RIS H EC

ErP 2015

AHU with heat recovery

Rekuperatoriniai įrenginiai

Centrale wentylacyjne z odzyskiem ciepła

Вентиляционные агрегаты с рекуперацией тепла

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

- Energy saving and low noise EC fans.
- Efficient plate heat exchanger with heat recovery efficiency up to 65%.
- Integrated electrical heater and optional water/DX heating/cooling.
- Controlled air flow.
- Supply air temperature control.
- Anti-freeze protection of the heat exchanger.
- Motorized by-pass damper.
- Can be controlled with UNI, PRO and TPC remote control devices.
- Acoustic insulation of the walls –50 mm.
- Housing: powder coated painting – RAL 7040.
- Easy and quick mounting.
- As an option SIEMENS Climatix controller can be ordered.
- Integrated pressure switch for filter pollution.
- Electrical heater control 0 - 10V.
- Optional CO_2, pressure or airflow transmitter.
- Optional roof and outlet cover.
- RIS 5500H EC delivered in two sections.

Urządzenia wentylacyjne RIS H EC wyposażone w wydajny płytowy wymiennik ciepła. Rekuperatory przeznaczone są do wentylacji ogrzewanych pomieszczeń.

- Energooszczędne i cicho pracujące wentylatory EC.
- Wydajny płytowy wymiennik ciepła, zwracający do 65% ciepła.
- Zintegrowany grzejnik elektryczny i opcjonalny kanałowy wodno-freonowy grzejnik/schładzacz
- Zmienny strumień powietrza.
- Sterowanie temperatury dostarczanego powietrza.
- Ochrona przeciwzamarzaniowa wymiennika ciepła.
- Zasuwa obejściowa z silnikiem.
- Można sterować za pomocą pilotów UNI, PRO i TPC.
- Izolacja przeciwhałasowa ścianek – 50mm.
- Obudowa malowana metodą proszkową – kolor RAL 7040.
- Szybki i łatwy montaż.
- Opcjonalnie – możliwość zamówienia sterownika SIEMENS Climatix.
- Zintegrowany miernik zanieczyszczenia filtrów
- Sterowanie grzejnikiem elektrycznym 0-10V.
- Opcjonalny przetwornik CO2, ciśnienia lub wilgotności
- Opcjonalnie zamawiany okap i króciec.
- IS 5500H EC – dostarczany w dwóch sekcjach.

Vėdinimo įrenginiai RIS H EC pagaminti su efektyviu plokšteliniu šilumokaičiu. Rekuperatoriai montuojami vėdinti šildomas patalpas.

- Energiją taupantys ir tyliai dirbantys EC ventiliatoriai.
- Efektyvus plokštelinis šilumokaitis, kurio grąžinama šiluma iki 65%.
- Integruotas elektrinis šildytuvas ir papildomai komplektuojamas kanalinis vandeninis/freoninis šildytuvas/aušintuvas
- Keičiamas oro srautas.
- Tiekiamo oro temperatūros valdymas.
- Priešužšaliminė šilumokaičio apsauga.
- Motorizuota apėjimo sklendė
- Galima valdyti su UNI, PRO and TPC pulteliais.
- Sienelių triukšmo izoliacija – 50mm.
- Milteliniu būdu dažytas korpusas - spalva RAL 7040.
- Greitas ir lengvas montavimas.
- Galimybė papildomai užsakyti SIEMENS Climatix valdiklį.
- Integruotas filtrų užterštumo matuoklis
- Elektrinio šildytuvo valdymas 0-10V.
- Papildomai komplektuojamas CO2, slėgio ar drėgmės keitiklis
- Papildomai užsakomas stogas ir atvamzdis.
- RIS 5500H EC – tiekiamas dviejomis sekcijomis.

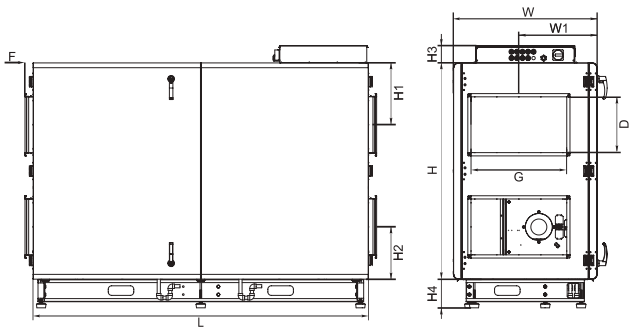
Установки с рекуперацией тепла RIS EC имеют высоко эффективные тёплообменники. Агрегат предназначен для вентиляции домов и других нагретых участков.

- Экономные и безшумные вентиляторы EC.
- Эффективность теплоотдачи до 65%.
- Интегрированыи електрический или водянои, DX нагреватель, охлаждение.
- Регулируемый воздушный поток.
- Регулируемая температура приточного воздуха.
- Защита теплообменника от замерзания.
- Интегрированые моторизованые клапана для входящего и выходящего воздуха.
- RIS EC все версии упровляются с помощью пультов UNI, PRO и TPC.
- Акустическая изоляция стенок – 50 мм.
- RIS EC корпус – окрашенный RAL 7040.
- Легко монтируються.
- RIS EC – интегрированная полная система управления агрегата «plug & play» или контролером SIEMENS Climatix.
- Установлен датчик давления для загрезнённого фильтра.
- Упровления электрического нагревателя от 0 – 10В.
- Опциональная контроль: уровень CO2 в помещение и охлождения приточного воздуха.
- RIS 5500H EC - поставляется в двух секциях.

