VH

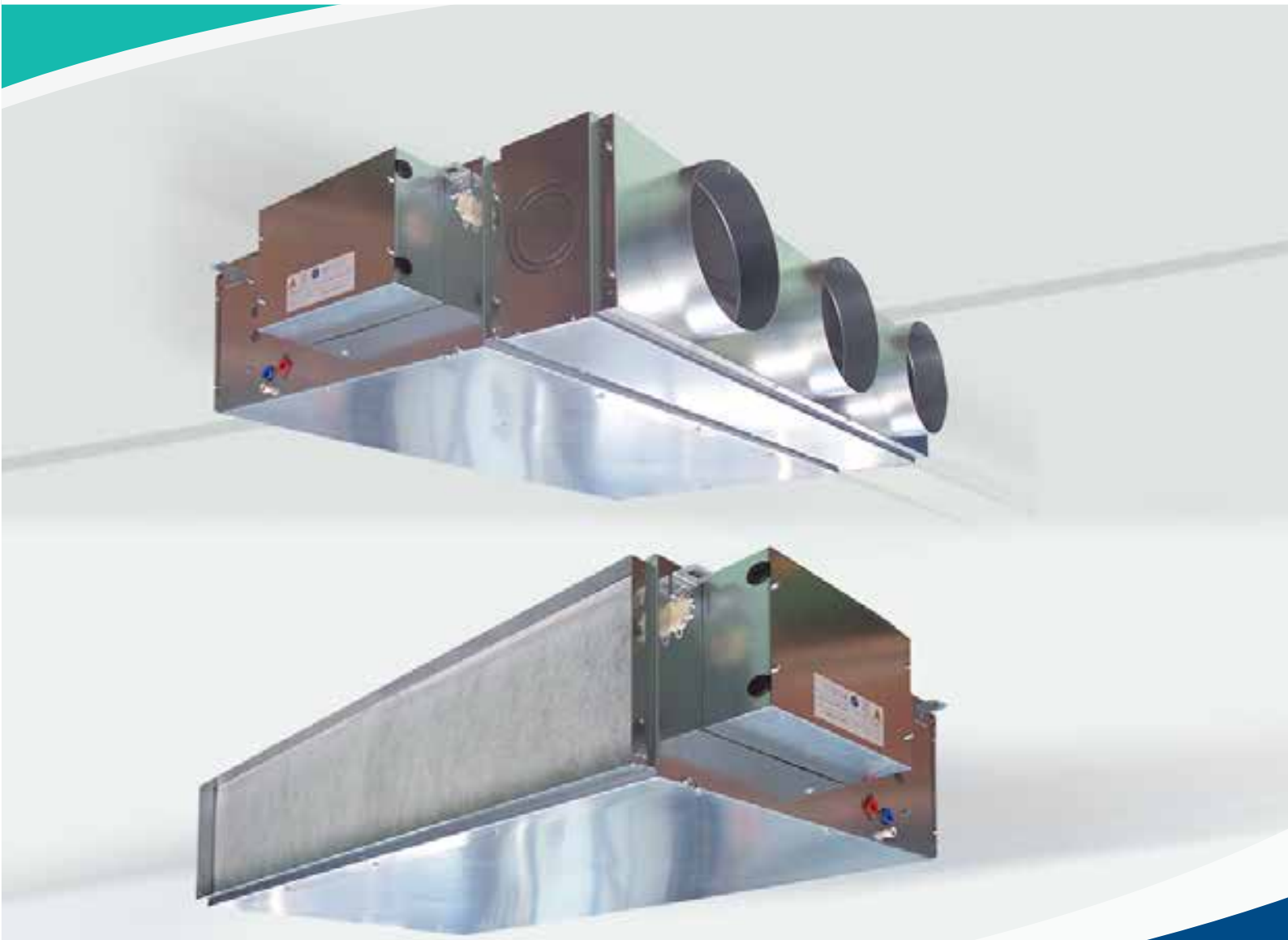
High Static Pressure Ductable Fan Coil Unit

Models 07 to 27

5.3 to 26.9kW

4.1 to 22.6kW

800 to 4650 m^3/h



systemair

General Characteristics

Presentation

The new ducted high static pressure fan coil units **VH** have been designed to replace the two ranges VHF and VH2N, and give the following advantages :

- Single range,
- Configuration flexibility thanks to a modular conception,
- Filter offer with more important efficiencies (G3 and G4),
- Signifient energy savings thanks to EC motor offer,
- Better acoustic performances in low speed operation,
- Thermal performances identical to the VHF and VH2N ranges,
- Dimensions reduced and low embedding height,
- ERP option for certain European market.

The **VH** range is specially designed to meet the job requirements that call for false-ceiling installations and for air distribution by ductwork requiring high static pressure (up to 220 Pa for larger units).
Composed of **6 models** (VH 07/15/18/21/24 and 27) to ensure air flows up to **4650 m³/h**.
In order to meet your applications, the VH range is available in 2-pipe, 2 tubes réversibles, 2-pipe/2-wire, 2 tubes réversibles/2-wire and 4-pipe systems.

Different types of configurations

The VH models are available in **three configurations** :

- With rectangular return and rectangular discharge duct connections as a whole part of the unit casing,
- With rectangular return and circular or oblong discharge duct connections,
- With circular or oblong return and circular or oblong discharge duct connections.

The circular or oblong duct connections are provided with circular 200 mm diameter or oblong 250 mm connecting collars (VH 07).
The discharge duct connection is insulated with 10 mm thick closed cell polyethylene foam having M1 fire classification.

Casing

Fabricated from 1.0 mm thick galvanized sheet steel with the fixing brackets located at the top part of the casing for installation to the ceiling.
The condensate drain pan is made from 1.0 mm thick galvanized sheet steel, painted and is externally insulated by 2 mm thick closed cell polyethylene foam, having M1 fire classification.
An optional auxiliary drain pan can be provided to collect condensates from coils headers.
Access to internal components (fan-motor assembly and coils) for service and maintenance works is facilitated by dismantling the central bottom panel of the fan coil unit, without removing the distribution ducts.
The hydraulic and electrical connections can be carried out at the same service side or at the opposite service side.

Fixation

The unit is supplied with 4 slotted fixing brackets as standard.

Coil compartment

It is lined with 10 mm thick closed cell polyethylene foam insulation, having M1 fire classification.
It incorporates water coils which are fitted with Ø 1/2" female threaded couplings for model VH 07 and with Rc 3/4" to Rc 1"male threaded couplings for larger units.

- On model VH 07, coils have 4 rows for 2-pipe system and 3+1 rows for 4-pipe system.
- On model VH 15, coils have 3 rows for 2-pipe system and 2+1 rows for 4-pipe system.
- On models VH 18 and VH 24, coils have 4 rows for 2-pipe system and 3+1 rows for 4-pipe system.
- On models VH 21 and VH 27, coils have 5 rows for 2-pipe system and 4+1 rows for 4-pipe system.

Coils are leak tested under water (21 bar) and are suitable for a maximum working pressure of 10 bar.

Fan compartment

It incorporates a fan-motor assembly of which the fan is composed of double inlet forward curved type aluminium wheels and galvanized sheet steel scrolls.
The **VH** range can be supplied with **2 types of motor** :

- The standard motor available on all sizes, is of direct drive type having 4 or 5 speeds (3 speeds pre-wired) according to the models. The motor is suitable for nominal voltage of 230 V / 1 Ph / 50-60 Hz and is equipped with a built-in thermal overload protection of automatic reset type.
- The EC motor available on VH 07, is of high efficiency and low electrical consumption type for a significant energy saving. The motor is suitable for 0-10V input, ensuring variable speed capability. It is fitted with Ecospeed3 interface card (supplied as standard) for a 3-speed optimized running.

Relays for fan speed control are fitted, as standard, on VH 15/18/21/24/27.

Options and accessories

- Air filter :

Filter consists of cleanable synthetic media (sewn on wire frame), having **G3** or **G4** classification.
Filter is removable and is easily pulled out downward for cleaning or replacement, after removing the access metal plate.

- Electric heater for 2-pipe/2-wire system :

Electric heater consists of heating rod type resistances equipped with a manual reset and an automatic reset high temperature cutout switches. The electric heater On/Off control, made thanks to a relay, can be mounted as optional.
Standard voltage is single phase 230 V.

- Fresh air intake and plenum :

The fresh air plenum is supplied as standard in case of configuration with circular or oblong return duct connection.
The intake of fresh air can be assured by a pre-cut opening of Ø 100 mm or 125 mm (VH 07), Ø 160 mm (VH 15 to 21) or Ø 200 mm (VH 24 & 27) located at left or right side of fresh air plenum.

- Regulation valves :

On/Off (thermal type actuator), 2-way or 4-way type for 2-pipe or 4-pipe systems.
Valves are not available for model VH 27. Valves for model VH 07 are supplied mounted, those for models VH 15/18/21/24 are supplied loose.

- Controls :

TRM, TAE, Aqu@Simp or Aqu@Net.

- Condensate pump :

Supplied fitted on VH 07, loose on VH 15 to 27.

- Fuse holder :

A fuse holder with fuse can be supplied as optional to protect the unit.

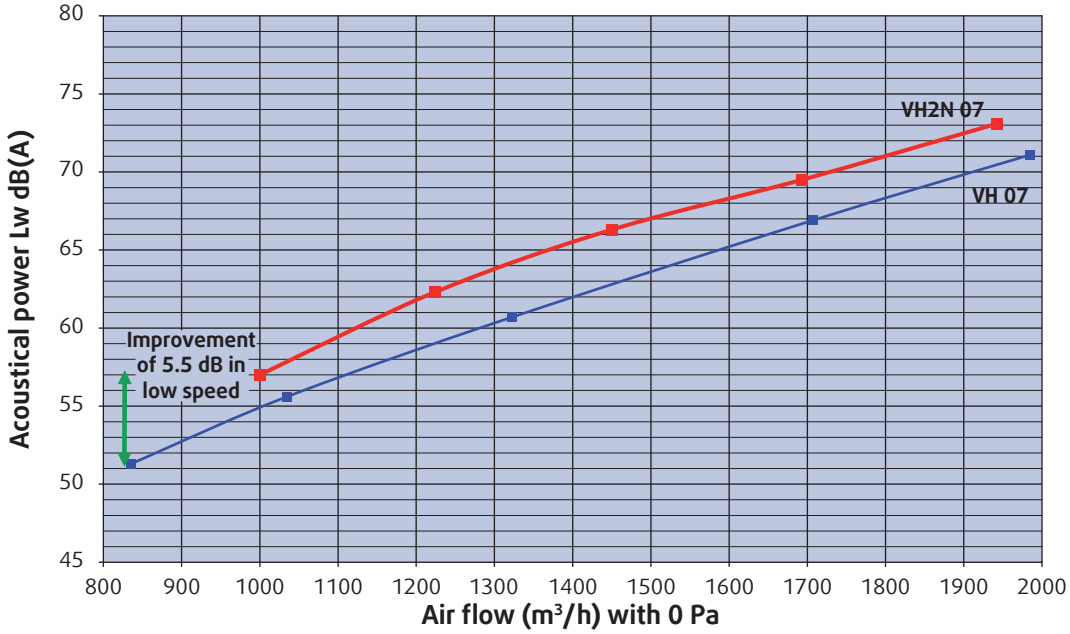
- M0 insulation :

For ERP (Building Receiving the Public) applications, the VH range can be equipped as optional with a M0 fire classification internal insulation.

