RIS P

AHU with heat recovery

Rekuperatoriniai įrenginiai

Centrale wentylacyjne z odzyskiem ciepła

Вентиляционные агрегаты с рекуперацией тепла

Air handling units RIS P 3.0 have high efficiency plate heat exchanger. AHU is used for ventilation of houses and other heated areas.

- Efficient, low noise fans.
- Efficiency of plate heat exchanger up to 80%.
- Electrical or water heater.
- Controlled air flow.
- Anti-freeze protection of the heat exchanger.
- Low noise level.
- RIS 400P, 700P, 1000P, 1500P 3.0 all versions can be controlled by Flex, Stouch and TPC remote control devices.
- Acoustic insulation of the walls RIS 400P, 700P 3.0 - 30mm and RIS 1000P, 1500P 3.0 - 50mm.
- Housing: powder coated painting RAL 7040.
- Easy mounting.

Vėdinimo įrenginiai RIS P 3.0 pagaminti su efektyviu plokšteliniu šilumokaičiu. Rekuperatoriai montuojami vėdinti šildomas patalpas.

- Energiją taupantys ir tyliai dirbantys ventiliatoriai.
- Efektyvus plokštelinis šilumokaitis, kurio grąžinama šiluma iki 80%.
- Elektrinis arba papildomai komplektuojamas kanalinis vandeninis šildytuvas.
- Keičiamas oro srautas.
- Tiekiamo oro temperatūros valdymas.
- Priešužšaliminė šilumokaičio apsauga.
- Žemas triukšmo lygis.
- Galima valdyti su Flex, Stouch ir TPC pulteliais.
- Sienelių triukšmo izoliacija – RIS 400P 3.0, 700P 3.0 - 30mm ir RIS 1000P 3.0, 1500P 3.0 - 50mm.
- Miltteliniu būdu dažytas korpusas - spalva RAL 7040.
- Greitas ir lengvas montavimas.

Centrale wentylacyjne z odzyskiem ciepła – RIS P 3.0

Centrale wentylacyjne RIS P 3.0 są wyposażone w krzyżowy wymiennik ciepła. Przeznaczone są do wentylacji ogrzewanych pomieszczeń.

- Układ centrali - podwieszana.
- Wymiennik krzyżowy wykonany w całości z aluminium.
- Energooszczędne i ciche wentylatory AC.
- Zabezpieczenie wymiennika nagrzewnicą elektryczną lub BY-PASS.
- Zabudowane nagrzewnice elektryczne wtórne lub wodne montowane na kanale
- Zmiana wydatku (3 biegi).
- Kontrola zmiany temperatury powietrza nawiewanego.
- Możliwość sterownia sterownikami Flex, Stouch, TPC.
- Izolacja wełną mineralną 30 mm lub 50 mm.
- Obudowa malowana proszkowo (RAL 7040).

Установки с рекуперацией тепла RIS P 3.0 очищают, нагревают и подают свежий воздух. Установки RIS P 3.0 извлекают тепло у выходящего воздуха и передают его поступающему воздуху.

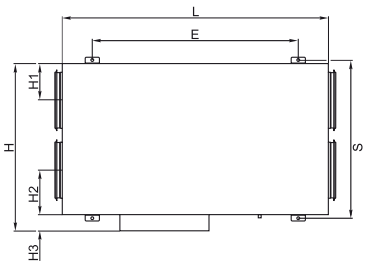
- Экономные и бесшумные вентиляторы EC.

Пластинчатый теплообменник, эффективность теплоотдачи до 80%.