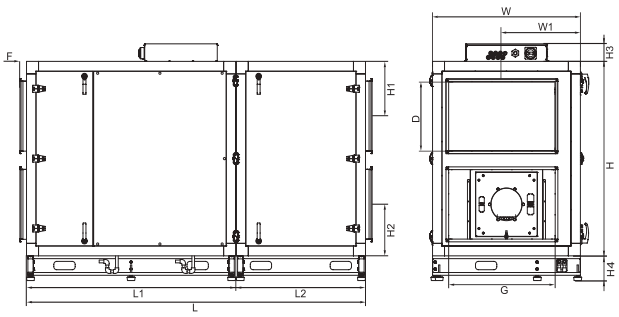
Accessories

Remote controller	Programmable controller	Programmable controller	Rectangular duct silenser	Thermic water valve actuator	Mixing point	2 and 3 way valves	Comfort Box
							
UNI p. 190	**PRO** p. 189	**TPC** p. 188	**SKS** p. 239	**SSB** p. 194	**RMG** p. 195	**VVP/VXP** p. 196	**CB** p. 200

RIS 2500H EC 2.0, RIS 3500H EC 2.0



RIS 5500H EC 2.0



RIS 2500 H E R

R	Air intake side (Models RIS 5500 EC: R - right)
E	Heater type (E - electrical; W - water)
H	Housing type (H - horizontal)
2500	Air flow m³/h
RIS	AHU with plate heat-exchanger

Type	Dimensions [mm]												
	L	L_1	L_2	W	W_1	D	G	H	H_1	H_2	H_3	H_4	F
RIS 2500 HE/HW EC 2.0	2100	-	-	900	490	350	600	1355	387	327	108	180	51
RIS 3500 HE/HW EC 2.0	2100	-	-	900	490	350	600	1355	387	327	108	180	51
RIS 5500 HE/HW EC 2.0	2545	1570	975	1110	590	500	800	1400	395	370	127	180	51

Type	Accessories								
	UNI, PRO TPC	SKS	SSB *Heating*	RMG 80/60°C	RMG 60/40°C	VVP/VXP 80/60°C	VVP/VXP 60/40°C	Comfort box	SVS
RIS 2500HE EC 2.0	+	600x350	-	Heaters, coolers and RMG/VVP/VXP data online selection program: ***www.salda.lt***				+	-
RIS 2500HW EC 2.0	+	600x350	61					+	600x350
RIS 3500HE EC 2.0	+	600x350	-					+	-
RIS 3500HW EC 2.0	+	600x350	61					+	600x350
RIS 5500HE EC 2.0	+	800x500	-					+	-
RIS 5500HW EC 2.0	+	800x500	61					+	800x500

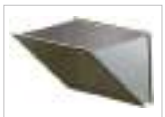
If ordering RIS 2500-5500HW EC 2.0 and SVS/AVS must be ordered water sensor (TJP 10K) and duct thermostat (C04C).

Accessories

Water heater coil

SVS p. 208

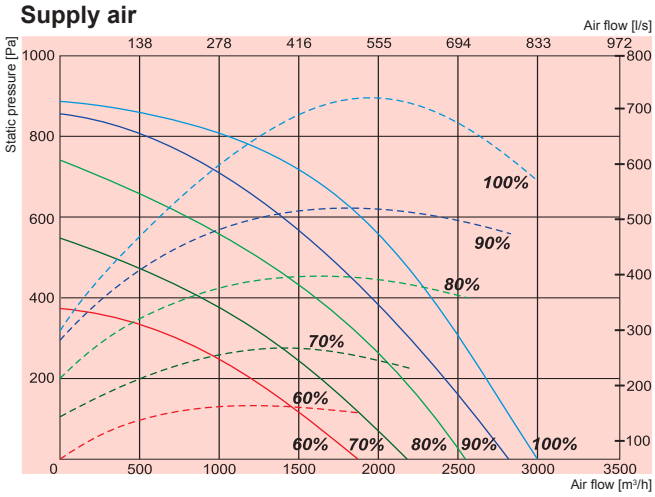
Outlet cover



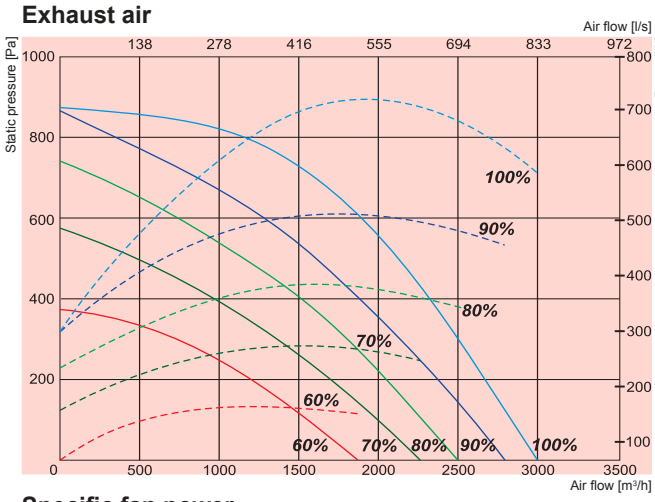
Roof

RIS H EC

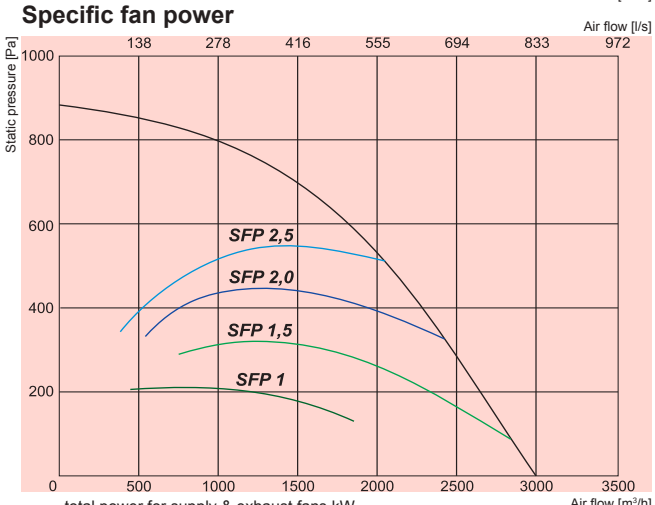
Supply air



Exhaust air

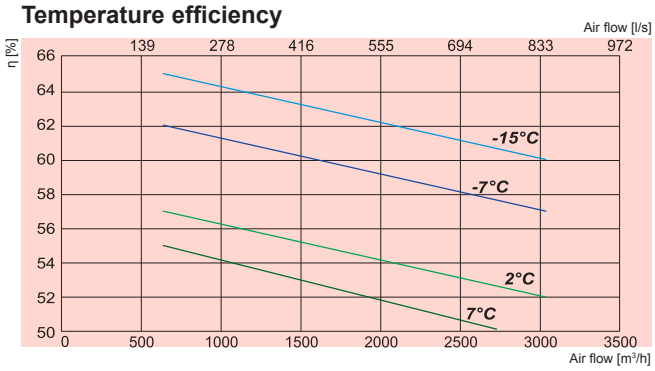


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

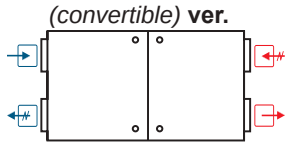


NEW!

