RIS P

- Heat recovery units
- Counter flow
- 420 ≤ Qv ≤ 2500 m³/h

Air handling units type RIS P

Application

- Ventilation of houses, offices or other heated premises (classrooms, apartments, conference rooms, etc.)

Composition

- Frameless construction from double-skinned panels
- Acoustic and thermal wall insulation: RIS 400–2500 P EKO 3.0 – 30/50 mm
- RIS 400-700 P EKO 3.0 powder-coated white housing RAL 9016; RIS 1200–2500 P EKO 3.0 powder-coated grey housing RAL 7040
- Integrated electrical heater or optional duct-based water heater/cooler
- Low-pressure-drop filters: F7/M5
- Hinged door with locks grants easy access to internal components
- Separate compartment on the side of the unit grants quick access to the control board (plug-and-play)
- Stainless steel condensate tray
- Fitted with mounting brackets
- Integrated anti-frost pressure switch (RIS 1200-2500 P EKO 3.0)

Characteristics

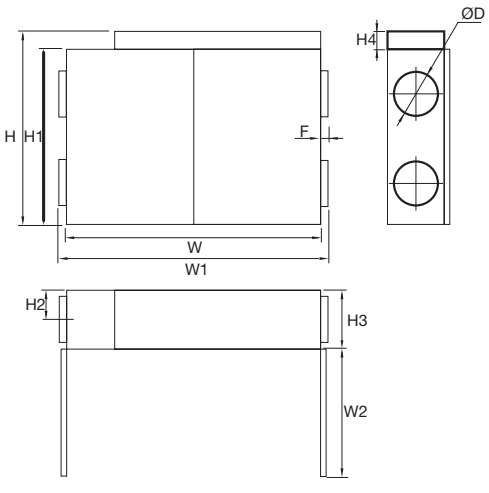
- **RIS P EKO 3.0** is a range of heat recovery units with high-efficiency counter-flow heat exchangers and low height. The units are designed for mounting under ceilings in order to save space. There are 5 sizes (airflow interval 420-2500 m^3/h) with separate heaters available for different climate zones
- **RIS P EKO 3.0** units have high overall energy savings due to the highly efficient heat recovery (up to 90%), quiet and economical EC fans, effective low-pressure-drop filters, 100% motorized bypass dampers (for the 1900 and 2500 versions) and top-level of air tightness
- Energy efficiency ensures full thermal comfort for passive houses, without an additional pre-heater at temperatures above -5°C
- All the **RIS P EKO 3.0** units are fully equipped with automatic controls. Optional external sensors for CO_2 and humidity and the event planning feature will help to control automatically your climate (demand-level control)
- **RIS P EKO 3.0** units are service-friendly and are easy to mount. Filter pollution may be identified by timers or contamination controls (RIS 1200-2500 P EKO 3.0)
- All units are supplied tested and ready to install
- Three types of remote controllers: Flex, Stouch or Ptouch controllers; BMS connections; via PC MB-Gateway