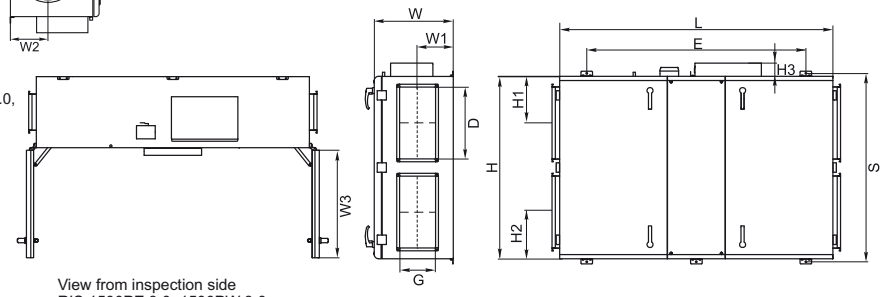
- Электрический или водяной нагреватель.
- Регулируемый воздушный поток.
- Регулируемая температура подаваемого воздуха.
- Защита теплообменника от замерзания.
- Низкий уровень шума.
- Каждый агрегат проверен отдельно.
- RIS 400P 3.0, 700P 3.0, 1000P 3.0, 1500P 3.0 с интегрированными возможностями управления и наблюдения с помощью пультов управления Flex, Stouch и TPC.
- Акустическая изоляция стенок RIS 400P 3.0, 700P 3.0 - 30мм и RIS 1000P 3.0, 1500P 3.0 - 50мм.
- Корпус: окрашенный RAL 7040.
- Легко монтируются.

Accessories

Control panel	Sensor controller	Programmable controller	Shuft-off damper	Circular duct silencer	Mounting clamp	Dampers for rectangular duct	Rectangular duct silencer
							
Flex p. 178	**Stouch** p. 179	**TPC** p. 180	**SKG** p. 226	**AKS** p. 230	**AP** p. 229	**SSK** p. 228	**SKS** p. 233



View from inspection side
RIS 400PE 3.0, 400PW 3.0, RIS 700PE 3.0, RIS 700PW 3.0,
RIS 1000PE 3.0, 1000PW 3.0



View from inspection side
RIS 1500PE 3.0, 1500PW 3.0

RIS 400 P E 3.0

- Equipped with new PRV V1.1 control board
- Heater type (E - integrated electrical heater; W - optional water heater)
- Housing type (V - vertical, H - horozontal, P - under - ceiling)
- AHU size according to air flow range m^3/h
- AHU with plate heat-exchanger

Type	Dimensions [mm]													
	W	W1	W2	W3	H	H1	H2	H3	E	L	S	øD	D	G
RIS 400PE/PW 3.0	264	125	140	484	615	125	120	75	830	970	592	160	-	-
RIS 700PE/PW 3.0	300	134	134	644	775	190	190	75	1040	1200	752	250	-	-
RIS 1000PE/PW 3.0	495	230	230	800	943	206	216	93	1124	1500	890	315	-	-
RIS 1500PE/PW 3.0	549	248	-	715	1363	325	325	93	1524	1900	1310	-	500	250

Type	Accessories												
	Flex Stouch TPC	SKG AKS AP	SSK	SKS	SVS	AVS	SP	TJP 10K CO4C***	SSB *Heating*	RMG 80/60°C	RMG 60/40°C	VVP/VXP 80/60°C	VVP/VXP 60/40°C
RIS 400PE 3.0	+	160	-	-	-	-	LM230A-TP	-	-	-	-	-	-
RIS 400PW 3.0	+	160	-	-	-	160	TF230	+	81	3-0,63-4	3-0,63-4	45.10-0,63	45.10-0,63
RIS 700PE 3.0	+	250	-	-	-	-	LM230A-TP	-	-	-	-	-	-
RIS 700PW 3.0	+	250	-	-	-	250	TF230	+	81	3-1,0-4	3-0,63-4	45.10-1,0	45.10-0,63
RIS 1000PE 3.0	+	315	-	-	-	-	LM230A-TP	-	-	-	-	-	-
RIS 1000PW 3.0	+	315	-	-	-	315	LF230	int	81	3-1,6-4	3-1,0-4	45.10-1,6	45.10-1,0
RIS 1500PE 3.0	+	-	500x250	50-25	-	-	LM230A-TP	-	-	-	-	-	-
RIS 1500PW 3.0	+	-	500x250	50-25	500x250	-	TF230	int	81	3-2,5-4	3-1,6-4	45.10-2,5	45.10-1,6

