Air handling units AirVENTS (Catalogue no. 3)

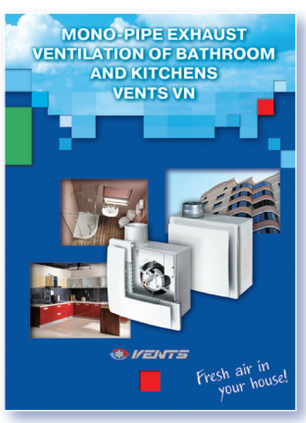
Energy saving air handling units with air capacity up to 40 000 m^3/h, for use in large residential, industrial and commercial objects.

Energy saving ventilation Geothermal systems GEO VENTS (Catalogue no. 4)

Energy saving system GEO VENTS with use of the earth's surface layers heat.
High ventilation system energy efficiency and low operating costs.

Domestic fans (Catalogue no. 7)

Domestic fans with air capacity up to 365 m^3/h with extra functions: timer, humidity sensor, motion sensor, etc.
Applied for premises up to 30 m^2.



VENTS VN Mono-pipe exhaust ventilation (Catalogue no. 8)

Exhaust ventilation in houses with mono-pipe ventilation system based on VENTS VN fans.

Energy saving ventilation. Single room energy recovery ventilators MICRA. (Catalogue no.11)

MICRA single room ventilators with energy regeneration for efficient ventilation and lowest investments in ready-built and brand new premises.

VENTS presentation catalogue (Catalogue no.12)

VENTS mission is to bring fresh air to your house and surround you with the world of comfortable microclimate.

Round and flat PVC ducting (Catalogue no. 15)

Flat and round PVC ducts PLASTIVENT for ventilation of residential, office and commercial premises and connection of exhaust ventilation equipment (kitchen extractors, hoods, exhaust boxes, etc).
Wide product range of fittings.

Energy saving ventilation. Single room energy recovery ventilators TwinFresh. (Catalogue no.16)

Single room reverse ventilators with energy regeneration TwinFresh for efficient ventilation and lowest investments in ready-built and brand new premises.

2017 CATALOGUES VENTS

CONTENT

WELCOME TO THE VENTS WORLD!

VENTS company was founded in the nineties of the XXth century.

Dynamic development of the enterprise and ongoing study of the consumer demand enabled rapid international leadership of the company in the ventilation industry.

VENTS is a powerful research and development enterprise with 2500 professionals working as a single team to ensure a full production cycle from idea to end product. The production base of the company is located at more than 60 000 m^2 area. It includes 16 workshops equipped under the latest international standards and each of them is comparable to a separate plant.

Modern equipment, active implementation of advanced technologies and highly automated production are the characteristic features of VENTS company.

The company undergoes rapid dynamic development; fundamental researches and effective designs in climatic equipment industry are in the focus of the company's business strategy.

The joint cooperation of the corporate design department, test laboratories and production workshops let us introduce high quality products to the market.

Special attention is paid to the manufacturing of the goods during all manufacturing stages including monitoring of the technological conditions. Technical characteristics of supplied raw materials are thoroughly checked. Quality control system which meets international standard requirements ISO 9001:2000 was implemented at the enterprise.

Environmental protection is one of the basic components of the corporate development. The technological process at the enterprise is arranged in such a way as to exclude any negative impact to the environment. To solve the global energy saving problem we develop a special climatic equipment that provides comfortable conditions for people and reduces the energy demand significantly.

Perfect quality, competitive prices, high production potential, technical capabilities and the wide product range stimulate long-term partrnership and product promotion all over the world.

The VENTS ventilation products are exported to more than 90 countries and are sold through the distribution network of 120 companies worldwide. Share of the VENTS products globally is above 10%.

VENTS is a member of high-rank international organizations, the leading HVAC experts.

Since 2008 VENTS has been a fully-featured member of HARDI Association (Heating, Air-conditioning and Refrigeration Distributors International, USA).

Since 2010 VENTS has been a participant of AMCA Association (the Air Movement and Control Association (AMCA) International, Inc.). In 2011 VENTS successfully passed tests for compliance with AMCA standards and the VENTS products were certified for the USA market.

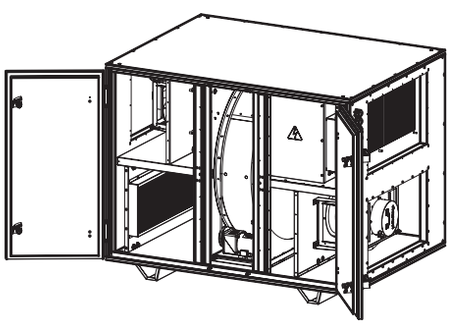
In 2011 VENTS joined HVI (Home Ventilation Institute, USA) Association.

Powerful production facilities, high automation level, active implementation of innovative technologies in the production process made VENTS a worldwide ventilation leader.

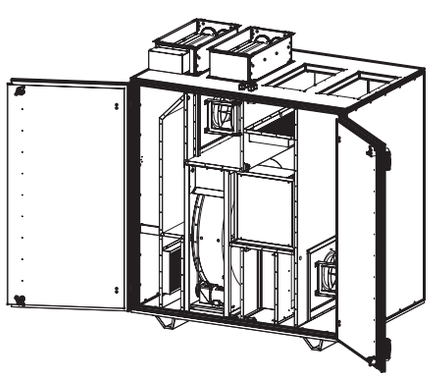
We manufacture our products with respect to unique geographical, climatic, technical features of each country and do our best to fulfill the client's wishes anywhere anytime.

To provide buildings with the best possible balance of energy efficiency, air quality and comfort, VENTS offers standard air handling units with simplified on-site installation and proven, tested performance. Our air handler solutions deal with such issues as temperature, humidity, pressure control, energy recovery and air filtration.

ERV/HRV WITH ROTARY CORE

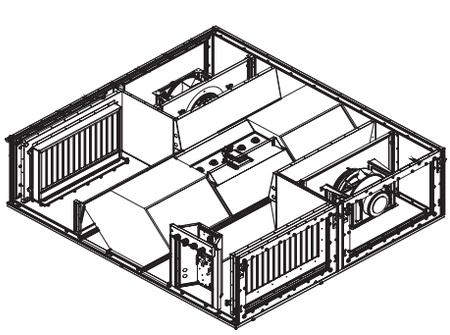


RH
Double-deck units 800-3500 CFM
1500-3500 m³/h

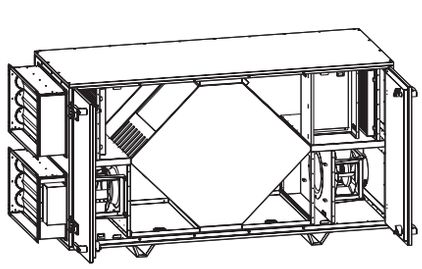


RV
Low-footprint units with vertical outlets 800-3500 CFM
1500-3500 m³/h

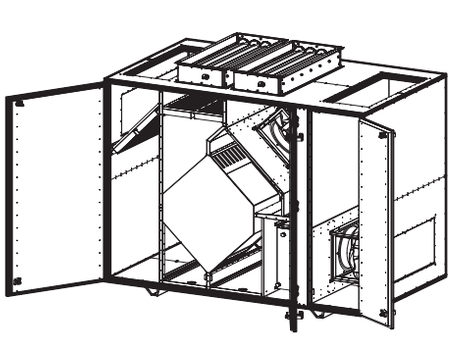
HRV WITH COUNTERFLOW PLATE EXCHANGER



CFP
Ceiling mounted units 800-2000 CFM
1500-3500 m³/h



CFH
Double- deck units 800-3500 CFM
1500-3500 m³/h



CFV
Low-footprint units with vertical outlets 800-3500 CFM
1500-3500 m³/h

MAIN FEATURES

- Counter-flow aluminum plate heat exchanger or rotary heat exchanger class H1 (DIN EN 13053).
- High-efficient EC-fans, backward-curved, external rotor.
- Integrated automatic dampers.
- Integrated plug-and-play controls.
- Automatic full-size by-pass.
- Insulated double-skin frameless casing.
- ECO-Design'18 compliant.
- Web-interface, MODBUS, outputs for optional DX or Hydronic cooling/heating.
- Complete set of accessories: silencers, economizers, VAV, CAV, etc.
- Operation by RH/CO2/temperature/constant pressure/timer schedule.
- Outdoor installation with outdoor mounting kit (optional).

CONTROLS

- Supplied units come with plug-and-play control system based on Carel programmable controller. Depending on the unit's configuration, the system is fitted with 3 temperature sensors: outside, supply, and exhaust air temperature; return water temperature sensor and frost protection relay for water heater configuration; overheating protection relay for electric heater configuration. Standard controller's outputs allow to connect various additional sensors. The list of the optional sensors may be found in the accessories section.
- Plug-and-play control system is fitted with Carel th-Tune remote panel which ensures basic setting options and has user friendly interface. Carel PGD1 extended control panel may be fitted by requirement and provides more flexibility and sophisticated control adjustments. The compact dimensions and elegant design make both suitable for all types of premises.

CAREL

Default control system functions and optional features are listed below (th-tune):

- operation in comfort, precomfort or economy mode;
- temperature control;
- weekly schedule setting: holiday and special day functions, selection of up to four daily time bands, with settings for each operating modes;
- coils and heat recovery core auto protections;
- air pressure control, airflow, and humidity control (with optional sensors);
- air quality control (with optional CO2/IAQ sensors);
- freecooling or freeheating mode (according to model);
- pumps management, overload alarms and anti-blocking for each pump (according to model);
- Modbus sepervisor protocol and user friendly WEB-interface via Ethernet port;

PGD1 panel's extended settings:

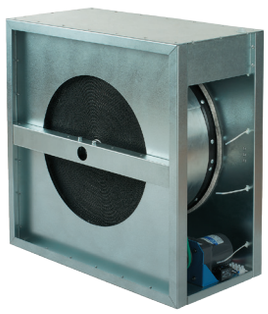
- parameters settings divided by level, user, installer or manufacturer, with password-protected access;
- 3 speed setup fans management;
- priority to temperature or humidity control by room/supply/extract sensors;

HEAT WHEEL (MODELS RH, RV)

Rotary recovery core is made of two types of material:

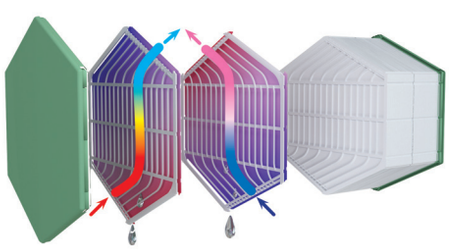
- Sensible type (standard);
- Enthalpy type. Hygroscopic coating is applied on tape, providing additional latent heat transfer from one stream to another. This feature is especially useful when using a rotor in hot and humid areas in conjunction with air conditioning system.

The advantages are: high efficiency, keeping comfortable humidity and low risk of frosting.



