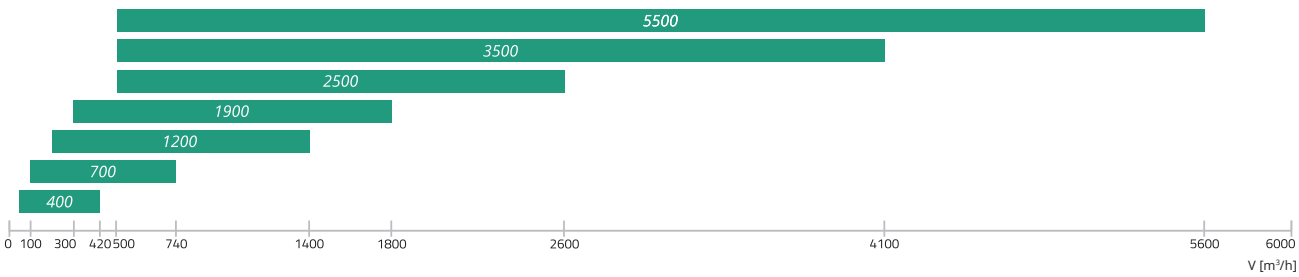
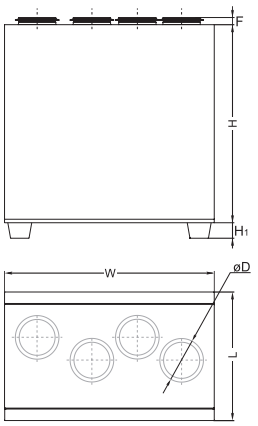
RIRS V EKO

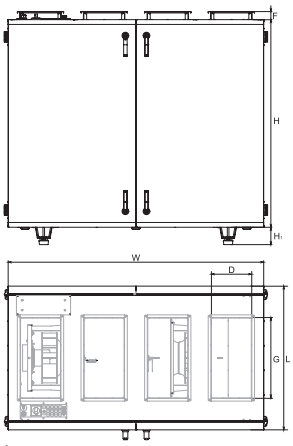


Application	Ventilation of houses, small public buildings, offices or other heated premises (classrooms, apartments, conference rooms, etc.).
Description	RIRS V EKO 3.0 is a range of heat recovery units with high-efficiency rotor heat exchangers. Units are designed for vertical placement in auxiliary non-heated premises (basements, boiler rooms, etc.). There are 7 sizes (airflow interval 420-5600 m^3/h) with separate heaters available for different climate zones. RIRS V EKO 3.0 units have high overall energy savings due to the highly efficient heat recovery (up to 85%), quiet and economical EC fans, effective low pressure drop filters and top-level of air tightness. All RIRS V EKO 3.0 units are fully equipped with automatic controls. Optional external sensors for CO_2 and humidity and so the summer mode feature will guarantee the highest comfort (demand-level control). RIRS V EKO 3.0 units are service-friendly and easy to mount. Filter pollution may be identified by timers or contamination controls (RIRS 1200-5500 V EKO 3.0). Rotor fault indicator is included in every AHU. All units are supplied tested and ready to install.
Controls	Three remote control options are available: 1. Flex, Stouch or Ptouch remote controllers. 2. Building management system connections. 3. Remote control via PC MB-Gateway.
The main Features	› Efficient rotor heat exchanger with up to 85% heat recovery. › Water/electrical heating options. › Easy and quick mounting. › Controlled airflow. › Fully integrated plug-and-play control system. › Outdoor versions and convertible inspection side.
Rotor	› Eurovent certified. › Plate gap 1,4-1,9 mm. › Rotor fault indicator. › Minimal airflow mixing. › Appropriate “Purge sector” size (for RIRS 2500, 3500 and 5500 V EKO 3.0).
Construction	› Frameless construction from double-skinned steel, with powder coated paint, panels. › Acoustic and thermal wall insulation – 50 mm. › 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). › Three sensors for fresh, supply and extract air temperatures. › Anti-vibration pads (optional for RIRS 400-1900 V EKO 3.0; standard for RIRS 2500-5500 V EKO 3.0). › Water heater with frost protection kit available. › Low pressure drop filters: F7/M5. › Integrated electrical heater or optional water heater/cooler (on duct). › Outdoor versions (RIRS 2500, 3500, 5500 V EKO 3.0). › RHX versions (rotor speed control, using stepper motor and driver). › Integrated pressure switch for filter pollution alarm (RIRS 1200 - 5500 V EKO 3.0).