*** - anti-frost thermostat
int - already integrated into the unit

Accessories

Water heater coil

SVS p. 198

Heating coil

AVS p. 192

Actuator for dampers

SP p. 188

Duct sensor

TJP 10K p. 187

Thermic water valve actuator

SSB p. 184

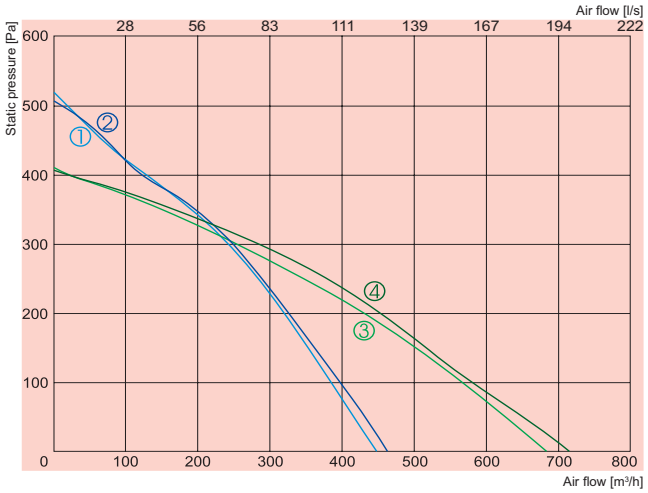
Mixing point

RMG p. 185

2 and 3 way valves

VVP/VXP p. 186

RIS P

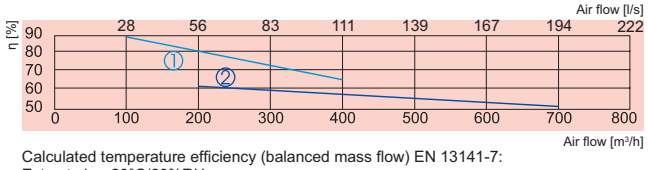


① supply
② exhaust

RIS 400PE 3.0

③ supply
④ exhaust

RIS 700PE 3.0



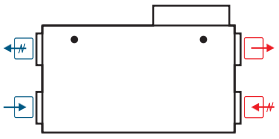
① **RIS 400PE 3.0**
② **RIS 700PE 3.0**

Calculated temperature efficiency (balanced mass flow) EN 13141-7:
Extract air = 20°C/60%RH
Outdoor air = -20°C

			400PE 3.0	700PE 3.0
Heater	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230
	-power consumption	[kW]	2,0	3,0
Pre-heater for heat exchanger		[kW]	1,0	1,2
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,225 /1,1	0,255 /1,12
	-fan speed	[min⁻¹]	1850	2000
supply	-power/current	[kW/A]	0,225 /1,1	0,255 /1,12
	-fan speed	[min⁻¹]	1850	2000
Motor protection class			IP-44	IP-44
Thermal efficiency			75%	57%
Max power consumption		[kW/A]	3,45 /15,24	4,68 /20,50
Automatic control			integrated	integrated
Filter class	-exhaust		M5	M5
	supply		M5	M5
Thermal insulation		[mm]	30	30
Weight		[kg]	42,0	57,0
Comply with ERP 2013			+	+

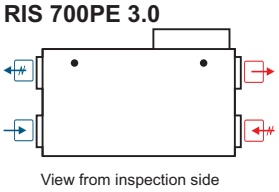
Designed for operation indoors only

RIS 400PE 3.0



400PE 3.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	68	52	62	63	57	61	55	51
Extract	55	42	48	52	46	42	39	31
Surrounding	48	36	41	44	40	38	35	30
Measured at 380 m³/h, 108 Pa								

