AHU with heat recovery

Centrales de traitement d'air
avec récupération de chaleur

Lüftungsgeräte mit wärmerückgewinnung

Вентиляционные агрегаты с
рекуперацией тепла

Air handling units RIRS have high efficiency rotor heat exchanger. AHU is used for ventilation of houses and other heated areas.
- Rotor heat exchanger with efficiency 71-80%.
- Electrical or water heater.
- Efficient and low-noise fans.
- Controlled air flow.
- Supply air temperature control.
- External-rotor motors.
- RIRS 400VE - 1500VE with integrated control and monitoring capabilities, using UNI, PRO and TPC remote control devices.
- Acoustic insulation of the walls – 50 mm.
- RIRS 400V - 1500V housing: powder coated painting RAL 7040.
- Low noise level.
- Easy mounting.

Rekuperator-Einrichtungen RIRS säubern, erwärmen und liefern frische Luft. RIRS-Einrichtungen nehmen Wärme aus der ausgestoßenen Luft auf und leiten sie in die gelieferte Luft weiter.
- Rotorwärmetauscher.
- Hoher Wärmerückgewinnungsgrad 71-80%.
- Elektrische oder Wasser-Erwärmungseinrichtung.
- Leistungsfähige und leise funktionierende Ventilatoren.
- Regelung des Luftstromes.
- Regelung der Temperatur der gelieferten Luft.
- Motoren mit Außenrotor.
- RIRS 400VE - 1500VE mit integrierten Steuerungs- und Überwachungsmöglichkeiten mithilfe von UNI, PRO und TPC Steuerpulten.
- Akustische Isolation der Wände - 50mm.
- RIRS 400V - 1500V das Gehäuse: gestrichen RAL 7040.
- Niedriges Geräuschniveau
- Leicht montierbar.

Les centrale de traitement d'air avec récupération de chaleur RIRS filtrent, chauffent et fournissent de l'air frais. Les centrales RIRS prennent la chaleur de l'air extrait et la transfère dans l'air neuf.
- Échangeur de chaleur rotatif.
- Rendement thermique élevée : 71-80%.
- Batterie électrique ou à eau chaude.
- Ventilateurs efficaces et silencieux.
- Débit d'air réglable.
- Régulation de la température de l'air insufflé.
- Moteurs du rotor extérieur.
- RIRS 400VE - 1500VE avec fonction de commande et de contrôle intégrée en utilisant les boîtiers de commande UNI, PRO et TPC.
- Isolation acoustique des parois de 50mm.
- Enveloppe RIRS 400V - 1500V : peinte avec RAL 7040.
- Faible niveau de bruit.
- Montage facile.

Установки с рекуперацией тепла RIRS очищают, нагревают и подают свежий воздух. RIRS устройства извлекают тепло из выходящего воздуха и передают его в поступающий.
- Роторный теплообменник.
- Высокоэффективная отдача тепла - 71-80 %.
- Электрический или водяной нагреватель.
- Производительные и бесшумные вентиляторы.
- Регулируемый воздушный поток.
- Регулируемая температура подаваемого воздуха.
- Двигатели с наружными ротором.
- RIRS 400VE - 1500VE с интегрированными возможностями управления и наблюдения с помощью пультов управления UNI, PRO и TPC.
- Акустическая изоляция стенок - 50 мм.
- RIRS 400V - 1500V корпус: окрашенный RAL 7040.
- Низкий уровень шума.
- Легко монтируются.