RIS 2500HE EC 2.0

——— Performance
- - - - - - - Power consumption

RIS 2500HE EC 2.0 *(convertible)* ver.



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			2500HE EC 2.0
Heater	-phase/voltage	[50Hz/VAC]	~3,400
	-power consumption	[kW]	18
EC Fans	-phase/voltage	[50Hz/VAC]	~1,230
exhaust	-power/current	[kW/A]	0,72/3,18
	-fan speed	[min⁻¹]	2800
supply	-power/current	[kW/A]	0,72/3,19
	-fan speed	[min⁻¹]	2800
Motor protection class			IP-54
Thermal efficiency			61%
Max power consumption		[kW/A]	19,45/32,5
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	340,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

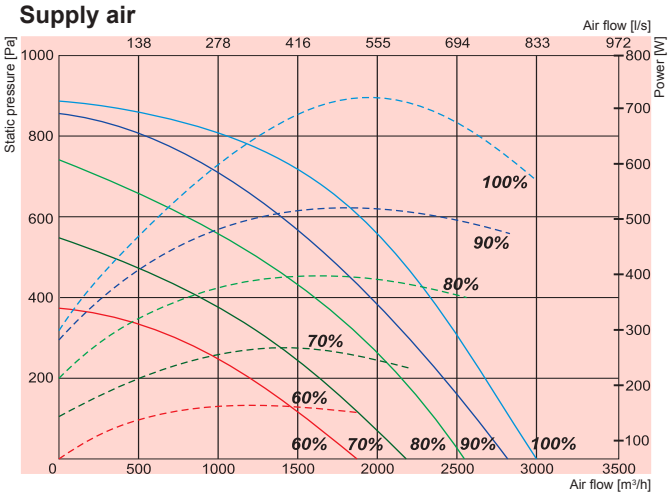
2500HE EC 2.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	84	65	77	78	79	74	68	67
Extract	66	44	63	61	54	52	46	40
Surrounding	62	45	57	59	55	51	45	43

Measured at 2757 m³/h, 121 Pa

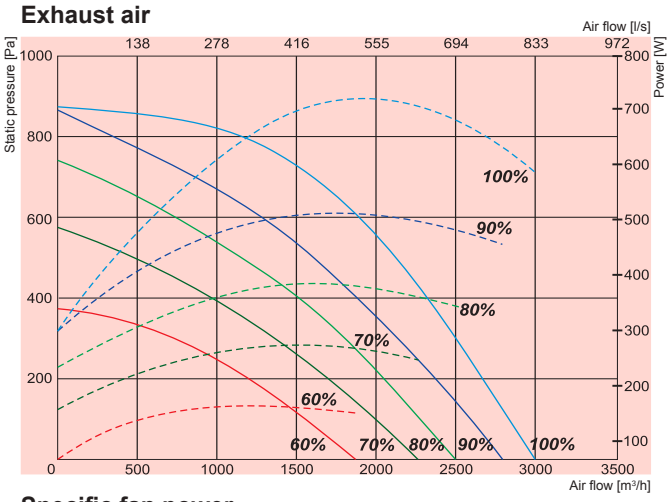
——— Extract air = 20°C/60% RH - Outdoor air = -15°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = -7°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

Temperature efficiency calculated according EN 308.

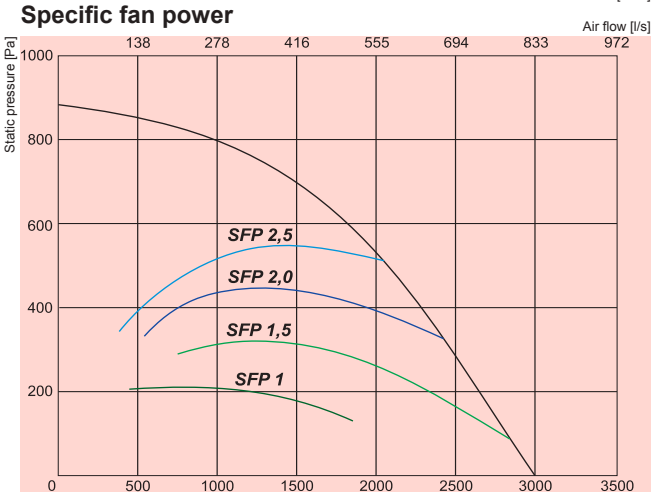
Supply air



Exhaust air

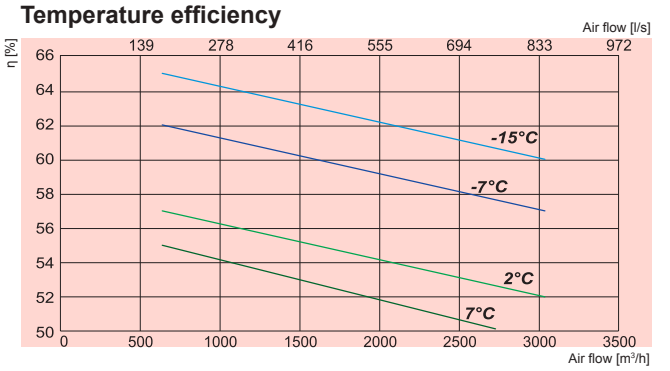


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

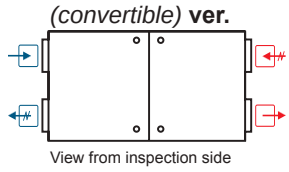


NEW!

RIS 2500HW EC 2.0

——— Performance
------- Power consumption

RIS 2500HW EC 2.0 *(convertible)* ver.