VH Advantages

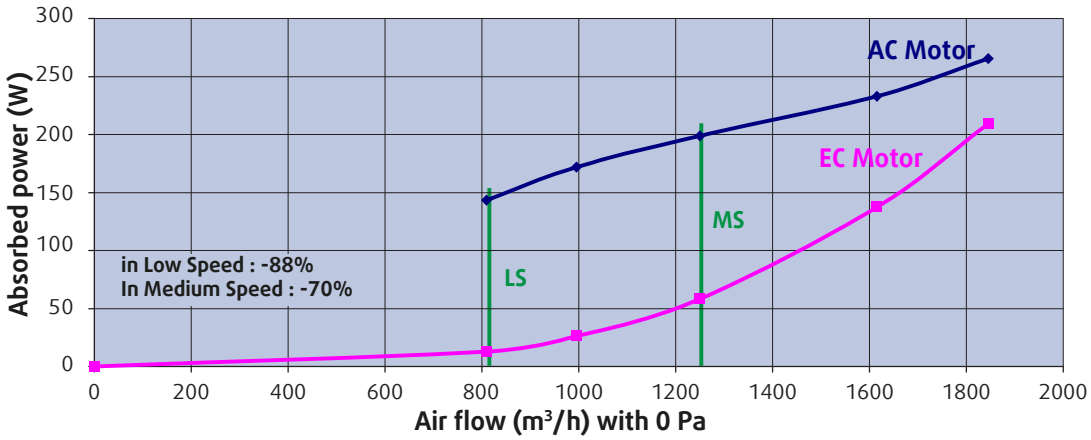
Improvement of acoustical performances - Example of a VH 07 in low speed

Thanks to the choice of a new fan-motor assembly, an acoustical gain of 5.5 dB in low speed is obtained on certain models.



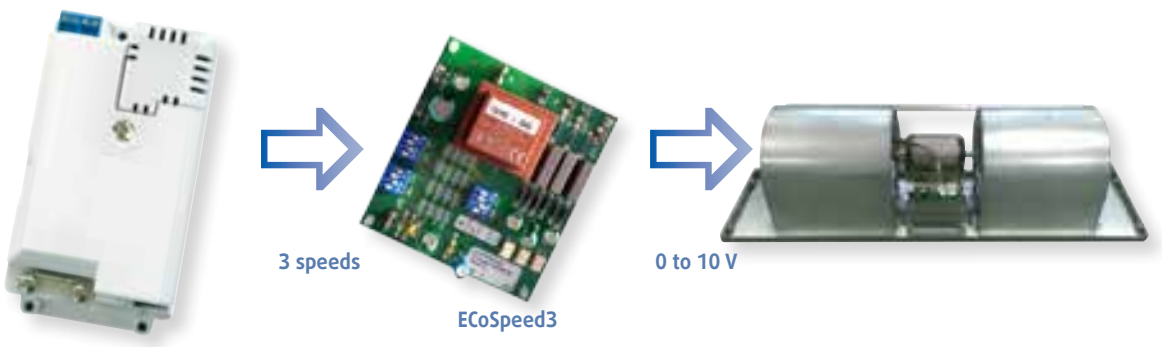
Energy savings with EC motor - Example of a VH 07

With the use of EC motor (optional), an important reduction of the consumed power can be realized.



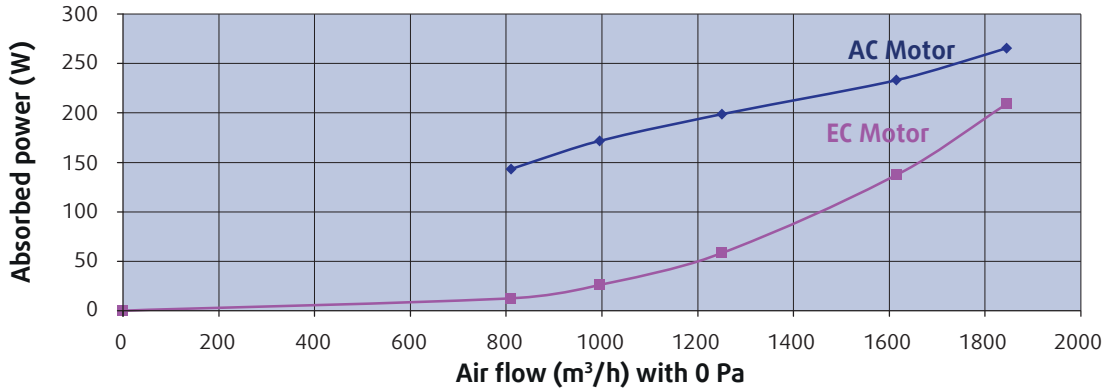
3-speed control interface for EC motor

Aqu@Net	Interface card	EC1 motor



EC motor/AC motor Absorbed Power Comparison

VH 07

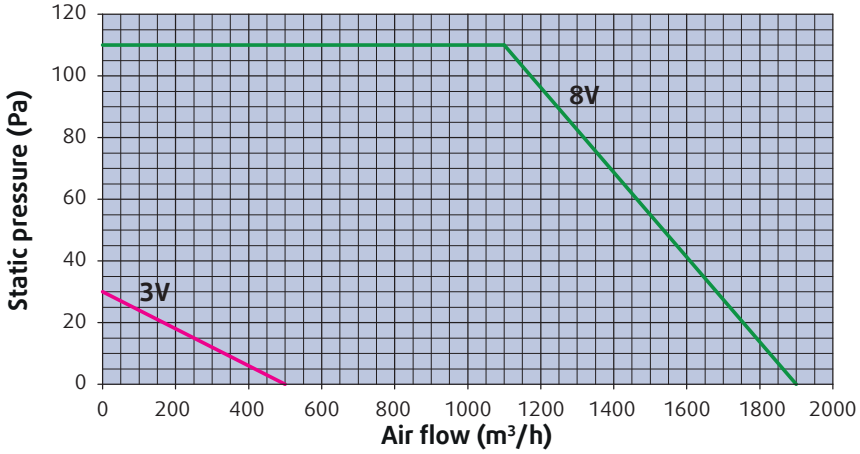


Air flow (m³/h)	AC motor absorbed power (W)	EC motor absorbed power (W)
810	143	13
995	172	26
1250	199	58
1615	233	137
1845	265	209

Note : Data given for a configuration with G3 filter and rectangular duct connections.

Operating Limits of VH 07 with EC Motor

VH 07



Standard Motor Electrical Data

Sizes		VH 07		VH 15		VH 18	
		Absorbed current (A) (1)	Absorbed power (W) (1)	Absorbed current (A) (2)	Absorbed power (W) (2)	Absorbed current (A) (2)	Absorbed power (W) (2)
Fan speed	V1	0.66	132	0.93	180	0.93	180
	V2	0.75	163	1.33	271	1.33	271
	V3	0.82	182	2.00	421	2.00	421
	V4	0.88	201	2.52	587	2.52	587
	V5	0.98	222	3.17	675	3.17	675

Sizes		VH 21		VH 24		VH 27	
		Absorbed current (A) (2)	Absorbed power (W) (2)	Absorbed current (A) (2)	Absorbed power (W) (2)	Absorbed current (A) (2)	Absorbed power (W) (2)
Fan speed	V1	0.93	180	2.00	420	2.00	420
	V2	1.33	271	2.40	530	2.40	530
	V3	2.00	421	3.00	673	3.00	673
	V4	2.52	587	3.85	870	3.85	870
	V5	3.17	675	-	-	-	-

(1) Absorbed current and absorbed power data given for a motor operating with 230V/1Ph/50Hz power supply, non ducted unit with 0 Pa external static pressure and G3 filter. Inlet and outlet of duct circular.
(2) Absorbed current and absorbed power data given for a motor operating with 230V/1Ph/50Hz power supply, non ducted unit with 0 Pa external static pressure and G3 filter. Inlet and outlet of duct rectangular.

EC Motor Electrical Data

VH07 : Max = 8V	
Max absorbed current (A)	Max absorbed power (W)
1.55	209

Electric Heating Coil Data

Sizes		VH 07	VH 15 / VH 18 / VH 21	VH 24 / VH 27
Capacity (W)	BE1	1000	1000	1000
	BE2	1500	2000	2000
	BE3	2000	3000	3000

Coil Water Volume

Sizes	Water volume (in litres)		
	2-pipes	4-pipes	
		Cooling	Heating
VH 07	2.3	1.9	0.6
VH 15	3.7	3.1	1.0
VH 18	5.4	3.7	1.7
VH 21	6.5	5.2	1.7
VH 24	7.0	5.8	1.7
VH 27	8.9	7.3	1.9

Sound Power Levels Lw in dB(A) - VH 07

Speeds	Type	Acoustical power per octave band (dB(A))						Lw global dB(A)	Lp global dB(A) (3)	NR (3)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz			
V1	Return + Radiated (1)	42.9	47.7	47.0	48.1	46.4	36.9	53.8		
	Discharge (1)	41.8	45.9	49.1	44.5	41.9	29.8	52.6	32.8	27
	Radiated (2)	33.9	37.9	38.6	40.0	36.2	25.8	44.8		
V2	Return + Radiated (1)	46.9	51.8	50.2	51.9	51.0	42.6	57.8		
	Discharge (1)	45.8	50.4	48.6	48.9	46.3	35.5	55.4	36.8	32
	Radiated (2)	37.3	41.0	40.9	43.0	39.9	30.4	47.9		
V3	Return + Radiated (1)	49.5	54.3	52.2	54.2	53.6	46.5	60.3		
	Discharge (1)	49.0	53.6	51.3	52.0	50.1	40.9	58.6	39.3	34
	Radiated (2)	39.7	43.1	42.6	45.0	42.0	33.4	49.9		
V4	Return + Radiated (1)	51.1	56.2	53.3	55.5	55.4	48.7	61.9		
	Discharge (1)	50.6	55.5	53.0	54.1	51.9	42.8	60.4	40.9	36
	Radiated (2)	40.8	44.5	43.6	45.7	43.0	34.8	50.9		
V5	Return + Radiated (1)	52.0	57.3	54.3	56.6	56.5	50.2	63.0		
	Discharge (1)	51.8	56.7	54.5	55.0	52.6	43.9	61.5	42.0	37
	Radiated (2)	41.6	45.4	44.6	46.9	44.4	36.5	52.0		

(1) According Eurovent 8/2, data given for a unit with :
- 50 Pa external static pressure in medium speed (V3),
- circular return and discharge,
- G3 standard filter.