Accessories


SKG
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AKS
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SSP
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AP
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SSK
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SP
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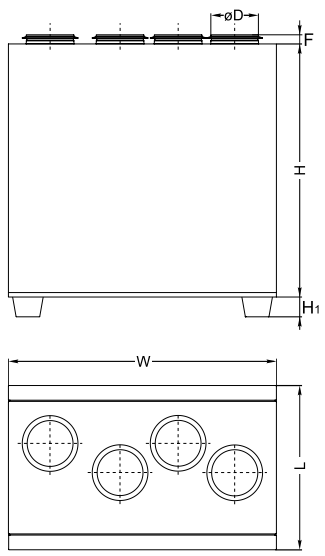

RIRS 400 V E K EKO

RIRS	Unit with EC fans
400	Version of fresh air in-feed direction (K – From left; D – From right)
V	Heater type (E - electrical; W - water)
E	Housing type (V - vertical)
K	Air flow m³/h
EKO	AHU with rotor heat-exchanger

Type	Dimensions [mm]					
	W	L	H	øD	H_1	F
RIRS 400VE EKO	900	553	850	160	40	30
RIRS 400VW EKO	900	553	850	160	40	30
RIRS 400VE	900	553	850	160	40	30
RIRS 400VW	900	553	850	160	40	30
RIRS 700VE EKO	1000	653	980	250	40	40
RIRS 700VW EKO	1000	653	980	250	40	40
RIRS 700VE	1000	653	980	250	40	40
RIRS 700VW	1000	653	980	250	40	40
RIRS 1500VE EKO	1300	853	1150	315	70	40
RIRS 1500VW EKO	1300	853	1150	315	70	40
RIRS 1500VE	1300	853	1150	315	70	40
RIRS 1500VW	1300	853	1150	315	70	40

Accessories


RMG
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PS
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UNI
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PRO
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TPC
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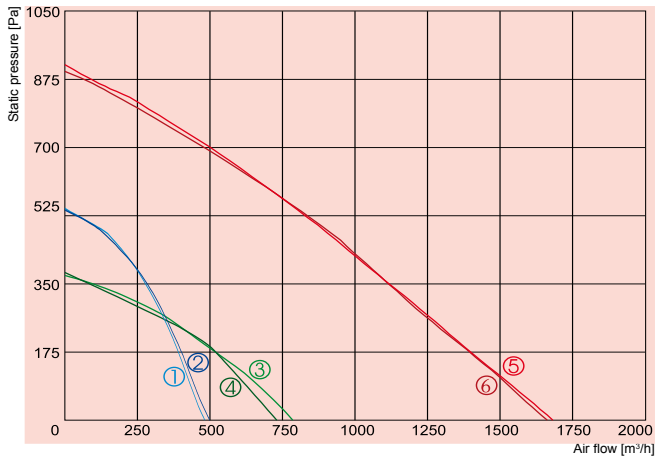


① supply
② exhaust
RIRS 400VE EKO

③ supply
④ exhaust
RIRS 700VE EKO

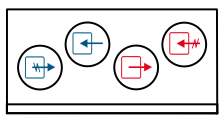
⑤ supply
⑥ exhaust
RIRS 1500VE EKO

			400VE EKO	700VE EKO	1500VE EKO
Heater	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~3, 400
	-power consumption	[kW]	1,2	2,0	4,5
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,173/1,26	0,177/1,20	0,540/3,38
	-fan speed	[min⁻¹]	2520	1740	3580
supply	-power/current	[kW/A]	0,173/1,26	0,177/1,20	0,520/3,29
	-fan speed	[min⁻¹]	2520	1740	3580
Motor protection class			IP-44	IP-44	IP-44
Thermal efficiency			75%	74%	74%
Max power consumption		[kW/A]	1,55/7,81	2,36/11,17	5,07/9,13
Automatic control			integrated	integrated	integrated
Filter class	-exhaust		EU5	EU5	EU5
	-supply		EU5	EU5	EU5
Thermal insulation		[mm]	50	50	50
Weight		[kg]	79,0	104,0	160,0

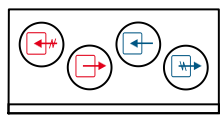
Air flow temperature range from -20°C to +40°C
Designed for operation indoors only

Thermal efficiency of RIRS 400VE EKO was measured at 400m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 700VE EKO was measured at 700m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 1500VE EKO was measured at 1500m³/h at temperature range from -20°C to +20°C

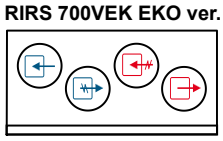
RIRS 400VEK EKO ver.