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			2500HW EC 2.0
Water heater			SVS 600x350 or Comfort Box 600x350
EC Fans	-phase/voltage	[50Hz/VAC]	~1,230
exhaust	-power/current	[kW/A]	0,72/3,18
	-fan speed	[min^{-1}]	2800
supply	-power/current	[kW/A]	0,72/3,19
	-fan speed	[min^{-1}]	2800
Motor protection class			IP-54
Thermal efficiency			61%
Max power consumption		[kW/A]	1,45/6,47
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	337,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

2500HW EC 2.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	84	65	77	78	79	74	68	67
Extract	66	44	63	61	54	52	46	40
Surrounding	62	45	57	59	55	51	45	43

Measured at 2757 m³/h, 121 Pa

——— Extract air = 20°C/60% RH - Outdoor air = -15°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = -7°C/90% RH
Balance between supply air/extract air = 1.0

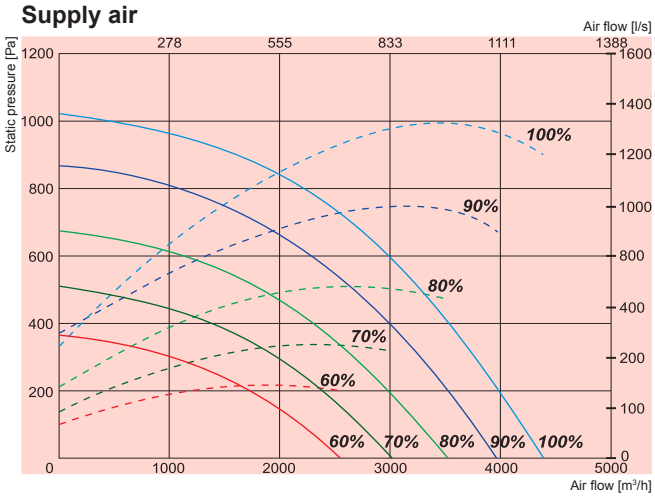
——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

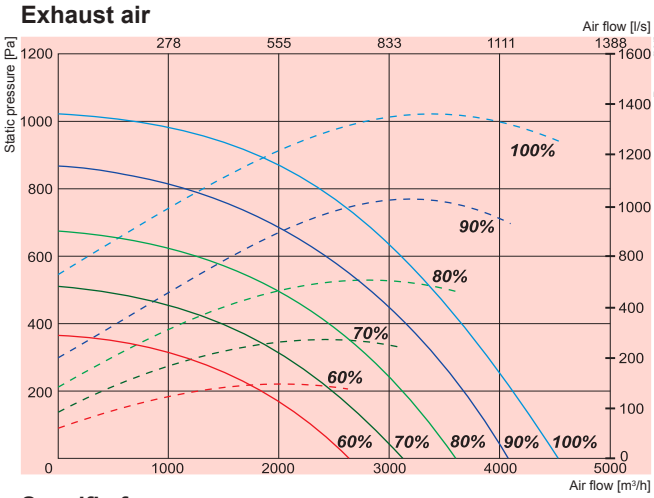
Temperature efficiency calculated according EN 308.

RIS H EC

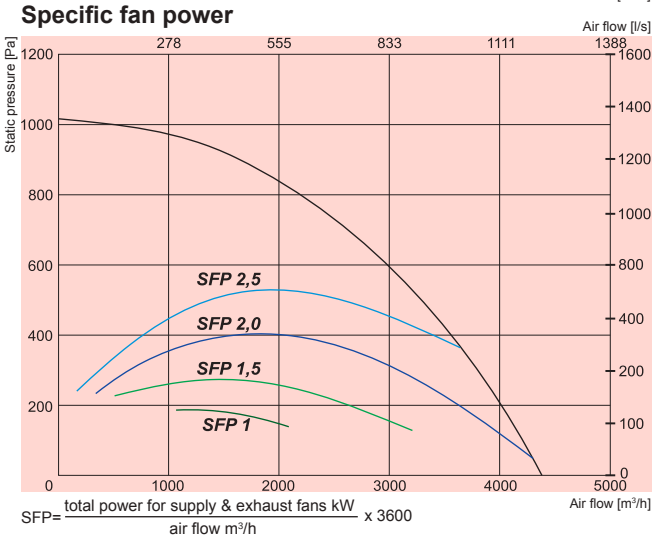
Supply air



Exhaust air

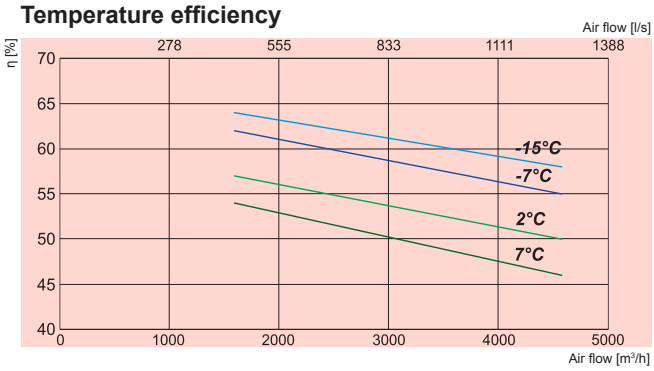


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

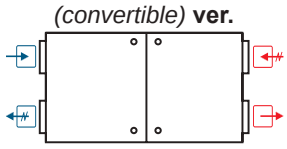


NEW!

RIS 3500HE EC 2.0

——— Performance
- - - - - - - Power consumption

RIS 3500HE EC 2.0 *(convertible)* ver.