COUNTERFLOW PLATE HEAT EXCHANGER (MODELS CFH, CFV, CFP)

Heat exchanger is made of profiled aluminum plates, packed with elastic heat-resistant sealant.
The sealing provides a reliable separation of the supply and exhaust air, eliminating internal flows, and not allowing moisture, dirt, odors and microorganisms transfer between streams.
Bypass channel on heat exchanger with automatic Belimo actuator provides active frost protection, freeheating and freecooling functions.
Drain pan is installed under the heat exchanger on both supply and exhaust sides.



PLUG FANS WITH ELECTRONICALLY COMMUTATED MOTORS (EC MOTOR)

Plug fans with the EC motors are used for projects that require high energy efficiency. The advantages of this type of fan are: extremely low power consumption at any speed, no need for external speed control and compact size due to motor with external rotor.

MOTOR EC

FRAMELESS DESIGN

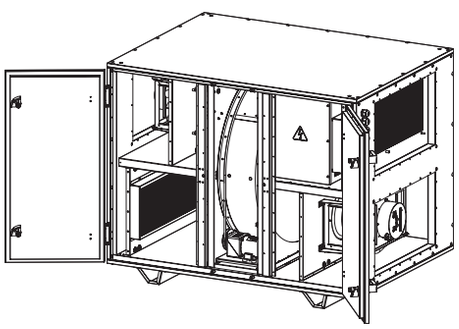
Frameless design casing system excludes thermal brigdes, usuall for aluminum or steel frame. This significantly increases thermal resistance and reduces heat loss, especially for outdoor installation. It also prevents condensation on the surface when air cooling is on.
Casing is made of zinc-aluminum coated sheet steel with 40 mm in layer of thermal and acoustic mineral wool insulation.

Benefits of frameless casing:

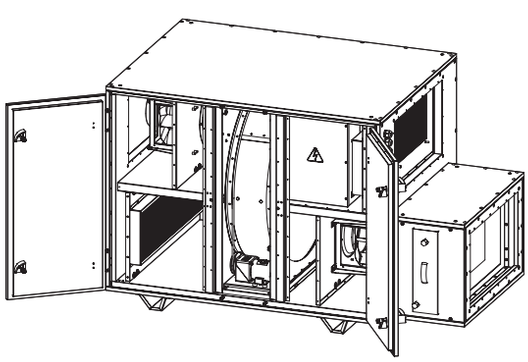
- Better thermal resistance.
- Lower weight of the unit.
- No thermal bridges.
- Suitable for outdoor installation in cold climate.
- High mechanical strength.

HEAT RECOVERY VENTILATION UNIT RH

AV RH
AV RH-E



AV RH-W



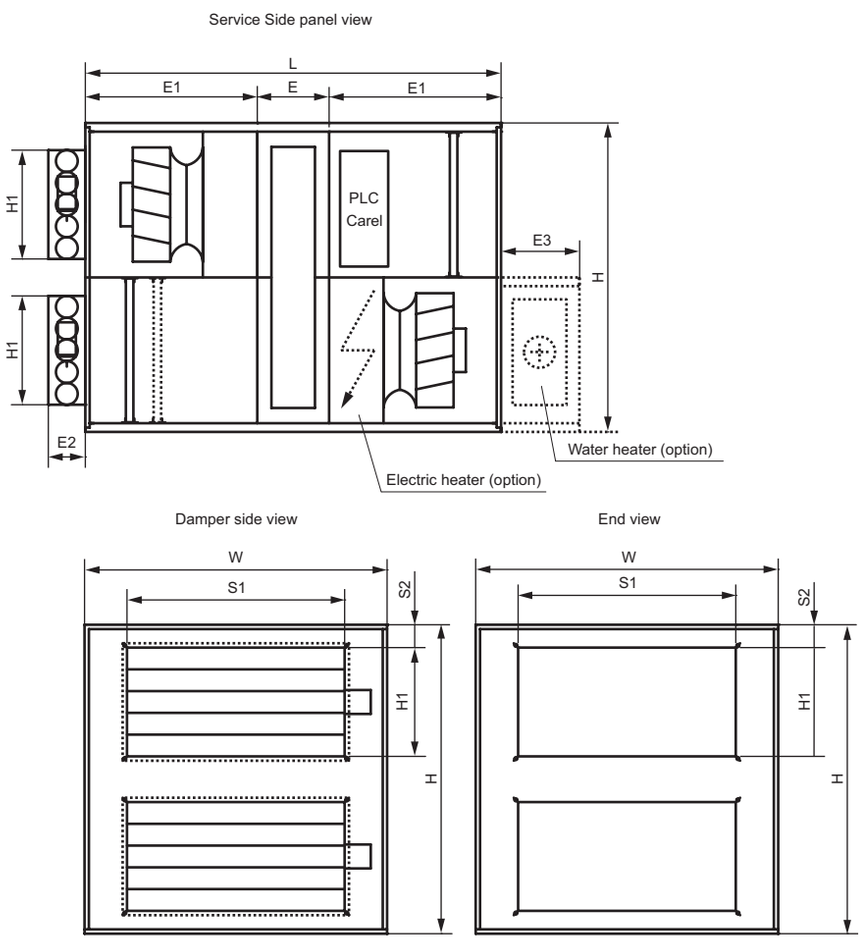
Newest product range of the highly-efficient heat wheel air-conditioning units is available in five standard sizes based on the air-flow capacity: 1500, 2500, 3500, 5000 and 6000 m^3/h.
All standard sizes are accomplished with no heater (RH series), with electric heater, or water heater option (RH-E or RH-W correspondingly), and ready for operation with all necessary control elements.

Main features:
High-efficient EC-fans, backward-curved, external rotor. Integrated automatic dampers. Integrated plug-and-play controls. Insulated double-skin frameless casing. ECO-Design'18 compliant. Aluminum rotor heat exchanger. Panel filters G4, F7 (optional). Hinged service doors. Optional outdoor installation with outdoor mounting kit. Web-interface, MODBUS, outputs for optional DX or Hydronic cooling/heating. Complete set of accessories: silencers, economizers, VAV, CAV, etc. Operation by RH/CO2/temperature/constant pressure/timer schedule.
Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m^3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T2, TB2; corrosion resistance according to ISO 12944: class C4.

Technical parameters

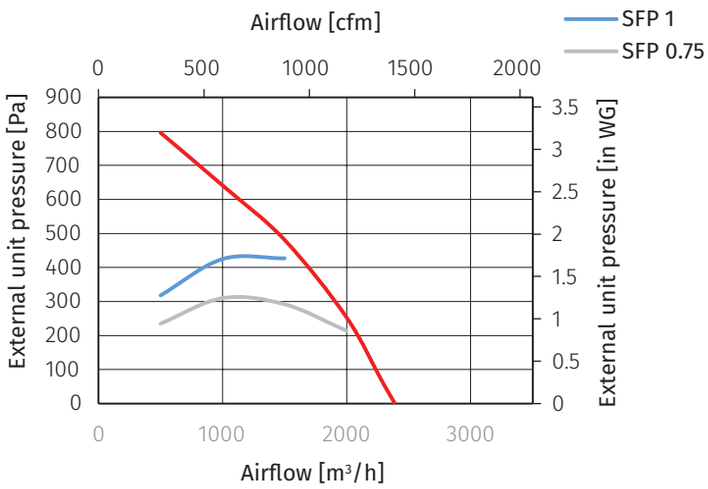
Nominal airflow		[m^3/h]	1500	2500	3500	5000	6000
EC fans	phase/voltage	[50/60Hz/VAC]	~1.200/277			~3.380/480	
	power/current	[kW/A]	2x0.46/3.0	2x0.74/3.75	2x1.14/1.8	2x1.32/2.1	2x2.6/4.0
	fan speed	[min-1]	2848	2640	2400	1350	1700
	perm. amb. temp.	[C^0]			-35...+50		
	motor protection	IP			54		
	insulation class		F	F	F	F	F
	Motor sound power level to outlet [dB(A)]		74	75	76	71	77,6
	SFP@nominal airflow, max pressure [$kW/(m^3/s)$]		2x1.1	2x1.06	2x1.13	2x0.946	2x1.00
Filter class	exhaust/supply	standart (optional)			G4 (F7/G4(F7)		
Weight (net, winthout packing)		[kg]	175	180	250	350	380
Housing protection class	IP				34		
Sound pressure lvl @ 3m to environment		[dB(A)]	41	43	44	39	46

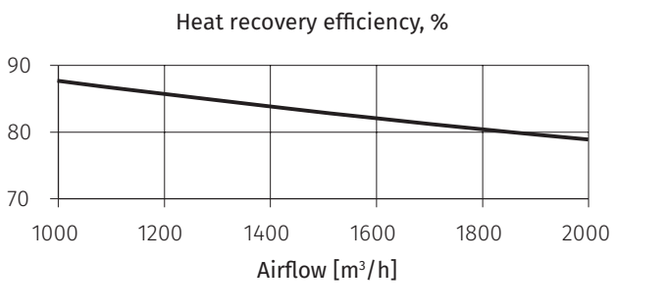
HEAT RECOVERY VENTILATION UNIT RH, RH-E, RH-W



Dimensins [mm]	RH 1500	RH 2500	RH 3500	RH 5000	RH 6000
L	1300	1300	1300	1910	1910
W	960	960	1290	1390	1390
H	960	960	1260	1420	1420
H1	350	350	350	500	500
S1	600	600	600	1000	1000
S2	55	55	205	105	105
E	290	290	290	330	330
E1	505	505	505	790	790
E2	170	170	170	170	170
E3	360	360	360	360	360