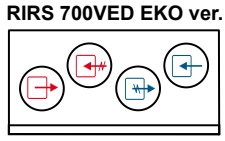
RIRS 400VED EKO ver.



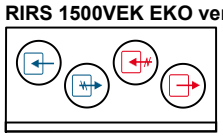
RIRS 700VEK EKO ver.



RIRS 700VED EKO ver.

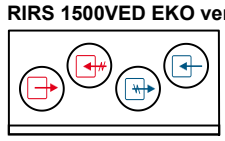


RIRS 1500VEK EKO ver.



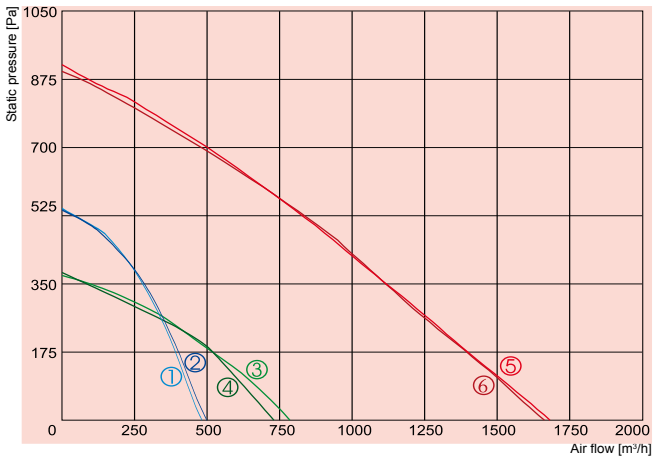
View from inspection side

RIRS 1500VED EKO ver.



View from inspection side

Exhaust air | Extract air | Fresh air | Supply air



① supply ② exhaust — **RIRS 400VW EKO**

③ supply ④ exhaust — **RIRS 700VW EKO**

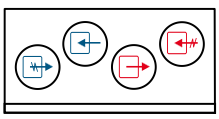
⑤ supply ⑥ exhaust — **RIRS 1500VW EKO**

			400VW EKO	700VW EKO	1500VW EKO
Water heater	-power	[kW]	AVS 160	AVS 250	AVS 315
	-water . T_{in}/T_{out}	[°C]			
	-water flow rate	[l/s]			
	-water pressure drop	[kPa]			
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,173/1,26	0,177/1,20	0,540/3,38
	-fan speed	[min⁻¹]	2520	1740	3580
supply	-power/current	[kW/A]	0,173/1,26	0,177/1,20	0,520/3,29
	-fan speed	[min⁻¹]	2520	1740	3580
Motor protection class			IP-44	IP-44	IP-44
Thermal efficiency			75%	74%	74%
Max power consumption		[kW/A]	0,35/2,60	0,36/2,48	1,08/6,83
Automatic control			integrated	integrated	integrated
Filter class	-exhaust		EU5	EU5	EU5
	supply		EU5	EU5	EU5
Thermal insulation		[mm]	50	50	50
Weight		[kg]	79,0	104,0	160,0

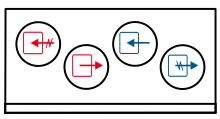
Air flow temperature range from -20°C to +40°C
Designed for operation indoors only

Thermal efficiency of RIRS 400VW EKO was measured at 400m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 700VW EKO was measured at 700m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 1500VW EKO was measured at 1500m³/h at temperature range from -20°C to +20°C

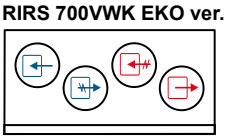
RIRS 400VWK EKO ver.



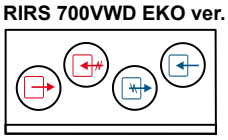
RIRS 400VWD EKO ver.



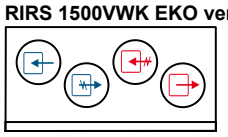
RIRS 700VWK EKO ver.



RIRS 700VWD EKO ver.