Technical data																
RIS PE EKO 3.0			(400) 0.9	(400) 1.6	(400) 3.0	(700) 1.2	(700) 3.0	(700) 4.5	(1200) 3.0	(1200) 6.0	(1200) 9.0	(1900) 3.0	(1900) 6.0	(1900) 12.0	(2500) 4.5	(2500) 9.0	(2500) 18.0
Electrical heater	Phase / voltage	50Hz / V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~3Ph / 400V	~1Ph / 230V	~3Ph / 400V	~3Ph / 400V	~1Ph / 230V	~3Ph / 400V	~3Ph / 400V	~3Ph / 400V	~3Ph / 400V	~3Ph / 400V
	Power	kW	0.9	1.6	3.0	1.2	3.0	4.5	3.0	6.0	9.0	3.0	6.0	12.0	4.5	9.0	18.
EC Fans	Phase / voltage	50Hz / V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V
	Exhaust fans power / curent	kW / A	0.085 / 0.73	0.085 / 0.73	0.085 / 0.73	0.168 / 1.4	0.168 / 1.4	0.168 / 1.4	0.450 / 2.95	0.450 / 2.95	0.450 / 2.95	0.485 / 3.12	0.485 / 3.12	0.485 / 3.12	0.725 / 3.24	0.725 / 3.24	0.725 / 3.24
	Exhaust fans speed	min^{-1}	3200	3200	3200	3230	3230	3230	3400	3400	3400	2540	2540	2540	2800	2800	2800
	Supply fans power / curent	kW / A	0.085 / 0.73	0.085 / 0.73	0.085 / 0.73	0.168 / 1.4	0.168 / 1.4	0.168 / 1.4	0.370 / 2.5	0.370 / 2.5	0.370 / 2.5	0.488 / 3.16	0.488 / 3.16	0.488 / 3.16	0.675 / 3	0.675 / 3	0.675 / 3
	Supply fans speed	min^{-1}	3200	3200	3200	3230	3230	3230	3400	3400	3400	2540	2540	2540	2800	2800	2800
Thermal efficiency up to: *		%	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Motorized by-pass			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Max. power consumption		kW / A	1.07 / 5.5	1.77 / 8.5	3.17 / 14.5	1.54 / 8.34	3.34 / 15.84	4.84 / 9.3	3.82 / 18.49	6.82 / 14.19	9.82 / 18.49	3.97 / 20.32	6.97 / 14.92	12.97 / 24.32	5.90 / 12.78	10.40 / 19.28	19.40 / 32.28
Control board			PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2	PRV V2
Filter class	Exhaust / supply		M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7
Housing insulation, mineral wool		mm	30	30	30	30	30	30	50	50	50	50	50	50	50	50	50
Colour / RAL			white / 9016	white / 9016	white / 9016	white / 9016	white / 9016	white / 9016	grey / 7040	grey / 7040	grey / 7040	grey / 7040	grey / 7040	grey / 7040	grey / 7040	grey / 7040	grey / 7040
Net weight		kg	74	74	74	103.5	104	104.5	170	170	170	269	270	272	322	322	322
Comply with ERP			2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018
Operation			indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors	indoors
Fresh air temperature limits: **		°C	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40
Housing protection class		IP	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34

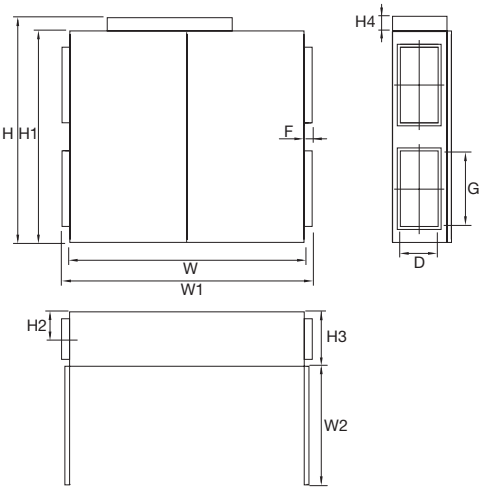
Technical data							
RIS PW EKO 3.0			400	700	1200	1900	2500
Water heater (optional)			AVS 200	AVS 250	SVS 500x250	SVS 700x400	SVS 700x400
Fans	Voltage	50Hz / V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V	~1Ph / 230V
	Exhaust fans power / current	kW / A	0.085 / 0.73	0.168 / 1.4	0.450 / 2.95	0.485 / 3.12	0.725 / 3.24
	Exhaust fans speed	min^{-1}	3200	3230	3400	2540	2800
	Supply fans power / current	kW / A	0.085 / 0.73	0.168 / 1.4	0.370 / 2.5	0.488 / 3.16	0.675 / 3.0
	Supply fans speed	min^{-1}	3200	3230	3400	2540	2800
Thermal efficiency up to: *		%	90	90	90	90	90
Motorized by-pass			✓	✓	✓	✓	✓
Max. power consumption		kW / A	0.17 / 1.50	0.34 / 2.84	0.82 / 5.49	0.97 / 6.32	1.40 / 6.28
Control board			PRV V2	PRV V2	PRV V2	PRV V2	PRV V2
Filter class	Exhaust / supply		M5 / F7	M5 / F7	M5 / F7	M5 / F7	M5 / F7
Housing insulation, mineral wool		mm	30	30	50	50	50
Colour / RAL			white / 9016	white / 9016	grey / 7040	grey / 7040	grey / 7040
Net weight		kg	73	103	170	269	322
Comply with ERP			2016; 2018	2016; 2018	2016; 2018	2016; 2018	2016; 2018
Operation			indoors	indoors	indoors	indoors	indoors
Fresh air temperature limits: **		°C	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40
Housing protection class		IP	34	34	34	34	34