RH 1500

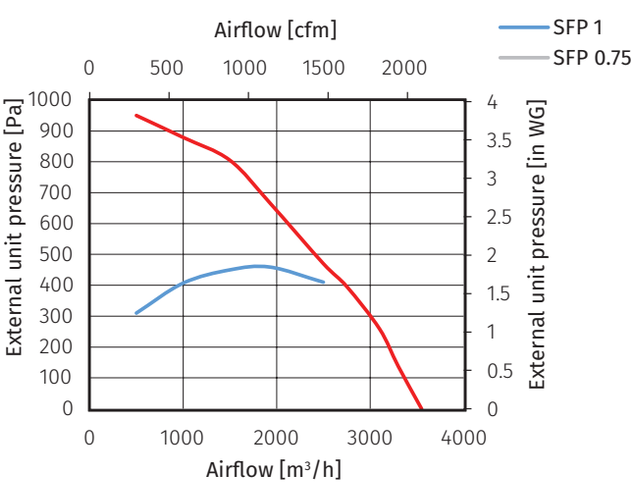


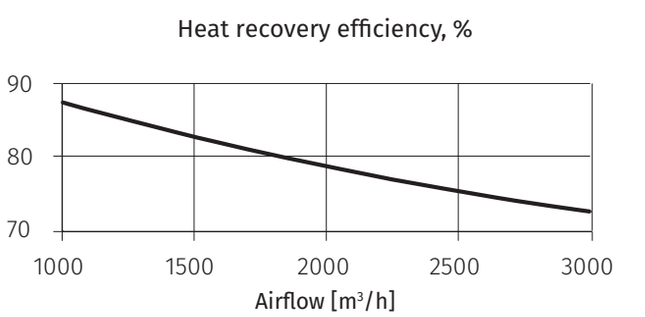


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

RH 2500

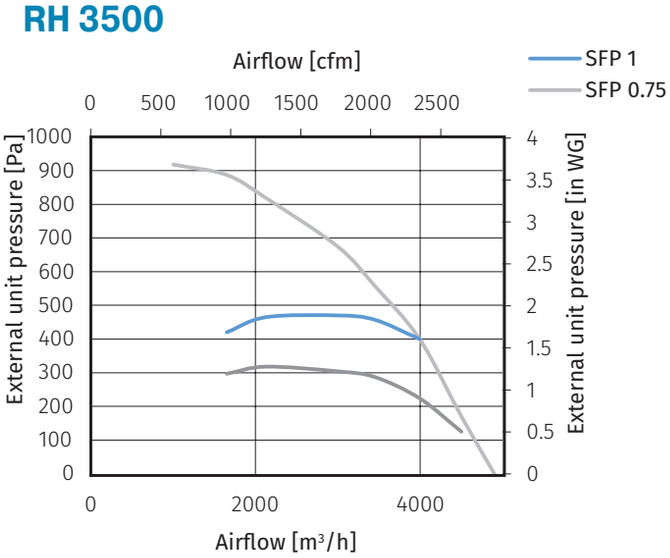


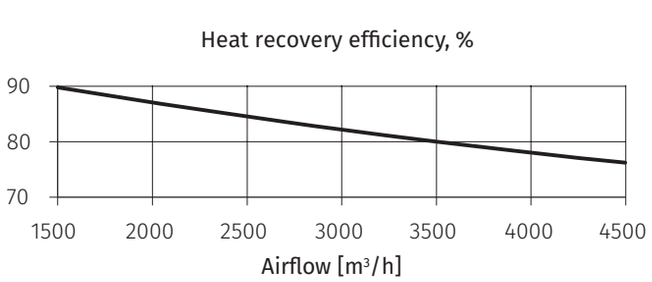


Sound power L_w in dB

Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	63
Outlet	65.6	69.5	72.2	74.2	72.1	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

RH 3500



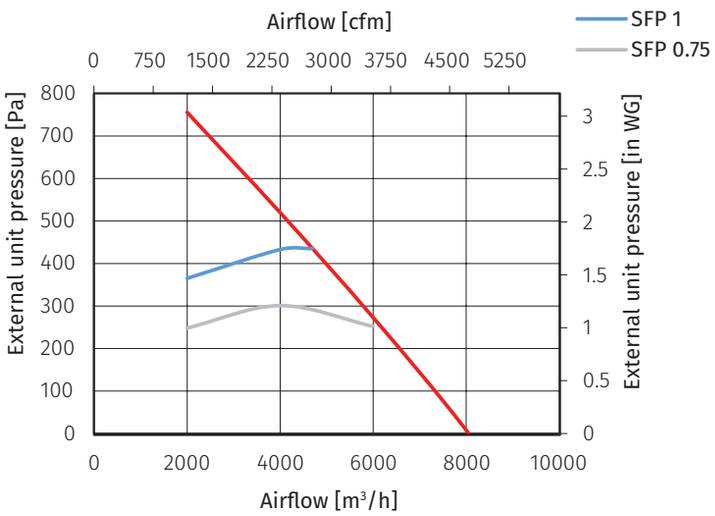


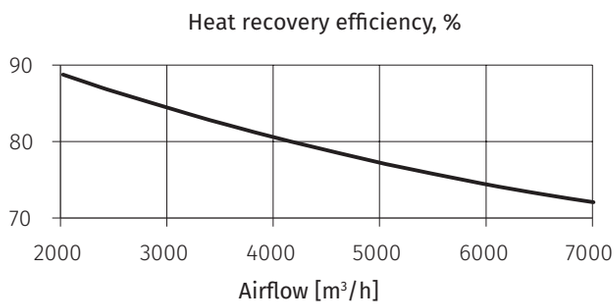
Sound power L_w in dB

Entvironment	67	64	66	57	37	59	53	57	64
Outlet	69	68	74	73	65	70	66	64	76
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

RH 5000

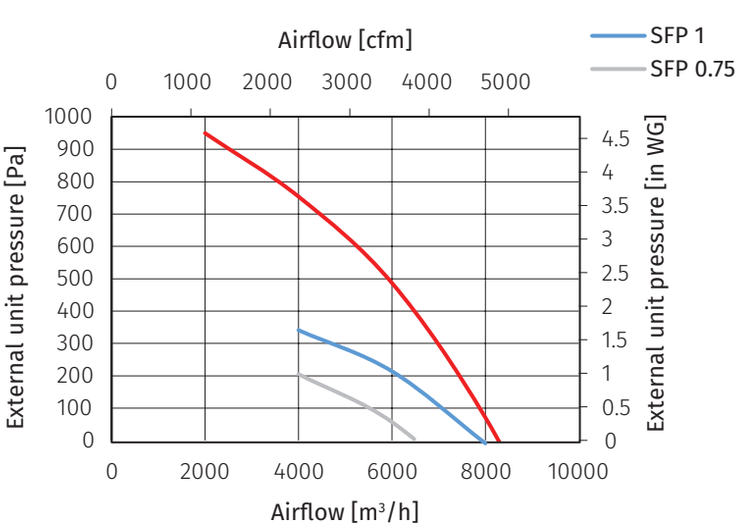


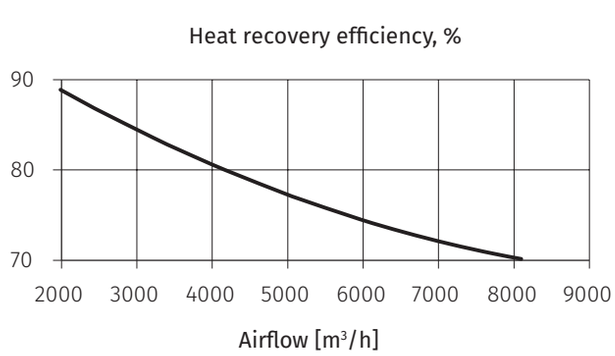


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

RH 6000



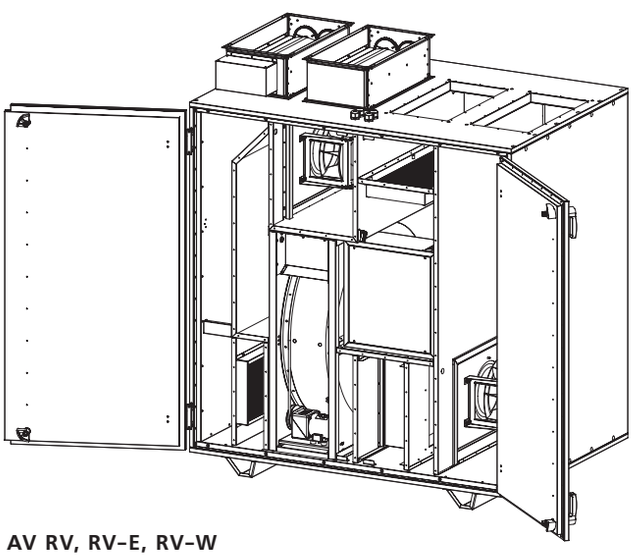


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

HEAT RECOVERY VENTILATION UNIT RV



AV RV, RV-E, RV-W

Newest product range of the highly-efficient heat wheel air-conditioning units is available in three standard sizes based on the air-flow capacity: 1500, 2500, and 3500 m3/h.
All standard sizes are accomplished with no heater (RV series), with electric heater, or water heater option (RV-E or RV-W correspondingly), and ready for operation with all necessary control elements.

Main features

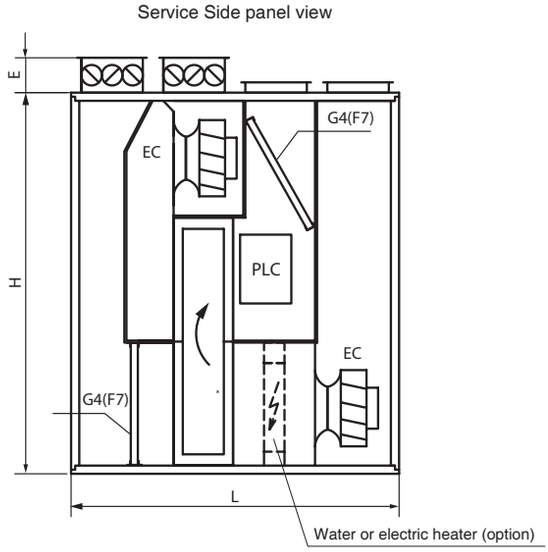
High-efficient EC-fans, backward-curved, external rotor. Integrated automatic dampers. Integrated plug-and-play controls. Insulated double-skin frameless casing. ECO-Design'18 compliant. Aluminum rotor heat exchanger. Panel filters G4, F7 (optional). Hinged service doors. Optional outdoor installation with outdoor mounting kit. Web-interface, MODBUS, outputs for optional DX or Hydronic cooling/ heating. Complete set of accessories: silencers, economizers, VAV, CAV, etc. Operation by RH/CO2/temperature/constant pressure/timer schedule.
Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m^3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T2, TB2; corrosion resistance according to ISO 12944: class C4.

Technical parameters

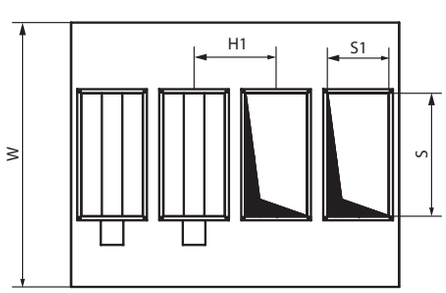
Nominal airflow		**[m^3/h]**	**1500**	**2500**	**3500**
EC fans	phase/voltage	[50/60Hz/VAC]	~1.200/277		~3.380/480
	power/current	[kW/A]	2x0.46/3.0	2x0.74/3.75	2x1.14/1.8
	fan speed	[min-1]	2848	2640	2400
	perm. amb. temp.	[C^0]	-35...+50		
	motor protection	IP	54		
	insulation class		F	F	F
	Motor sound power level to outlet [dB(A)]		74		
	SFP@nominal airflow, max pressure [kW/(m^3/s)]		2x1.1	2x1.06	2x1.13
Filter class	exhaust/supply	standart (optional	G4 (F7/G4(F7)		
Weight (net,winthout packing)		[kg]	175	180	250
Housing protection class		IP	34		
Sound pressure lvl @ 3m to environment		[dB(A)]	41	43	44