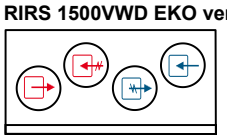


RIRS 1500VWK EKO ver.



View from inspection side

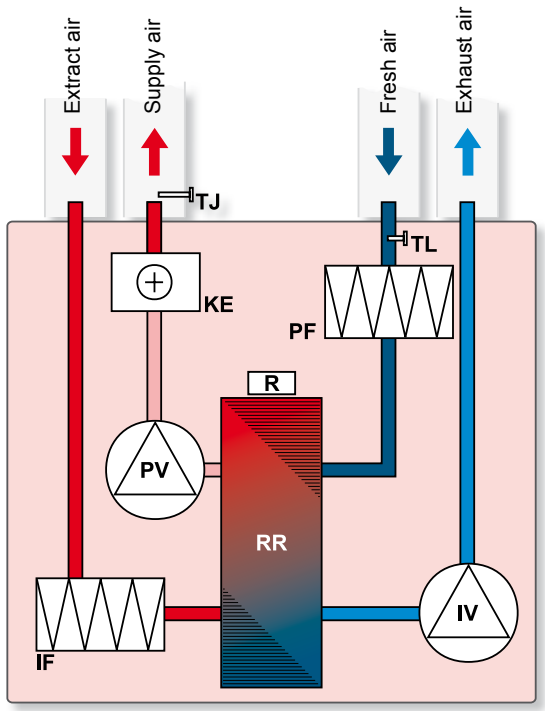
RIRS 1500VWD EKO ver.



View from inspection side

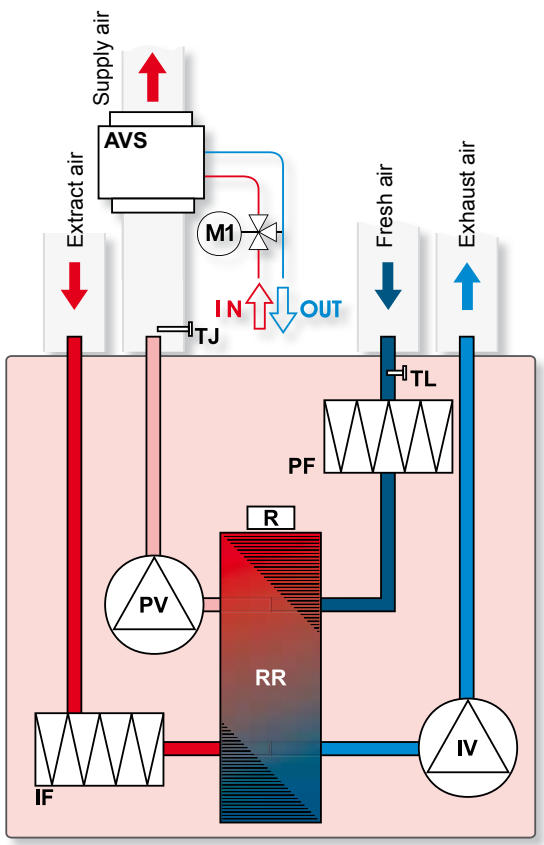
Exhaust air | Extract air | Fresh air | Supply air

RIRS 400VE EKO (vertical) with electrical heater



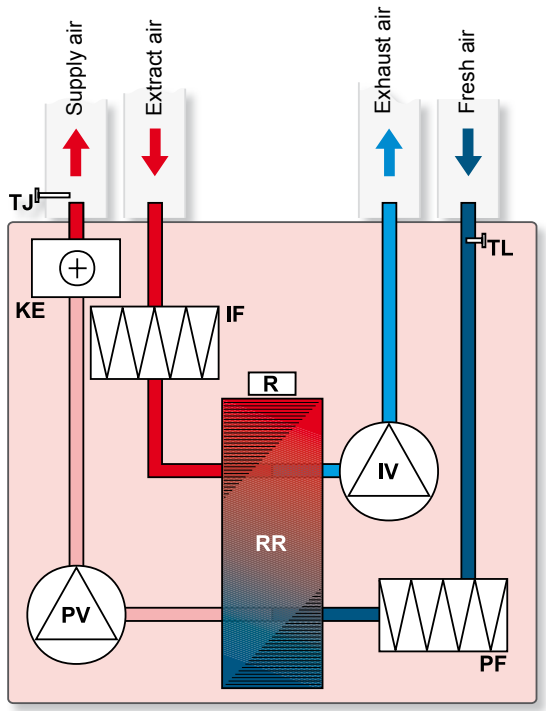
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor