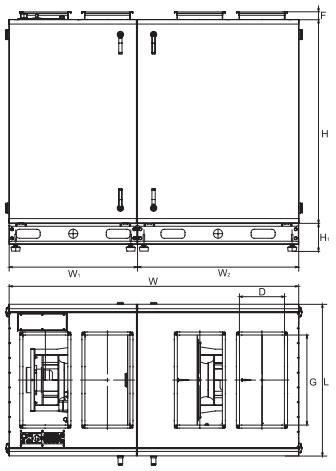
RIRS 400-700V EKO 3.0



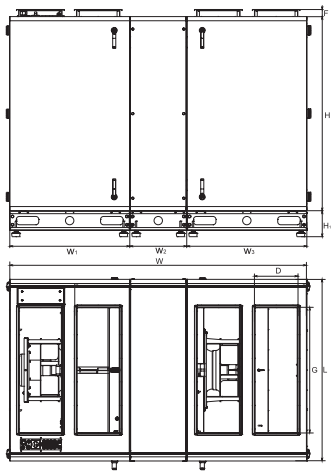
RIRS 1200-2500V EKO 3.0



RIRS 3500V EKO 3.0



RIRS 5500V EKO 3.0



* The view from the top is only indicative.
For exact information, see the specific product technical description.

	Dimensions [mm]										
Unit	**W**	**W_1**	**W_2**	**W_3**	**L**	**H**	**H_1**	**øD**	**D**	**G**	**F**
RIRS 400VE/VW EKO 3.0	900	-	-	-	560	850	40	160	-	-	30
RIRS 700VE/VW EKO 3.0	1100	-	-	-	655	980	40	250	-	-	40
RIRS 1200VE/VW EKO 3.0	1500	-	-	-	855	1150	70	315	-	-	40
RIRS 1900VE/VW EKO 3.0	1500	-	-	-	855	1150	70	315	-	-	40
RIRS 2500VE/VW EKO 3.0	1600	-	-	-	900	1300	110	-	250	500	50
RIRS 3500VE/VW EKO 3.0	1930	850	1075	-	1010	1355	190	-	300	600	50
RIRS 5500VE/VW EKO 3.0	2120	855	400	855	1310	1400	190	-	300	900	50

RIRS 400 V E L EKO 3.0

- Equipped with new PRV V2 control board
- AHU with EC motors
- Air intake side (L - left; R - right)
- Heater type (E - integrated electrical heater; W - optional water heater)
- Housing type (V - vertical, H - horizontal, P - ceiling)
- AHU size according to maximum airflow range m³/h
- AHU range with rotor heat exchanger

