



AHU with heat recovery

Centrales de traitement d'air avec récupération de chaleur

Lüftungsgeräte mit wärmerückgewinnung

Вентиляционные агрегаты с рекуперацией тепла



Air handling units RIS 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 54-60%.  
Electrical or water heater.  
Controlled air flow.  
Supply air temperature control.  
Anti-freeze protection of the heat exchanger.  
Low noise level.  
RIS 260V - 1900V all versions can be controlled by UNI, PRO and TPC remote control devices.  
Acoustic insulation of the walls – 20 mm, 30mm or 50 mm.  
RIS 260V - 1900V housing: powder coated painting RAL 7040.  
Easy mounting.



Rekuperator-Einrichtungen RIS säubern, erwärmen und liefern frische Luft. RIS-Einrichtungen nehmen Wärme aus der ausgestoßenen Luft auf und leiten sie in die gelieferte Luft weiter.  
Leistungsfähige und leise funktionierende Ventilatoren.  
Plattenwärmeaustauscher, Wärmerückgewinnungsgrad 54-60%.  
Elektrische oder Wasser-Erwärmungseinrichtung.  
Regelung des Luftstromes.  
Regelung der Temperatur der gelieferten Luft.  
Gefrierschutz des Wärmeaustauschers.  
Niedriges Geräuschniveau.  
Jedes Aggregat ist getrennt geprüft.  
RIS 260V - 1900V mit integrierten Steuerungs- und Überwachungsmöglichkeiten mithilfe von UNI, PRO und TPC Steuerpulten.  
Akustische Isolation der Wände - 20mm, 30mm oder 50mm.  
RIS 260V - 1900V das Gehäuse: gestrichen RAL 7040.  
Leicht montierbar.



Les centrales de traitement d'air avec récupération de chaleur RIS filtrent, chauffent et fournissent de l'air frais. Les centrales RIS prennent la chaleur de l'air extrait et la transfère dans l'air neuf.  
Ventilateurs efficaces et silencieux.  
Échangeur de chaleur à plaques, rendement thermique de 54-60%.  
Batterie électrique ou à eau chaude.  
Débit d'air réglable.  
Régulation de la température de l'air insufflé.  
Protection antigel de l'échangeur de chaleur.  
Faible niveau de bruit.  
Chaque unité est vérifiée séparément.  
RIS 260V - 1900V avec système de commande et de contrôle intégré en utilisant les boîtiers de commande UNI, PRO et TPC.  
Isolation acoustique des parois de 20mm, 30mm ou 50mm.  
Enveloppe RIS 260V - 1900V : peinte avec RAL 7040.  
Montage facile.



Установки с рекуперацией тепла RIS очищают, нагревают и подают свежий воздух. Установки RIS извлекают тепло у выходящего воздуха и передают его поступающему воздуху.  
Производительные и бесшумные вентиляторы.  
Пластинчатый теплообменник, эффективность теплоотдачи 54-60%.  
Электрический или водяной нагреватель.  
Регулируемый воздушный поток.  
Регулируемая температура подаваемого воздуха.  
Защита теплообменника от замерзания.  
Низкий уровень шума.  
Каждый агрегат проверен отдельно.  
RIS 260V - 1900V с интегрированными возможностями управления и наблюдения с помощью пультов управления UNI, PRO и TPC.  
Акустическая изоляция стенок – 20мм, 30мм или 50мм.  
RIS 260V - 1900V корпус: окрашенный RAL 7040.  
Легко монтируются.