- * Calculated according EN 13141-7.
- ** For temperatures lower than recommended, use electrical pre-heater to ensure balanced operation

Dimensions



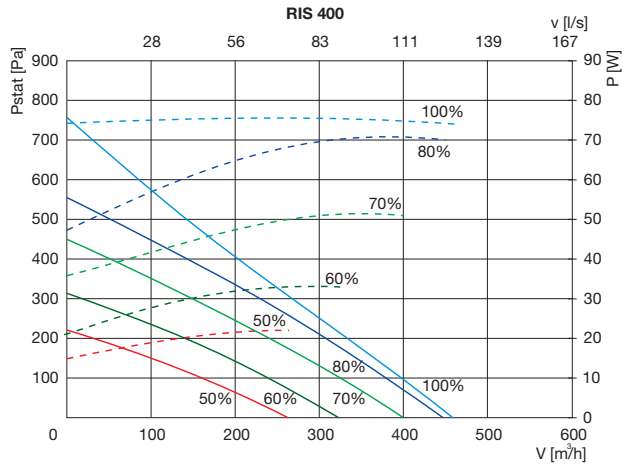
RIS 400P EKO - RIS 700P EKO 3.0

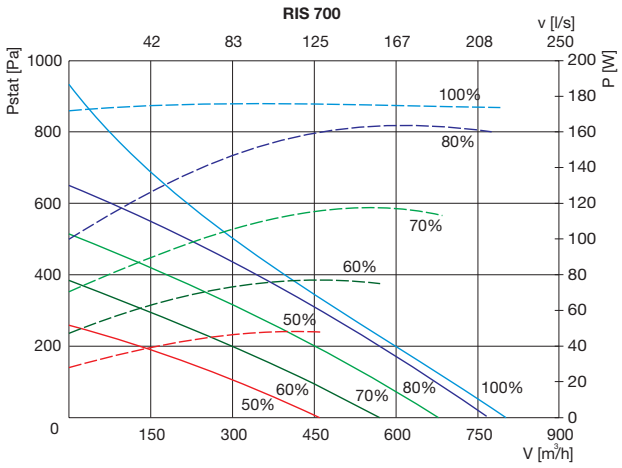


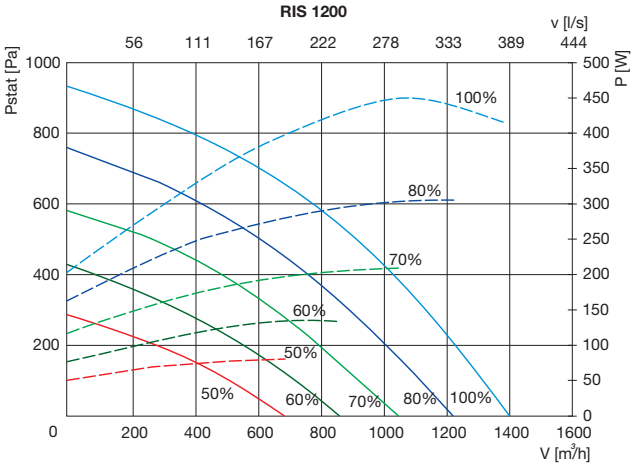
RIS 1200P EKO - RIS 2500P EKO 3.0

Dimensions												
Model	W [mm]	W1 [mm]	W2 [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	F [mm]	ØD [mm]	G [mm]	D [mm]
RIS 400PE/PW EKO 3.0	1300	1361	650	768	670	158	330	98	31	200	-	-
RIS 700PE/PW EKO 3.0	1380	1461	695	1069	970	160	350	99	40	250	-	-
RIS 1200PE/PW EKO 3.0	1550	1655	780	1497	1397	172	390	100	52	-	500	250
RIS 1900PE/PW EKO 3.0	1750	1870	710	1955	1850	194	399	105	60	-	700	300
RIS 2500PE/PW EKO 3.0	1850	1970	720	2055	1950	244	499	105	60	-	700	400