(2) Data given for a unit with :
- 50 Pa external static pressure in medium speed (V3),
- circular return and discharge,
- ducted return and discharge (1.5 m),
- G3 standard filter.

(3) Informative data, considering an hypothetical sound attenuation of the room and installation of 21dB.

Sound Power Levels Lw in dB(A) - VH 15/18/21

Speeds	Type	Acoustical power per octave band (dB(A))						Lw global dB(A)	Lp global dB(A) (3)	NR (3)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz			
V1	Return + Radiated (1)	49.6	41.9	44.5	44.5	37.1	21.9	52.2		
	Discharge (1)	49.5	41.3	43.1	44.3	37.5	22.8	52.0	31.2	27
	Radiated (2)	45.1	32.8	33.9	33.0	24.4	11.9	45.9		
V2	Return + Radiated (1)	51.0	48.3	50.4	52.7	49.1	37.8	57.6		
	Discharge (1)	49.5	47.8	48.8	52.1	48.0	36.5	56.6	36.6	32
	Radiated (2)	46.3	40.5	40.5	41.3	33.3	22.4	49.1		
V3	Return + Radiated (1)	54.5	57.7	57.5	60.6	59.3	50.8	65.5		
	Discharge (1)	52.2	56.6	56.1	60.0	57.8	49.5	64.4	44.5	40
	Radiated (2)	47.0	47.2	45.8	47.8	42.5	30.6	53.4		
V4	Return + Radiated (1)	57.1	61.4	60.7	63.7	63.4	56.1	69.1		
	Discharge (1)	55.4	60.8	58.8	63.1	61.5	54.0	67.8	48.1	44
	Radiated (2)	49.5	50.8	48.9	51.0	45.8	36.4	56.6		
V5	Return + Radiated (1)	59.7	64.4	63.4	66.1	66.4	59.6	71.8		
	Discharge (1)	57.9	64.5	61.8	65.7	64.7	57.9	70.9	50.8	47
	Radiated (2)	51.6	54.1	51.7	53.5	49.2	40.2	59.4		

(1) According Eurovent 8/2, data given for a unit with :
- 50 Pa external static pressure in medium speed (V3),
- rectangular return and discharge,
- G3 standard filter.

(2) Data given for a unit with :
- 50 Pa external static pressure in medium speed (V3),
- rectangular return and discharge,
- ducted return and discharge (1.5 m),
- G3 standard filter.

(3) Informative data, considering an hypothetical sound attenuation of the room and installation of 21dB.

Sound Power Levels Lw in dB(A) - VH 24/27

Speeds	Type	Acoustical power per octave band (dB(A))						Lw global dB(A)	Lp global dB(A) (3)	NR (3)
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz			
V1	Return + Radiated (1)	52.4	56.4	57.7	59.8	59.1	52.2	65.0		
	Discharge (1)	50.6	54.6	56.0	58.5	57.8	51.2	63.5	44.0	40
	Radiated (2)	42.6	45.0	45.7	47.0	41.9	32.7	51.9		
V2	Return + Radiated (1)	56.5	60.6	61.7	63.6	63.4	57.2	69.1		
	Discharge (1)	54.1	58.0	59.2	61.5	61.3	55.8	66.9	48.1	44
	Radiated (2)	45.9	48.0	49.7	50.3	45.8	37.8	55.4		
V3	Return + Radiated (1)	59.6	64.1	64.8	66.7	67.1	61.6	72.5		
	Discharge (1)	58.6	63.1	63.9	65.5	65.8	61.3	71.5	51.5	48
	Radiated (2)	49.7	52.7	53.3	53.9	50.3	43.4	59.4		
V4	Return + Radiated (1)	62.4	67.3	67.3	69.3	69.9	64.8	75.4		
	Discharge (1)	61.6	66.9	66.5	68.7	69.1	65.1	74.8	54.4	51
	Radiated (2)	52.7	56.5	55.7	57.0	53.6	47.2	62.5		

(1) According Eurovent 8/2, data given for a unit with :
- 50 Pa external static pressure in medium speed (V2),
- rectangular return and discharge,
- G3 standard filter.

(2) Data given for a unit with :
- 50 Pa external static pressure in medium speed (V2),
- rectangular return and discharge,
- ducted return and discharge (1.5 m),
- G3 standard filter.

(3) Informative data, considering an hypothetical sound attenuation of the room and installation of 21dB.

Air Flow Data

VH 07 - Rectangular return / Rectangular discharge - Air flow (m³/h)

Speeds	Filter	External static pressure (Pa)							
		0	25	50	75	95	100	105	110
V1	Without	845	775	707	639	-	-	-	-
	G3	810	745	679	613	-	-	-	-
	G4	798	733	671	607	-	-	-	-
V2	Sans	1030	970	908	831	750	-	-	-
	G3	995	937	871	787	700	-	-	-
	G4	975	919	853	768	682	-	-	-
V3	Without	1300	1219	1150	1056	937	898	-	-
	G3	1250	1170	1093	979	836	791	-	-
	G4	1210	1137	1056	933	784	737	-	-
V4	Without	1730	1605	1490	1345	1180	1129	1074	-
	G3	1615	1498	1372	1205	1020	965	905	-
	G4	1525	1408	1282	1116	935	881	824	-
V5	Without	2000	1848	1716	1559	1382	1328	1269	1205
	G3	1845	1703	1558	1376	1180	1122	1059	991
	G4	1711	1574	1432	1254	1065	1009	950	886

VH 07 - Rectangular return / Circular discharge - Air flow (m³/h)

Speeds	Filter	External static pressure (Pa)							
		0	25	50	75	95	100	105	110
V1	Without	815	747	683	617	-	-	-	-
	G3	785	720	658	592	-	-	-	-
	G4	771	709	650	585	-	-	-	-
V2	Sans	995	938	873	790	705	-	-	-
	G3	965	906	836	747	654	-	-	-
	G4	945	887	818	728	638	-	-	-
V3	Without	1245	1166	1091	981	842	798	-	-
	G3	1195	1118	1031	899	737	687	-	-
	G4	1160	1085	992	853	688	637	-	-
V4	Without	1590	1470	1354	1200	1023	968	909	-
	G3	1490	1377	1247	1070	877	819	757	-
	G4	1410	1301	1167	991	810	758	703	-
V5	Without	1800	1658	1524	1358	1174	1119	1059	994
	G3	1665	1533	1388	1202	1003	945	882	816
	G4	1556	1430	1285	1102	914	860	802	741

VH 07 - Circular return / Circular discharge - Air flow (m³/h)

Speeds	Filter	External static pressure (Pa)							
		0	25	50	75	95	100	105	110
V1	Without	790	729	670	610	-	-	-	-
	G3	765	704	648	587	-	-	-	-
	G4	752	696	641	582	-	-	-	-
V2	Sans	990	929	859	748	611	-	-	-
	G3	960	893	814	683	516	-	-	-
	G4	940	874	792	659	491	-	-	-
V3	Without	1280	1161	1050	912	758	711	-	-
	G3	1220	1098	977	826	663	614	-	-
	G4	1145	1053	936	787	637	594	-	-
V4	Without	1545	1403	1250	1072	899	851	800	-
	G3	1430	1288	1137	959	786	736	685	-
	G4	1340	1210	1069	900	735	688	639	-
V5	Without	1760	1588	1401	1194	1007	956	905	852
	G3	1595	1428	1251	1055	878	830	781	731
	G4	1470	1320	1159	980	821	779	736	691

Air Flow Data (continued)

VH 15, 18 & 21 - Rectangular return / Rectangular discharge - Air flow (m³/h)

Speeds	Filter	External static pressure (Pa)									
		0	25	50	75	100	125	150	180	190	200
V1	Without	1150	949	739	540	-	-	-	-	-	-
	G3	1070	882	671	480	-	-	-	-	-	-
	G4	1040	859	665	473	-	-	-	-	-	-
V2	Without	1685	1530	1370	1207	1040	870	700	-	-	-
	G3	1559	1431	1285	1138	994	847	681	-	-	-
	G4	1521	1381	1242	1104	965	824	679	-	-	-
V3	Without	2500	2378	2243	2093	1912	1707	1490	1100	-	-
	G3	2370	2249	2112	1958	1789	1598	1371	1000	-	-
	G4	2280	2151	1996	1848	1683	1487	1257	876	-	-
V4	Without	3130	2965	2786	2603	2404	2175	1915	1560	1410	-
	G3	2905	2770	2617	2443	2250	2039	1801	1450	1307	-
	G4	2751	2587	2426	2248	2049	1831	1593	1260	1130	-
V5	Without	3830	3630	3403	3177	2933	2662	2373	1996	1854	1699
	G3	3545	3369	3176	2967	2739	2490	2220	1850	1710	1560
	G4	3240	3048	2847	2634	2408	2170	1918	1588	1468	1341

VH 24 & 27 - Rectangular return / Rectangular discharge - Air flow (m³/h)