HEAT RECOVERY VENTILATION UNIT RV, RV-E, RV-W

Service Side panel view

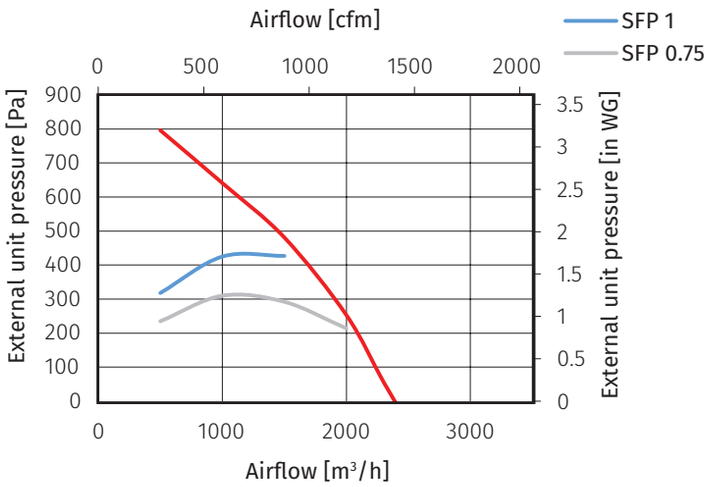


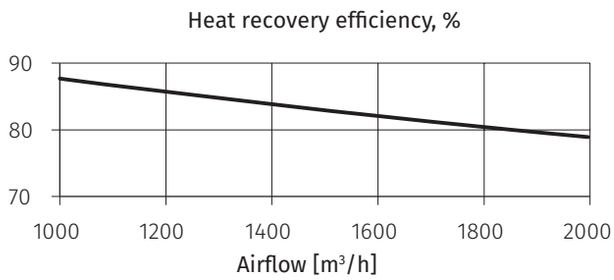
Top view



Dimensions [mm]	RV 1500	RV 2500	RV 3500
L	1400	1400	1600
W	960	960	1290
H	1400	1400	1860
H1	350	350	600
S	600	600	400
S1	300	300	300
E	170	170	170

RV 1500

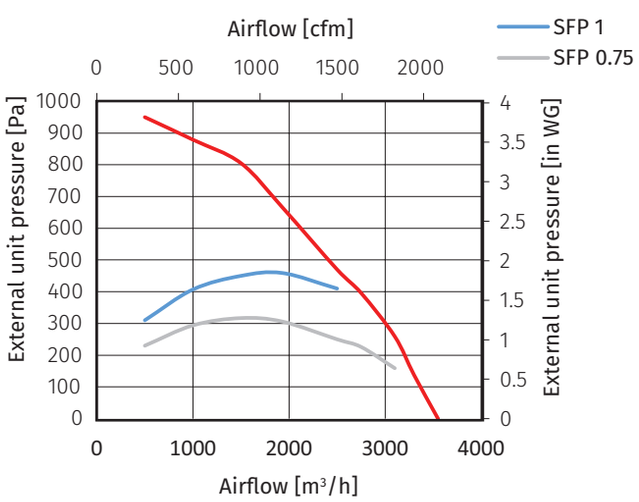


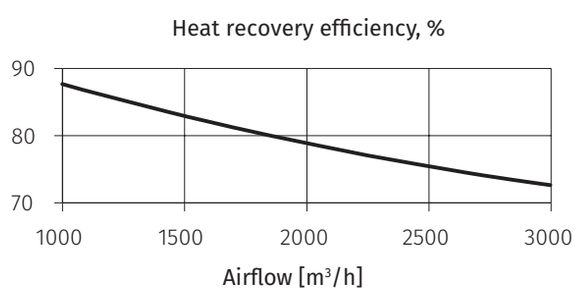


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

RV 2500

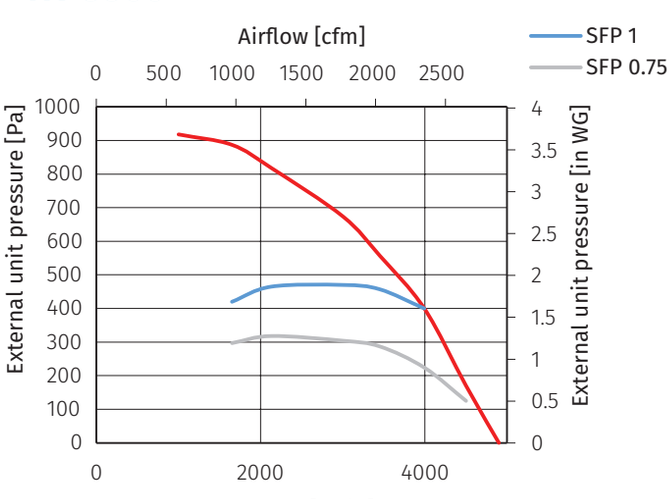


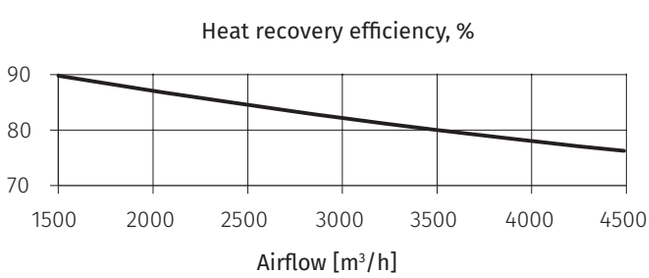


Sound power L_w in dB

Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	59
Outlet	65.6	69.5	72.2	74.2	72.2	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

RV 3500





Sound power L_w in dB

Entvironment	67	64	66	57	37	59	53	57	64
Outlet	69	68	74	73	69	70	66	64	76
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

WATER HEATER PARAMETERS FOR ROTOR UNITS

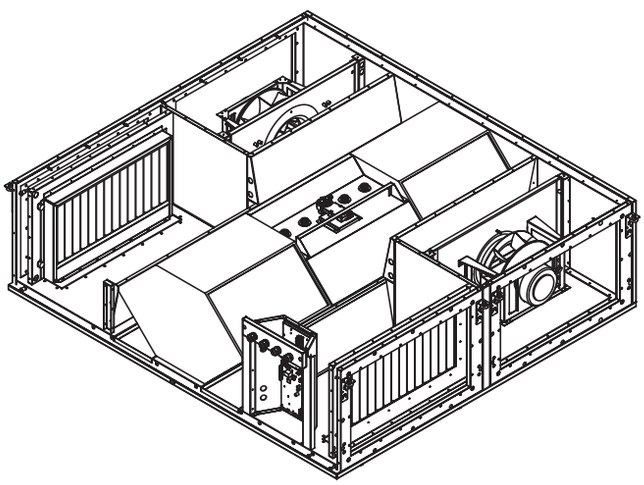
Model	Nominal airflow [m³/h]	Water temperature difference [°C]	Maximum capacity [kW]	Capacity [kW]	Temperature rotor out. [°C]	Pressure drop [kPa]	Fluid flow [l/s]
RH 1500 W RV 1500 W	1500	90/70	15.21	2.86	16.5	0.83	0.03
		80/60	12.7				
		70/50	10.2				
		60/40	7.7				
RH 2500 W RV 2500 W	2500	90/70	21.8	6.62	14.3	4.45	0.08
		80/60	18.28				
		70/50	17.45				
		60/40	11.22				
RH 3500 W RV 3500 W	3500	90/70	24.9	7.36	15.9	5.49	0.09
		80/60	20.85				
		70/50	16.77				
		60/40	12.68				
RH 5000 W	5000	90/70	68.56	11.93	15.1	2.18	0.14
		80/60	57.4				
		70/50	46.25				
		60/40	35.09				
RH 6000 W	6000	90/70	78.07	16.4	14.22	4	0.19
		80/60	65.46				
		70/50	52,84				
		60/40	40.23				

Air temperature outside/inside -10°C /+22 °C

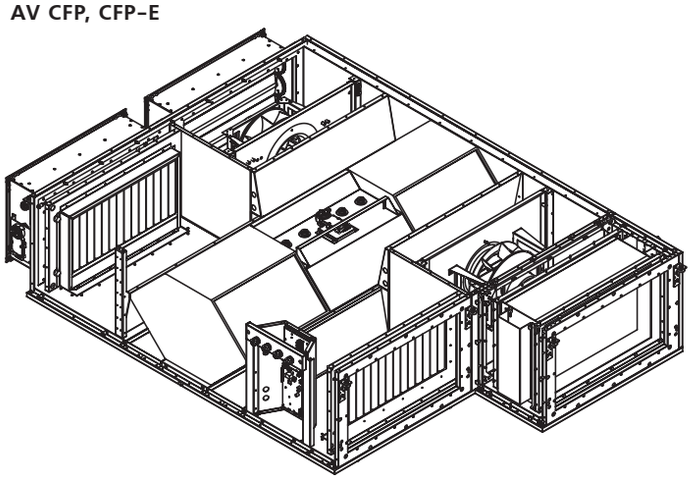
ELECTRIC HEATER PARAMETERS FOR THE ROTOR UNITS

Model	Nominal airflow [m³/h]	Power [kW]	Heating elements pcs. x kW	Current [A]	Voltage [V/Hz]	Connection
RH 1500 E RV 1500 E	1500	5.1	3x1.7	7.4	3~400/59-60	Y
RH 2500 E RV 2500 E	2500	9.0	3x3.0	13.0		Y
RH 3500 E RV 3500 E	3500	12.0	3x4.0	17.4		Y
RH 5000 E	5000	24	3x8.0	34.7		Δ
RH 6000 E	6000	24	3x8.0	34.7		Δ

HEAT RECOVERY VENTILATION UNIT CFP



AV CFP, CFP-E



AV CFP-W

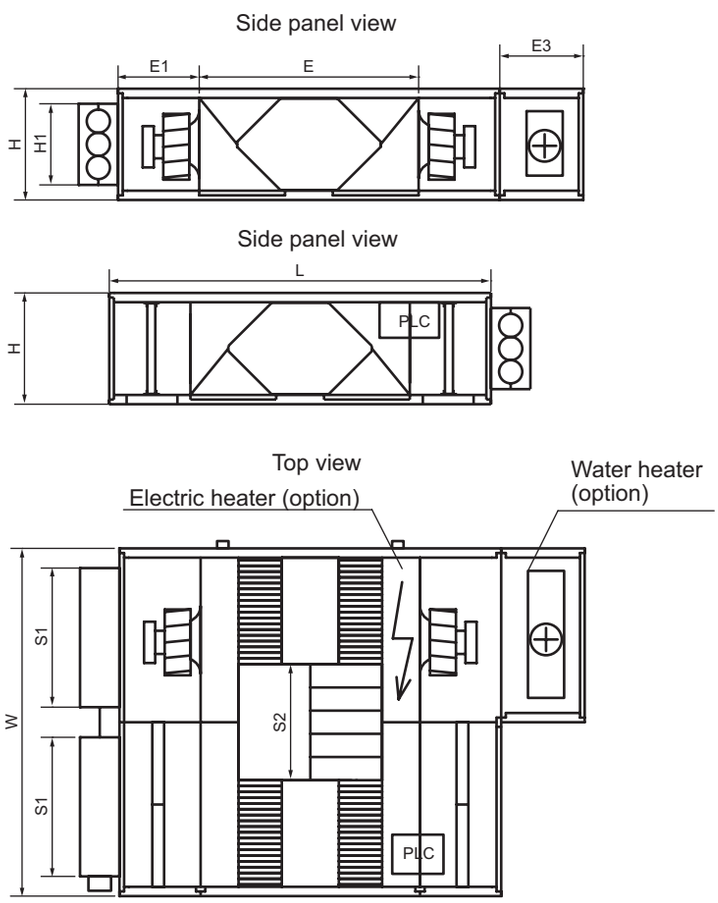
Newest product range of the highly-efficient plate heater air-conditioning units is available in three standard sizes based on the air-flow capacity: 1500, 2500, and 3500 m^3/h.
All standard sizes are accomplished with no heater (CFP series), with electric heater, or water heater option (CFP-E or CFP-W correspondingly), and ready for operation with all necessary control elements.