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			3500HE EC 2.0
Heater	-phase/voltage	[50Hz/VAC]	~3,400
	-power consumption	[kW]	24
EC Fans	-phase/voltage	[50Hz/VAC]	~1,230
exhaust	-power/current	[kW/A]	1,37/6,12
	-fan speed	[min⁻¹]	2390
supply	-power/current	[kW/A]	1,41/6,35
	-fan speed	[min⁻¹]	2390
Motor protection class			IP-54
Thermal efficiency			59%
Max power consumption		[kW/A]	26,8/47,1
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	340,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

3500HE EC 2.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	86	63	79	80	81	77	76	64
Extract	72	60	69	66	62	62	54	43
Surrounding	68	57	65	62	58	55	52	46

Measured at 4006 m³/h, 198 Pa

——— Extract air = 20°C/60% RH - Outdoor air = -15°C/90% RH
Balance between supply air/extract air = 1.0

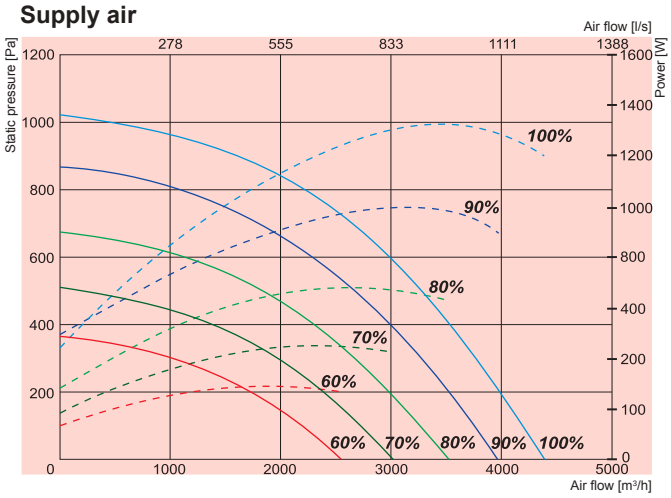
——— Extract air = 20°C/60% RH - Outdoor air = -7°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0

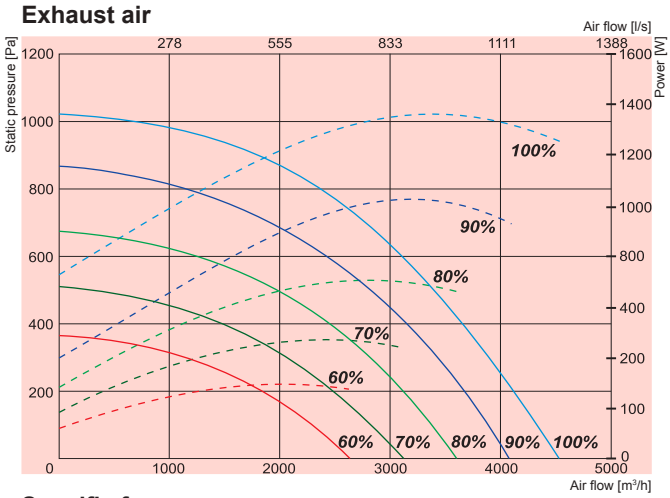
——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

Temperature efficiency calculated according EN 308.

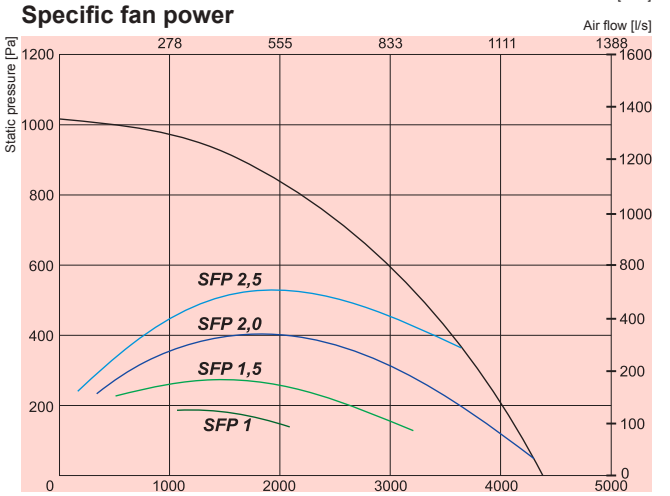
Supply air



Exhaust air

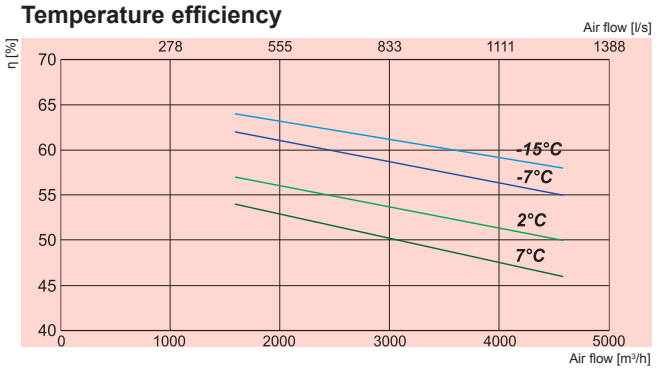


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency



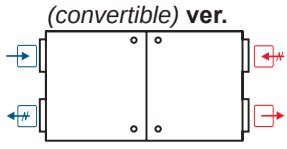
NEW!

RIS 3500HW EC 2.0

——— Performance

------- Power consumption

RIS 3500HW EC 2.0
(convertible) **ver.**



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			3500HW EC 2.0
Water heater			SVS 600x350 or Comfort Box 600x350
EC Fans	-phase/voltage	[50Hz/VAC]	~1,230
exhaust	-power/current	[kW/A]	1,37/6,12
	-fan speed	[min⁻¹]	2390
supply	-power/current	[kW/A]	1,41/6,35
	-fan speed	[min⁻¹]	2390
Motor protection class			IP-54
Thermal efficiency			59%
Max power consumption		[kW/A]	2,78/12
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	337,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

3500HW EC 2.0	Lwa total, dB(A)	LWA, dB(A)						
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Measured at 4006 m³/h, 198 Pa

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Balance between supply air/extract air = 1.0

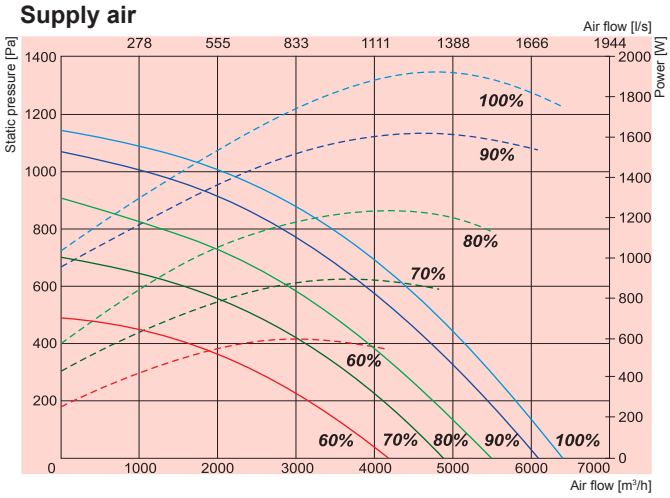
——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