#### Accessories



SKG  
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AKS  
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AP  
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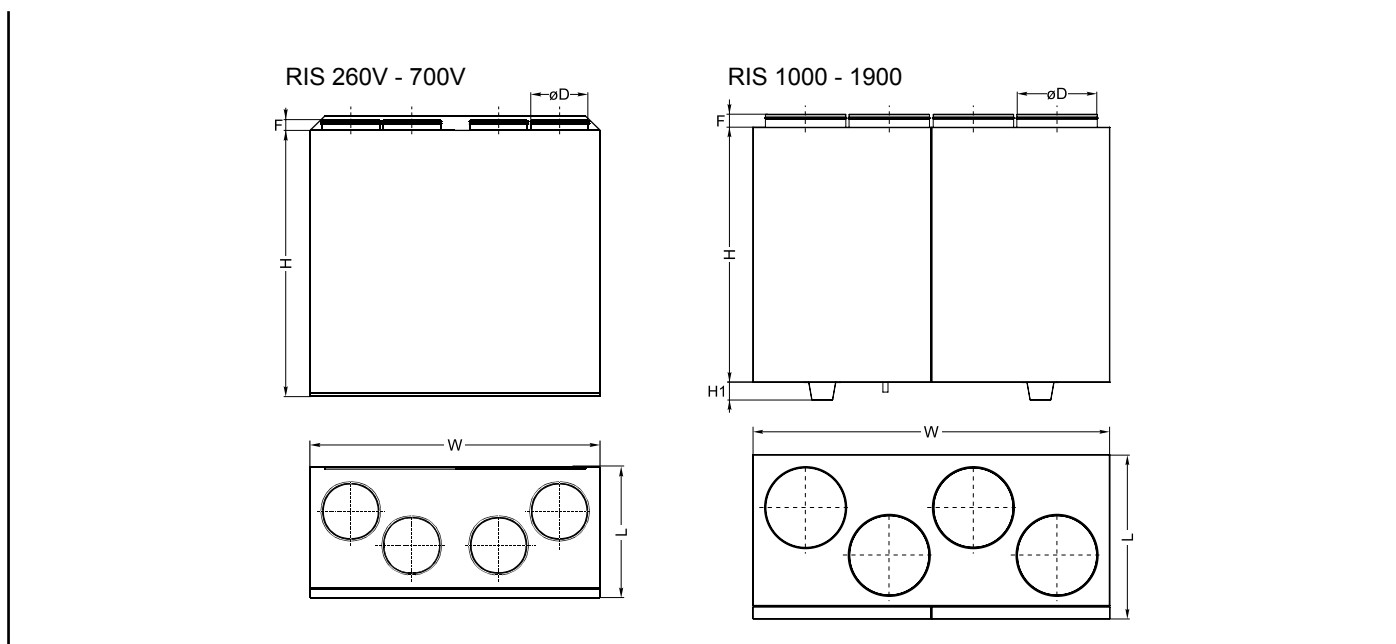
VK  
p. 240



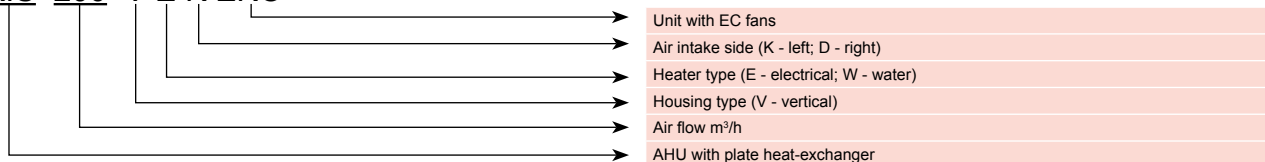
AVS  
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## RIS 200 V E K EKO



Type	Dimensions [mm]					
	L	W	H	øD	H <sub>1</sub>	F
RIS 200 VE EKO	410	595	716	125	-	30
RIS 260 VE	295	598	640	125	-	30
RIS 260 VW	295	598	640	125	-	30
RIS 400 VE EKO	596	635	800	160	-	30
RIS 400 VE	352	900	800	160	-	30
RIS 400 VW	352	900	800	160	-	30
RIS 700 VE	462	950	845	200	-	30
RIS 700 VW	462	950	845	200	-	30
RIS 1000 VE	645	1400	1000	315	70	40
RIS 1000 VW	645	1400	1000	315	70	40
RIS 1500 VE	645	1400	1000	315	70	40
RIS 1500 VW	645	1400	1000	315	70	40
RIS 1900 VE	790	1650	1100	400	70	65
RIS 1900 VW	790	1650	1100	400	70	65

