

All range class A
High-efficiency heat recovery unit
High performance fan motor assembly
plug fan
Plug & play unit (built-in control)



Air flow rate: 500 to 18 000 m³/h



Specifications	Class
Mechanical strength	D2
Airtightness	L2
Filter by-pass leak	F9
Thermal transmission	T3
Thermal bridge	TB2

USE

FLOWAY is a plug & play dual-flow ventilation unit equipped with a highly efficient heat recovery unit with plug fans and high performance EC motors, designed to meet all the requirements of recent thermal regulations.

Unit supplied ready to use, prewired, preprogrammed in the factory and supplied with a remote control.

FLOWAY draws clean, fresh air indoors using, on average, 80% less energy than that needed for air conditioning (cooling and heating).

These machines are designed for use in the following applications:

- Administrative buildings, offices
- Bars, hotels, restaurants
- Nursing homes, healthcare facilities
- Education facilities, libraries, community centres
- Shops
- Collective housing

⇒ All facilities where ventilation is required.

Classic RHE model: 9 sizes, air flow from 300 to 18 000 m³/h.

Classic model: 5 sizes, air flow from 300 to 6 600 m³/h.

Floor-mounted horizontal unit with horizontal air flows and air connections on the sides.

Vertical model: 3 sizes, air flow from 300 to 2 600 m³/h.

Floor-mounted vertical unit with vertical air flows and air connections on the top.

Ceiling-mounted model: 3 sizes, air flow from 300 to 1 900 m³/h.

Ceiling-mounted horizontal unit with vertical air flows and air connections on the sides.

High energy-efficiency heat recovery unit

Depending on its arrangement, two different highly energy-efficient heat recovery systems are available:



“COUNTER FLOW” plate heat exchanger with by-pass (Vertical, Ceiling-mounted & Classic models)



Variable speed rotary heat exchanger (Classic RHE model)

RANGE

Floway Classic & Classic RHE

Models	Nominal flow rate (m ³ /h)	Max.* power (kW)	Max current* (A)	Voltage (V)
1000	1000	1.43	6.2	3-Ph 400
2000	2000	2.50	3.6	
3000	3000	3.82	5.5	
4000	4000	4.23	6.1	
5000	5000	4.23	6.1	
6000	6000	6.03	8.7	
7500	7500	6.03	8.7	
10000	10000	12.06	17.4	
15000	15000	15.45	22.3	

FLOWAY Vertical

Models	Nominal flow rate (m ³ /h)	Max.* power (kW)	Max current* (A)	Voltage (V)
1000	1000	1.43	6.2	1-Ph 230
1500	1500	2.50	3.6	3-Ph 400
2000	2000	2.50	3.6	

FLOWAY Ceiling-mounted version

Models	Nominal flow rate (m ³ /h)	Max.* power (kW)	Max current* (A)	Voltage (V)
700	700	1.43	6.2	1-Ph 230
1200	1200	1.43	6.2	
1600	1600	2.50	3.6	

* These values are given as a guide for a dual-flow unit fitted as standard, without standard option (electric heater).

DESCRIPTION

Casing

- Double-skin panels made from steel sheets, galvanised on both sides, thickness 8/10 mm.
- RAL 7035 grey lacquer coating finish on external panels.
- M0/A1 fire rating.
- Mineral wool, thickness 50 mm.

Filtration

- M5, F7 HEE, F9 HEE filters.
- Filter cells kept compressed by a special system to ensure a leaktight seal.
- Filter fouling value monitored by analogue sensor and displayed by controller.

Ventilation

- "Plug fan" type direct drive FMA.
- Plug fan driven by an electronically commutated motor with built-in speed control.

Heat recovery units

- Counter-flow plate heat exchanger with motorised partial by-pass (Ceiling-mounted, Vertical and Classic models).
 - ⇒ Efficiency greater than 80% across the range of air flows.
- Rotary heat exchanger equipped with speed control (Classic RHE model).
 - ⇒ Efficiency greater than 80% at nominal flow rate.

Hydraulic coil

- Copper pipes, aluminium fins.
- Coil can be integrated or additional (cased).
 - With the accessory fitted, 2 or 3-way control valve and 0-10V actuator controlled by Floway Control for setpoint accuracy.
 - Galvanised steel condensate drain pan (cooling coil or mixed coil only).

Electric heaters

- High-limit safety thermostat with automatic and manual reset.
- Control by 2-stage on/off operation fully controlled by Floway Control.

Electrics box

- Electrics box for power, control and internal regulation of the unit, comprising as standard:
 - Power supply (3-Ph/400 V/Earth or 1-Ph/230 V/Earth).
 - Main disconnect switch.
 - Protected transformer.
 - Protection and control of all electrical components by a circuit-breaker and a contact switch.
 - Peripheral options and power terminal block.
 - Control by factory pre-programmed CAREL pCO3 PLC.
 - Hand-held cabled micro-terminal.
 - Fault summary contact.
 - 3 temperature sensors.
 - 4 pressure sensors.

Accessories

- Damper with airfoil blades driven by an on/off spring-return actuator.
- Flexible sleeve.
- Adjustable feet.
- CO₂ air quality sensor.
- Roof.
- Canopy.
- Mixing section.
- Indoor environment switch.
- ModBus RTU, LON, KNX, ModBus TCP, BACnet IP communication card.

Models & sizes	Power (kW)	Current (A)	Voltage (V)
Classic & Classic RHE 1000 Vertical 1000 Ceiling-mounted 700 & 1200	4.5	20	1-Ph 230
Vertical 1500 (additional casing) Ceiling-mounted 1600 (additional casing)	7.20	11	3-Ph 400
Vertical 1500	8.1	12	
Classic & Classic RHE 2000	10.8	16	
Classic & Classic RHE 3000	12.6	19	
Classic & Classic RHE 4000	16.8	25	
Classic RHE 5000	19.8	29	
Classic & Classic RHE 6000	22.8	34	
Classic RHE 7500	31.2	46	
Classic RHE 10000	N/A	N/A	
Classic RHE 15000	N/A	N/A	

CONTROL

FLOWAY Control

FLOWAY features, as standard, an electrics box equipped with a factory-programmed PLC and a hand-held micro-terminal.