Accessories

Remote controller

Ptouch p. 175

Control panel

FLEX p. 177

Remote controller

Stouch p. 176

Net module

MB-Gateway p. 178

Pressure transmitter

S-1141 p. 179

CO2 sensor

S-RC02-F2 p. 180

Duct humidity sensor

S-KFF-U p. 181

Thermic water valve actuator

SSB p. 195

Circular duct silencer

AKS p. 216

Mounting clamp

AP p. 219

Shut-off damper

SKG p. 212

Damper for rectangular duct

SSK p. 213

Flexible connection

LJ/PG p. 221

Flange adapter

STP p. 220

Water heating coil

SVS p. 190

Comfort Box

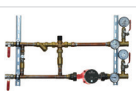
CB p. 183

Actuator for dampers

SP p. 210

Temperature sensor

TJP-10K p. 182

Mixing point

RMG p. 196

2 and 3 way valves

VVP/VXP p. 197

Rectangular duct silencer

SKS p. 215

Electrical duct pre-heater

EKA NV PH p. 201

Electrical duct pre-heater

EKS NV PH p. 203

RIRS V EKO

Unit	Optional accessories									
	Flex Stouch Ptouch MB-Gateway	**S-1141 S-RC02-F2 S-KFF-U**	**AKS AP SKG**	**SSK SKS LJ/PG**	**STP**	**SVS CB AVS***	**SP** *Supply*	**SP** *Exhaust*	**EKA NV PH**	**EKS NV PH**
RIRS 400VE EKO 3.0	+	+	160	-	-	-	CM230-1-F-L	CM230-1-F-L	160	160
RIRS 400VW EKO 3.0	+	+	160	-	-	160*	TF230	CM230-1-F-L	160	160
RIRS 700VE EKO 3.0	+	+	250	-	-	-	CM230-1-F-L	CM230-1-F-L	250	250
RIRS 700VW EKO 3.0	+	+	250	-	-	250*	TF230	CM230-1-F-L	250	250
RIRS 1200VE EKO 3.0	+	+	315	-	-	-	LM230A-TP	LM230A-TP	315	315
RIRS 1200VW EKO 3.0	+	+	315	-	-	315*	LF230	LM230A-TP	315	315
RIRS 1900VE EKO 3.0	+	+	315	-	-	-	LM230A-TP	LM230A-TP	315	315
RIRS 1900VW EKO 3.0	+	+	315	-	-	315*	LF230	LM230A-TP	315	315
RIRS 2500VE EKO 3.0	+	+	-	500x250	500x250-400	500x250	LM230A-TP	LM230A-TP	500x250	500x250
RIRS 2500VW EKO 3.0	+	+	-	500x250	500x250-400	500x250	LF230	LM230A-TP	500x250	500x250
RIRS 3500VE EKO 3.0	+	+	-	600x300	600x300-500	600x300	LM230A-TP	LM230A-TP	600x300	600x300
RIRS 3500VW EKO 3.0	+	+	-	600x300	600x300-500	600x300	LF230	LM230A-TP	600x300	600x300
RIRS 5500VE EKO 3.0	+	+	-	800x500*	900x300-800x500	800x500*	LM230A-TP	LM230A-TP	800x500*	800x500*
RIRS 5500VW EKO 3.0	+	+	-	800x500*	900x300-800x500	800x500*	LF230	LM230A-TP	800x500*	800x500*

** flange adapter STP is required.

Unit	Optional accessories								
	AVS	**AVA**	**TJP 10K CO4C*****	**SSB** *Heating*	**SSB** *Cooling*	**RMG 80/60°C**	**RMG 60/40°C**	**VVP/VXP 80/60°C**	**VVP/VXP 60/40°C**
RIRS 400VE EKO 3.0	-	160	-	-	81	-	-	-	-
RIRS 400VW EKO 3.0	160	160	int	61	81	3-0,63-4	3-0,63-4	45.10-0,63	45.10-0,63
RIRS 700VE EKO 3.0	-	250	-	-	81	-	-	-	-
RIRS 700VW EKO 3.0	250	250	int	61	81	3-1,0-4	3-1,0-4	45.10-1,0	45.10-1,0
RIRS 1200VE EKO 3.0	-	315	-	-	81	-	-	-	-
RIRS 1200VW EKO 3.0	315	315	int	61	81	3-1,0-4	3-1,0-4	45.10-1,0	45.10-1,0
RIRS 1900VE EKO 3.0	-	315	-	-	81	-	-	-	-
RIRS 1900VW EKO 3.0	315	315	int	61	81	3-1,0-4	3-1,0-4	45.10-1,0	45.10-1,0
RIRS 2500VE EKO 3.0	-	-	-	-	81				
RIRS 2500VW EKO 3.0	-	-	int	61	81				
RIRS 3500VE EKO 3.0	-	-	-	-	81				
RIRS 3500VW EKO 3.0	-	-	int	61	81				
RIRS 5500VE EKO 3.0	-	-	-	-	81				
RIRS 5500VW EKO 3.0	-	-	int	61	81				