RIRS 400VW EKO (vertical) with water heater



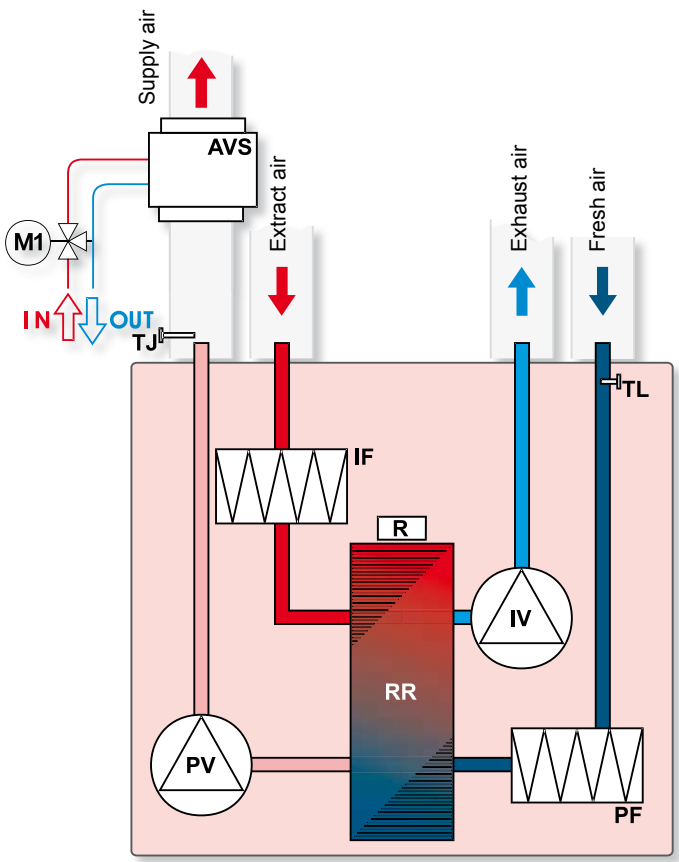
AVS - optionally supplied water heater
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor
M1 - optionally supplied mixing valve and motor

RIRS 700VE EKO; 1500VE EKO (vertical) versions with electrical heater

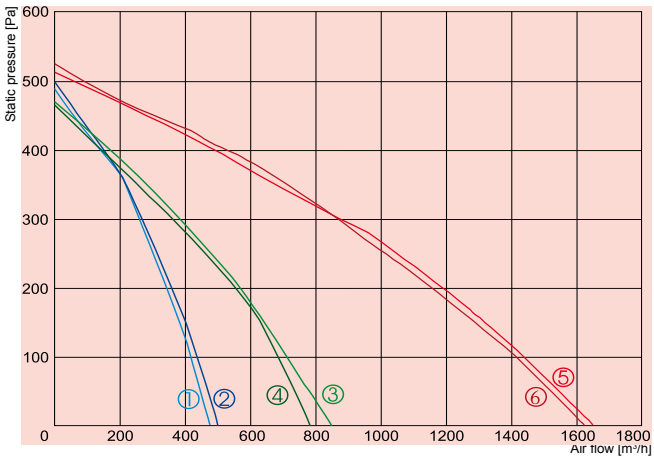


IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor

RIRS 700VW EKO; 1500VW EKO (vertical) versions with water heater



AVS - optionally supplied water heater
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor
M1 - optionally supplied mixing valve and motor