FLOWAY CONTROL control function (software V2.2)			Included	Options*	
Fan timer programming	Integrated clock: management in series	4 events per year, <u>and</u> per week <u>and</u> per day	X		
Safety	Frost protection	By fresh air temperature control	X		
		By exhaust air flow pressure on heat recovery unit delta control (pressure sensor)		X	
	Monitoring of sensor status		X		
	Monitoring operation values (thresholds)		X		
	Operating control of EC fan motor assemblies via a fault summary contact		X		
	Control of filter fouling (automatic calculation of "Dirty filter" and "Blocked filter" alarm thresholds)		X		
	Main and ordinary fault summary		X		
Alarms	Fire monitoring (potential free (dry) contact available (normally closed))		X		
	Management of alarms and log (100)		X		
Control mode	Control of return air or supply air temperature		X		
	Regulated temperature control based on outdoor temperature		X		
	Control of room temperature with a room terminal (Th-Tune)			X	
Hot air and/or cold air production	Gradual action on the 2- or 3-way control valve on the hydraulic coil			X	
	Gradual action on the electric heater TRIAC			X	
	On/Off action on the various stages of the electric heaters			X	
Free cooling operation	Rotary heat exchanger stop (Classic RHE model)		X		
	Open by-pass on counter-flow plate recovery unit (Vertical, Ceiling-mounted & Classic models)		X		
Night cooling function	Rotary heat exchanger stop (Classic RHE model)		X		
	Open by-pass on counter-flow plate recovery unit (Vertical, Ceiling-mounted & Classic models)		X		
Morning heating operation	Opening level control of mixing bypass (Classic RHE model)			X	
ECO recirculation operation	Opening level control of mixing bypass (Classic RHE model)			X	
Optimisation of output	Variation of the rotation speed of the rotary recovery unit (Classic RHE model)		X		
Configuration of the air flow rate	2 air flow rate setpoints per air flow		X		
	Display of the air flow rate		X		
	Overpressure/negative pressure management		X		
Constant flow rate operation	Keeps the air flow rate constant regardless of how fouled the filters are		X		
Modulation of flow rates operation	Single zone	Signal 0-10 V		CO ₂ sensor	
		Contact		Presence contact	
	Multi zone			External contact	X
			Air supply duct constant pressure operation		X
Communicating mode	Management by CMS			ModBus RS485 protocol	
				LON protocol	
				KNX protocol	
				ModBus TCP/BACNET IP protocol	
Miscellaneous	Languages supported (French/English/German/Dutch/Spanish/Italian)		X		
	Integrated temperature sensors (*3: fresh air supply and extraction, exhaust air extraction)		X		
	Integrated pressure sensors (*4: fresh air and exhaust air filter fouling level, fresh air and exhaust air fan)		X		
	Damper control			X	
	Information provided to the user via the hand-held micro terminal		X		
	Contact for controlling the pumps for the hydraulic coils (with operating control)		X		
	Contact for controlling an external outdoor heat production system (boiler, etc.)		X		
Contact for controlling a humidifier		X			
Electric heater load shedding input		X			

Option*: Requires the component to be selected as an option damper, coil, CO₂ sensor, etc.

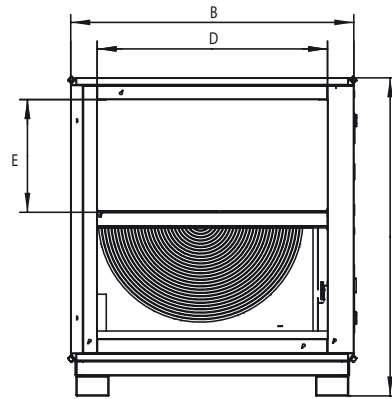
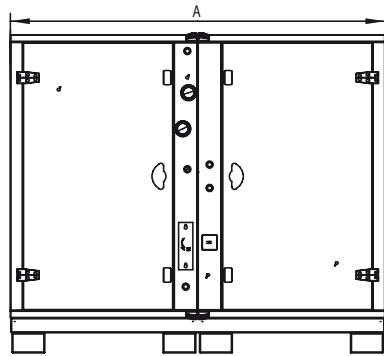
DIMENSIONS AND DIRECTIONS OF AIR FLOWS

FLOWAY CLASSIC & CLASSIC RHE

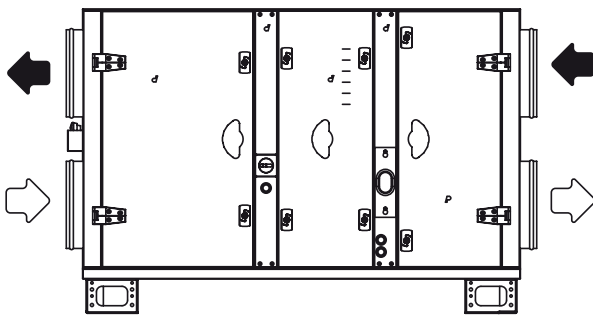
Models	FLOWAY CLASSIC & CLASSIC RHE					
	Height (C) (mm)	Width (B) (mm)	Length (A) (mm)		Weight (kg) *	
			Classic	Classic RHE	Classic	Classic RHE
1000	958	810	1580**	1266**	200	201
2000	1158	1010	1150 + 800**	510 + 800**	350	309
3000	1359	1210	1264 + 800	800 + 800	465	432
4000	1659	1510	1264 + 800	800 + 800	580	558
5000	1659	1510	-	800 + 800	-	604
6000	1959	1810	1407 + 800	800 + 800	765	702
7500	1959	1810	-	800 + 800	-	751
10000	2090	1920	-	1100 + 1100	-	955
15000	2340	2192	-	1100 + 1200	-	1250

* Without internal option

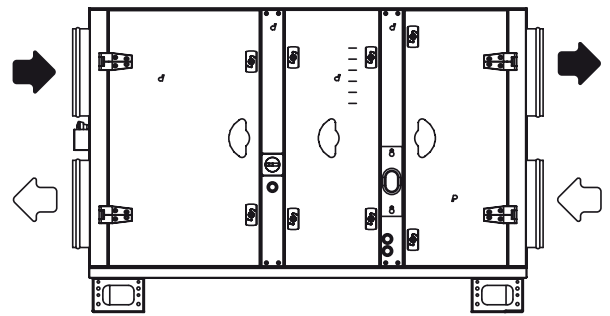
** Round connection; beyond 47 mm on each side.