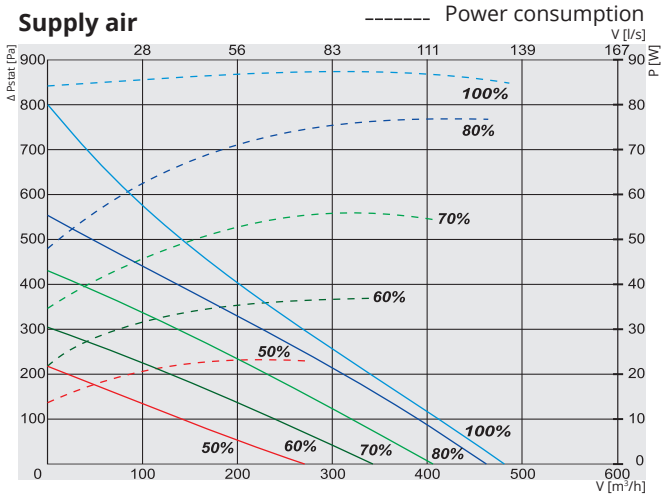
Heaters, coolers and RMG/VVP/VXP data online selection program: ***www.salda.lt***

*** anti-frost thermostat

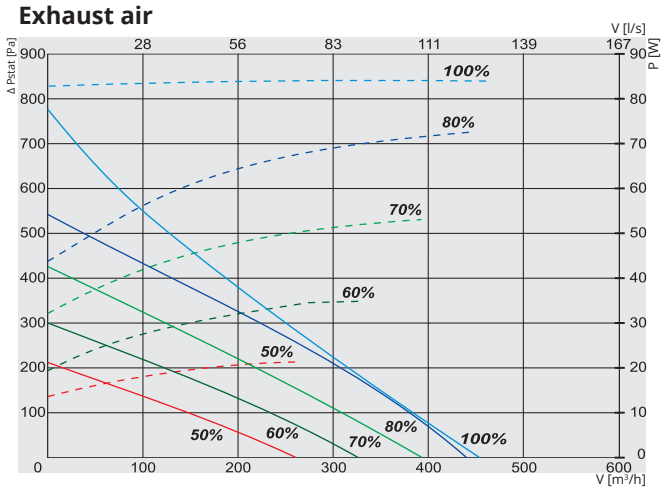
RIRS 400V EKO 3.0

Performance
Power consumption

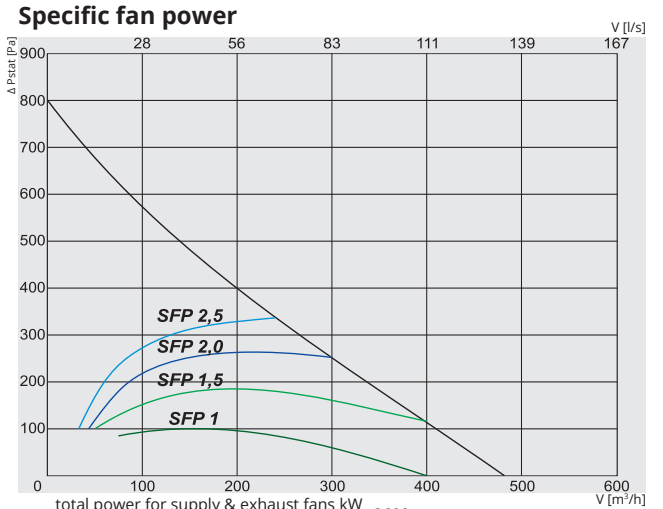
Supply air



Exhaust air

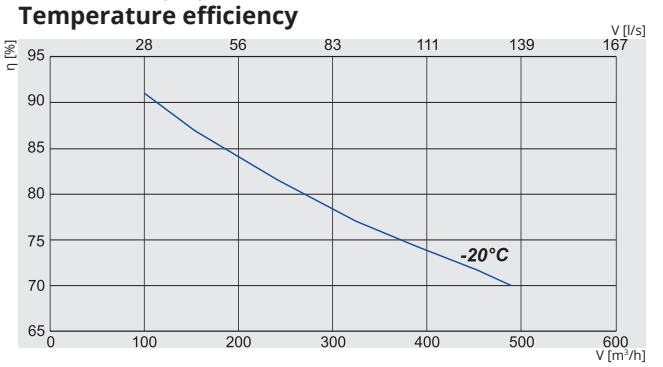


Specific fan power

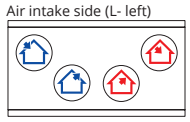


$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

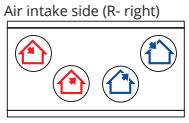


RIRS 400VL EKO 3.0
Air intake side (L- left)



View from inspection side

RIRS 400VR EKO 3.0
Air intake side (R- right)



View from inspection side

Exhaust air | Extract air | Outdoor air | Supply air

Article No.		Version
GAGRIRS1759_0037A	400VEL EKO 3.0	Left-hand maintenace version with integrated electrical heater
GAGRIRS1760_0039A	400VWL EKO 3.0	Left-hand maintenace version prepared for optional water heater
GAGRIRS1757_0036A	400VER EKO 3.0	Right-hand maintenace version with integrated electrical heater