Speeds	Filter	External static pressure (Pa)									
		0	25	50	75	100	150	175	200	210	220
V1	Without	2390	2229	2062	1878	1681	1260	1010	-	-	-
	G3	2230	2093	1938	1765	1580	1178	940	-	-	-
	G4	2149	2025	1862	1687	1510	1137	900	-	-	-
V2	Without	2860	2720	2553	2373	2179	1732	1472	1184	-	-
	G3	2720	2572	2413	2235	2046	1640	1400	1138	-	-
	G4	2580	2416	2264	2107	1935	1524	1285	1032	-	-
V3	Without	3650	3489	3320	3133	2928	2472	2199	1861	1700	-
	G3	3450	3290	3103	2914	2700	2223	1950	1610	1470	-
	G4	3202	3055	2890	2708	2514	2088	1835	1515	1357	-
V4	Without	4650	4454	4229	4001	3750	3179	2863	2494	2326	2149
	G3	4270	4099	3882	3667	3432	2890	2578	2206	2044	1892
	G4	3861	3679	3487	3277	3049	2551	2276	1959	1813	1650

Performance Data in Cooling Mode - 2-pipe system

VH sizes	Speeds		V1	V2	V3	V4	V5
07	Air flow	m^3/h	648	814	977	1137	1251
	Total capacity	W	4377	5001	5503	5914	6165
	Sensible capacity	W	3110	3661	4148	4583	4873
15	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5351	8716	11927	13416	14819
	Sensible capacity	W	3855	6586	9614	11232	12896
18	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5753	9949	14428	16685	18888
	Sensible capacity	W	4041	7186	10844	12847	14923
21	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5960	10699	16129	19030	21947
	Sensible capacity	W	4120	7546	11691	13995	16413
24	Air flow	m^3/h	1938	2413	3103	3882	-
	Total capacity	W	14623	17243	20581	23866	-
	Sensible capacity	W	10670	12793	15642	18623	-
27	Air flow	m^3/h	1938	2413	3103	3882	-
	Total capacity	W	16107	19399	23798	28364	-
	Sensible capacity	W	11331	13780	17147	20761	-

Performance data based on :
- Air : 27 °C/19 °C (wet bulb), Chilled water : 7/12 °C. Units with G3 filter and 50 Pa external static pressure.
- Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.

Performance Data in Heating Mode - 2-pipe system

VH sizes	Speeds		V1	V2	V3	V4	V5
07	Air flow	m^3/h	648	814	977	1137	1251
	Heating capacity	W	5160	6149	7058	7861	8360
15	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	5886	10114	14870	17384	19913
18	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	6308	11293	17054	20262	23535
21	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	6452	11755	18111	21652	25319
24	Air flow	m^3/h	1938	2413	3103	3882	-
	Heating capacity	W	17813	21616	26823	32282	-
27	Air flow	m^3/h	1938	2413	3103	3882	-
	Heating capacity	W	18276	22286	27883	33870	-

Performance data based on :
- Air : 20 °C, entering water temperature : 50 °C, water flow is the same as that in cooling mode.
- Units with G3 filter and 50 Pa external static pressure.
- Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.

Performance Data in Cooling Mode - 4-pipe system

VH sizes	Speeds		V1	V2	V3	V4	V5
07	Air flow	m^3/h	648	814	977	1137	1251
	Total capacity	W	4014	4570	5017	5381	5607
	Sensible capacity	W	2855	3331	3746	4115	4358
15	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5065	7924	10463	11582	12575
	Sensible capacity	W	3702	6170	8837	10240	11666
18	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5276	8514	11567	12969	14251
	Sensible capacity	W	3843	6543	9546	11156	12814
21	Air flow	m^3/h	671	1285	2112	2617	3176
	Total capacity	W	5790	10090	14761	17145	19532
	Sensible capacity	W	4059	7248	10973	13014	15153
24	Air flow	m^3/h	1938	2413	3103	3882	-
	Total capacity	W	13584	15789	18501	21067	-
	Sensible capacity	W	10230	12160	14715	17346	-
27	Air flow	m^3/h	1938	2413	3103	3882	-
	Total capacity	W	14678	17303	20662	23945	-
	Sensible capacity	W	10675	12799	15679	18686	-

Performance data based on :
- Air : 27 °C/19 °C (wet bulb), Chilled water : 7/12 °C. Units with G3 filter and 50 Pa external static pressure.
- Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.

Performance Data in Heating Mode - 4-pipe system

VH sizes	Speeds		V1	V2	V3	V4	V5
07	Air flow	m^3/h	648	814	977	1137	1251
	Heating capacity	W	5620	6597	7479	8278	8815
15	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	8150	13468	19220	22218	25215
18	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	8258	13519	19219	22209	25213
21	Air flow	m^3/h	671	1285	2112	2617	3176
	Heating capacity	W	8258	13519	19219	22209	25213
24	Air flow	m^3/h	1938	2413	3103	3882	-
	Heating capacity	W	20157	23636	28176	32766	-
27	Air flow	m^3/h	1938	2413	3103	3882	-
	Heating capacity	W	20176	23639	28177	32786	-

Performance data based on :
- Air : 20 °C, hot water : 70/60 °C.
- Units with G3 filter and 50 Pa external static pressure.
- Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.

Eurovent Performance Data

2-pipe system

Sizes	Fan speed	Air flow (m³/h)	External static pressure (Pa)	Cooling			Heating		Sound levels Lw	
				Total capacity (W)	Sensible capacity (W)	WPD (kPa)	Heating cap. (W)	WPD (kPa)	Return + radiated (dBA)	Discharge (dBA)
VH 07	LS	703	30	4560	3266	27.4	5373	21.5	53.8	52.6
	MS	977	50	5503	4148	39.2	7058	31.1	60.3	58.6
	HS	1125	70	5814	4474	43.5	7628	34.5	63.0	61.5
VH 15	LS	960	15	7084	5218	7.9	8007	6.3	52.2	52.0
	MS	2112	50	11926	9614	19.8	14870	16.0	65.5	64.4
	HS	2830	90	13987	11892	26.1	18365	21.1	71.8	70.9
VH 18	LS	960	15	7856	5585	6.8	8730	5.4	52.2	52.0
	MS	2112	50	14428	10844	19.6	17054	15.7	65.5	64.4
	HS	2830	90	17559	13658	27.6	21619	22.3	71.8	70.9
VH 21	LS	960	15	8294	5777	8.5	9014	7.0	52.2	52.0
	MS	2112	50	16129	11691	28.7	18111	23.7	65.5	64.4
	HS	2830	90	20184	14942	43.5	23106	36.0	71.8	70.9
VH 24	LS	2040	35	15173	11105	13.3	18590	10.5	65.0	63.5
	MS	2413	50	17243	12793	16.6	21616	13.2	69.1	66.9
	HS	2925	75	19724	14886	21.1	25312	16.7	72.5	71.5
VH 27	LS	2040	35	16781	11830	13.6	19066	11.4	65.0	63.5
	MS	2413	50	19399	13780	17.6	22286	14.7	69.1	66.9
	HS	2925	75	22639	16244	23.0	26371	19.3	72.5	71.5

Performance data based on :
- Cooling : Air : 27 °C/19 °C (wet bulb) - Chilled water : 7/12 °C.
- Heating : Air : 20 °C, entering water temperature 50 °C, water flow identical to chilled water flow.
- Units with G3 filter. Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.
- According to Eurovent 6/9, Eurovent 6/10, Eurovent 8/12.