DIRECTION OF AIR FLOW
Classic RHE models



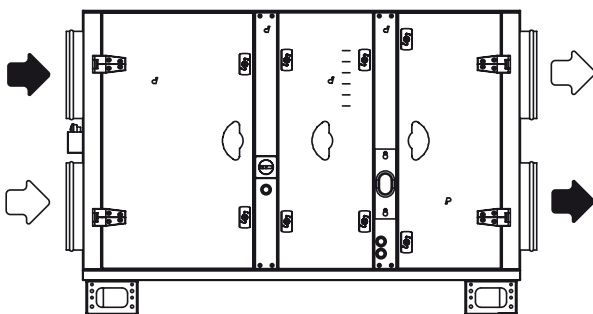
ROTS 2.1



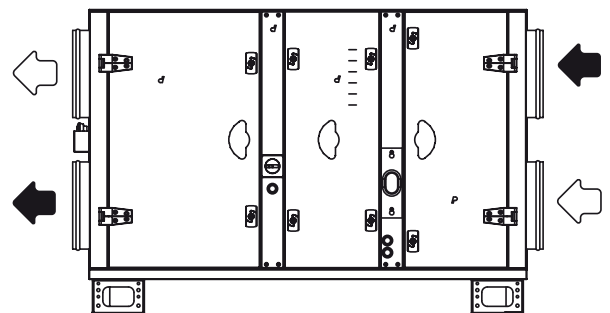
ROTS 2.2

↶ WHITE ARROW = FRESH AIR
↷ BLACK ARROW = EXTRACTED AIR

Classic models



PLAS 01



PLAS 02

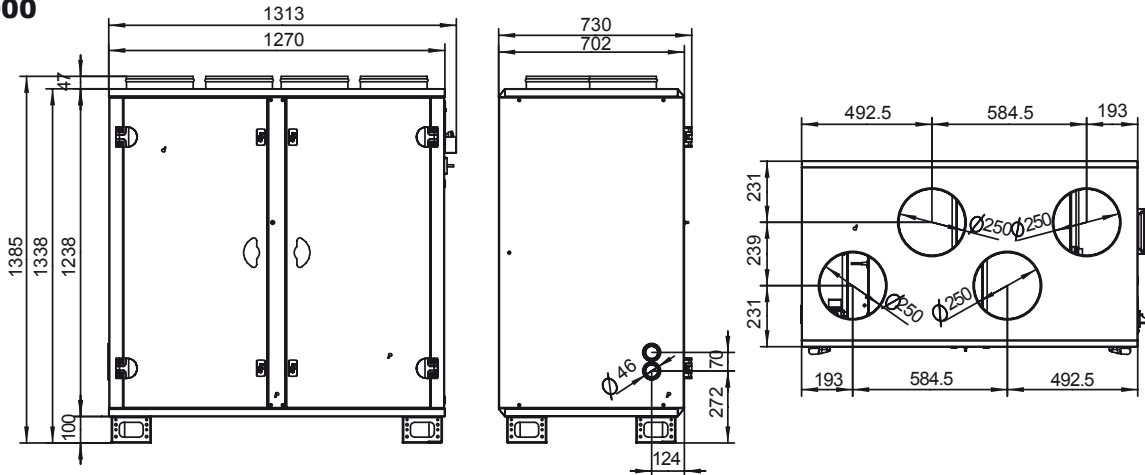
FLOWAY VERTICAL

Models	Dimensions			Weight (kg) *
	Height (mm)	Length (mm)	Width (mm)	
1000	1385	1313	730	202
1500	1758	1593	832	330
2000	1901	1735	832	389