GAGRIRS1758_0038A	400VWR EKO 3.0	Right-hand maintenace version prepared for optional water heater

			400VE / VW EKO 3.0
Water heater (optional) VW ver.			AVS 160
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]	~1, 230
		[kW]	1,2
EC fans	phase/voltage	[50Hz/VAC]	~1, 230
exhaust	power/current	[kW/A]	0,085/0,75
	fan speed	[min^{-1}]	3200
supply	power/current	[kW/A]	0,085/0,75
	fan speed	[min^{-1}]	3200
Thermal efficiency up to*			75%
Max power consumption VE / VW		[kW/A]	1,38/5,94 | 0,18/1,60
Control board			PRV V2
Filter class	exhaust/supply		M5/F7
Housing insulation, mineral wool		[mm]	50
Colour	RAL	white	9016
Weight (net, without packing)		[kg]	79,5
Comply with ERP			2016; 2018
Operation			indoors
Housing protection class	IP		34

* Calculated wet efficiency.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

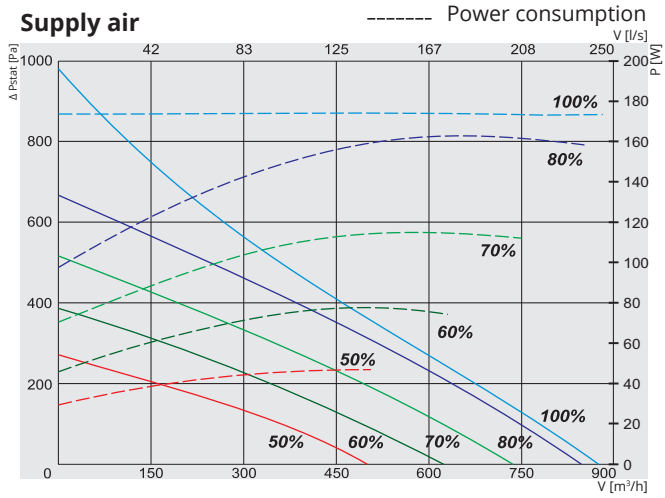
400V EKO 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	70	64	59	61	66	63	54	52
Extract	61	55	57	57	49	43	34	30
Surrounding	54	51	48	41	42	43	33	28
Measured at 375 m³/h, 120 Pa								