Main features
High-efficient EC-fans, backward-curved, external rotor. Integrated automatic dampers. Integrated plug-and-play controls. Automatic full-size by-passInsulated double-skin frameless casing. ECO-Design'18 compliant. Aluminum rotor heat exchanger. Panel filters G4, F7 (optional). Hinged service doors. Optional outdoor installation with outdoor mounting kit. Web-interface, MODBUS, outputs for optional DX or Hydronic cooling / heating. Complete set of accessories: silencers, economizers, VAV, CAV, etc. Operation by RH/CO2/temperature/constant pressure/timer schedule.
Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m^3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T2, TB2; corrosion resistance according to ISO 12944: class C4.

Technical parameters

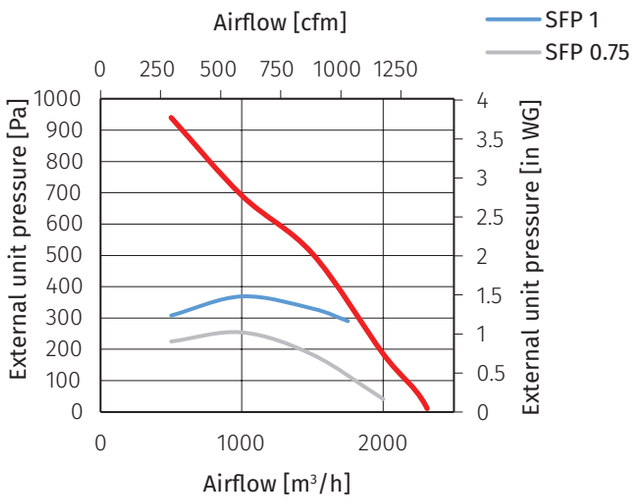
Nominal airflow		**[m^3/h]**	**1500**	**2500**	**3500**
EC fans	phase/voltage	[50/60Hz/VAC]	~1.200/277		~3.380/480
	power/current	[kW/A]	2x0.46/3.0	2x0.74/3.75	2x1.14/1.8
	fan speed	[min-1]	2848	2640	2400
	perm. amb. temp.	[C^0]	-35...+50		
	motor protection	IP	54		
	insulation class		F	F	F
	Motor sound power level to outlet [dB(A)]		74		
	SFP@nominal airflow, max pressure [kW/(m^3/s)]		2x1.1	2x1.06	2x1.13
Filter class	exhaust/supply	standart (optional	G4 (F7/G4(F7)		
Weight (net,winthout packing)		[kg]	175	180	250
Housing protection class	IP		34		
Sound pressure lvl @ 3m to environment		[dB(A)]	41	43	44

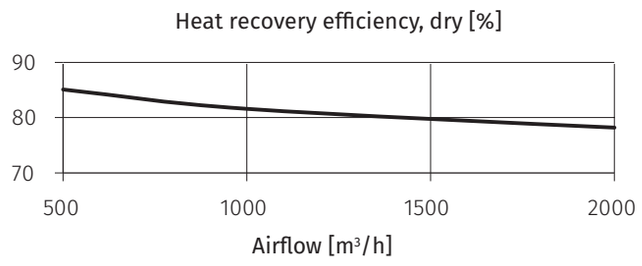
HEAT RECOVERY VENTILATION UNIT CFP, CFP-E, CFP-W



Dimensions [mm]	CFP 1500	CFP 2500	CFP 3500
L	1646	1646	1880
W	1500	1500	1500
H	480	480	630
H1	350	350	350
S1	600	600	600
S2	500	500	220
E	946	946	1440
E1	350	350	360
E3 (option)	360	360	360

CFP 1500

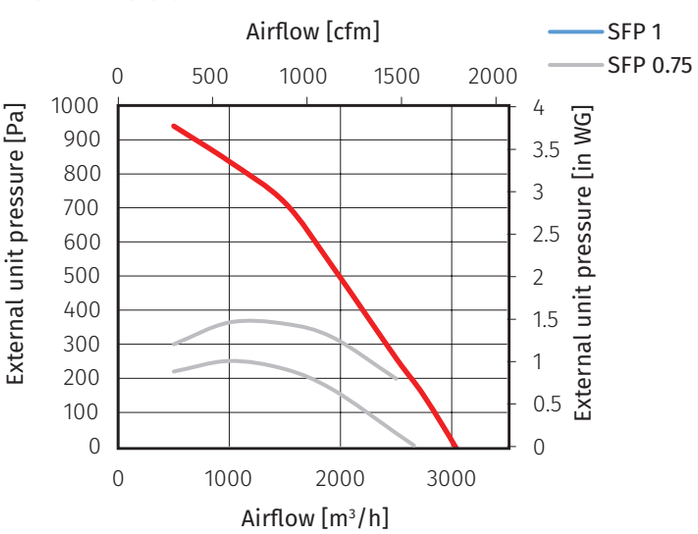


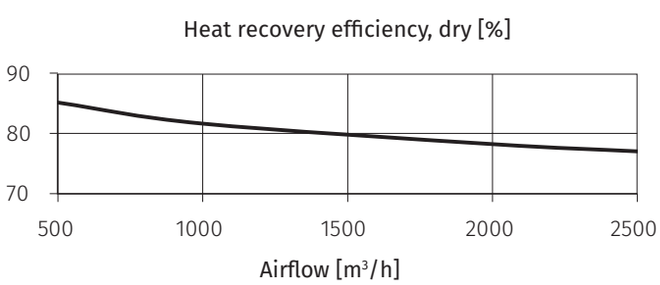


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFP 2500

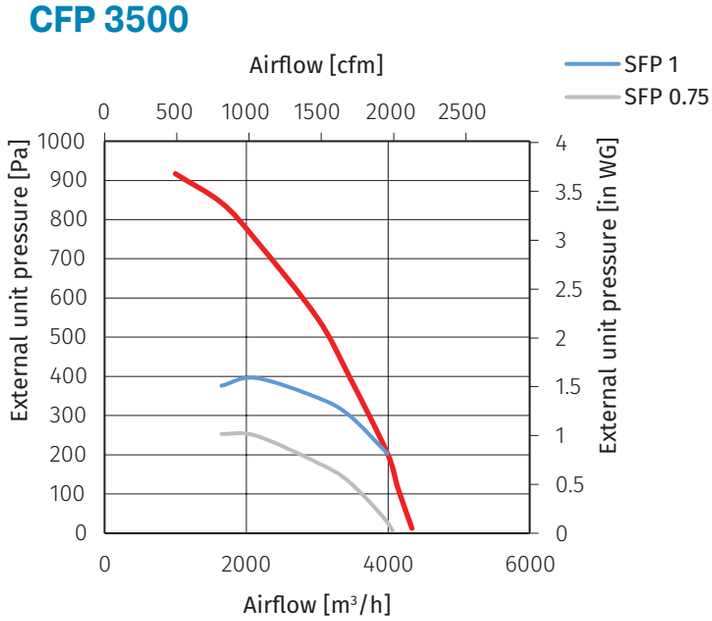


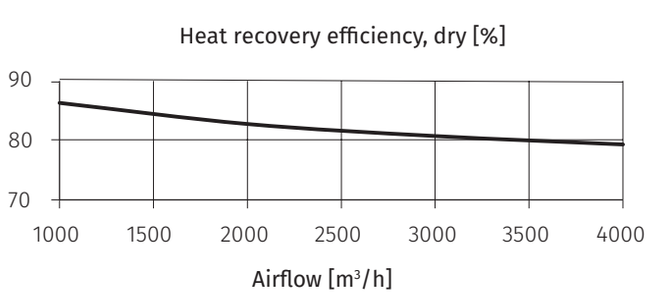


Sound power L_w in dB

Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	63
Outlet	65.6	69.5	72.2	74.2	72.1	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFP 3500



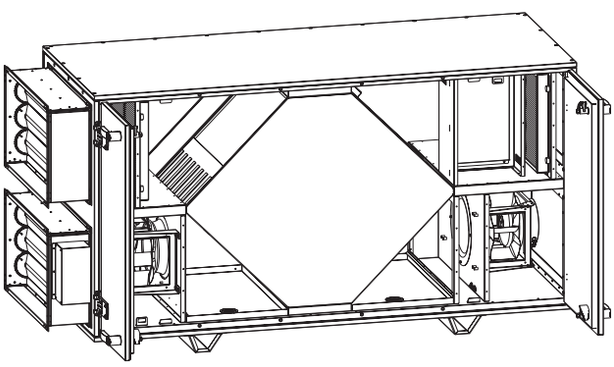


Sound power L_w in dB

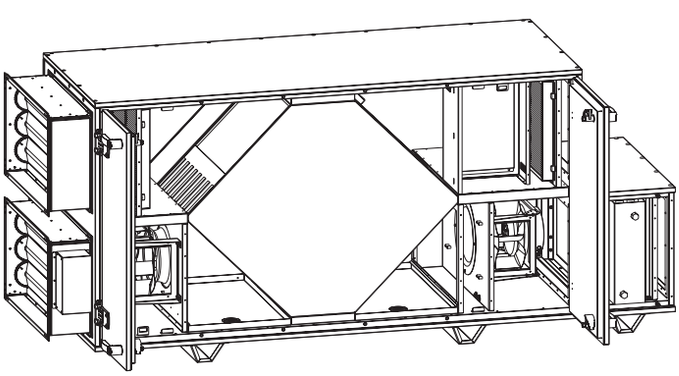
Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	63
Outlet	65.6	69.5	72.2	74.2	72.1	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

HEAT RECOVERY VENTILATION UNIT CFH



AV CFH, CFH-E



AV CFH-W

Newest product range of the highly-efficient plate heater air-conditioning units is available in five standard sizes based on the air-flow capacity: 1500, 2500, 3500, 5000, and 6000 m^3/h.
All standard sizes are accomplished with no heater (CFH series), with electric heater, or water heater option (CFH-E or CFH-W correspondingly), and ready for operation with all necessary control elements.