Supply air


RIS 400
v [l/s]
28 56 83 111 139 167
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]


RIS 700
v [l/s]
42 83 125 167 208 250
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]


RIS 1200
v [l/s]
56 111 167 222 278 333 389 444
Pstat [Pa]
P [W]
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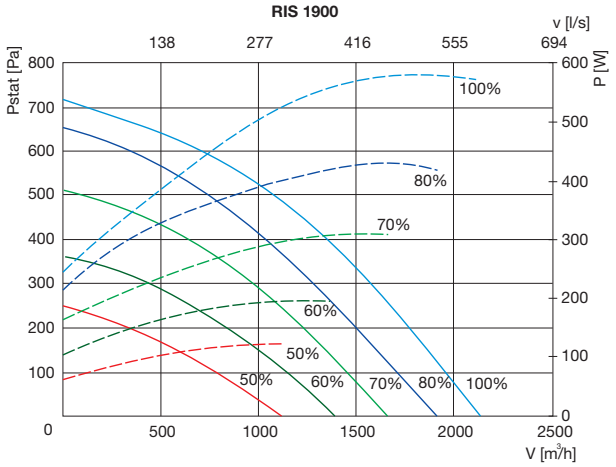
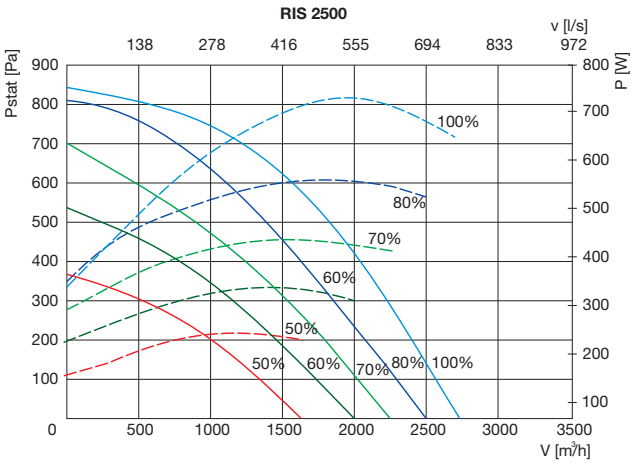
80%
70%
60%
50%
V [m³/h]