RIRS V EKO

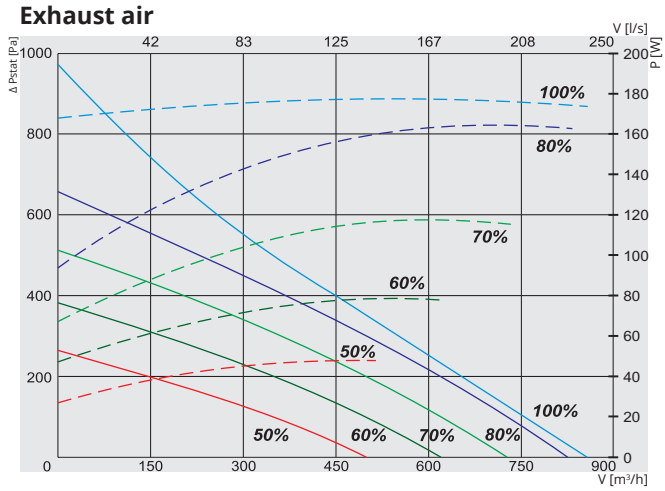
RIRS 700V EKO 3.0

Performance
Power consumption

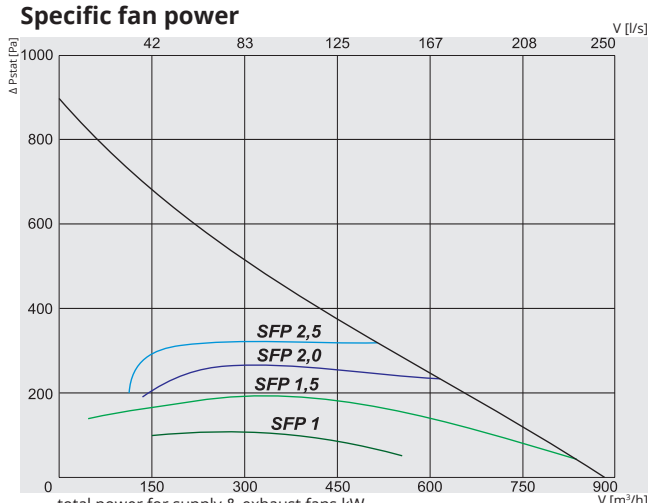
Supply air



Exhaust air

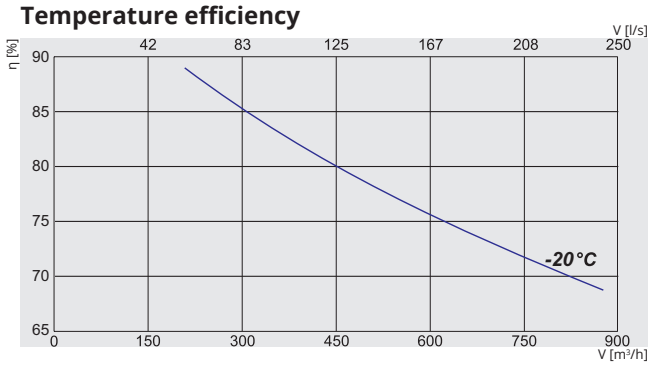


Specific fan power

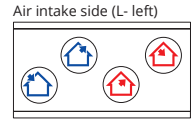


$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

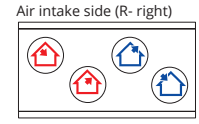


RIRS 700VL EKO 3.0
Air intake side (L- left)



View from inspection side

RIRS 700VR EKO 3.0
Air intake side (R- right)



View from inspection side

Exhaust air Extract air Outdoor air Supply air

Article No.		Version
GAGRIRS1770_0033A	700VEL EKO 3.0	Left-hand maintenace version with integrated electrical heater
GAGRIRS1771_0035A	700VWL EKO 3.0	Left-hand maintenace version prepared for optional water heater
GAGRIRS1766_0032A	700VER EKO 3.0	Right-hand maintenace version with integrated electrical heater
GAGRIRS1768_0034A	700VWR EKO 3.0	Right-hand maintenace version prepared for optional water heater

700VE / VW EKO 3.0				
Water heater (optional) VW ver.				AVS 250
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~1, 230
		[kW]		2,0
EC fans	phase/voltage	[50Hz/VAC]		~1, 230
exhaust	power/current	[kW/A]		0,168/1,4
	fan speed	[min⁻¹]		3230
supply	power/current	[kW/A]		0,168/1,4
	fan speed	[min⁻¹]		3230
Thermal efficiency up to*				75%
Max power consumption VE / VW		[kW/A]	2,34/11,60	0,34/2,90
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	white		9016
Weight (net, without packing)		[kg]	108	104
Comply with ERP				2016; 2018
Operation				indoors
Housing protection class	IP			34

* Calculated wet efficiency.