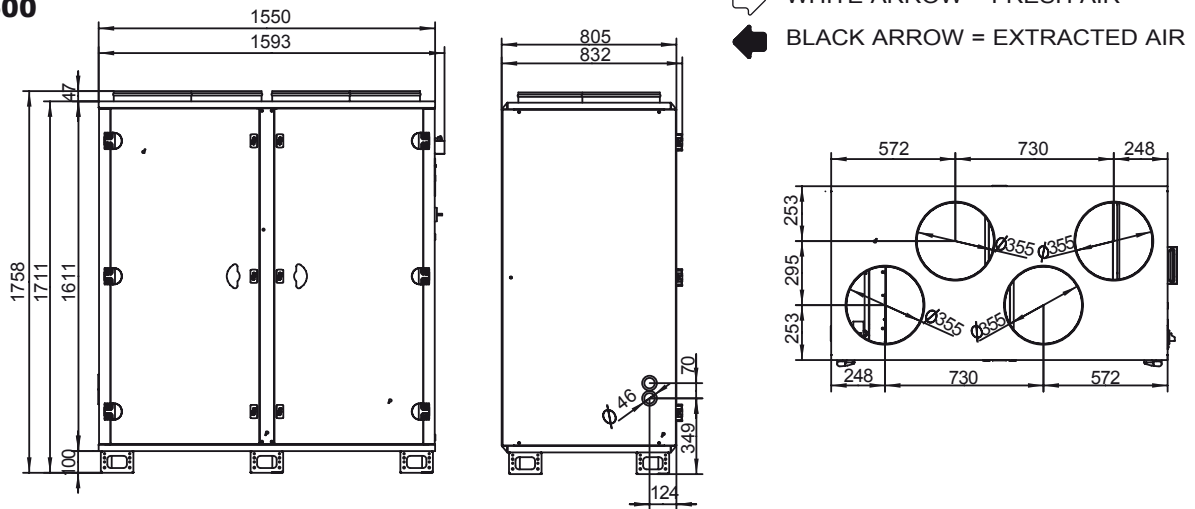
Ø 16 mm condensate drain pipe

* Without internal option

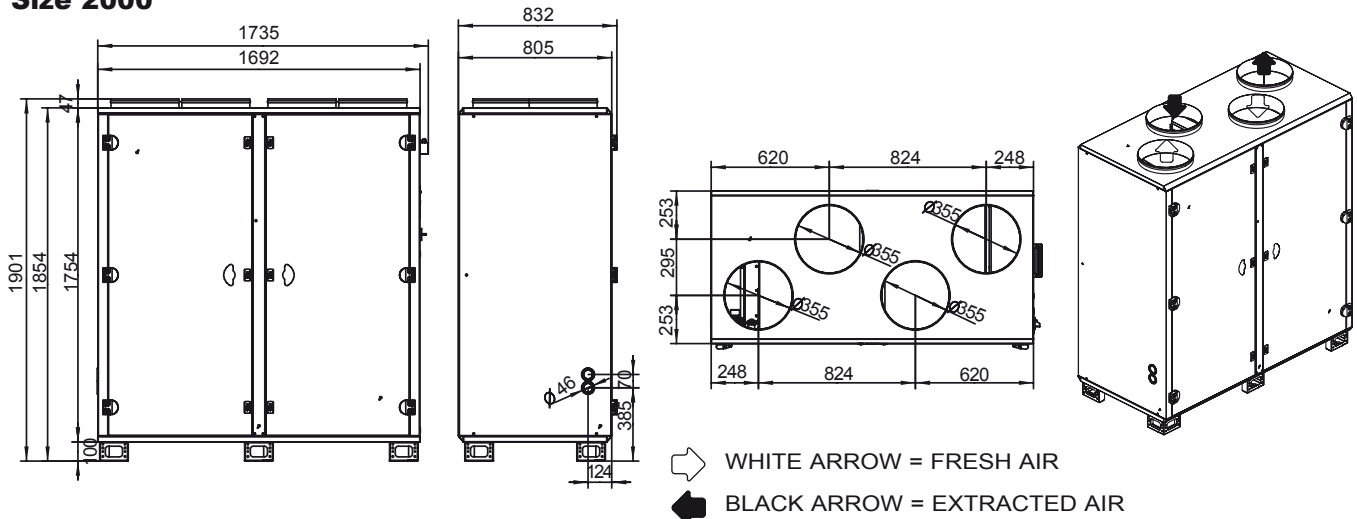
Size 1000



Size 1500



Size 2000

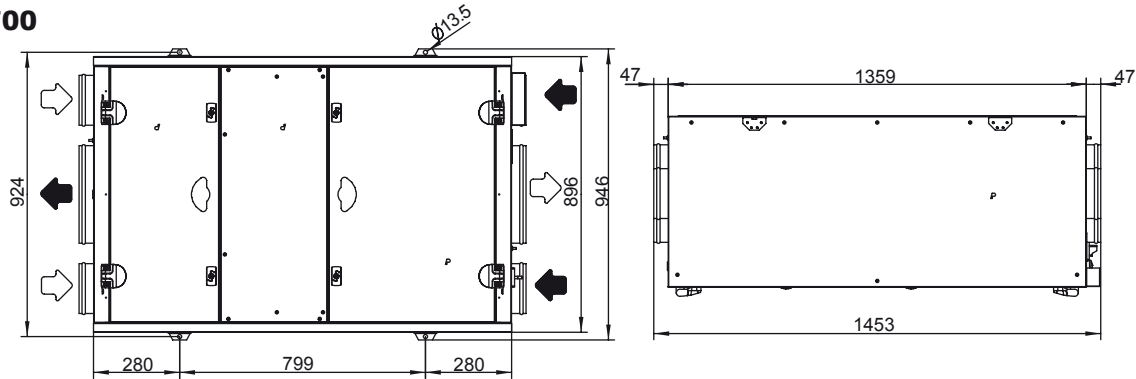


FLOWAY CEILING-MOUNTED VERSION

Models	Dimensions			Weight (kg)
	Height (mm)	Length (mm)	Width (mm)	
700	585	1453	896	161
1200	585	1592	1174	206
1600	585	1850	1456	279

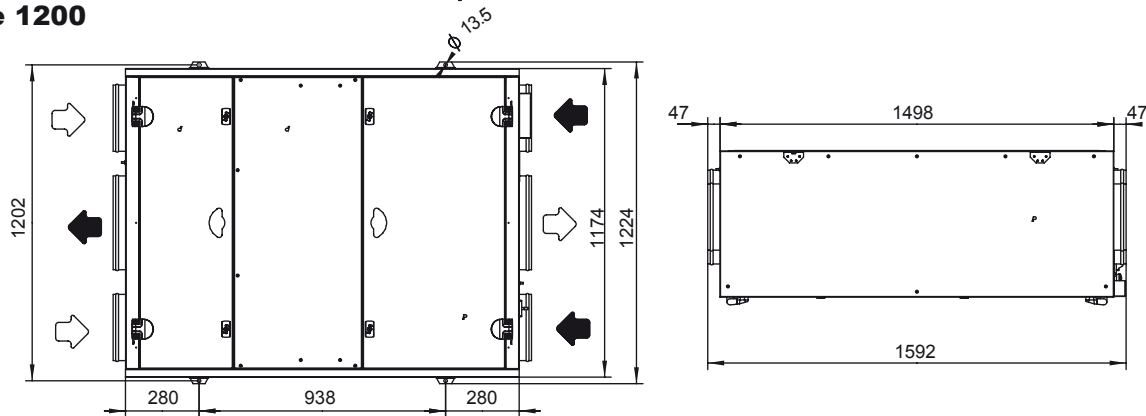
Ø 16 mm condensate drain pipe

Size 700

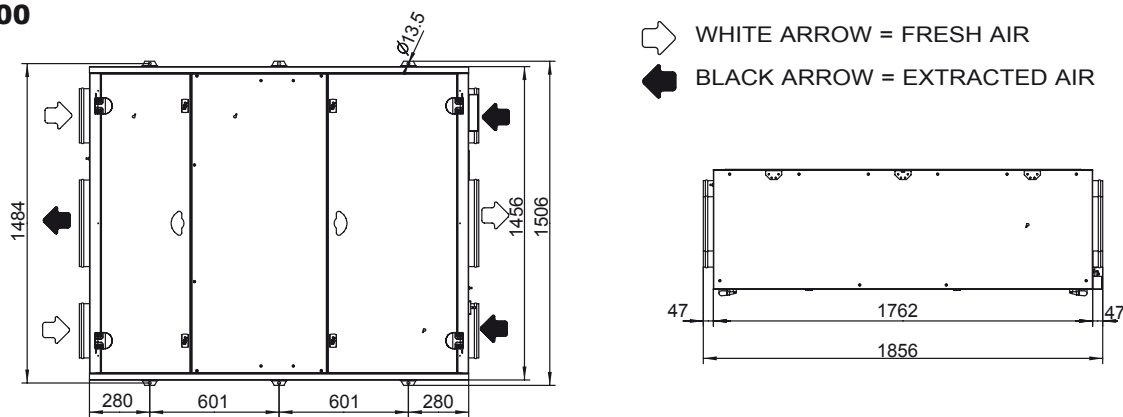


WHITE ARROW = FRESH AIR
 BLACK ARROW = EXTRACTED AIR

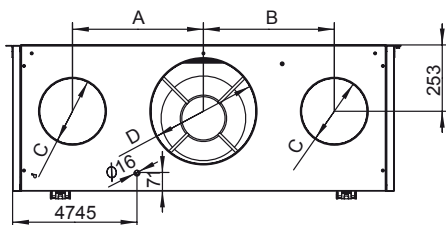
Size 1200



Size 1600



WHITE ARROW = FRESH AIR
 BLACK ARROW = EXTRACTED AIR

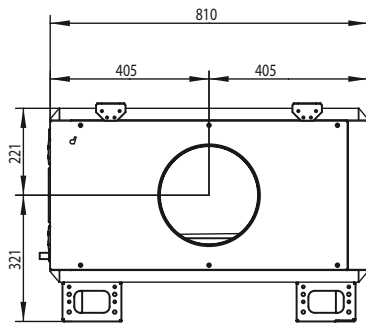


MODELS	AIR CIRCULATION DIMENSIONS (mm)			
	A	B	C	D
700	306	306	Ø160	Ø315
1200	398	398	Ø250	Ø355
1600	499.5	499.5	Ø250	Ø400

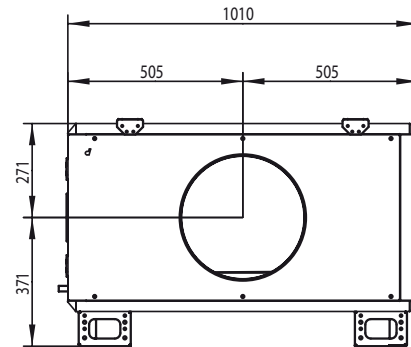
ADDITIONAL CASING (MUST ONLY BE POSITIONED IN A HORIZONTAL AIR FLOW)