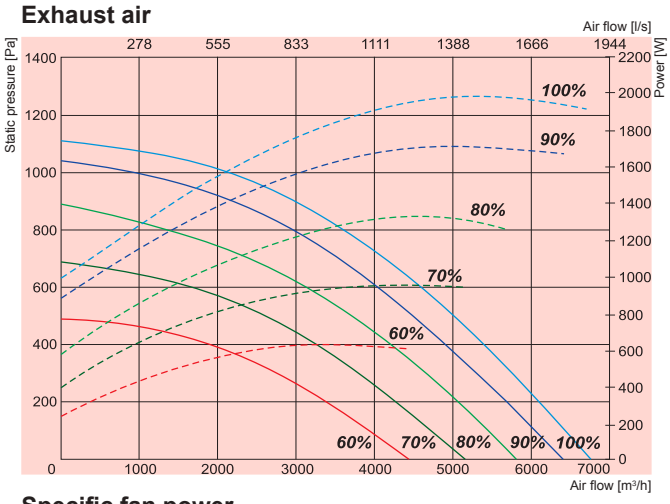
Temperature efficiency calculated according EN 308.

RIS H EC

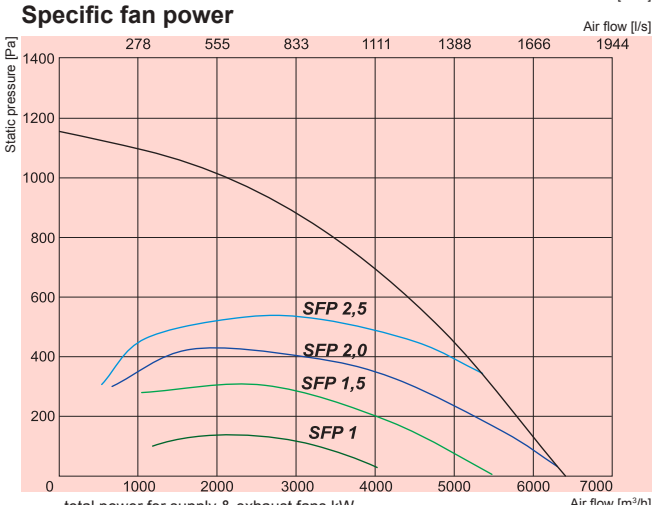
Supply air



Exhaust air

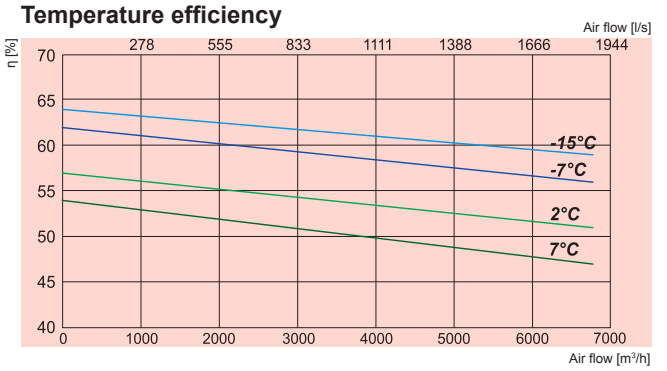


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency



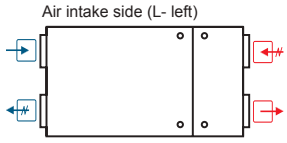
NEW!

RIS 5500HE EC 2.0

——— Performance
- - - - - - - Power consumption

RIS 5500HER EC 2.0

Air intake side (L- left)



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			5500HE EC 2.0
Heater	-phase/voltage	[50Hz/VAC]	~3,400
	-power consumption	[kW]	30
EC Fans	-phase/voltage	[50Hz/VAC]	~3,400
exhaust	-power/current	[kW/A]	2,03/3,24
	-fan speed	[min⁻¹]	2180
supply	-power/current	[kW/A]	2,05/3,24
	-fan speed	[min⁻¹]	2180
Motor protection class			IP-54
Thermal efficiency			60%
Max power consumption		[kW/A]	34,1/50
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	480,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

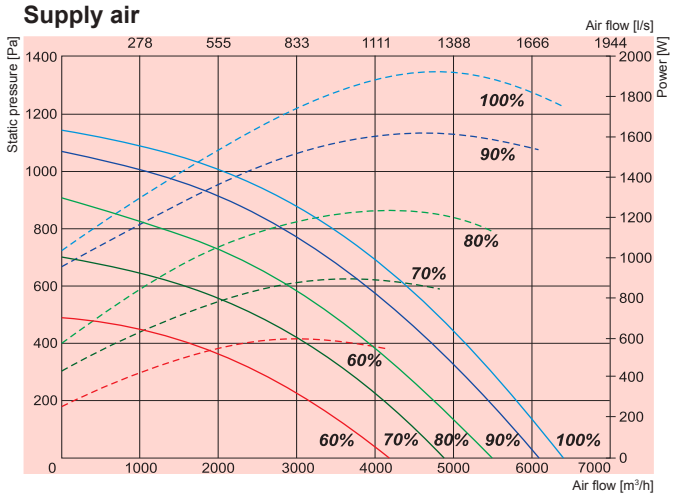
5500HE EC 2.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	89	70	81	83	85	81	77	73
Extract	75	65	72	69	68	62	53	52
Surrounding	79	60	72	74	73	69	64	61

Measured at 5788 m³/h, 211 Pa

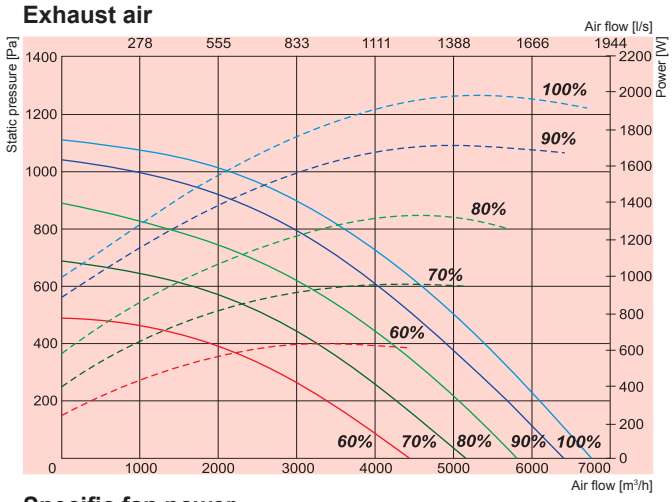
——— Extract air = 20°C/60% RH - Outdoor air = -15°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = -7°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0
——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

Temperature efficiency calculated according EN 308.