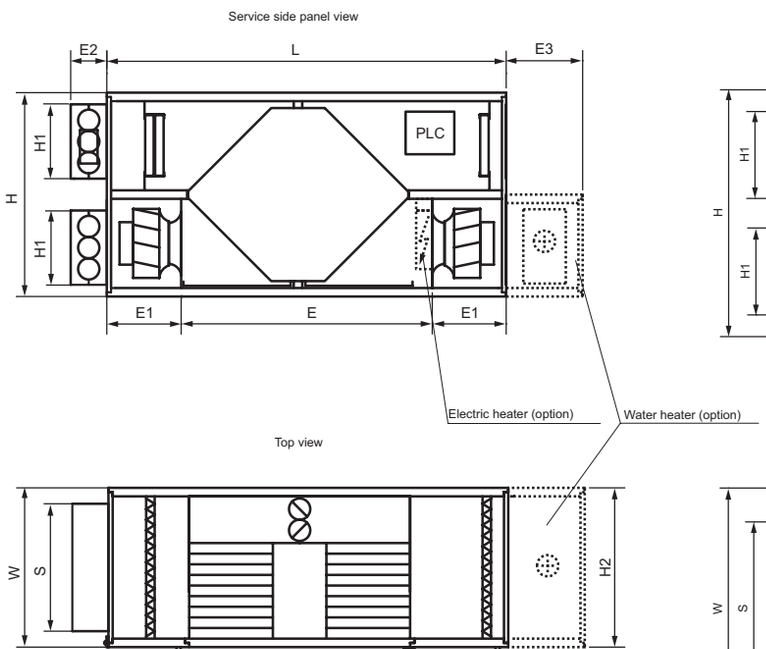
Main features
High-efficient EC-fans, backward-curved, external rotor. Integrated automatic dampers. Integrated plug-and-play controls. Automatic full-size by-passInsulated double-skin frameless casing. ECO-Design'18 compliant. Aluminum rotor heat exchanger. Panel filters G4, F7 (optional). Hinged service doors. Optional outdoor installation with outdoor mounting kit. Web-interface, MODBUS, outputs for optional DX or Hydronic cooling / heating. Complete set of accessories: silencers, economizers, VAV, CAV, etc. Operation by RH/CO2/temperature/ constant pressure/timer schedule.
Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m^3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T2, TB2; corrosion resistance according to ISO 12944: class C4.

Technical parameters

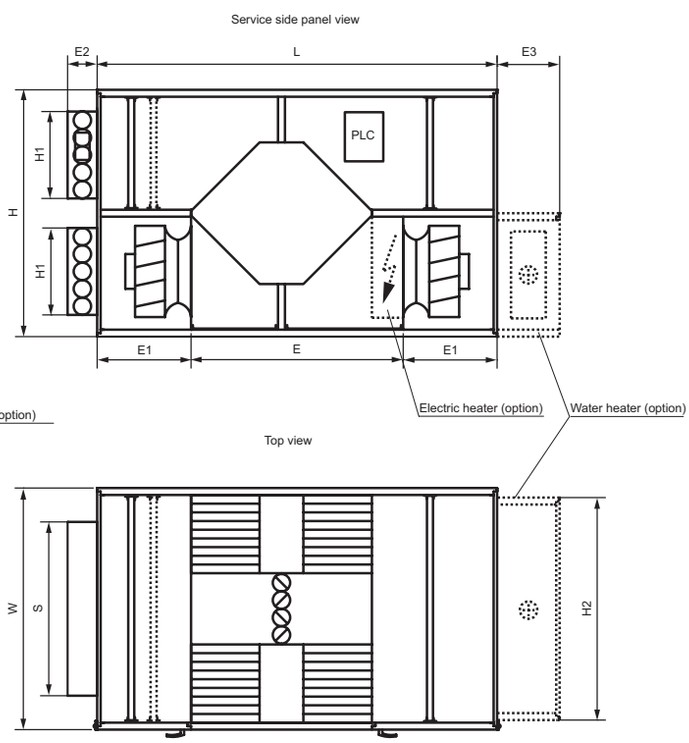
Nominal airflow		[m^3/h]	1500	2500	3500	5000	6000
EC fans	phase/voltage	[50/60Hz/VAC]	~1.200/277			~3.380/480	
	power/current	[kW/A]	2x0.46/3.0	2x0.74/3,75	2x1.14/1.8	2x1.32/2.1	2x2.6/4.0
	fan speed	[min-1]	2848	2640	2400	1350	1700
	perm. amb. temp.	[C^0]			-35...+50		
	motor protection	IP		54			
	insulation class		F	F	F	F	F
	Motor sound power level to outlet [dB(A)]		74	75	76	71	77,6
	SFP@nominal airflow, max pressure [kW/(m^3/s)]		2x1.1	2x1.06	2x113	2x0.946	2x1.00
Filter class	exhaust/supply	standart (optional		G4 (F7/G4(F7)			
Weight (net,winthout packing)		[kg]	175	180	250	350	380
Housing protection class		IP			34		
Sound pressure lvl @ 3m to environment		[dB(A)]	41	43	44	39	46

HEAT RECOVERY VENTILATION UNIT CFH, CFH-E, CFH-W

1500-3500 m³/h

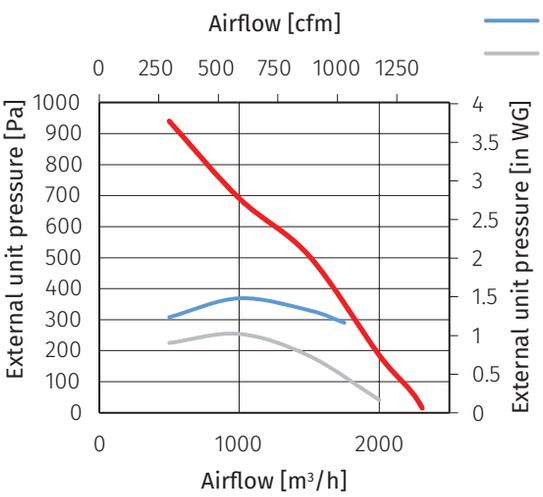


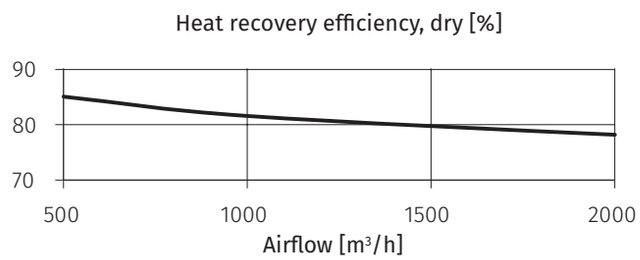
5000-6000 m³/h



Dimensions [mm]	CFH 1500	CFH 2500	CFH 3500	CFH 5000	CFH 6000
L	1880	1880	2200	2300	2300
W	750	750	890	1390	1390
H	960	960	1290	1420	1420
H1	350	350	350	500	500
S	600	600	600	1000	1000
H2 (option)	750	750	890	1280	1280
E	1180	1180	1500	1220	1220
E1	350	350	350	540	540
E2	170	170	170	170	170
E3 (option)	360	360	360	360	360

CFH 1500

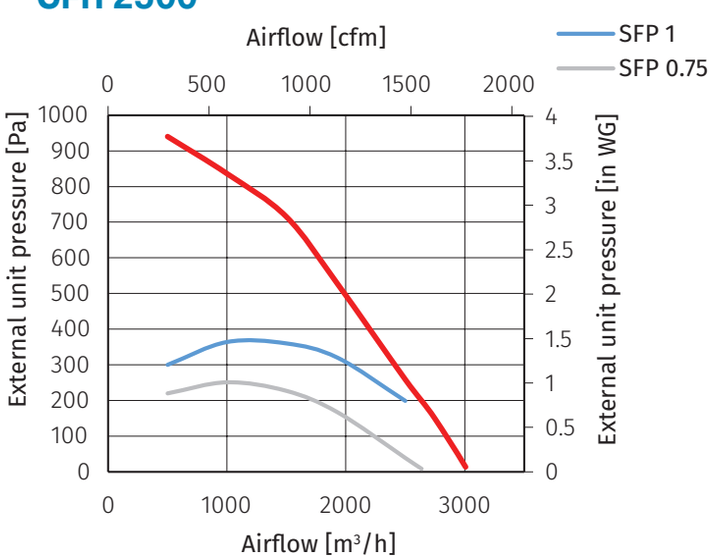


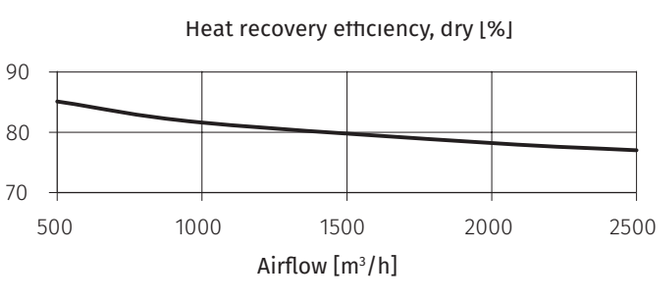


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFH 2500

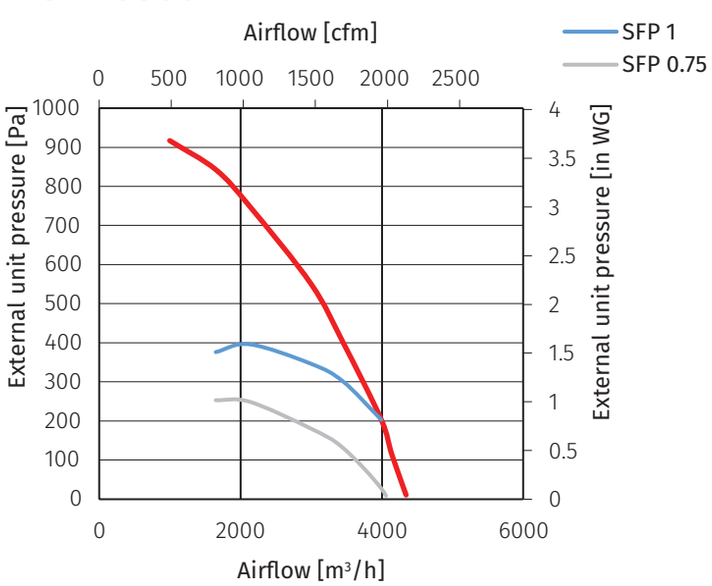


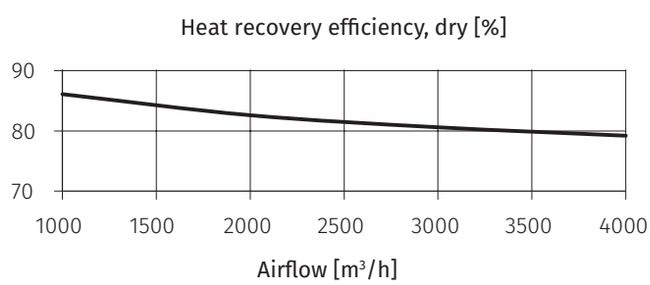


Sound power L_w in dB

Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	63
Outlet	65.6	69.5	72.2	74.2	72.1	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFH 3500