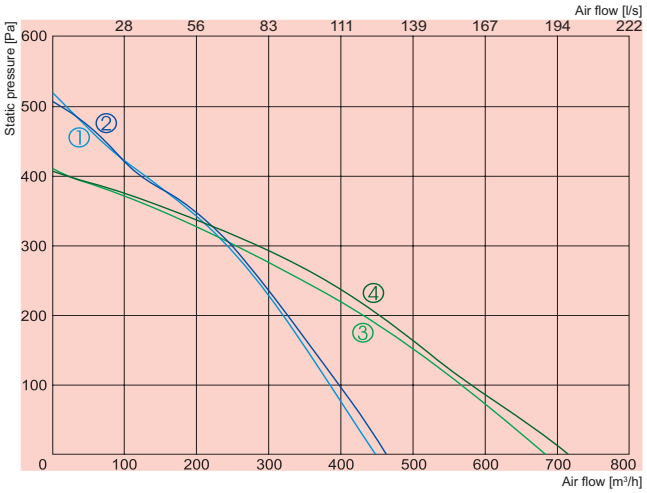
RIS 700PE 3.0



700PE 3.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	76	55	63	70	73	67	68	60
Extract	61	52	59	52	45	44	39	27
Surrounding	53	42	46	47	45	44	42	34
Measured at 556 m³/h, 106 Pa								

View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

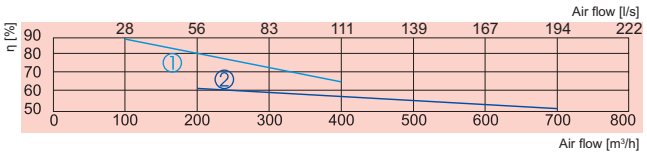


① supply
② exhaust

RIS 400PW 3.0

③ supply
④ exhaust

RIS 700PW 3.0



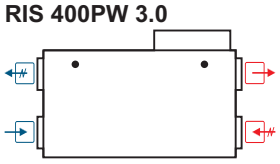
① **RIS 400PW 3.0**
② **RIS 700PW 3.0**

Calculated temperature efficiency (balanced mass flow) EN 13141-7:
Extract air = 20°C/60%RH
Outdoor air = -20°C

			400PW 3.0	700PW 3.0
Water heater	-power	[kW]		
	-water . T_{in}/T_{out}	[°C]	AVS 160	AVS 250
	-water flow rate	[l/s]		
Pre-heater for heat exchanger		[kW]	1,0	1,2
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,225 /1,1	0,255 /1,12
	-fan speed	[min⁻¹]	1850	2000
supply	-power/current	[kW/A]	0,225 /1,1	0,255 /1,12
	-fan speed	[min⁻¹]	1850	2000
Motor protection class			IP-44	IP-44
Thermal efficiency			75%	57%
Max power consumption		[kW/A]	1,45 /6,55	1,71 /7,46
Automatic control			integrated	integrated
Filter class	-exhaust		M5	M5
	supply		M5	M5
Thermal insulation		[mm]	30	30
Weight		[kg]	42,0	57,0
Comply with ERP 2013			+	+

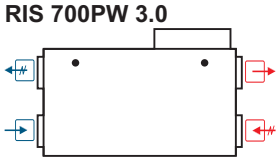
Designed for operation indoors only

RIS 400PW 3.0



400PW 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	68	52	62	63	57	61	55	51
Extract	55	42	48	52	46	42	39	31
Surrounding	48	36	41	44	40	38	35	30
Measured at 380 m³/h, 108 Pa								

RIS 700PW 3.0

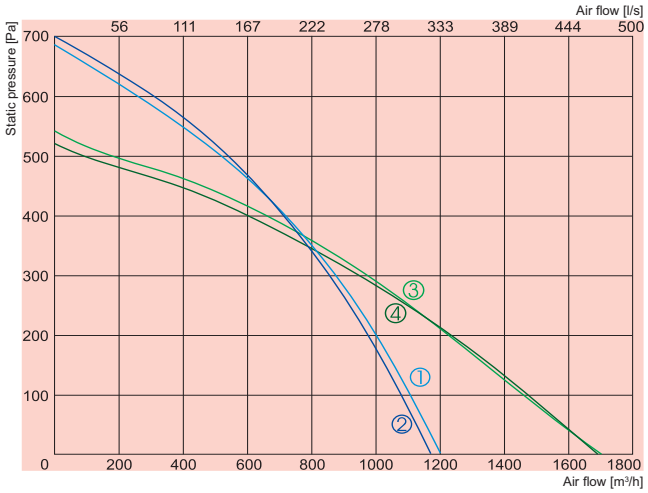


700PW 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	76	55	63	70	73	67	68	60
Extract	61	52	59	52	45	44	39	27
Surrounding	53	42	46	47	45	44	42	34
Measured at 556 m³/h, 106 Pa								