### Accessories



RMG  
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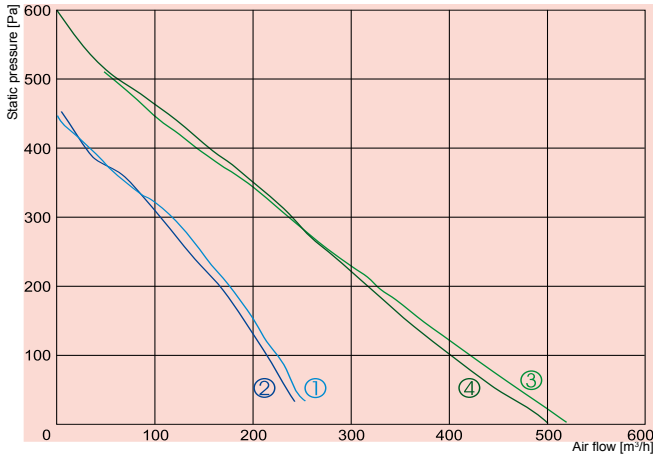
UNI  
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PRO  
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- ① — supply **RIS 200VE EKO**
- ② — exhaust
- ③ — supply **RIS 400VE EKO**
- ④ — exhaust

		200VE EKO	400VE EKO
Heater	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230
	-power consumption [kW]	1,2	2,4
EC fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230
	- control input [VDC]	0-10	0-10
exhaust	-power/current [kW/A]	0,043/0,32	0,104/0,8
	-fan speed [min <sup>-1</sup> ]	4480	4500
supply	-power/current [kW/A]	0,043/0,32	0,104/0,8
	-fan speed [min <sup>-1</sup> ]	4480	4500
Thermal efficiency		82%	84%
Max power consumption [kW/A]		1,286/5,85	2,6/12,03
Automatic control		integrated	integrated
Filter class	-exhaust	EU3	EU3
	-supply	EU5	EU5
Thermal insulation [mm]		30	30
Weight [kg]		44,7	50,0

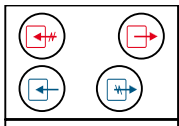
Air flow temperature range from -20°C to +40°C

Designed for operation indoors only

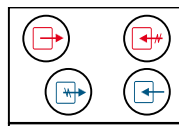
Thermal efficiency of RIS 200VE EKO was measured at 200m³/h at temperature range from -20°C to +20°C

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

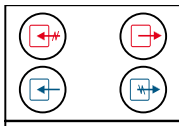
RIS 200VEK EKO ver.



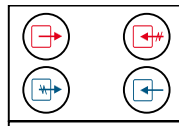
RIS 200VED EKO ver.



RIS 400VEK EKO ver.



RIS 400VED EKO ver.