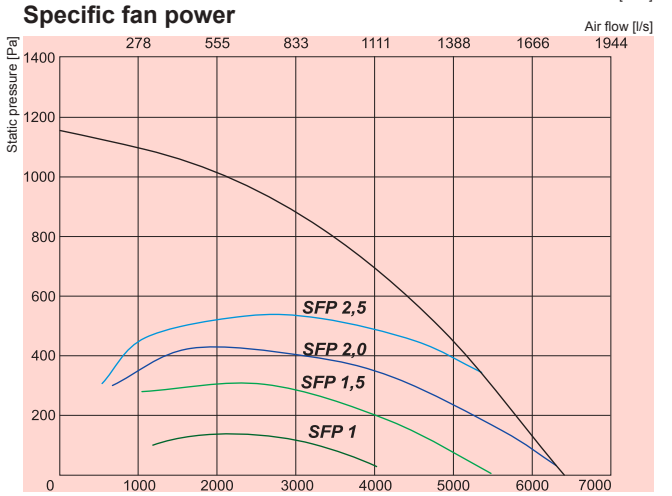
Supply air



Exhaust air

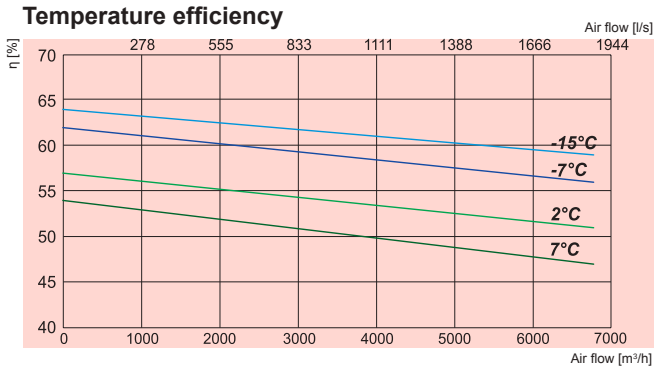


Specific fan power



$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency



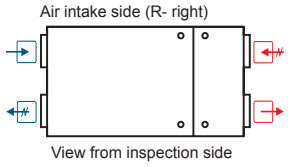
NEW!

RIS 5500HW EC 2.0

——— Performance
------- Power consumption

RIS 5500HWR EC 2.0

Air intake side (R- right)



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air

			5500HW EC 2.0
Water heater			SVS 800x500 or Comfort Box 800x500
EC Fans	-phase/voltage	[50Hz/VAC]	~3,400
exhaust	-power/current	[kW/A]	2,03/3,24
	-fan speed	[min⁻¹]	2180
supply	-power/current	[kW/A]	2,05/3,24
	-fan speed	[min⁻¹]	2180
Motor protection class			IP-54
Thermal efficiency			60%
Max power consumption		[kW/A]	4,1/6,64
Automatic control			integrated
Filter class	-exhaust		F5
	supply		F5
Thermal insulation		[mm]	50
Weight		[kg]	477,0
Comply with ERP 2013			+

Air flow temperature range from -15°C to +40°C
Designed for operation indoors and outdoors

5500HW EC 2.0	Lwa total, dB(A)	LWA, dB(A)						
		125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	89	70	81	83	85	81	77	73
Extract	75	65	72	69	68	62	53	52
Surrounding	79	60	72	74	73	69	64	61

Measured at 5788 m³/h, 211 Pa

——— Extract air = 20°C/60% RH - Outdoor air = -15°C/90% RH
Balance between supply air/extract air = 1.0

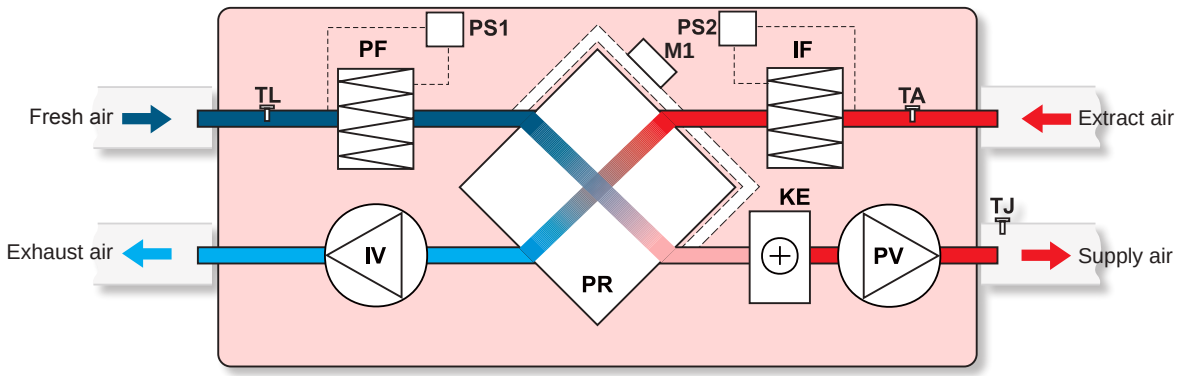
——— Extract air = 20°C/60% RH - Outdoor air = -7°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = 2°C/90% RH
Balance between supply air/extract air = 1.0

——— Extract air = 20°C/60% RH - Outdoor air = 7°C/90% RH
Balance between supply air/extract air = 1.0