RIS 1900
v [l/s]
138 277 416 555 694
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]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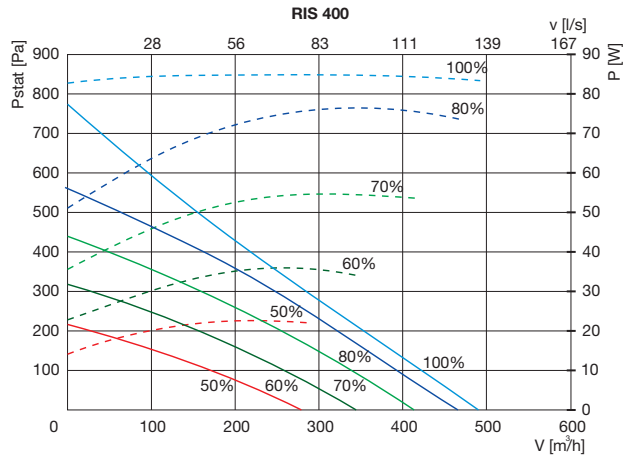
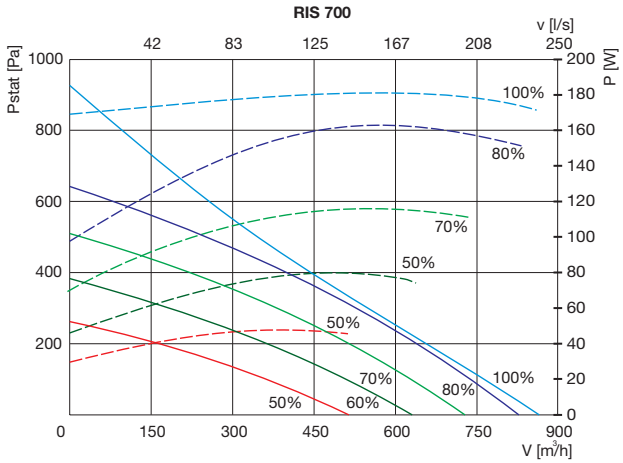
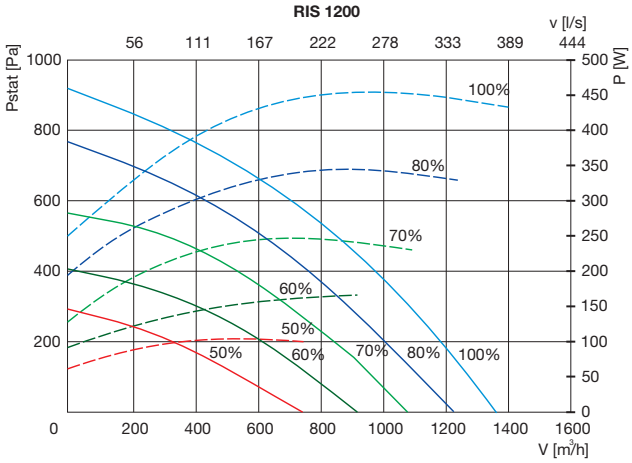
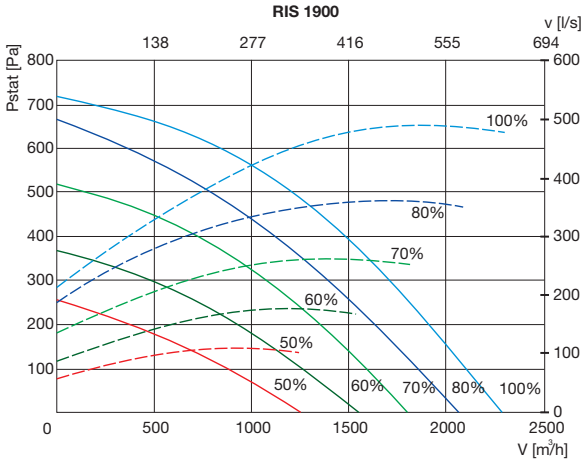
v [l/s]
138 278 416 555 694 833 972
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]

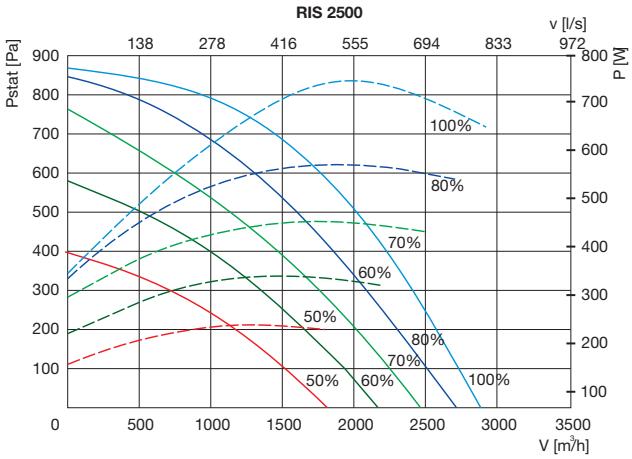
Exhaust air


RIS 400
v [l/s]
28 56 83 111 139 167
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]
0 100 200 300 400 500 600

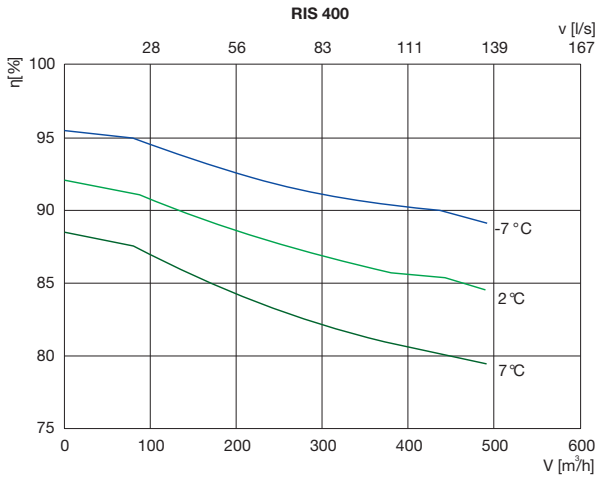

RIS 700
v [l/s]
42 83 125 167 208 250
Pstat [Pa]
P [W]
100%
80%
70%
50%
V [m³/h]
0 150 300 450 600 750 900