View from inspection side

View from inspection side

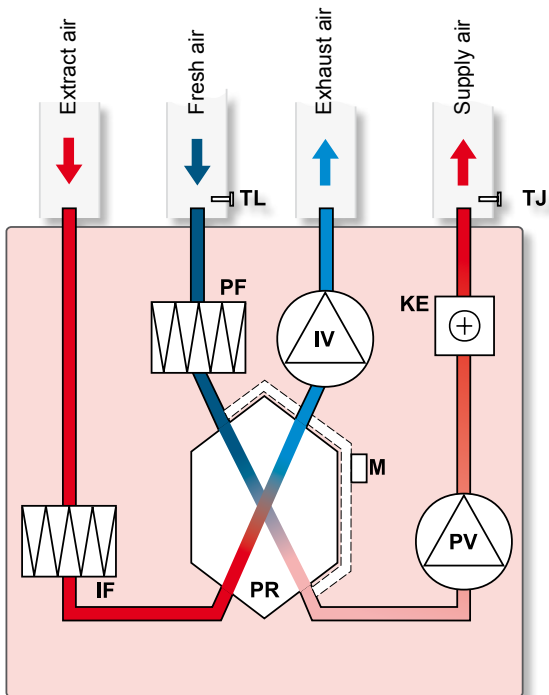
Exhaust air

Extract air

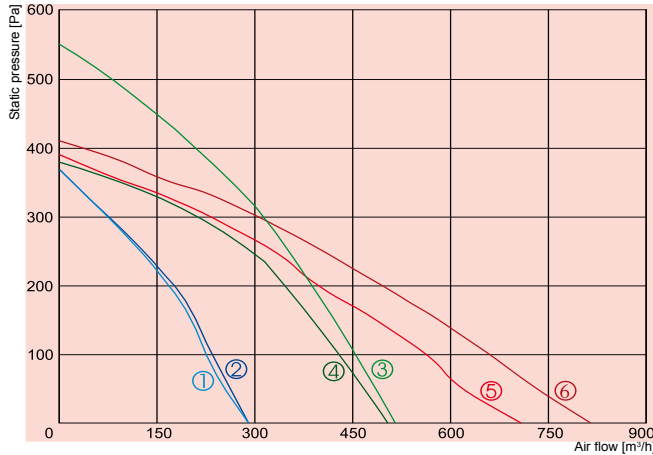
Fresh air

Supply air

RIS 200VE EKO; 400VE EKO (vertical) with electrical heater



- IV - exhaust air fan
- PV - supply air fan
- PR - plate heat exchanger
- KE - electrical heater
- PF - filter for supply air
- IF - filter for extract air
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- M - by-pass damper



- ① — supply **RIS 260VE**
- ② — exhaust
  
- ③ — supply **RIS 400VE**
- ④ — exhaust
  
- ⑤ — supply **RIS 700VE**
- ⑥ — exhaust

		260VE	400VE	700VE
Heater	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
	-power consumption [kW]	1,0	2,0	3,0
Pre-heater for heat exchanger	[kW]	0,3	1,0	1,2
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,089/0,4	0,175/0,77	0,255/1,12
	-fan speed [min <sup>-1</sup> ]	1880	2100	2000
supply	-power/current [kW/A]	0,089/0,4	0,225/1,1	0,255/1,12
	-fan speed [min <sup>-1</sup> ]	1880	1850	2000
Motor protection class		IP-44	IP-54/IP-44	IP-54
Thermal efficiency		55%	60%	60%
Max power consumption	[kW/A]	1,48/6,4	3,40/14,9	4,71/20,5
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	EU3	EU3	EU3
	supply	EU5	EU5	EU5
Thermal insulation	[mm]	20	30	30
Weight	[kg]	40,0	68,0	82,0

Air flow temperature range from -20°C to +40°C

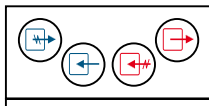
Designed for operation indoors only

Thermal efficiency of RIS 260VE was measured at 260m<sup>3</sup>/h at temperature range from -20°C to +20°C

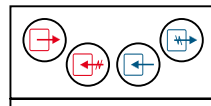
Thermal efficiency of RIS 400VE was measured at 400m<sup>3</sup>/h at temperature range from -20°C to +20°C

Thermal efficiency of RIS 700VE was measured at 700m<sup>3</sup>/h at temperature range from -20°C to +20°C

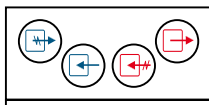
RIS 260VEK ver.



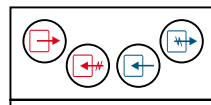
RIS 260VED ver.



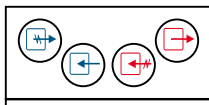
RIS 400VEK ver.



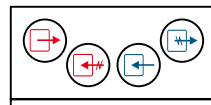
RIS 400VED ver.



RIS 700VEK ver.



RIS 700VED ver.



View from inspection side

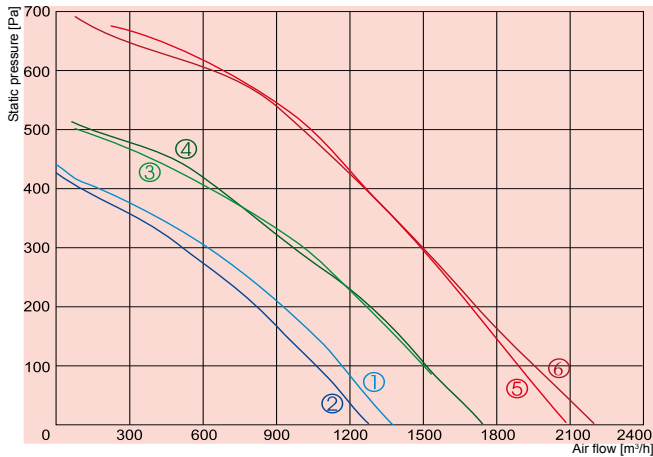
View from inspection side

Exhaust air

Extract air

Fresh air

Supply air



- ① — supply **RIS 1000VE**
- ② — exhaust
- ③ — supply **RIS 1500VE**
- ④ — exhaust
- ⑤ — supply **RIS 1900VE**
- ⑥ — exhaust