① supply
② exhaust
RIRS 400VE

③ supply
④ exhaust
RIRS 700VE

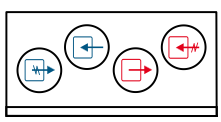
⑤ supply
⑥ exhaust
RIRS 1500VE

			400VE	700VE	1500VE
Heater	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~3, 400
	-power consumption	[kW]	1,2	2,0	4,5
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed	[min⁻¹]	1850	2050	2750
supply	-power/current	[kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed	[min⁻¹]	1850	2050	2750
Motor protection class			IP-44	IP-44	IP-44
Thermal efficiency			75%	74%	74%
Max power consumption		[kW/A]	1,59/6,91	2,57/11,21	5,30/10,07
Automatic control			integrated	integrated	integrated
Filter class	-exhaust		EU5	EU5	EU5
	-supply		EU5	EU5	EU5
Thermal insulation		[mm]	50	50	50
Weight		[kg]	79,0	104,0	170,0

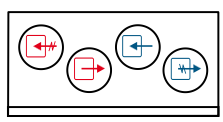
Air flow temperature range from -20°C to +40°C
Designed for operation indoors only

Thermal efficiency of RIRS 400VE was measured at 400m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 700VE was measured at 700m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 1500VE was measured at 1500m³/h at temperature range from -20°C to +20°C

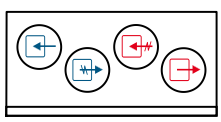
RIRS 400VEK ver.



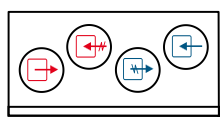
RIRS 400VED ver.



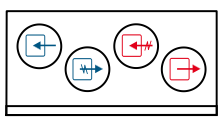
RIRS 700VEK ver.



RIRS 700VED ver.

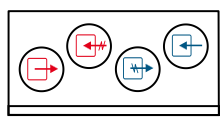


RIRS 1500VEK ver.



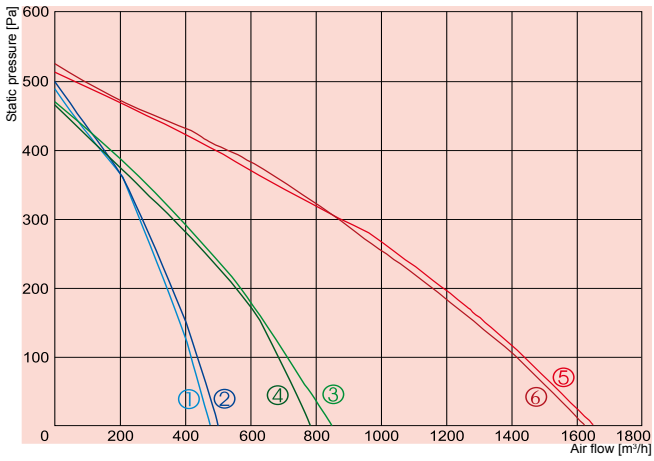
View from inspection side

RIRS 1500VED ver.



View from inspection side

Exhaust air Extract air Fresh air Supply air



① ② supply / exhaust — **RIRS 400VW**

③ ④ supply / exhaust — **RIRS 700VW**

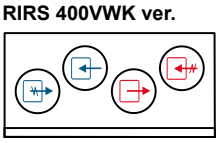
⑤ ⑥ supply / exhaust — **RIRS 1500VW**

			400VW	700VW	1500VW
Water heater	-power	[kW]	AVS 160	AVS 250	AVS 315
	-water . T_{in}/T_{out}	[°C]			
	-water flow rate	[l/s]			
	-water pressure drop	[kPa]			
Fans	-phase/voltage	[50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current	[kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed	[min^{-1}]	1850	2050	2750
supply	-power/current	[kW/A]	0,190/0,84	0,280/1,22	0,390/1,71
	-fan speed	[min^{-1}]	1850	2050	2750
Motor protection class			IP-44	IP-44	IP-44
Thermal efficiency			75%	74%	74%
Max power consumption		[kW/A]	0,39/1,70	0,57/2,52	0,80/3,58
Automatic control			integrated	integrated	integrated
Filter class	-exhaust		EU5	EU5	EU5
	supply		EU5	EU5	EU5
Thermal insulation		[mm]	50	50	50
Weight		[kg]	79,0	104,0	170,0