Models	Additional casing sizes (mm)	Weight (kg)
Classic RHE, Classic 1000 Vertical 1000 Ceiling-mounted 700	Size 1 542 x 496 x 810	49
Classic RHE, Classic 2000 Vertical 1500 & 2000 Ceiling-mounted 1200 & 1600	Size 2 642 x 496 x 1010	62
Classic RHE & Classic 3000	Size 3 759 x 400 x 1210	68
Classic RHE & Classic 4000 & 5000	Size 4 909 x 400 x 1510	88
Classic RHE & Classic 6000 & 7500	Size 5 1059 x 400 x 1810	112

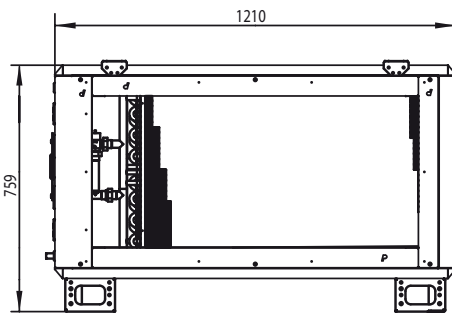
Size 1



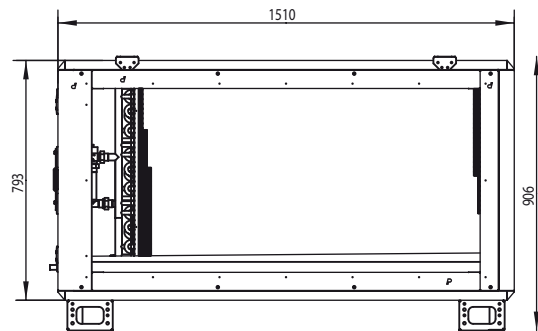
Size 2



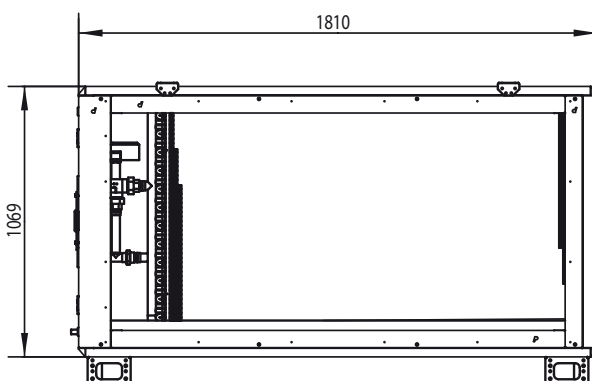
Size 3



Size 4



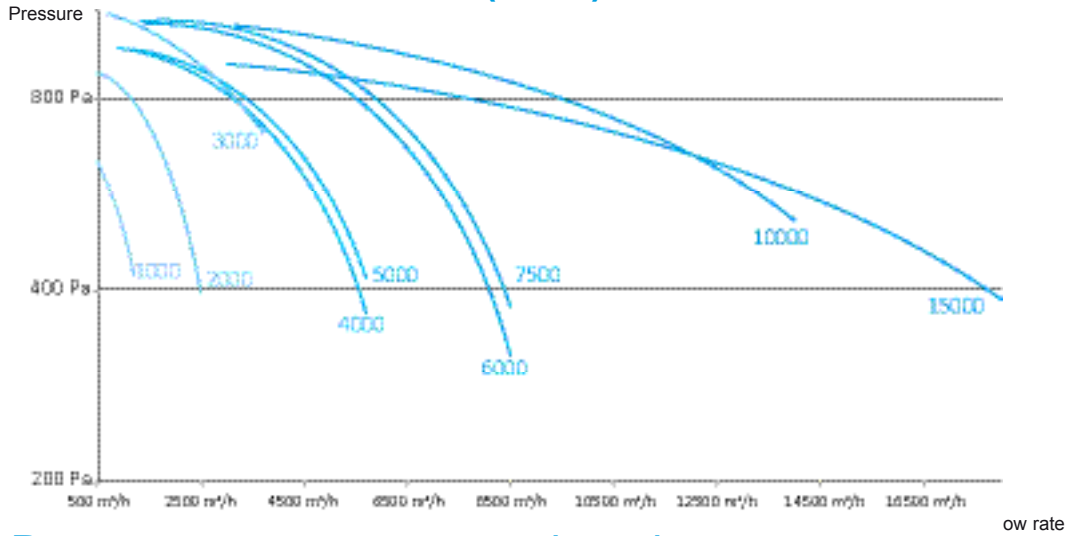
Size 5



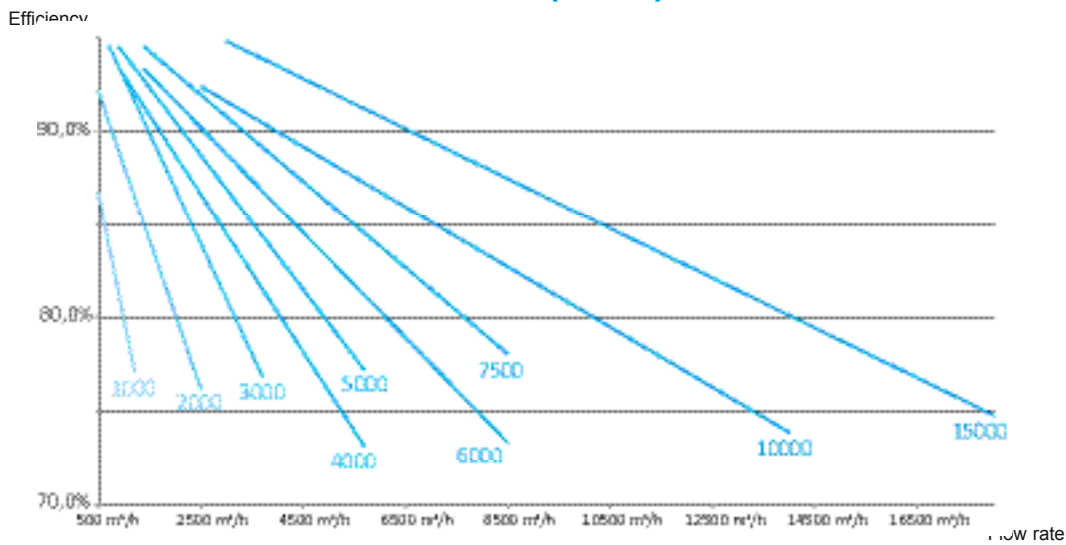
CLASSIC RHE MODEL PERFORMANCE

F5 exhaust filter, F7 intake filter, duct pressure: 200 Pa, heat recovery unit conditions: 0°C/90% & 20°C/50%