		1000VE	1500VE	1900VE
Heater	-phase/voltage [50Hz/VAC]	~3, 400	~3, 400	~3, 400
	-power consumption [kW]	6,0	9,0	15,0
Pre-heater for heat exchanger	[kW]	-	-	-
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,185/0,81	0,280/1,23	0,610/2,7
	-fan speed [min <sup>-1</sup> ]	2650	2750	2830
supply	-power/current [kW/A]	0,185/0,81	0,280/1,23	0,610/2,7
	-fan speed [min <sup>-1</sup> ]	2650	2750	2830
Motor protection class		IP-44	IP-44	IP-54
Thermal efficiency		54%	54%	60%
Max power consumption	[kW/A]	6,37/10,6	9,56/16,2	16,22/27,0
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	EU5	EU5	EU5
	supply	EU5	EU5	EU5
Thermal insulation	[mm]	50	50	50
Weight	[kg]	150,0	150,0	260,0

Air flow temperature range from -20°C to +40°C

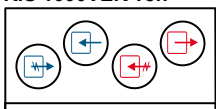
Designed for operation indoors only

Thermal efficiency of RIS 1000VE was measured at 1000m<sup>3</sup>/h at temperature range from -20°C to +20°C

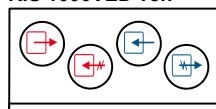
Thermal efficiency of RIS 1500VE was measured at 1500m<sup>3</sup>/h at temperature range from -20°C to +20°C

Thermal efficiency of RIS 1900VE was measured at 1900m<sup>3</sup>/h at temperature range from -20°C to +20°C

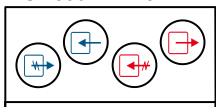
RIS 1000VEK ver.



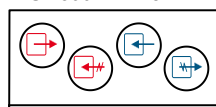
RIS 1000VED ver.



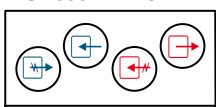
RIS 1500VEK ver.



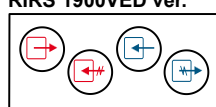
RIS 1500VED ver.



RIS 1900VEK ver.



RIRS 1900VED ver.



View from inspection side

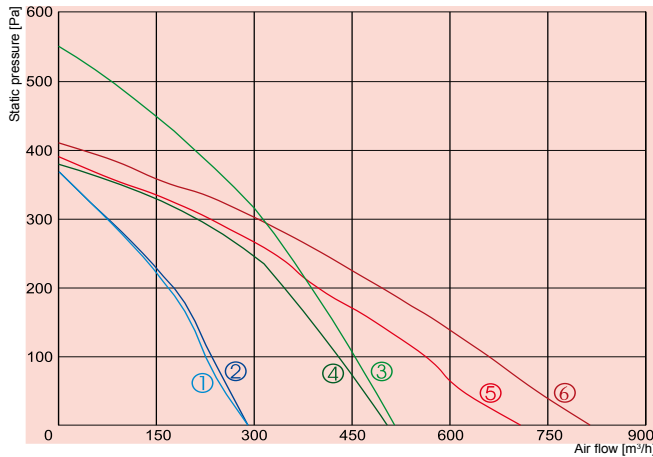
View from inspection side

↻ Exhaust air

↻ Extract air

↻ Fresh air

↻ Supply air



- ① — supply **RIS 260VW**
- ② — exhaust
- ③ — supply **RIS 400VW**
- ④ — exhaust
- ⑤ — supply **RIS 700VW**
- ⑥ — exhaust

AHU with heat recovery

		260VW	400VW	700VW
Water heater	-power [kW]			
	-water $\cdot T_{in}/T_{ou}$ [°C]			
	-water pressure drop [kPa]	AVS 125	AVS 160	AVS 200
Pre-heater for heat exchanger	[kW]			
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,089/0,4	0,175/0,77	0,255/1,12
	-fan speed [min <sup>-1</sup> ]	1880	2100	2000
supply	-power/current [kW/A]	0,089/0,4	0,225/1,1	0,255/1,12
	-fan speed [min <sup>-1</sup> ]	1880	1850	2000
Motor protection class		IP-44	IP-54/IP-44	IP-54
Thermal efficiency		55%	60%	60%
Max power consumption	[kW/A]	1,48/6,4	3,40/14,9	4,71/20,5
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	EU3	EU3	EU3
	supply	EU5	EU5	EU5
Thermal insulation	[mm]	20	30	30
Weight	[kg]	140,0	68,0	82,0