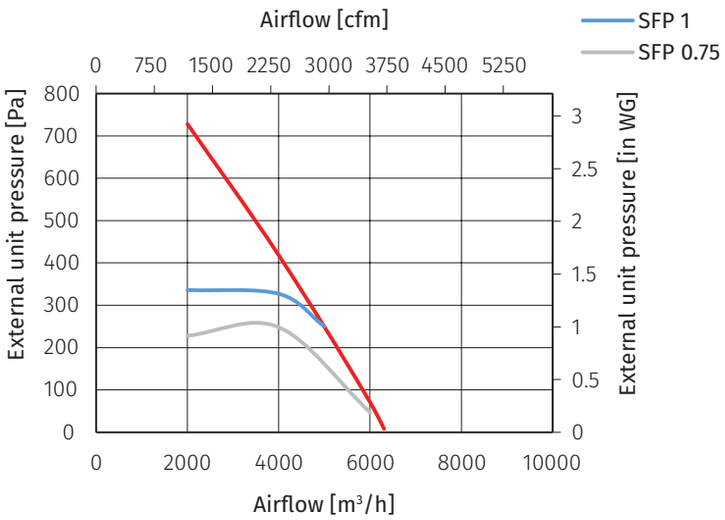


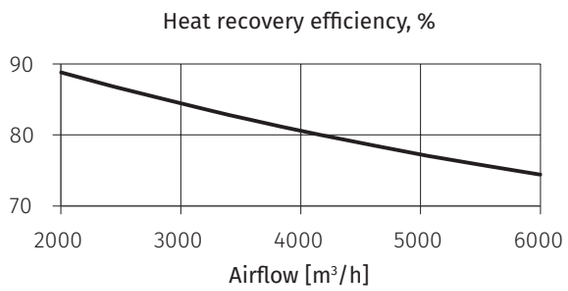


Sound power L_w in dB

Entvironment	67	64	66	57	37	59	53	57	64
Outlet	69	68	74	73	69	70	66	64	76
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFH 5000

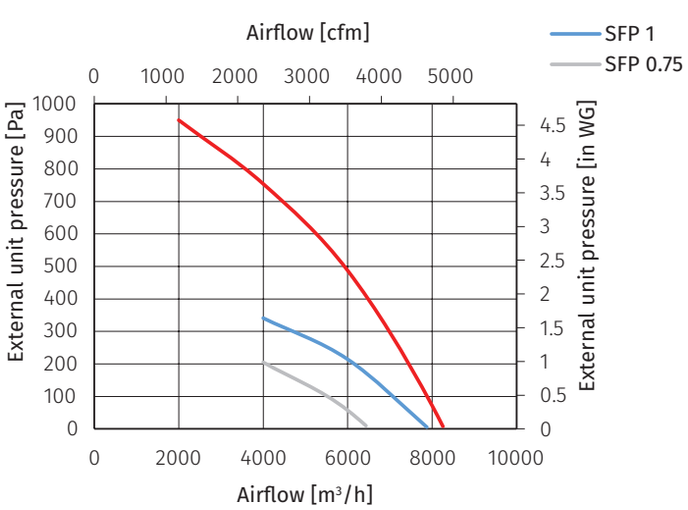


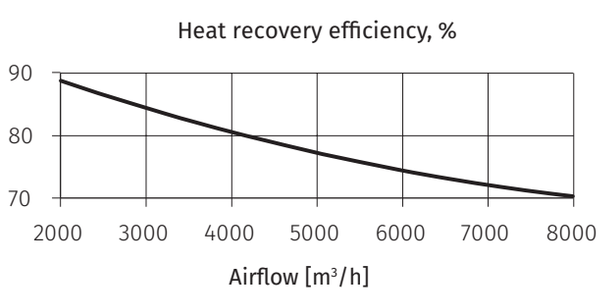


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFH 6000



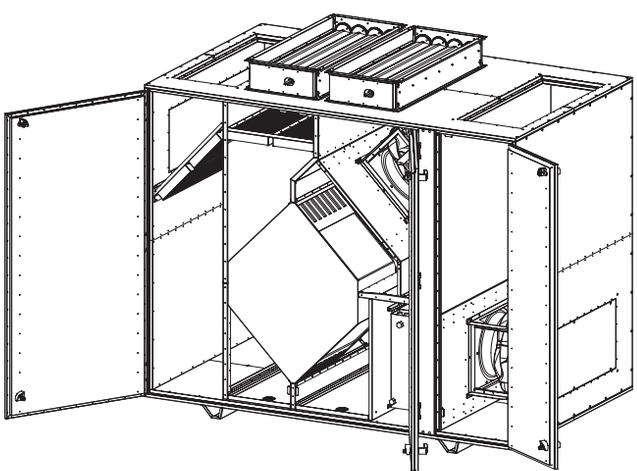


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

HEAT RECOVERY VENTILATION UNIT CFV



AV CFV, CFV-E, CFV-W

Newest product range of the highly-efficient plate heater air-conditioning units is available in five standard sizes based on the air-flow capacity: 1500, 2500, 3500, 5000, and 6000 m^3/h.
All standard sizes are accomplished with no heater (CFV series), with electric heater, or water heater option (CFV-E or CFV-W correspondingly), and ready for operation with all necessary control elements.

Main feature

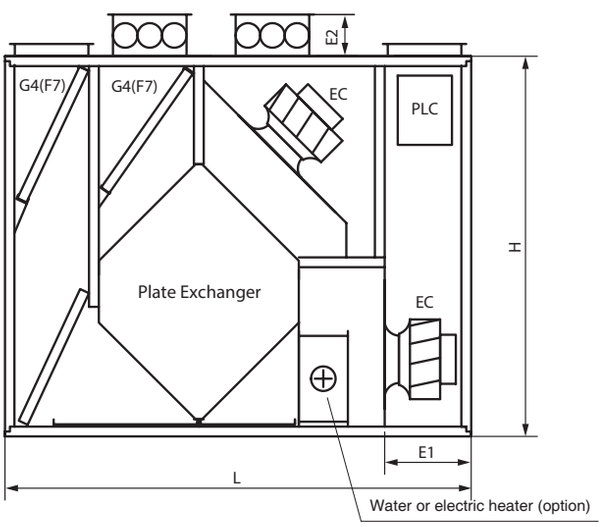
High-efficient EC-fans, backward-curved, external rotor. Integrated automatic dampers. Integrated plug-and-play controls. Automatic full-size by-passInsulated double-skin frameless casing. ECO-Design'18 compliant. Aluminum rotor heat exchanger. Panel filters G4, F7 (optional). Hinged service doors. Optional outdoor installation with outdoor mounting kit. Web-interface, MODBUS, outputs for optional DX or Hydronic cooling / heating. Complete set of accessories: silencers, economizers, VAV, CAV, etc. Operation by RH/CO2/temperature/constant pressure/timer schedule.
Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m^3; non-flammable; outer skin: zinc-aluminum; inner skin: zinc-aluminum; EN1886 class: D1, T2, TB2; corrosion resistance according to ISO 12944: class C4.

Nominal airflow		**[m^3/h]**	**1500**	**2500**	**3500**	**5000**	**6000**
EC fans	phase/voltage	[50/60Hz/VAC]	~1.200/277			~3.380/480	
	power/current	[kW/A]	2x0.46/3,0	2x0.74/3.75	2x1.14/1.8	2x1.32/2.1	2x2.6/4.0
	fan speed	[min-1]	2848	2640	2400	1350	1700
	perm. amb. temp.	[C^0]	-35...+50				
	motor protection	IP	54				
	insulation class		F	F	F	F	F
	Motor sound power level to outlet [dB(A)]		74	75	76	71	77,6
	SFP@nominal airflow, max pressure [kW/(m^3/s)]		2x1.1	2x1.06	2x1.13	2x0.946	2x1.00
Filter class	exhaust/supply	standart (optional	G4 (F7/G4(F7)				
Weight (net,winthout packing)		[kg]	175	180	250	350	380
Housing protection class	IP		34				
Sound pressure lvl @ 3m to environment		[dB(A)]	41	43	44	39	46

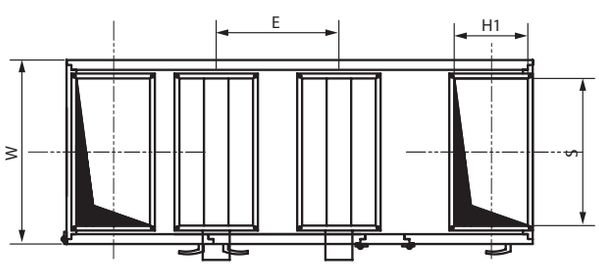
HEAT RECOVERY VENTILATION UNIT CFV, CFV-E, CFV-W

1500-3500 m³/h

Service Side panel view

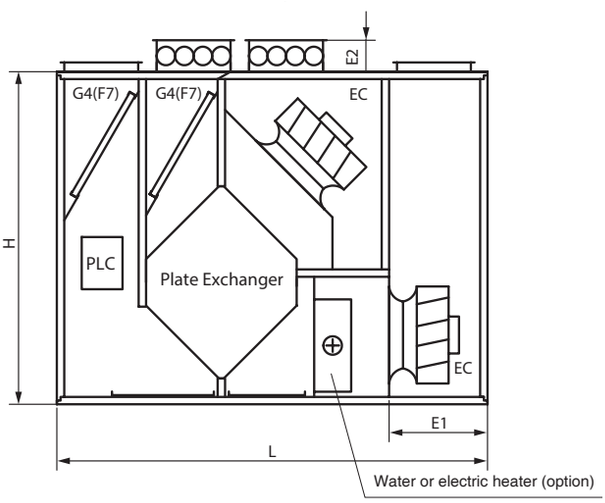


Top view

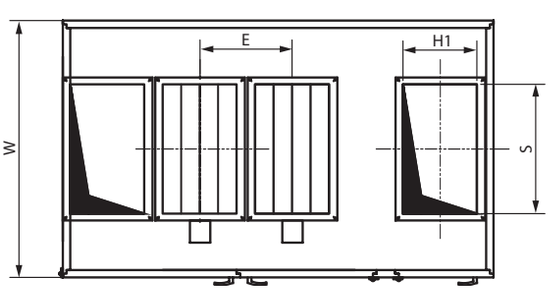


5000-6000 m³/h

Service Side panel view

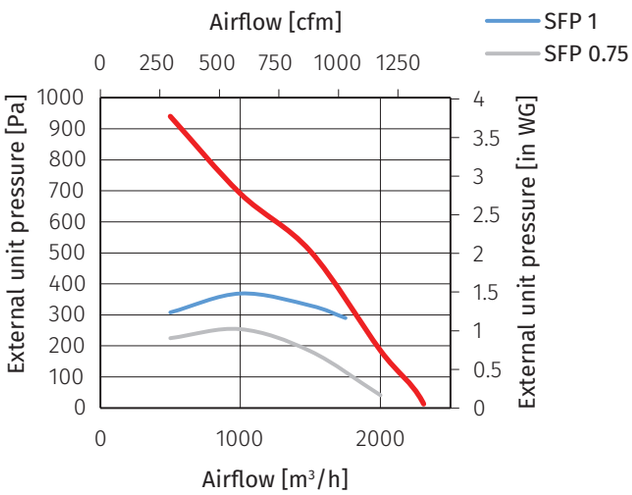


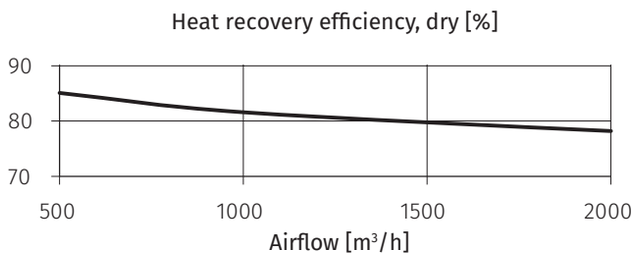
Top view



Dimensions [mm]	CFV 1500	CFV 2500	CFV 3500	CFV 5000	CFV 6000
L	1900	1900	2200	2330	2330
W	750	750	890	1390	1390
H	1550	1550	1800	1800	1800
H1	300	300	300	400	400
S	600	600	600	700	700
E	500	500	560	500	500
E1	350	350	390	530	530
E2	170	170	170	170	170