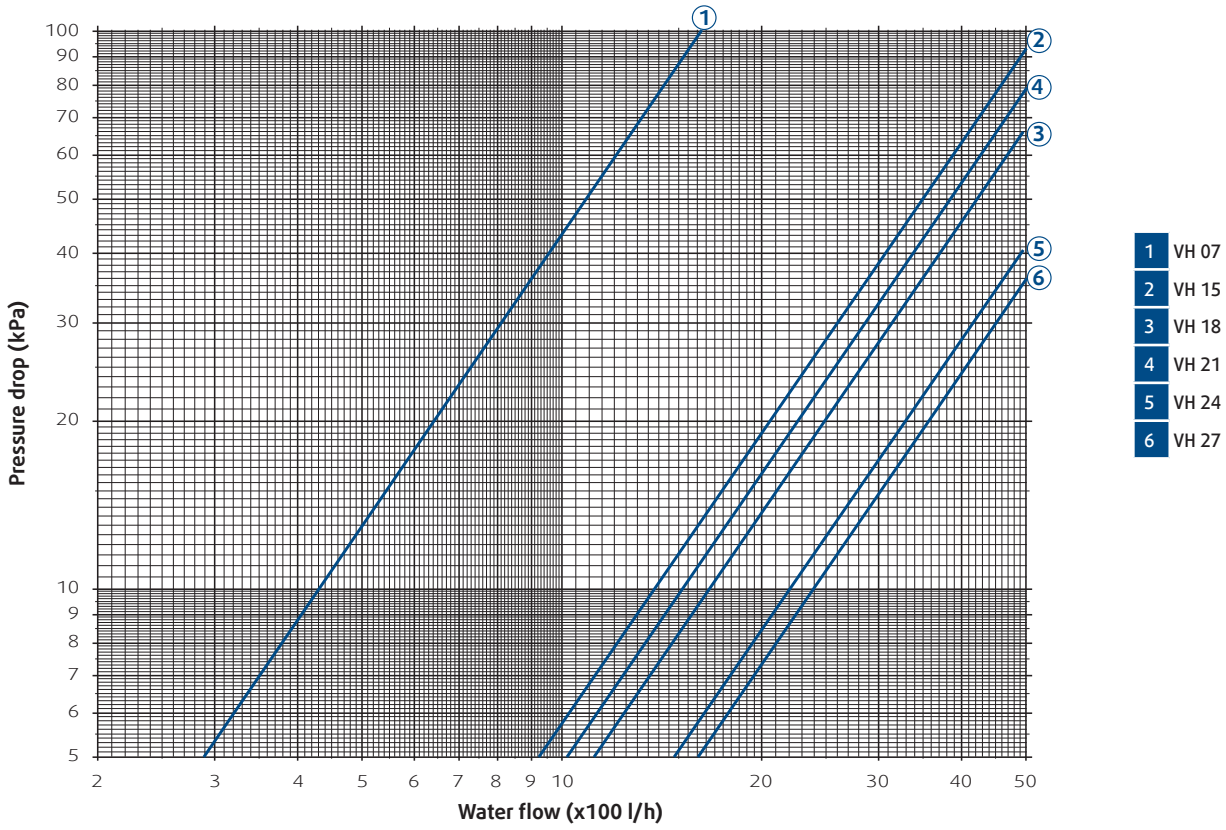
4-pipe system

Sizes	Fan speed	Air flow (m³/h)	External static pressure (Pa)	Cooling			Heating		Sound levels Lw	
				Total capacity (W)	Sensible capacity (W)	WPD (kPa)	Heating cap. (W)	WPD (kPa)	Return + radiated (dBA)	Discharge (dBA)
VH 07	LS	703	25	4178	2992	19.6	5892	9.5	53.8	52.6
	MS	977	50	5017	3746	26.9	7472	13.6	60.3	58.6
	HS	1125	70	5296	4024	29.7	8053	15.5	63.0	61.5
VH 15	LS	960	15	6562	4944	5.8	10800	38.7	52.2	52.0
	MS	2112	50	10463	8837	13.3	19191	108.7	65.5	64.4
	HS	2830	90	11992	10808	16.9	23378	155.8	71.8	70.9
VH 18	LS	960	15	6953	5193	6.9	10887	23.8	52.2	52.0
	MS	2112	50	11567	9546	17.1	19189	66.3	65.5	64.4
	HS	2830	90	13495	11812	22.6	23367	95.0	71.8	70.9
VH 21	LS	960	15	7934	5625	11.1	10887	23.8	52.2	52.0
	MS	2112	50	14761	10973	34.9	19189	66.3	65.5	64.4
	HS	2830	90	18098	13856	50.9	23367	95.0	71.8	70.9
VH 24	LS	2040	35	14051	10629	15.3	20884	74.0	65.0	63.5
	MS	2413	50	15789	12160	18.8	23596	92.7	69.1	66.9
	HS	2925	75	17809	14040	23.3	26948	118.2	72.5	71.5
VH 27	LS	2040	35	15220	11109	13.5	20857	46.2	65.0	63.5
	MS	2413	50	17303	12799	17.0	23585	58.0	69.1	66.9
	HS	2925	75	19793	14913	21.5	26918	74.6	72.5	71.5

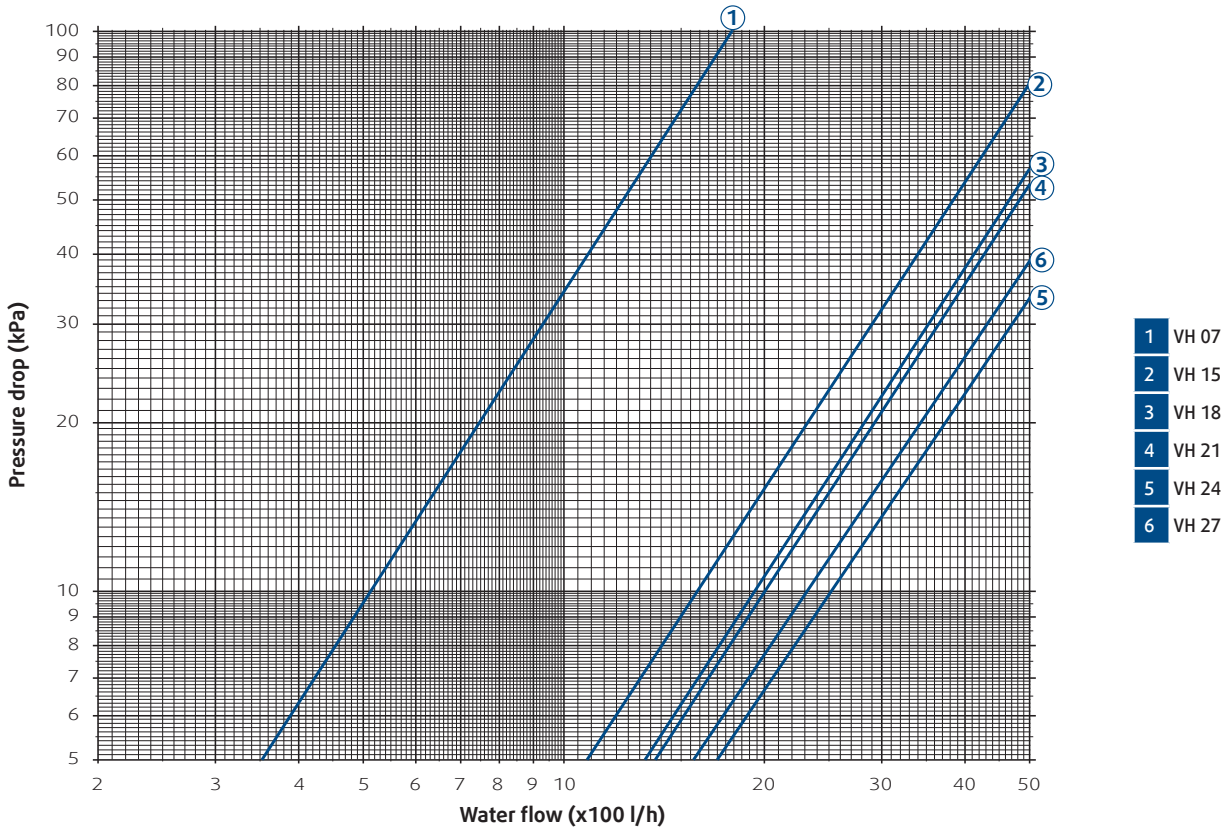
Performance data based on :
- **Cooling** : Air : 27 °C/19 °C (wet bulb) - Chilled water : 7/12 °C.
- **Heating** : Air : 20 °C - Hot water : 70/60 °C.
- Units with G3 filter. Circular return/Circular discharge for size 07 and Rectangular return/Rectangular discharge for sizes 15 to 27.
- According to Eurovent 6/9, Eurovent 6/10, Eurovent 8/12.

Water Pressure Drops

Cooling Mode - 2-pipe system

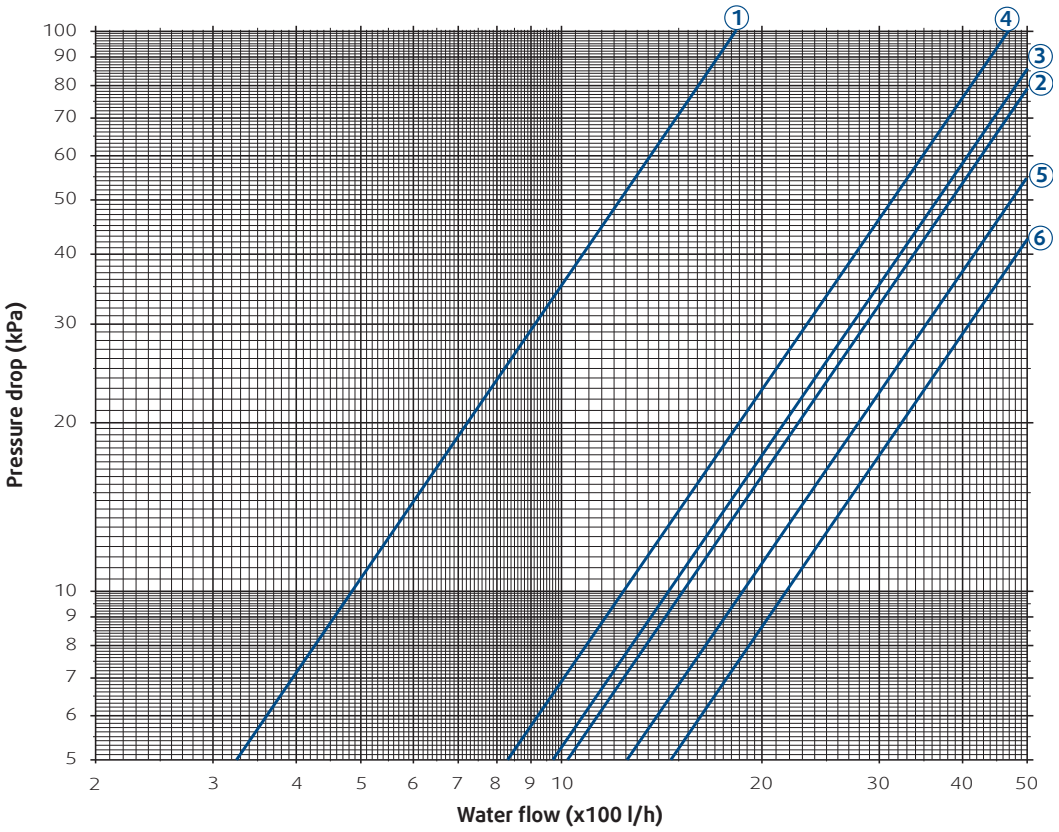


Water Pressure Drops - Heating Mode - 2-pipe system



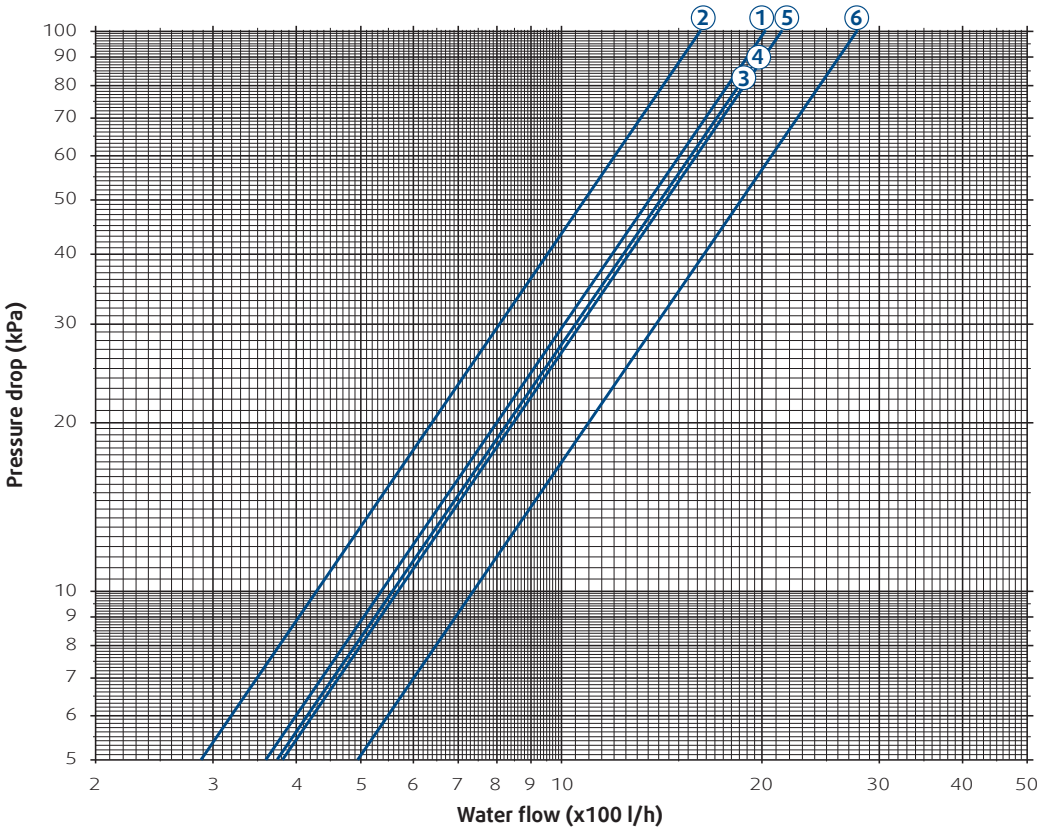
Water Pressure Drops (continued)