Air flow temperature range from -20°C to +40°C

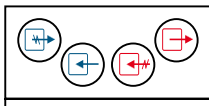
Designed for operation indoors only

Thermal efficiency of RIS 260VW was measured at 260m<sup>3</sup>/h at temperature range from -20°C to +20°C

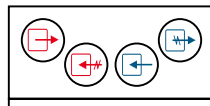
Thermal efficiency of RIS 400VW was measured at 400m<sup>3</sup>/h at temperature range from -20°C to +20°C

Thermal efficiency of RIS 700VW was measured at 700m<sup>3</sup>/h at temperature range from -20°C to +20°C

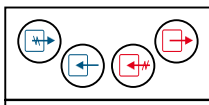
RIS 260VWK ver.



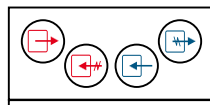
RIS 260VVD ver.



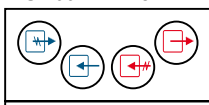
RIS 400VWK ver.



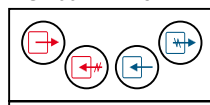
RIS 400VVD ver.



RIS 700VWK ver.



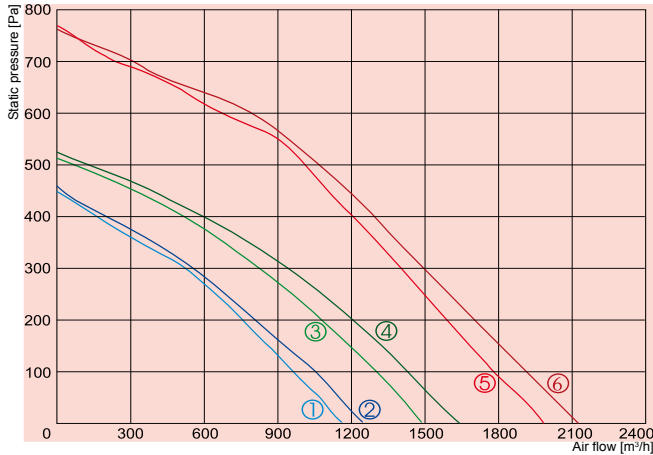
RIS 700VVD ver.



View from inspection side

View from inspection side

- Exhaust air
- Extract air
- Fresh air
- Supply air



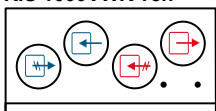
- ① — supply **RIS 1000VW**
- ② — exhaust
- ③ — supply **RIS 1500VW**
- ④ — exhaust
- ⑤ — supply **RIS 1900VW**
- ⑥ — exhaust

		1000VW	1500VW	1900VW
Water heater	-power [kW]	6,7	9,4	12,8
	-water temp. $T_{in}/T_{out}$ [°C]	80/60	80/60	80/60
	-water flow rate [l/s]	0,08	0,11	0,16
	-water pressure drop [kPa]	0,9	1,6	3,30
	-kvs value [m³/h]	3,1	3,2	3,2
Pre-heater for heat exchanger	[kW]	-	-	-
Fans	-phase/voltage [50Hz/VAC]	~1, 230	~1, 230	~1, 230
exhaust	-power/current [kW/A]	0,185/0,81	0,280/1,23	0,610/2,7
	-fan speed [min <sup>-1</sup> ]	2650	2750	2830
supply	-power/current [kW/A]	0,185/0,81	0,280/1,23	0,610/2,7
	-fan speed [min <sup>-1</sup> ]	2650	2750	2830
Motor protection class		IP-44	IP-44	IP-54
Thermal efficiency		54%	54%	60%
Max power consumption	[kW/A]	0,37/1,62	0,56/2,46	1,22/5,4
Automatic control		integrated	integrated	integrated
Filter class	-exhaust	EU5	EU5	EU5
	supply	EU5	EU5	EU5
Thermal insulation	[mm]	50	50	50
Weight	[kg]	150,0	150,0	260,0