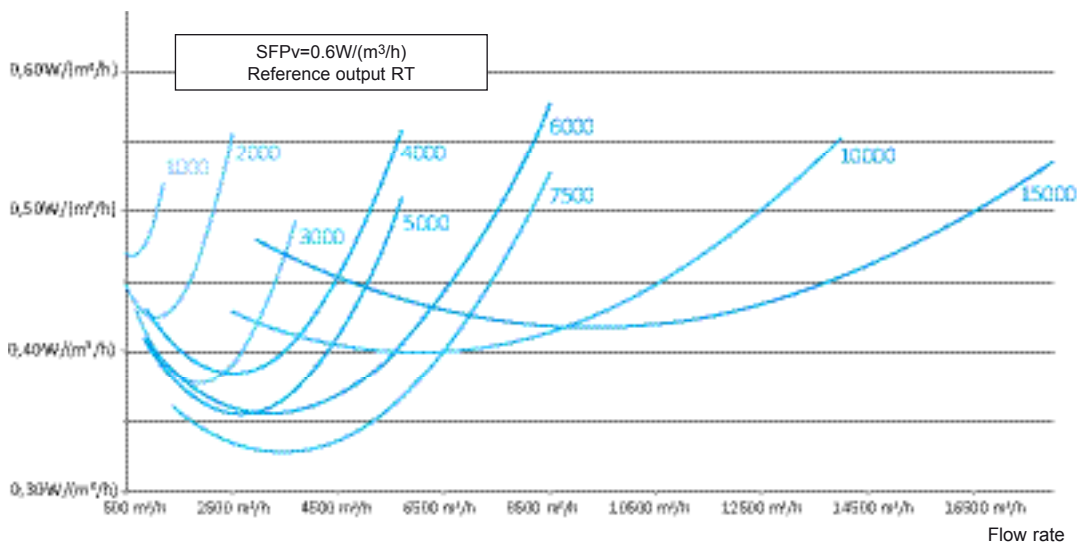
OPERATING PRESSURE = F (FLOW)



PERFORMANCE RECOVERY = F (FLOW)



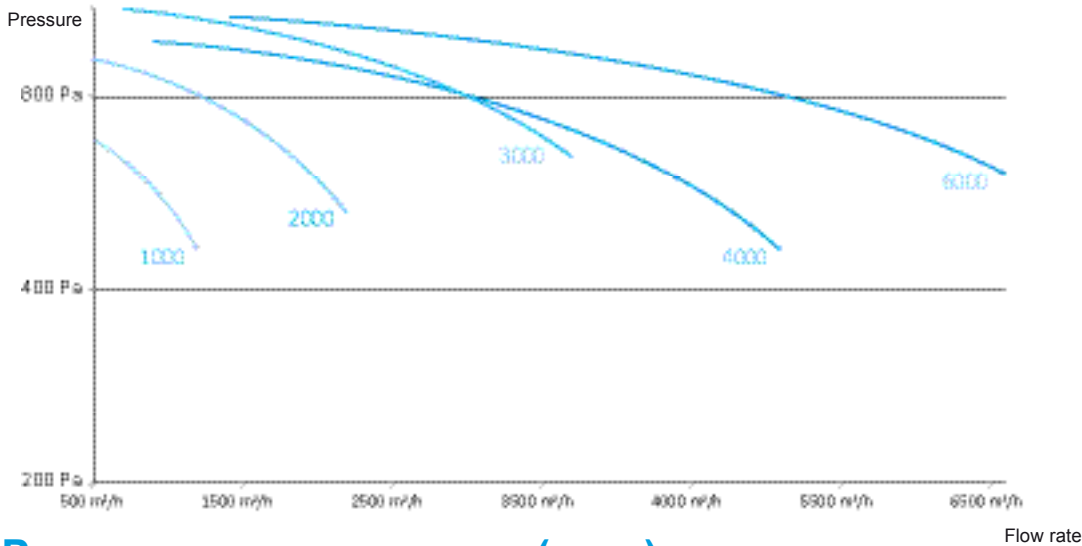
SFPv AHU = F (FLOW)



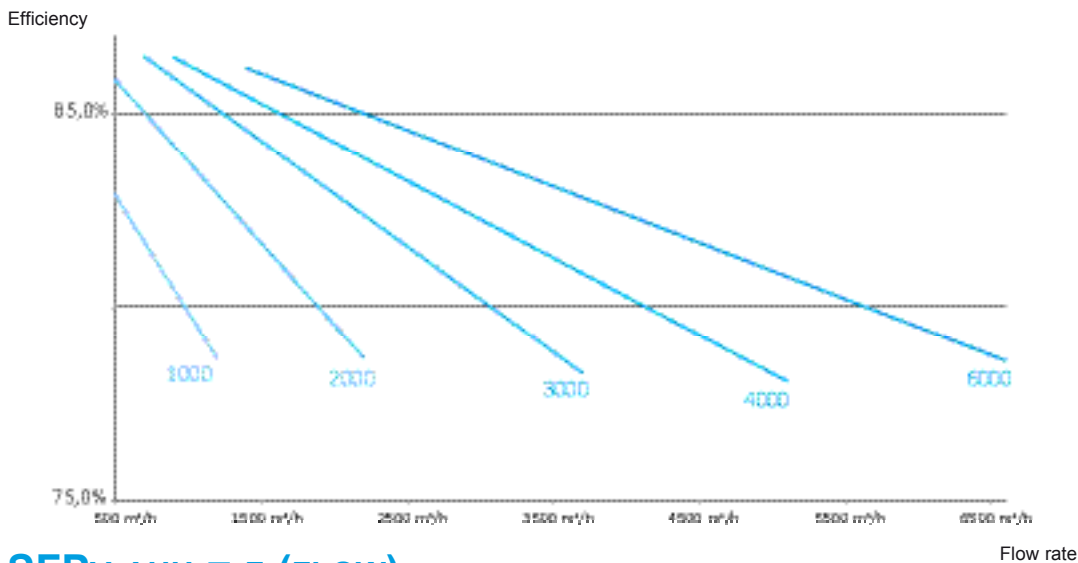
CLASSIC MODEL PERFORMANCE

F5 exhaust filter, F7 intake filter, duct pressure: 200 Pa, heat recovery unit conditions: 0°C/90% & 20°C/50%