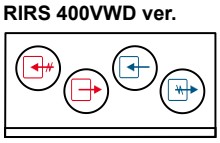
Air flow temperature range from -20°C to +40°C
Designed for operation indoors only

Thermal efficiency of RIRS 400VW was measured at 400m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 700VW was measured at 700m³/h at temperature range from -20°C to +20°C
Thermal efficiency of RIRS 1500VW was measured at 1500m³/h at temperature range from -20°C to +20°C

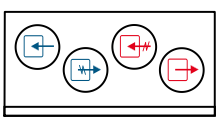
RIRS 400VWK ver.



RIRS 400VWD ver.



RIRS 700VWK ver.



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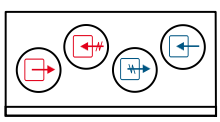
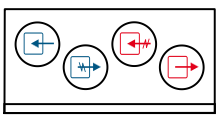
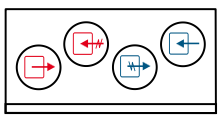


RIRS 1500VWK ver.



View from inspection side

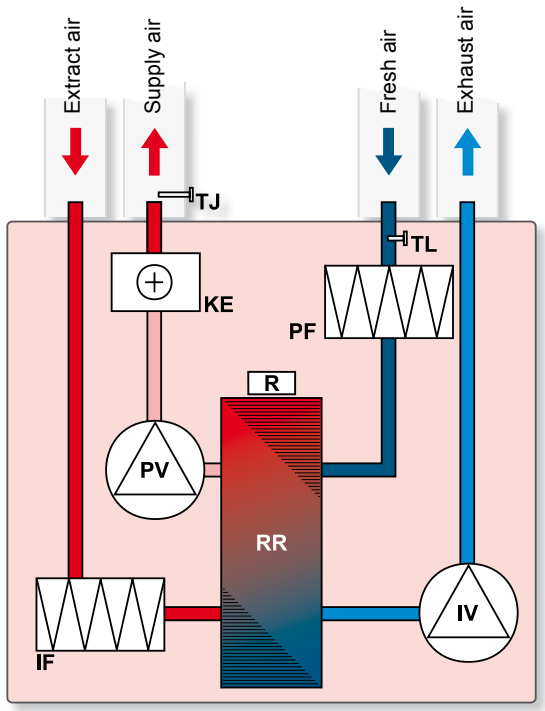
RIRS 1500VWD ver.



View from inspection side

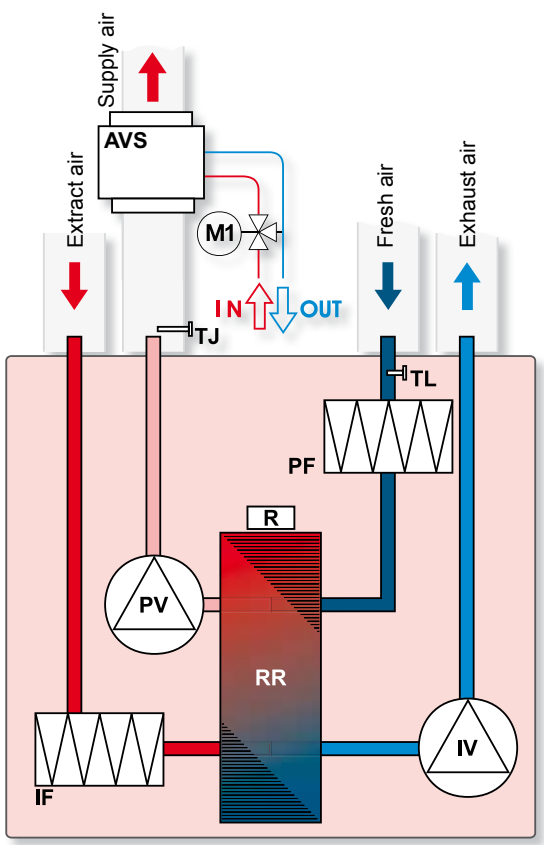
Exhaust air — Extract air — Fresh air — Supply air