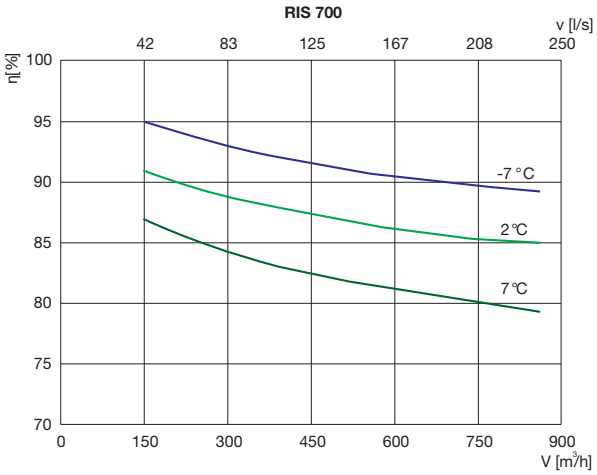

RIS 1200
v [l/s]
56 111 167 222 278 333 389 444
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]
0 200 400 600 800 1000 1200 1400 1600

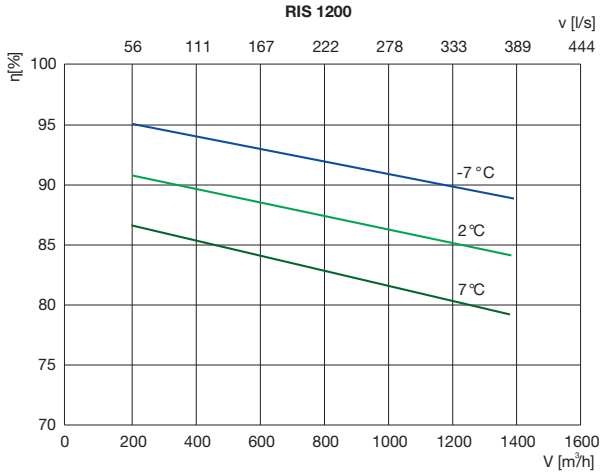

RIS 1900
v [l/s]
138 277 416 555 694
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]
0 500 1000 1500 2000 2500

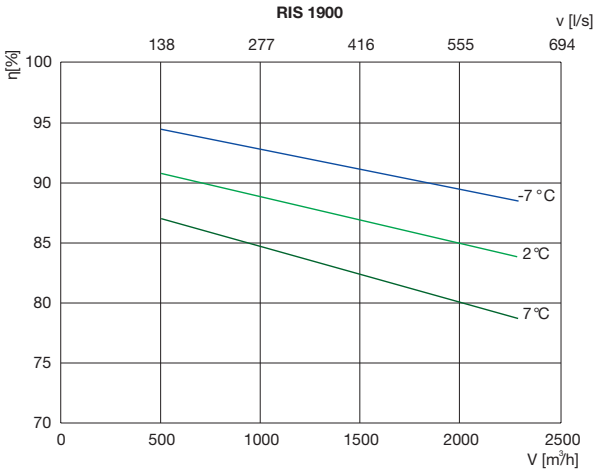

RIS 2500
v [l/s]
138 278 416 555 694 833 972
Pstat [Pa]
P [W]
100%
80%
70%
60%
50%
V [m³/h]
0 500 1000 1500 2000 2500 3000 3500