Water Pressure Drops - Cooling Mode - 4-pipe system



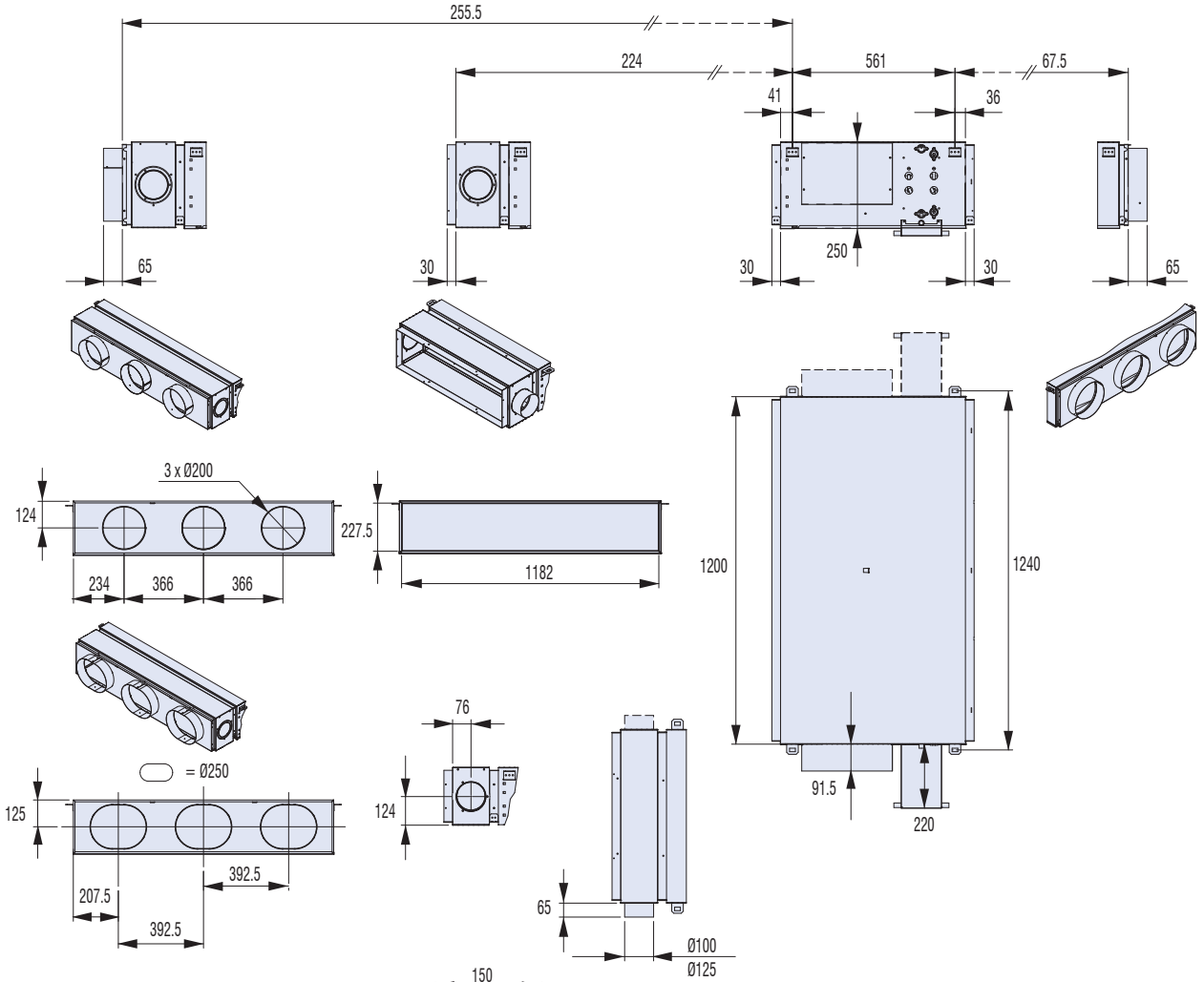
1 VH 07
2 VH 15
3 VH 18
4 VH 21
5 VH 24
6 VH 27

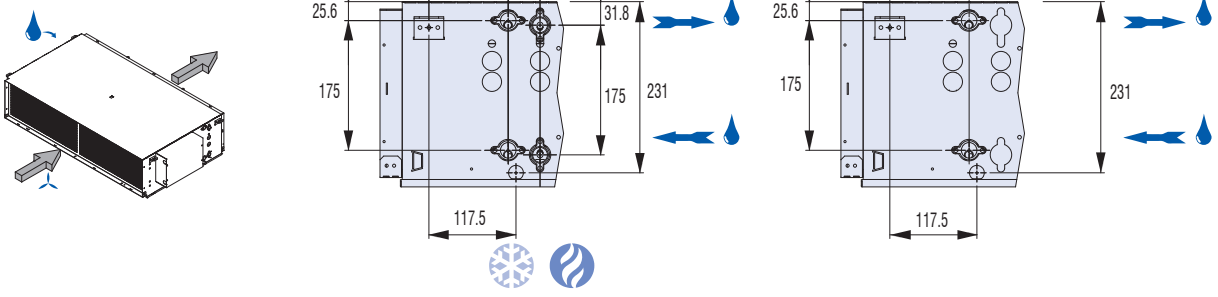
Water Pressure Drops - Heating Mode - 4-pipe system