RIRS 400VE (vertical) **with electrical heater**



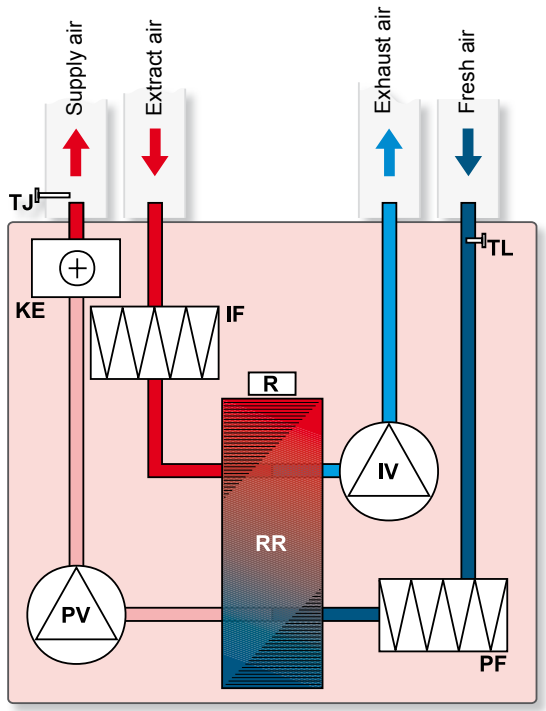
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor

RIRS 400VW (vertical) **with water heater**



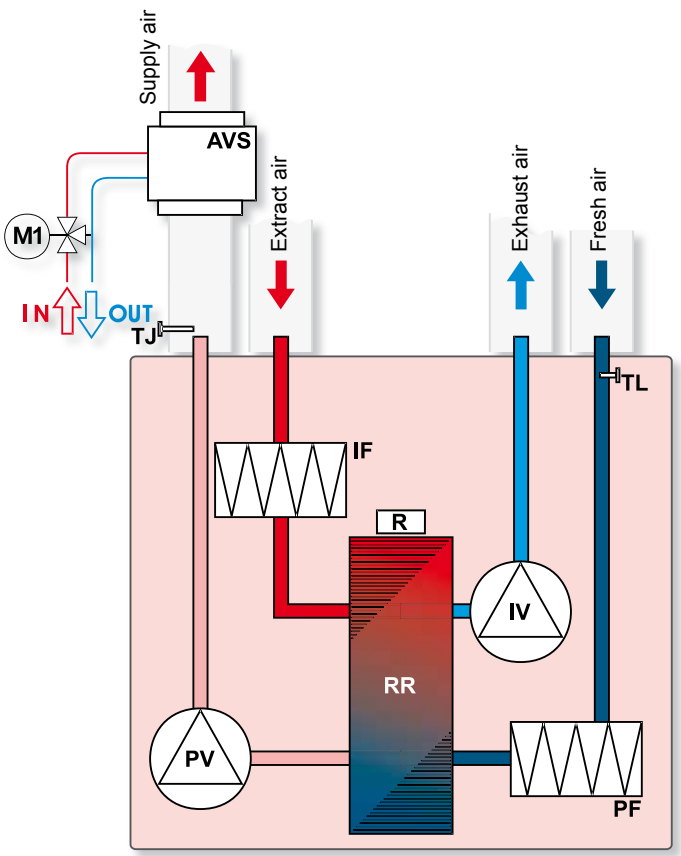
AVS - optionally supplied water heater
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor
M1 - optionally supplied mixing valve and motor

RIRS 700VE; 1500VE (vertical) **versions with electrical heater**



IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor

RIRS 700VW; 1500VW (vertical) **versions with water heater**



AVS - optionally supplied water heater
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class EU5)
I F - extract air filter (class EU5)
TJ - air temperature sensor
TL - air temperature sensor
M1 - optionally supplied mixing valve and motor