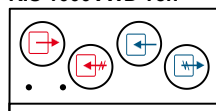
Air flow temperature range from -20°C to +40°C  
 Designed for operation indoors only

Thermal efficiency of RIS 1000VW was measured at 1000m³/h at temperature range from -20°C to +20°C  
 Thermal efficiency of RIS 1500VW was measured at 1500m³/h at temperature range from -20°C to +20°C  
 Thermal efficiency of RIS 1900VE was measured at 1900m³/h at temperature range from -20°C to +20°C

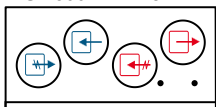
RIS 1000VWK ver.



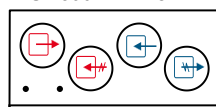
RIS 1000VWD ver.



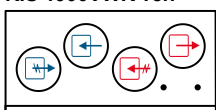
RIS 1500VWK ver.



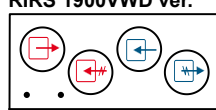
RIS 1500VWD ver.



RIS 1900VWK ver.



RIRS 1900VWD ver.



View from inspection side

View from inspection side

↔ Exhaust air

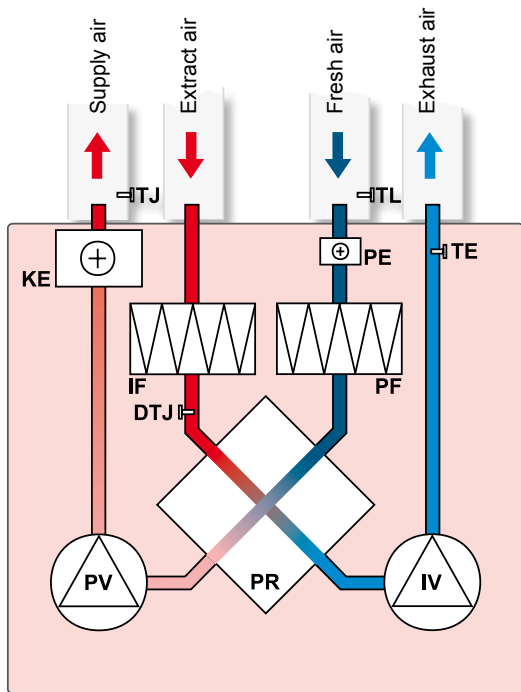
↔ Extract air

↔ Fresh air

↔ Supply air



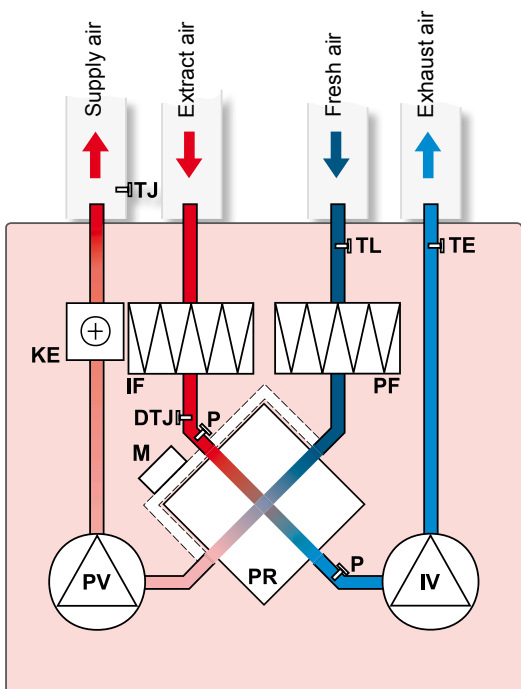
**RIS 260VE; 400VE; 700VE (vertical) versions with electrical heater \***



- 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 EU5)
- IF - filter for extract air (class EU3)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- TE - temperature sensor for extract air
- DTJ - humidity + temperature sensor