CFV 1500

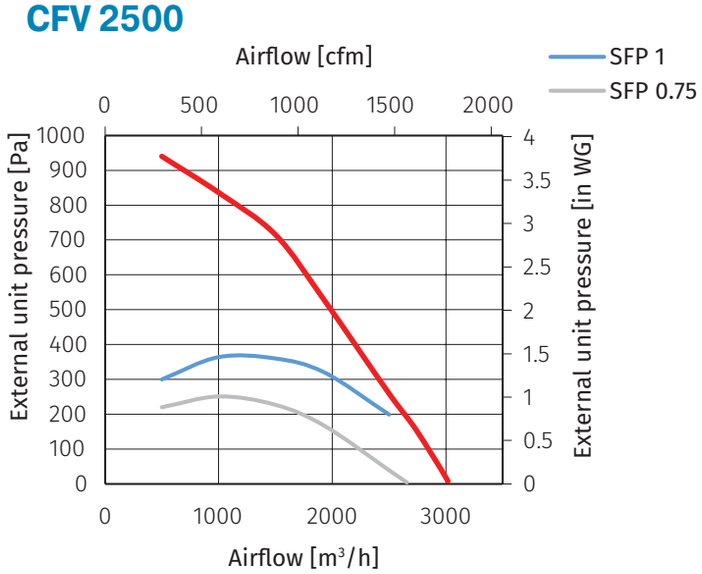


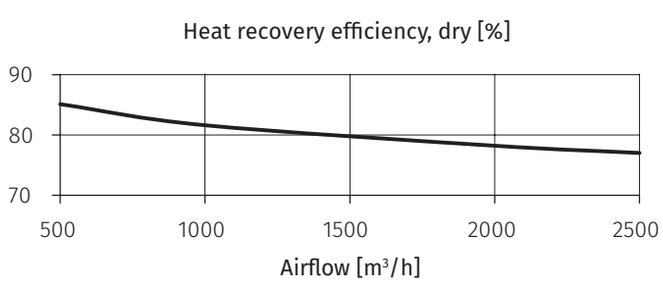


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFV 2500

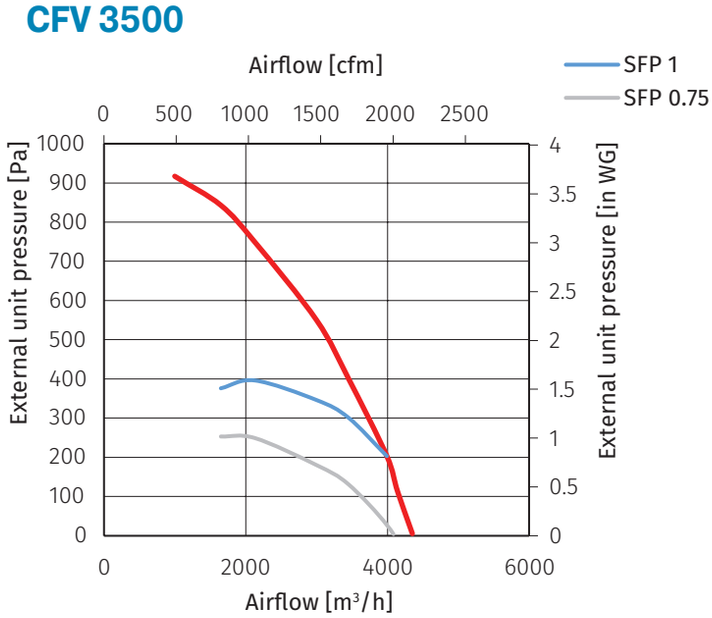


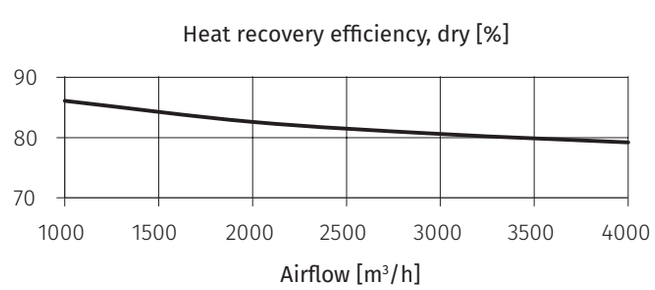


Sound power L_w in dB

Entvironment	63.6	65.5	64.2	58.2	40.1	57.2	52.2	55.4	63
Outlet	65.6	69.5	72,2	74.2	72.1	68.2	65.2	62.4	76.6
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFV 3500



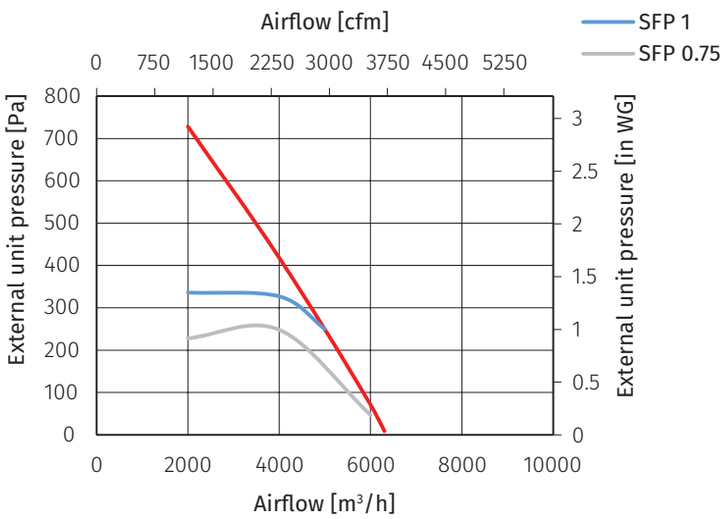


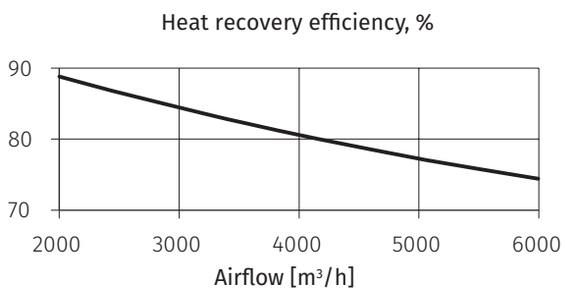
Sound power L_w in dB

Entvironment	67	64	66	57	37	59	53	57	64
Outlet	69	68	74	73	69	70	66	64	76
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

CFV 5000

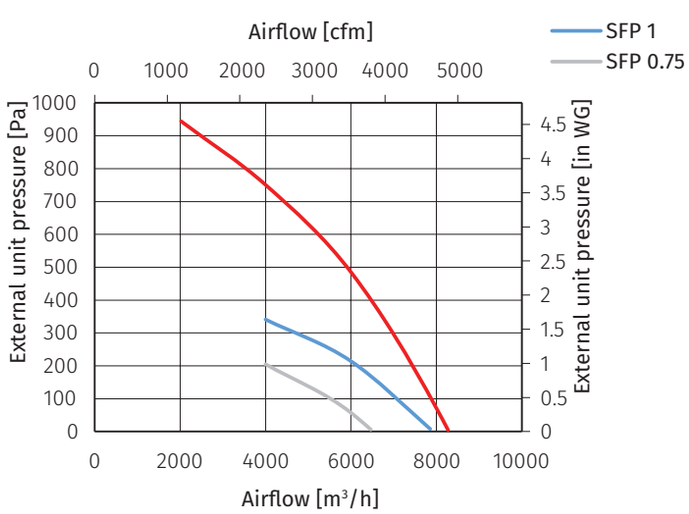


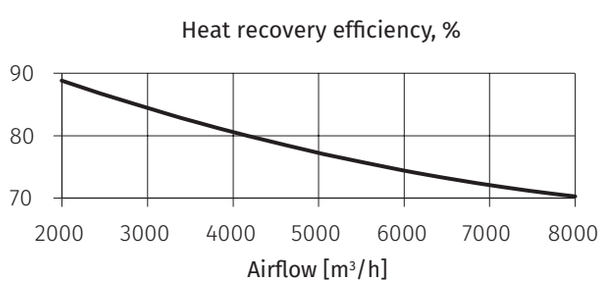


Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

CFV 6000





Sound power L_w in dB

Entvironment	66	65	62	52	33	53	48	51	59
Outlet	68	69	70	68	65	64	61	58	71
Hz	63	125	250	500	1000	2000	4000	8000	LwA

* external SFP provided per fan [kWt/m³/s]

WATER HEATER PARAMETERS FOR THE PLATE HEATER UNITS

Model	Nominal airflow [m³h]	Water temperature difference [°C]	Maximum capacity [kW]	Capacity [kW]	Temperature rotor out. [°C]	Pressure drop [kPa]	Fluid flow [l/s]
CFH 1500 W CFV 1500 W CFP 1500 W	1500	90/70	12.43	1.06	19.94	0.11	0.01
		80/60	10.32				
		70/50	8.22				
		60/40	6.11				
CFH 2500 W CFV 2500 W CFP 2500 W	2500	90/70	39.49	2.25	19.39	0.51	0.03
		80/60	14.4				
		70/50	11.48				
		60/40	8.56				
CFH 3500 W CFV 3500 W CFP 3500 W	3500	90/70	18.65	1.75	20.55	0.31	0.02
		80/60	15.48				
		70/50	12.3				
		60/40	9.12				
CFH 5000 W CFV 5000 W	5000	90/70	55.8	4.5	19.39	0.31	0.05
		80/60	46.39				
		70/50	36.98				
		60/40	27.57				
CFH 6000 W CFV 6000 W	6000	90/70	62.7	5.83	19.18	0.52	0.07
		80/60	52.15				
		70/50	41.59				
		60/40	31.04				

Air temperature outside/inside -10°C /+22 °C

ELECTRIC HEATER PARAMETERS FOR THE PLATE HEATER UNITS

Model	Nominal airflow [m³h]	Power [kW]	Heating elements pcs. x kW	Current [A]	Voltage [V-Hz]	Connection
CFH 1500 E CFV 1500 E CFP 1500 E	1500	5.1	3x1.7	7.4	3~400/59-60	Y
CFH 2500 E CFV 2500 E CFP 2500 E	2500	9.0	3x3.0	13.0		Y
CFH 3500 E CFV 3500 E CFP 3500 E	3500	12.0	3x4.0	17.4		Y
CFH 5000 E CFV 5000 E	5000	24	3x8.0	34.7		Δ
CFH 6000 E CFV 6000 E	6000	24	3x8.0	34.7		Δ

MOLLIER DIARGAM