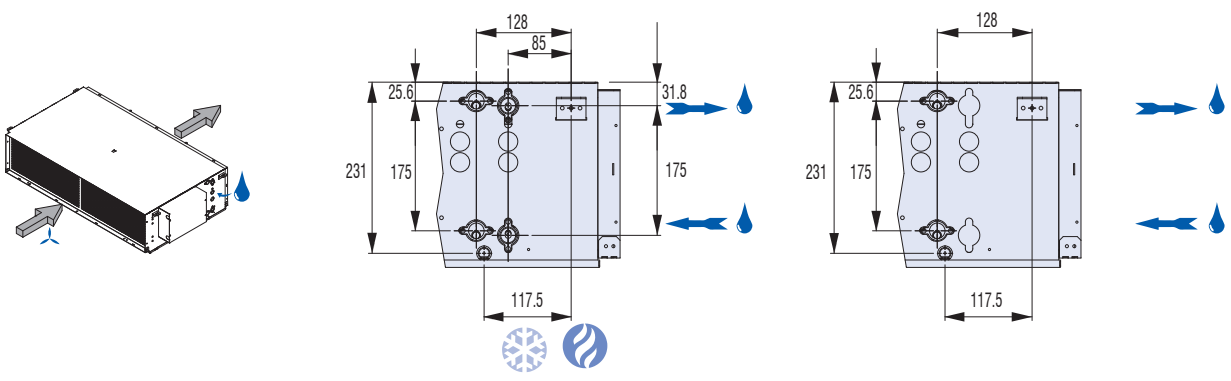


1 VH 07
2 VH 15
3 VH 18
4 VH 21
5 VH 24
6 VH 27

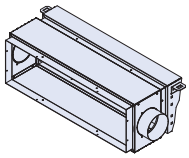
Dimensions (mm) - VH 07

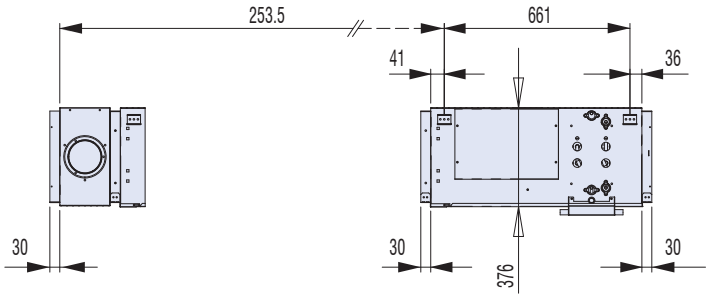


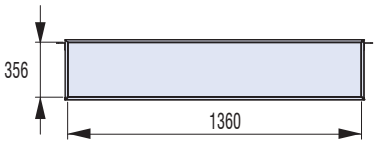


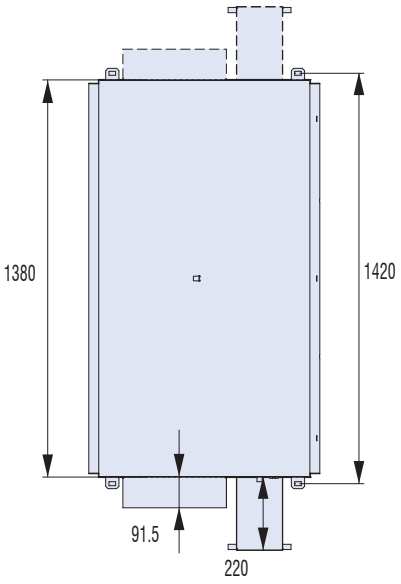


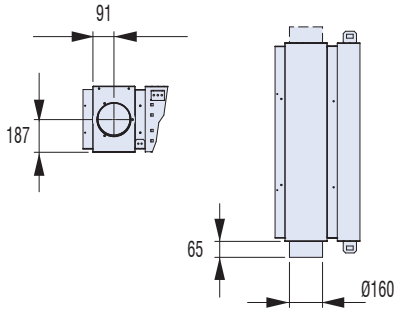
Dimensions (mm) - VH 15

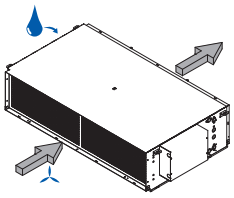


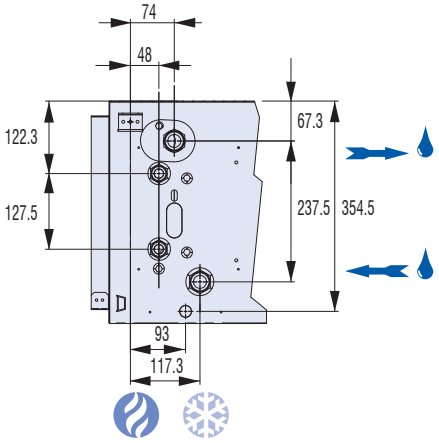


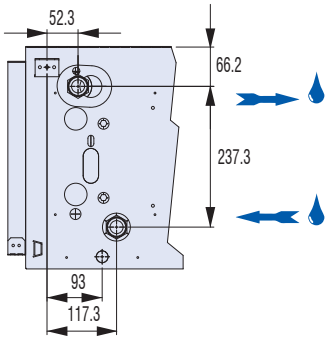


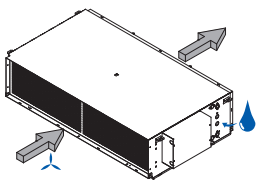


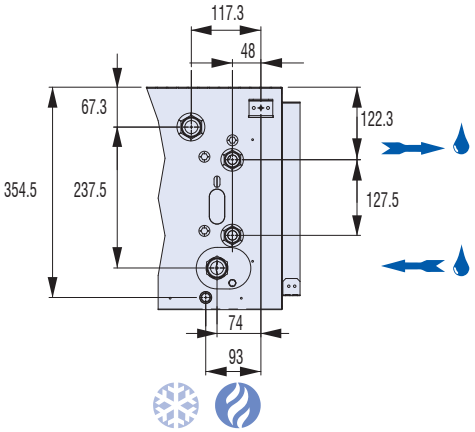


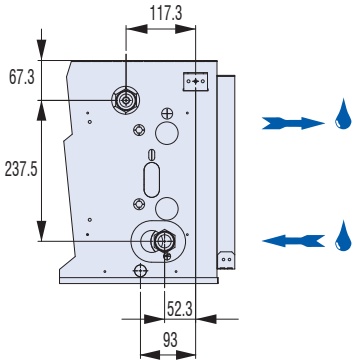




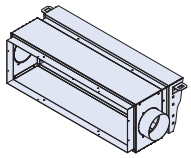


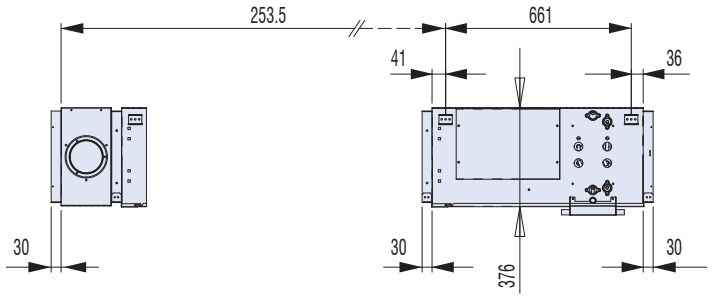


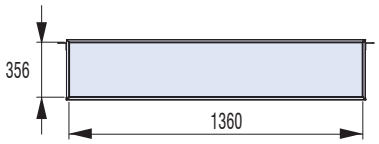


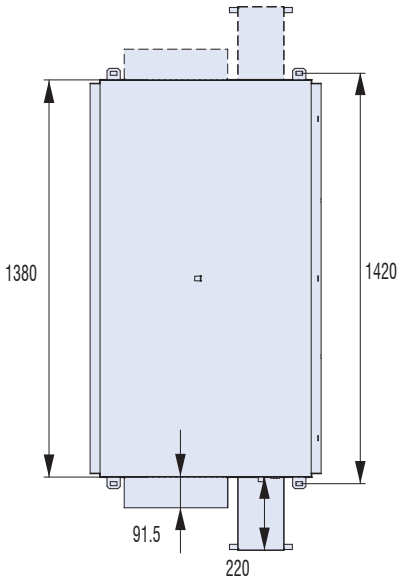


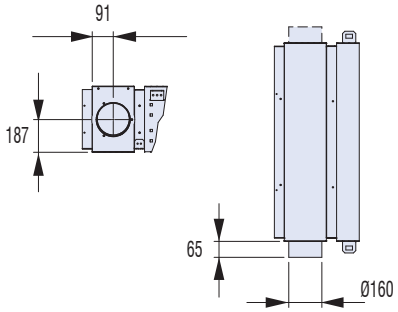
Dimensions (mm) - VH 18

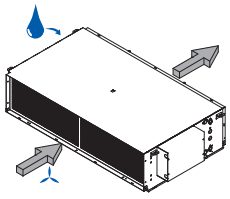


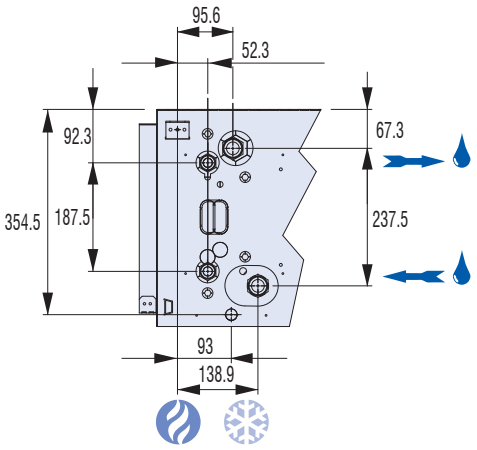