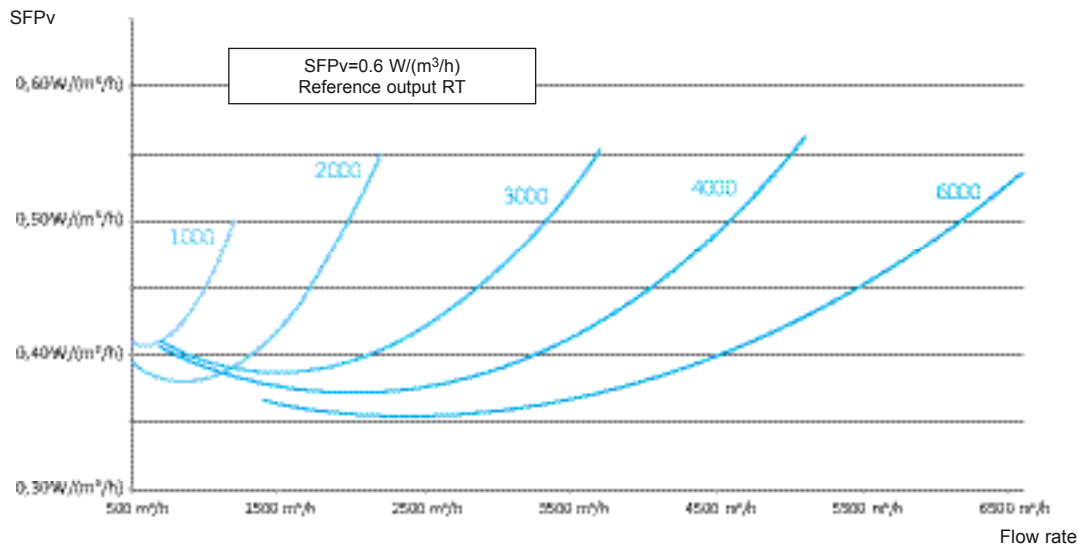
OPERATING PRESSURE = F (FLOW)



PERFORMANCE RECOVERY = F (FLOW)



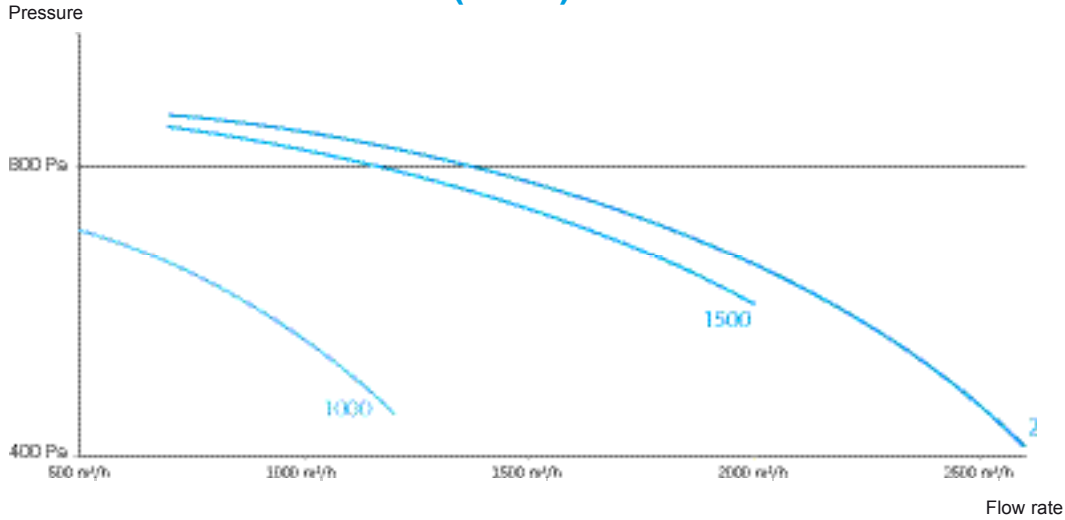
SFPv AHU = F (FLOW)



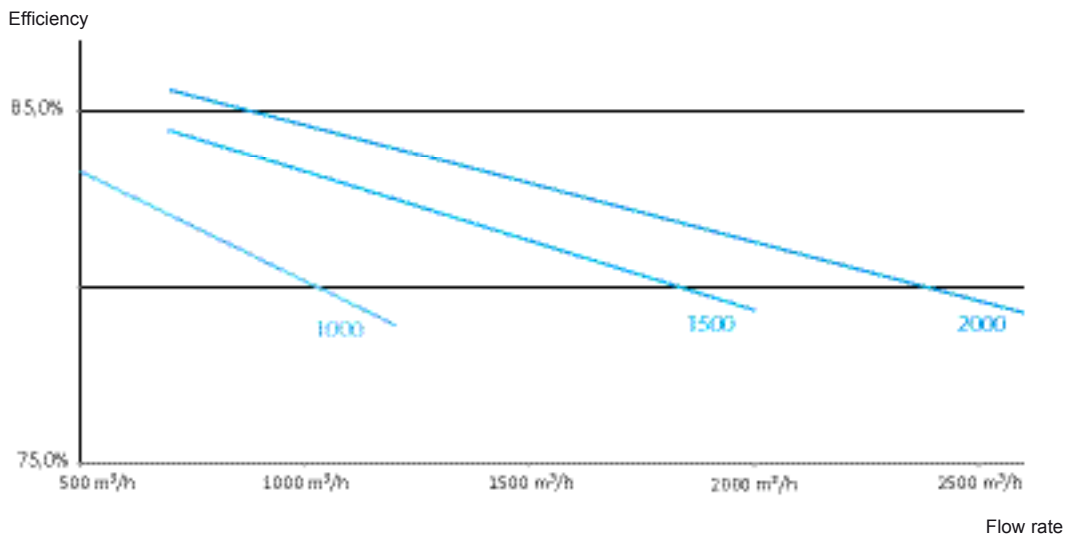
VERTICAL MODEL PERFORMANCE

F5 exhaust filter, F7 intake filter, duct pressure: 200 Pa, heat recovery unit conditions: 0°C/90% & 20°C/50%

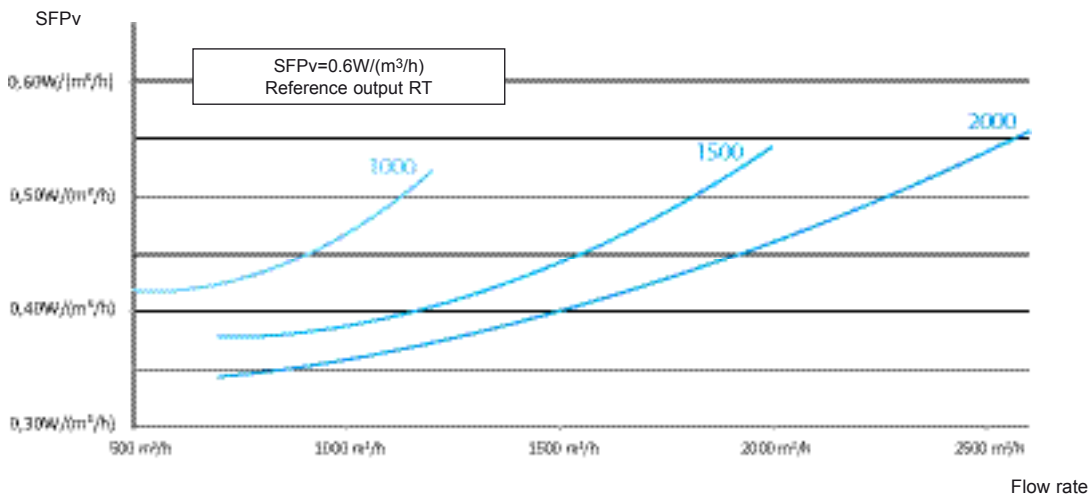
OPERATING PRESSURE = F (FLOW)