View from inspection side

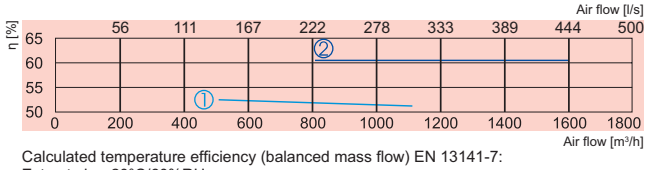
Exhaust air · Extract air · Fresh air · Supply air

RIS P



① supply
② exhaust
RIS 1000PE 3.0

③ supply
④ exhaust
RIS 1500PE 3.0



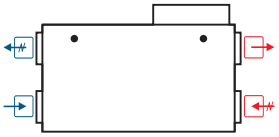
① **RIS 1000PE 3.0**
② **RIS 1500PE 3.0**

Calculated temperature efficiency (balanced mass flow) EN 13141-7:
Extract air = 20°C/60%RH
Outdoor air = -20°C

			1000PE 3.0	1500PE 3.0
Heater	-phase/voltage	[50Hz/VAC]	~3, 400	~3, 400
	-power consumption	[kW]	6,0	9,0
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,303/1,32	0,359/1,57
	-fan speed	[min⁻¹]	2250	2750
supply	-power/current	[kW/A]	0,322/1,4	0,373/1,63
	-fan speed	[min⁻¹]	2250	2750
Motor protection class			IP-44	IP-44
Thermal efficiency			50%	62%
Max power consumption		[kW/A]	6,63/11,40	9,73/16,19
Automatic control			integrated	integrated
Filter class	-exhaust		M5	M5
	-supply		M5	M5
Thermal insulation		[mm]	30	50
Weight		[kg]	113,0	194,0
Comply with ERP 2013			+	-

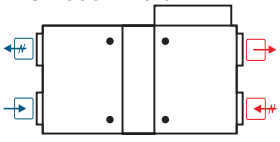
Designed for operation indoors only

RIS 1000PE 3.0



1000PE 3.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	72	54	59	67	68	65	62	56
Extract	57	44	43	53	54	44	42	35
Surrounding	55	42	46	50	48	45	44	39
Measured at 935 m³/h, 90 Pa								

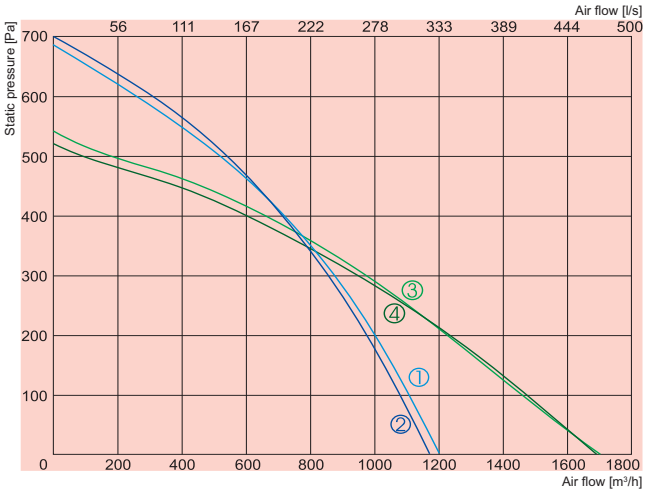
RIS 1500PE 3.0



1500PE 3.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	80	69	71	76	74	69	68	65
Extract	59	52	51	56	50	41	32	27
Surrounding	58	48	50	54	52	46	38	36
Measured at 1507 m³/h, 101 Pa								