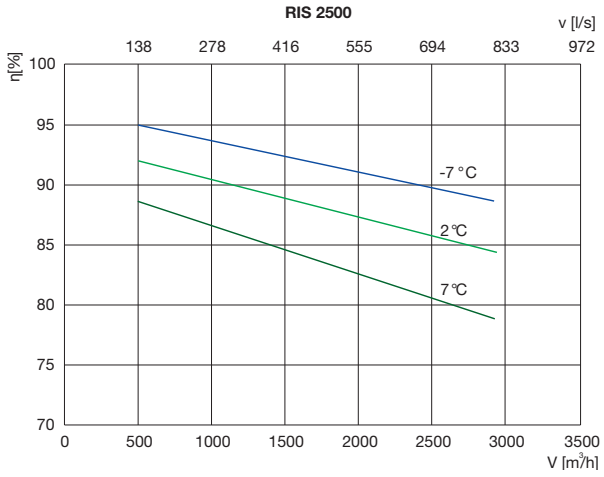
Heat recovery performance





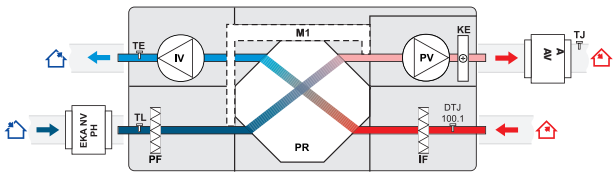




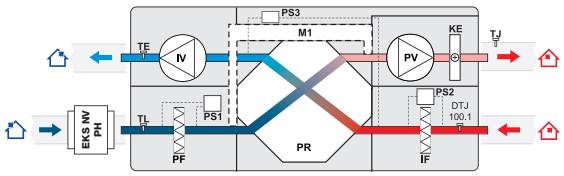


Configuration

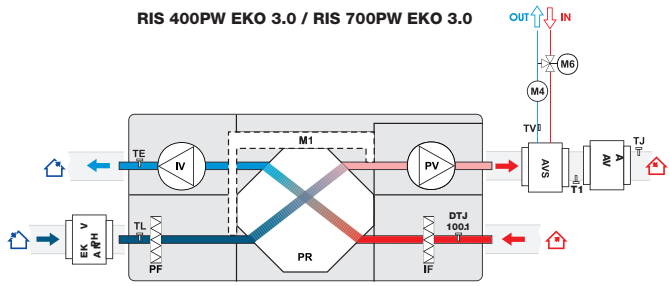
RIS 400PE EKO 3.0 / RIS 700PE EKO 3.0



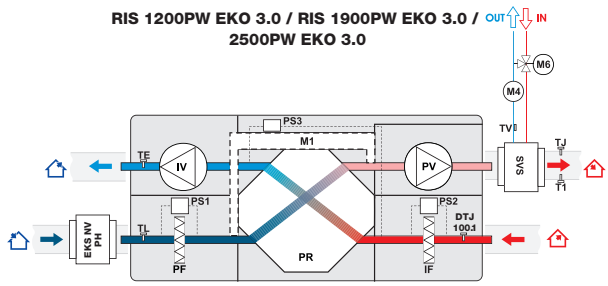
RIS 1200PE EKO 3.0 / 1900PE EKO 3.0 / 2500PE EKO 3.0



RIS 400PW EKO 3.0 / RIS 700PW EKO 3.0



RIS 1200PW EKO 3.0 / RIS 1900PW EKO 3.0 / 2500PW EKO 3.0



Notes

- **IV** - exhaust air fan
- **PV** - supply air fan
- **PR** - plate heat exchanger
- **PF** - filter for supply air (class F7)
- **IF** - filter for extract air (class M5)
- **M1** - actuator of by-pass damper
- **M4** - water heater circulation pump
- **M6** - optionally supplied mixing valve and motor
- **AVA** - optionally supplied water cooler
- **AVS** - optionally supplied water heater
- **SVS** - optionally supplied water heater
- **T1** - antifrost thermostat
- **TL** - fresh air temperature sensor
- **TJ** - supply air temperature sensor
- **TE** - exhaust air temperature sensor
- **TV** - antifrost sensor
- **DTJ 100.1** - humidity + temperature sensor
- **EKA NV PH** - optional fresh air pre-heater
- **EKS NV PH** - optional fresh air pre-heater
- **PS1** - supply air differential pressure switch
- **PS2** - extract air differential pressure switch
- **PS3** - heat exchanger antifrost pressure switch