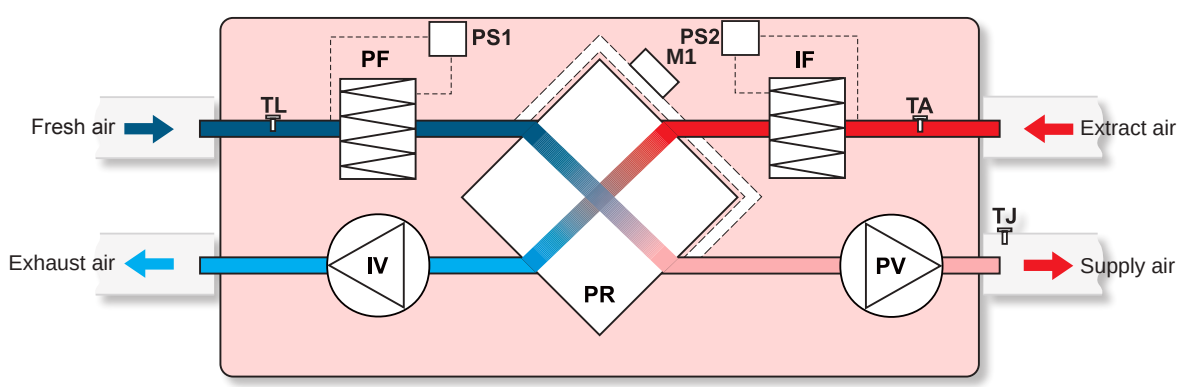
Temperature efficiency calculated according EN 308.

RIS 2500HE EC 2.0, 3500HE EC 2.0 versions with electrical heater



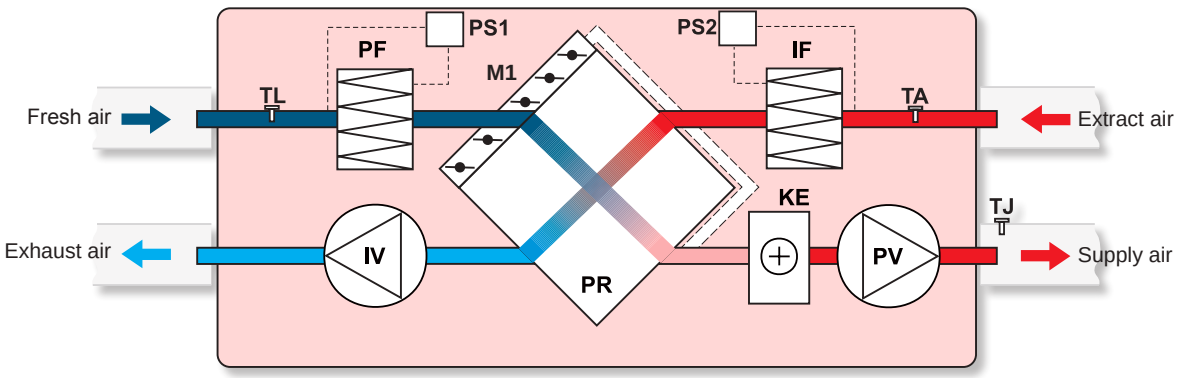
IV	- exhaust air fan
PV	- supply air fan
PR	- plate heat exchanger
KE	- electrical heater
PF	- filter for supply air (class F5)
IF	- filter for extract air (class F5)
TA	- temperature sensor for extract air
TL	- temperature sensor for fresh air
TJ	- temperature sensor for supply air
M1	- actuator of by-pass damper
PS1	- supply air differential pressure switch
PS2	- extract air differential pressure switch

RIS 2500HW EC 2.0, 3500HW EC 2.0 versions with optional water heater



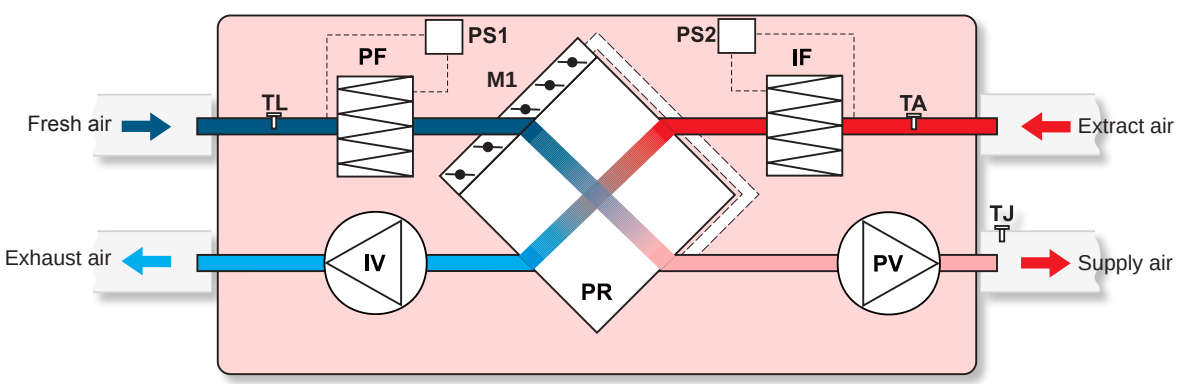
IV	- exhaust air fan
PV	- supply air fan
PF	- filter for supply air (class F5)
IF	- filter for extract air (class F5)
PR	- plate heat exchanger
TA	- temperature sensor for extract air
TL	- temperature sensor for fresh air
TJ	- temperature sensor for supply air
M1	- actuator of by-pass damper
PS1	- supply air differential pressure switch
PS2	- extract air differential pressure switch

RIS 5500HE EC 2.0 version with electrical heater



IV	- exhaust air fan	**TA**	- temperature sensor for extract air
PV	- supply air fan	**TL**	- temperature sensor for fresh air
PR	- plate heat exchanger	**TJ**	- temperature sensor for supply air
KE	- electrical heater	**M1**	- actuator of by-pass damper
PF	- filter for supply air (class F5)	**PS1**	- supply air differential pressure switch
IF	- filter for extract air (class F5)	**PS2**	- extract air differential pressure switch

RIS 5500HW EC 2.0 version with optional water heater



IV	- exhaust air fan	**TL**	- temperature sensor for fresh air
PV	- supply air fan	**TJ**	- temperature sensor for supply air
PF	- filter for supply air (class F5)	**M1**	- actuator of by-pass damper
IF	- filter for extract air (class F5)	**PS1**	- supply air differential pressure switch
PR	- plate heat exchanger	**PS2**	- extract air differential pressure switch
TA	- temperature sensor for extract air		