View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

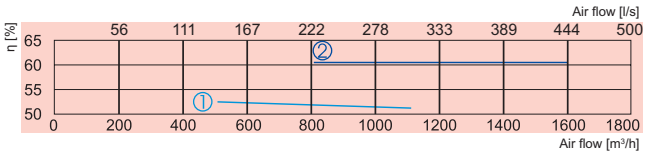


① supply
② exhaust

RIS 1000PW 3.0

③ supply
④ exhaust

RIS 1500PW 3.0



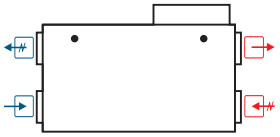
① **RIS 1000PW 3.0**
② **RIS 1500PW 3.0**

Calculated temperature efficiency (balanced mass flow) EN 13141-7:
Extract air = 20°C/60%RH
Outdoor air = -20°C

			1000PW 3.0	1500PW 3.0
Water heater	-power	[kW]	AVS 315	SVS 500x250
	-water . T_{in}/T_{out}	[°C]		
	-water flow rate	[l/s]		
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,286/1,25	0,359/1,57
	-fan speed	[min⁻¹]	2250	2750
supply	-power/current	[kW/A]	0,312/1,36	0,373/1,63
	-fan speed	[min⁻¹]	2250	2750
Motor protection class			IP-44	IP-44
Thermal efficiency			50%	62%
Max power consumption		[kW/A]	0,6/2,63	0,732/3,2
Automatic control			integrated	integrated
Filter class	-exhaust		M5	M5
	supply		M5	M5
Thermal insulation		[mm]	30	50
Weight		[kg]	113,0	189,0
Comply with ERP 2013			+	-

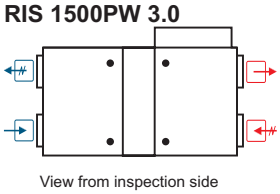
Designed for operation indoors only

RIS 1000PW 3.0



1000PW 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	72	54	59	67	68	65	62	56
Extract	57	44	43	53	54	44	42	35
Surrounding	55	42	46	50	48	45	44	39
Measured at 935 m³/h, 90 Pa								

RIS 1500PW 3.0



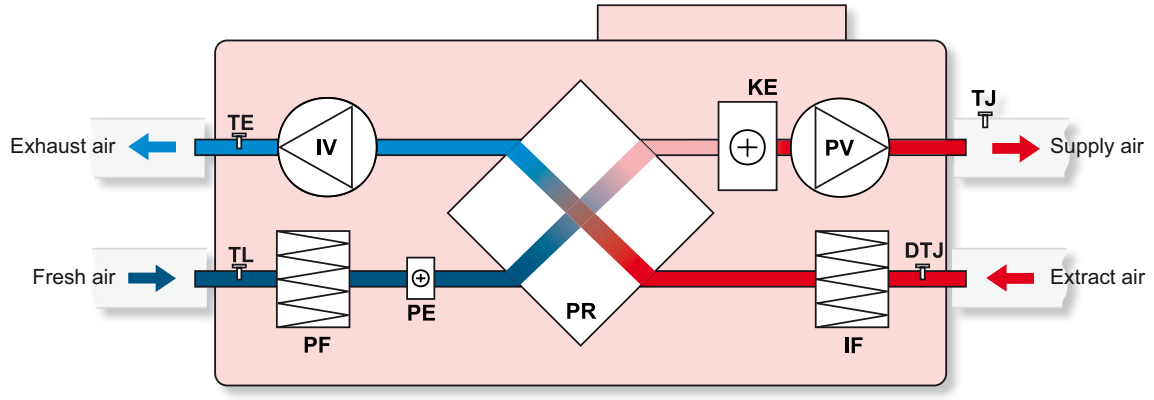
1500PW 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	80	69	71	76	74	69	68	65
Extract	59	52	51	56	50	41	32	27
Surrounding	58	48	50	54	52	46	38	36
Measured at 1507 m³/h, 101 Pa								