PERFORMANCE RECOVERY = F (FLOW)



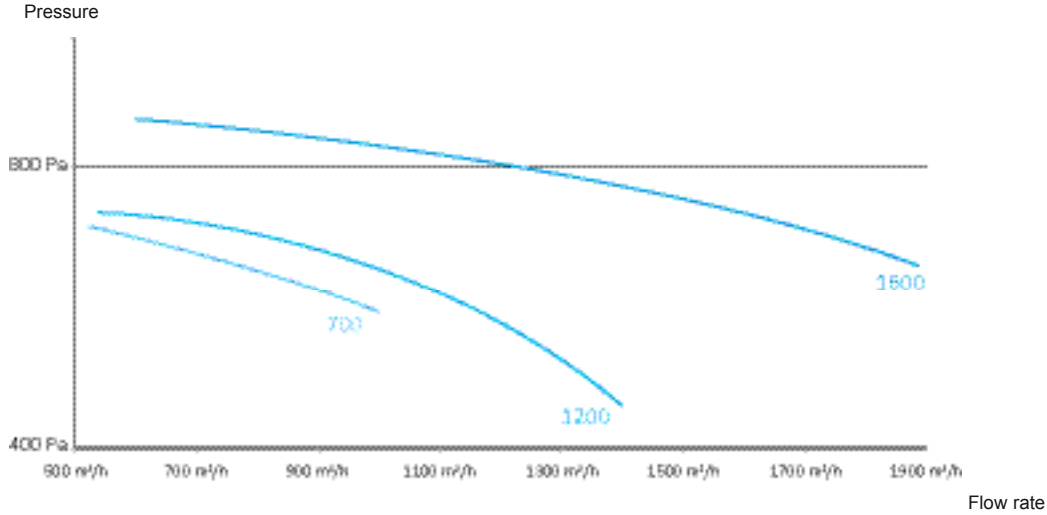
SFPv AHU = F (FLOW)



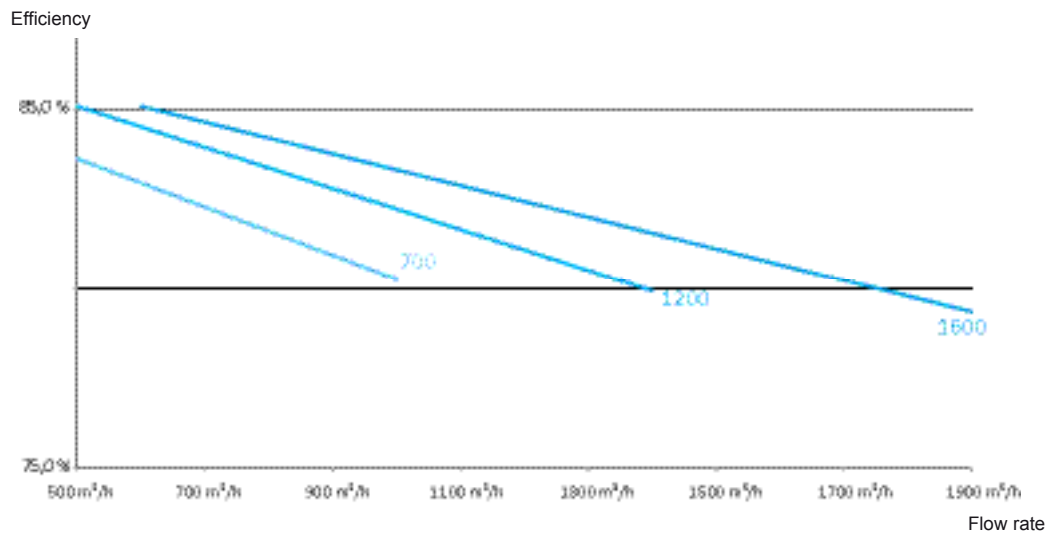
CEILING-MOUNTED MODEL PERFORMANCE

F5 exhaust filter, F7 intake filter, duct pressure: 200 Pa, heat recovery unit conditions: 0°C/90% & 20°C/50%

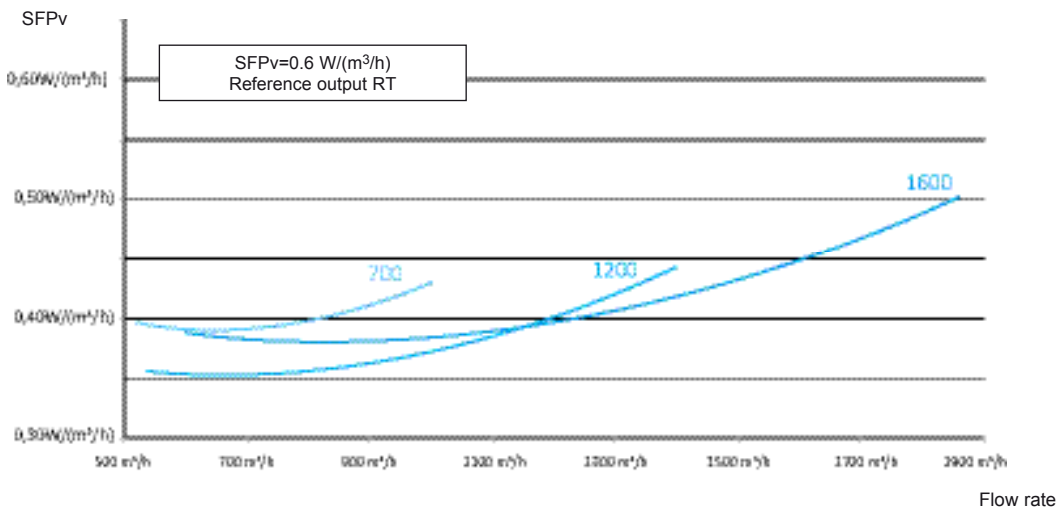
OPERATING PRESSURE = F (FLOW)



PERFORMANCE RECOVERY = F (FLOW)



SFPv AHU = F (FLOW)





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