 1	Min.	110	1	30	2	30
				Med.	150	1	40	2	40
				Max.	180	1	45	2	45
FSC-FST 1	Min.	190	FSR 2	Min.	160	1	42	2	42
	Med.	240		Med.	200	2	50	3	50
	Max.	300		Max.	250	2	65	3	65
FSC-FST 2	Min.	290	FSR 3	Min.	230	2	60	3	60
	Med.	360		Med.	290	2	73	4	73
	Max.	450		Max.	360	3	90	5	90
FSC-FST 3	Min.	380	FSR 4	Min.	320	4	115	6	115
	Med.	480		Med.	400	3	80	4	80
	Max.	600		Max.	500	3	100	5	100
FSC-FST 4	Min.	480				4	125	6	125
	Med.	600				5	150	8	150
	Max.	750				6	190	10	190
FSC-FST 5	Min.	650				6	170	8	170
	Med.	800				6	200	10	200
	Max.	1000				8	250	12	250
FSC 6	Min.	750				6	190	10	190
	Med.	950				7	240	12	240
	Max.	1200				9	300	15	300
FSC 7	Min.	850				7	220	11	220
	Med.	1100				8	280	14	280
	Max.	1400				11	350	17	350

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