View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

RIS P

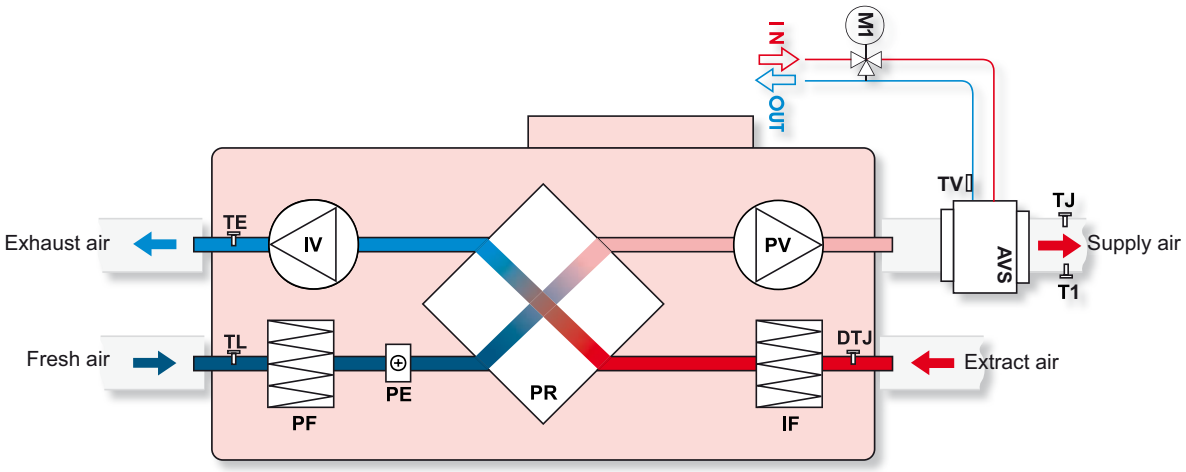
RIS 400PE 3.0; 700PE 3.0 (ceiling mounted) versions with electrical heater *



IV	- exhaust air fan
PV	- supply air fan
PR	- plate heat exchanger
KE	- electrical heater
PE	- anti-freeze heater for heat exchanger
PF	- filter for supply air (class M5)
IF	- filter for extract air (class M5)
TJ	- temperature sensor for supply air
TL	- temperature sensor for fresh air
TE	- temperature sensor for extract air
DTJ	- humidity + temperature sensor

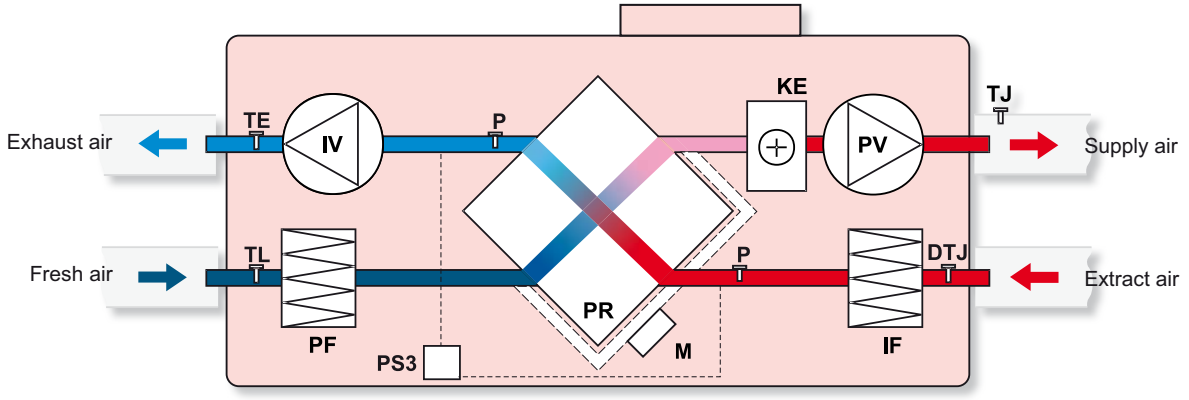
* - Summer casette can be applied to RIS 400 PE 3.0; RIS 700 PE 3.0. Used for closing-up of plate heat exchanger during warm period of the year when heat recovery is of no benefit.