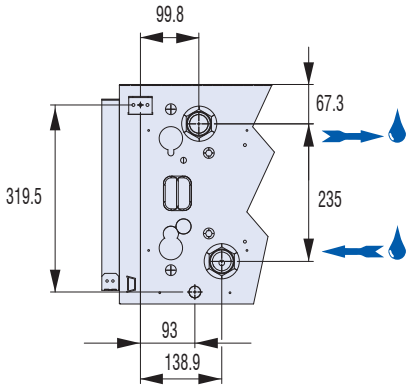


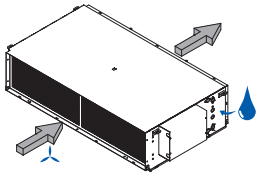


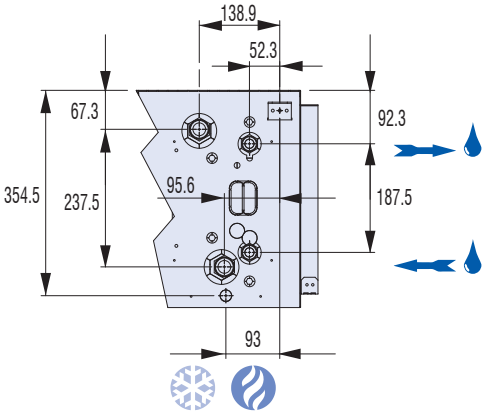


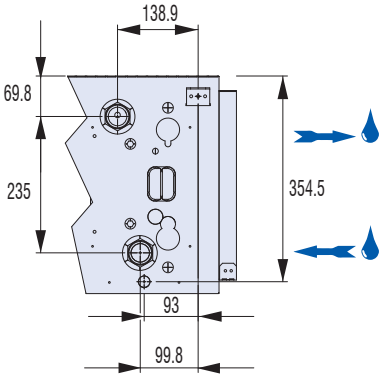




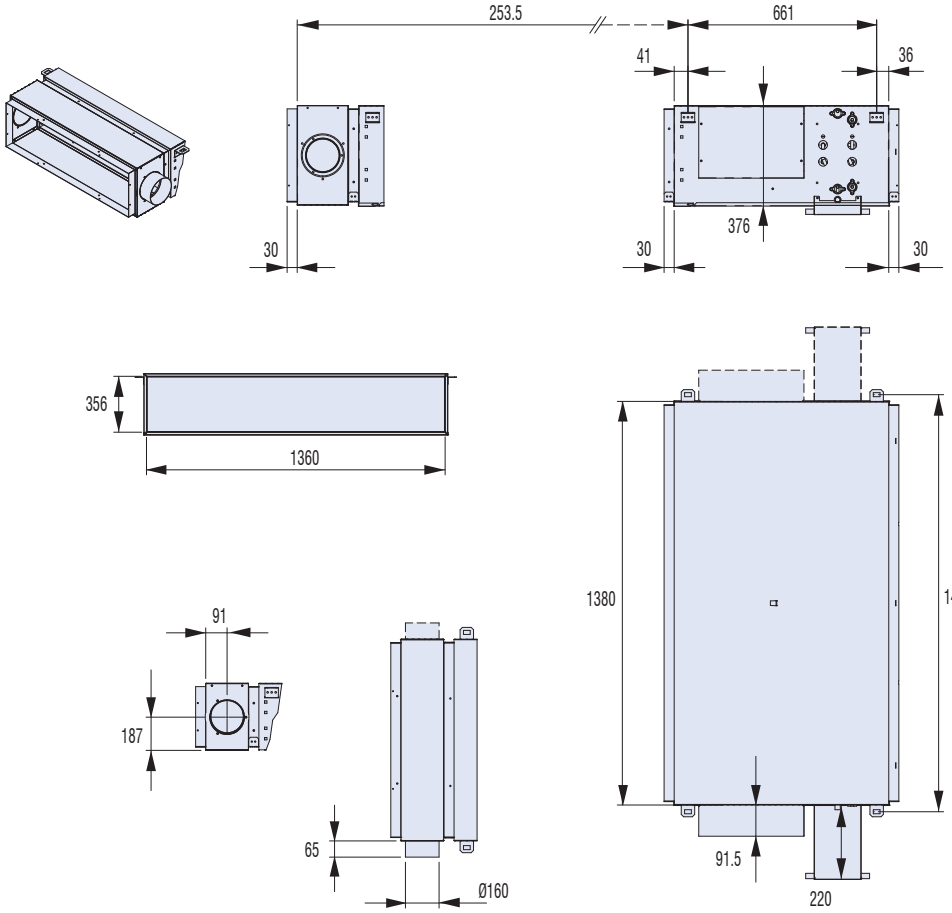


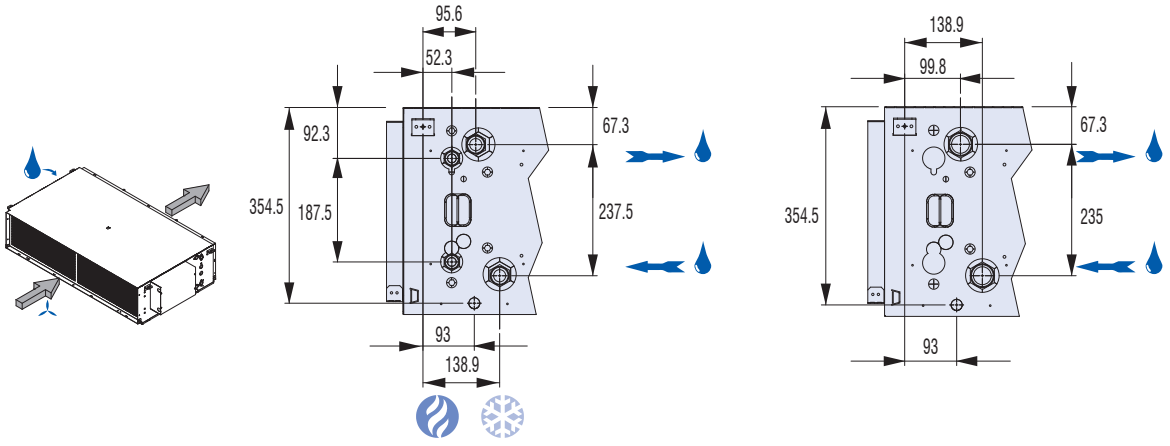


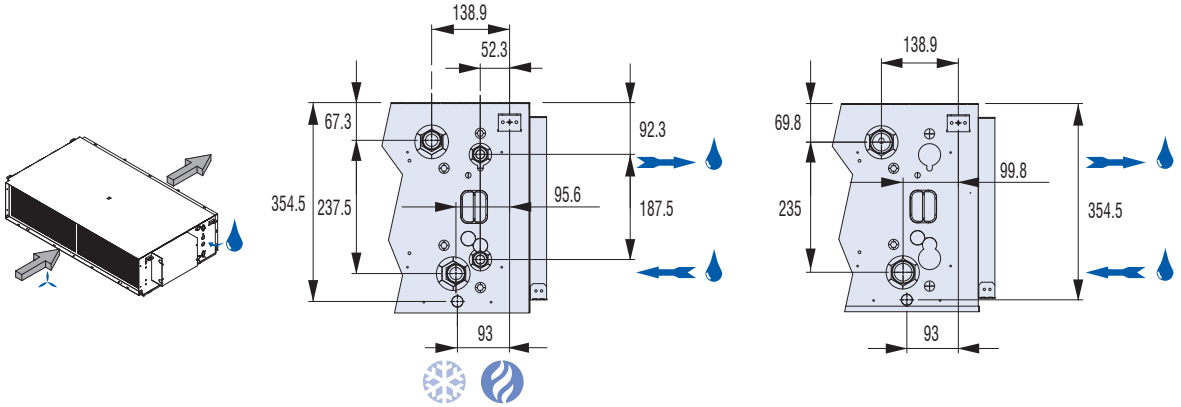




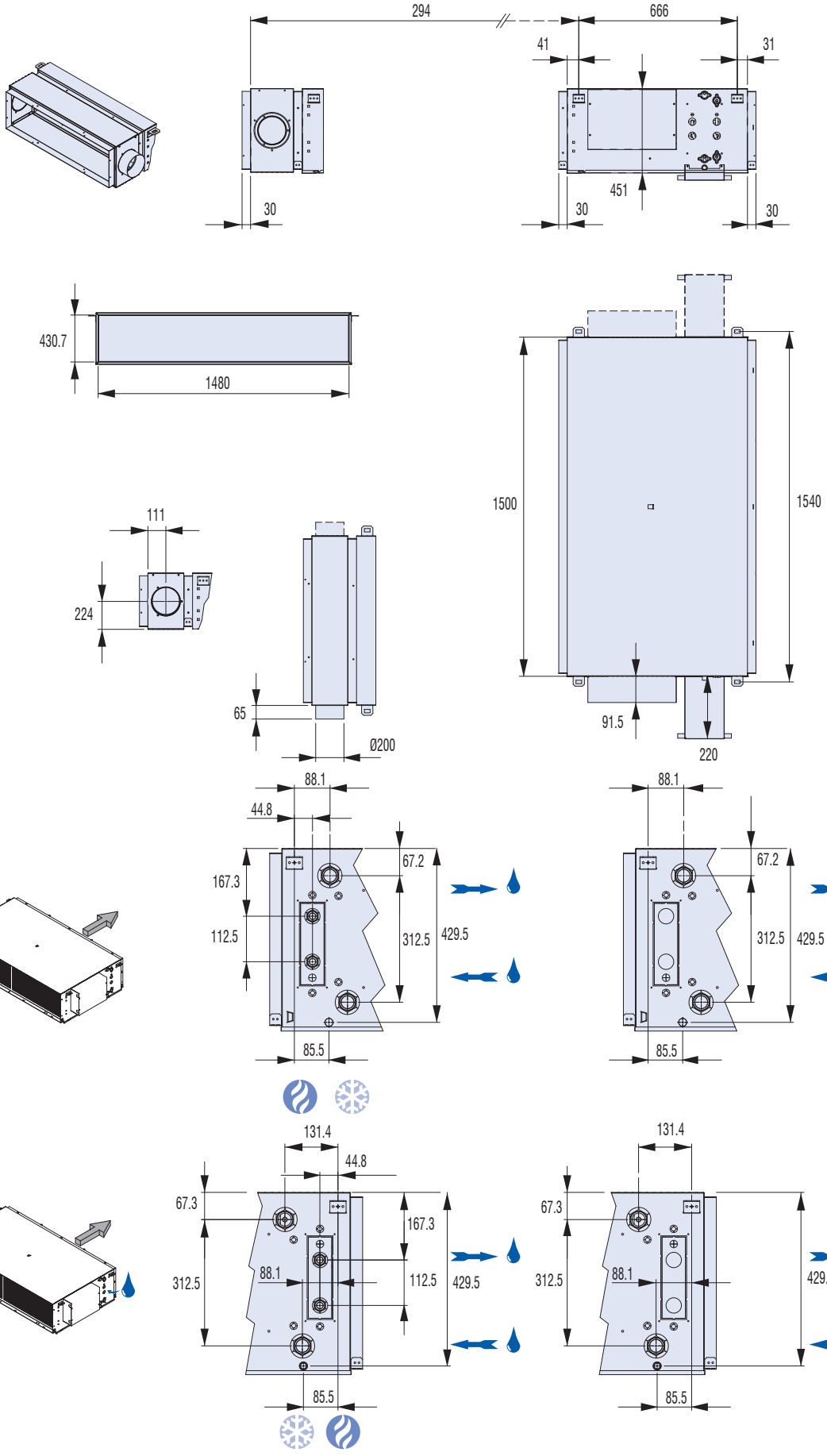
Dimensions (mm) - VH 21







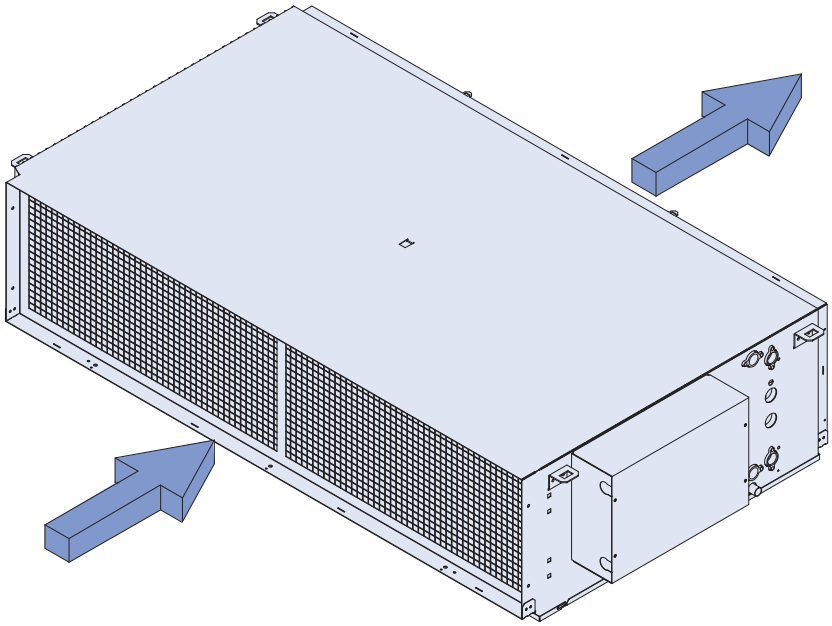
Dimensions (mm) - VH 24 and VH 27



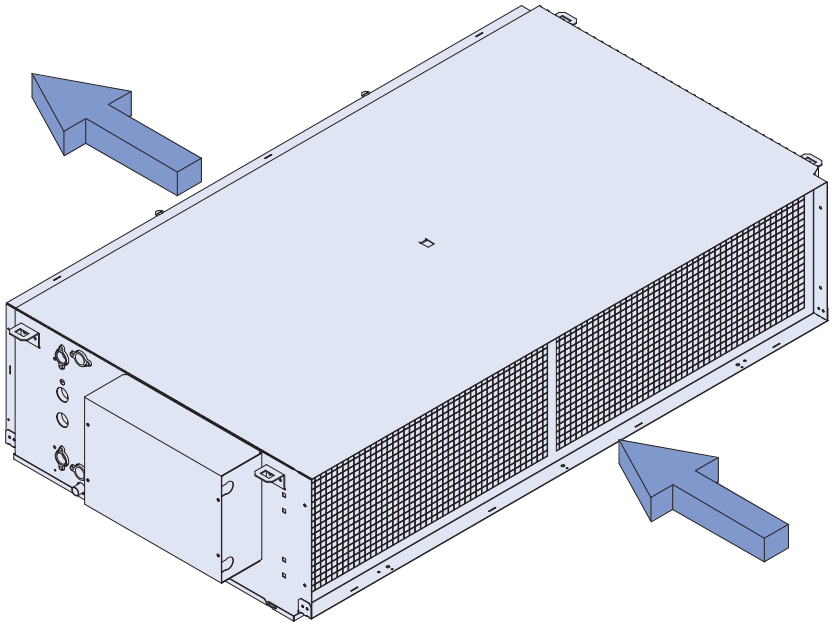
Definition of the Service Sides

The service side is determined by coil connection side when observer is looking at the unit from the discharge side.

LEFT-HAND service side



RIGHT-HAND service side



Notes

Systemair AC SAS · route de Verneuil, 27570 Tillières-sur- Avre · Tél. 02 32 60 61 00 · Fax 02 32 32 55 13
www.systemair.fr

systemair

Systemair · EDM VH-S-2GB/03.15 - Supersedes EDM VH-S-1GB/09.14

march 2015