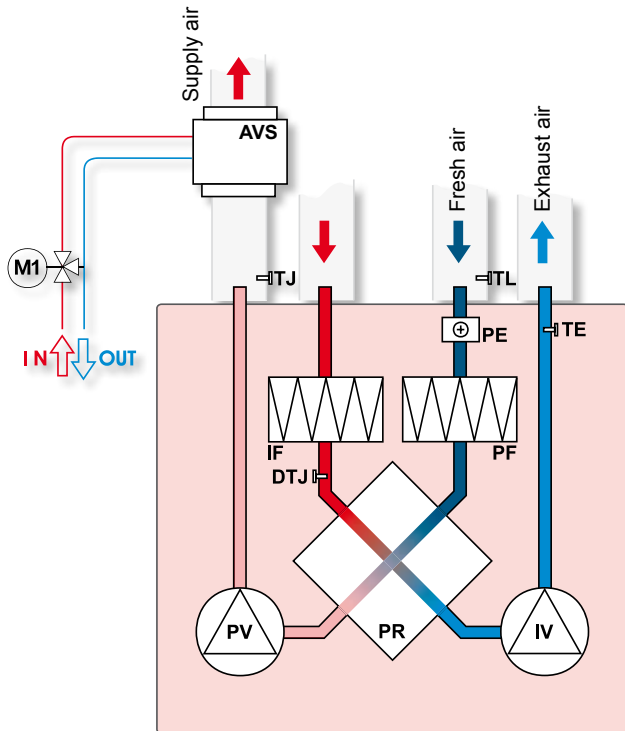
\* - Summer cassette can be applied to all versions of RIS 260 VE; RIS 400 VE; RIS 700 VE. Used for closing-up of plate heat exchanger during warm period of the year when heat recovery is of no benefit.

**RIS 1000VE; 1500VE; 1900VE (vertical) 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 EU5)
- IF - filter for extract air (class EU3)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- TE - temperature sensor for extract air
- DTJ - humidity + temperature sensor
- P - heat exchanger pressure switch
- M - by-pass damper

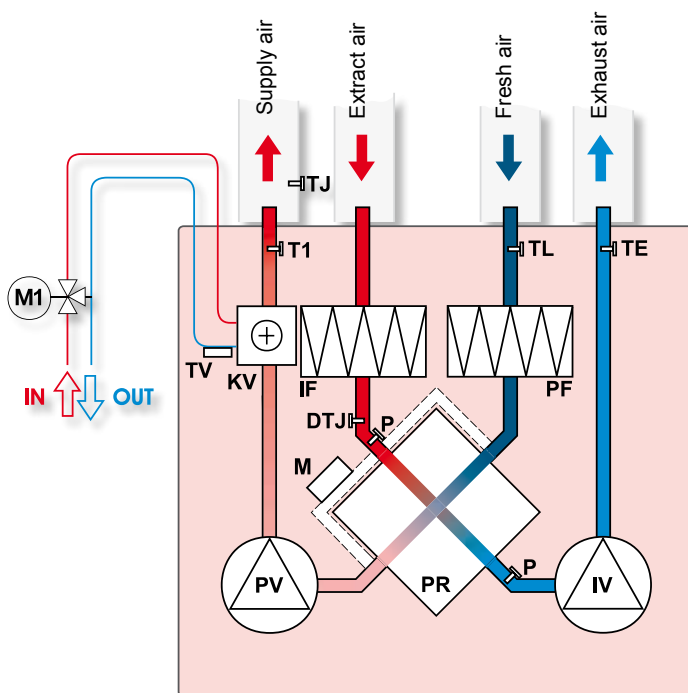
**RIS 260VW; 400VW; 700VW (vertical) versions with water heater \***



- 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 EU5)
- IF - filter for extract air (class EU3)
- 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

\* - Summer cassette can be applied to all versions of RIS 260 VW; RIS 400 VW; RIS 700 VW. Used for closing-up of plate heat exchanger during warm period of the year when heat recovery is of no benefit.

**RIS 1000VW; 1500VW; 1900VW (vertical) versions with water heater**



- IV - exhaust air fan
- PV - supply air fan
- PR - plate heat exchanger
- KV - water heater
- PF - filter for supply air (class EU5)
- IF - filter for extract air (class EU5)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- TE - temperature sensor for extract air
- DTJ - humidity + temperature sensor
- P - heat exchanger pressure switch
- T1 - antifrost thermostat
- TV - antifrost sensor
- M - by-pass damper
- M1 - optionally supplied mixing valve and motor