RIS 400PW 3.0; 700PW 3.0 (ceiling mounted) versions with water heater



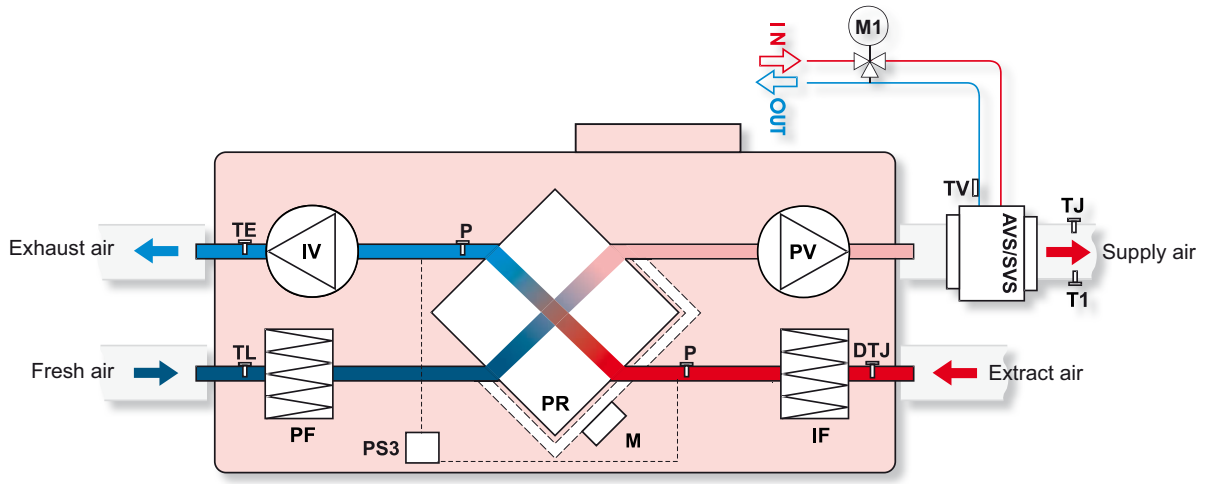
AVS	- optionally supplied water heater
IV	- exhaust air fan
PV	- supply air fan
PR	- plate heat exchanger
PE	- anti-freeze heater for heat exchanger
PF	- filter for supply air (class M5)
IF	- filter for extract air (class M5)
TJ	- temperature sensor for supply air
TL	- temperature sensor for fresh air
TE	- temperature sensor for extract air
DTJ	- humidity + temperature sensor
M1	- optionally supplied mixing valve and motor
TV	- optionally supplied antifrost sensor
T1	- optionally supplied antifrost thermostat

RIS 1000PE 3.0; 1500PE 3.0 (ceiling mounted) **versions with electrical heater**



IV	- exhaust air fan
PV	- supply air fan
PR	- plate heat exchanger
KE	- electrical heater
PF	- filter for supply air (class M5)
IF	- filter for extract air (class M5)
TJ	- temperature sensor for supply air
TL	- temperature sensor for fresh air
TE	- temperature sensor for extract air
DTJ	- humidity + temperature sensor
M	- actuator of by-pass damper
PS3	- heat exchanger antifrost pressure switch
P	- heat exchanger pressure switch

RIS 1000PW 3.0; 1500PW 3.0 (ceiling mounted) **versions with water heater**



AVS/SVS	- optionally supplied water heater
IV	- exhaust air fan
PV	- supply air fan
PR	- plate heat exchanger
PF	- filter for supply air (class M5)
IF	- filter for extract air (class M5)
TJ	- temperature sensor for supply air
TL	- temperature sensor for fresh air
TE	- temperature sensor for extract air
DTJ	- humidity + temperature sensor
M	- actuator of by-pass damper
M1	- optionally supplied mixing valve and motor
PS3	- heat exchanger antifrost pressure switch
TV	- optionally antifrost sensor
T1	- optionally antifrost thermostat
P	- heat exchanger pressure switch