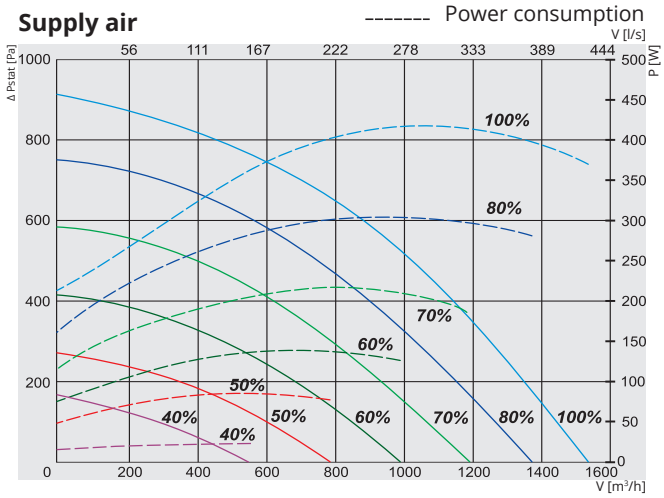
Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

700V EKO 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	67	69	70	69	68	63	62
Extract	63	52	60	58	47	44	38	35
Surrounding	55	47	50	49	44	43	39	39
Measured at 700 m³/h, 152 Pa								

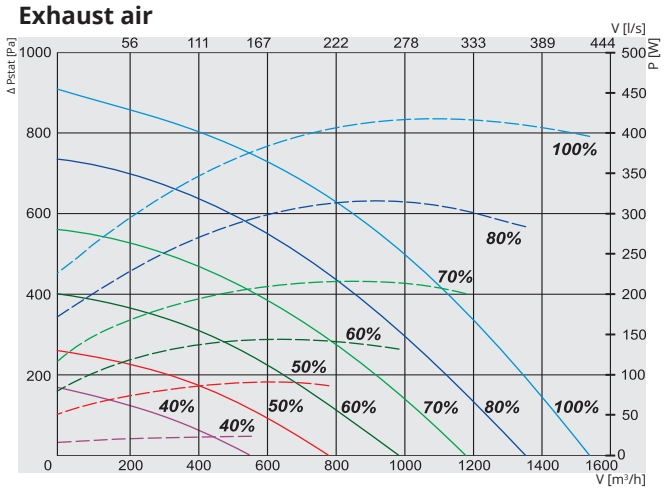
RIRS 1200V EKO 3.0

Performance
Power consumption

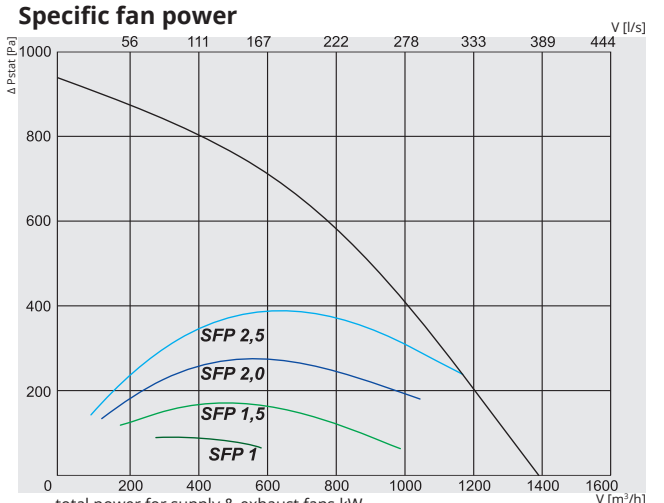
Supply air



Exhaust air

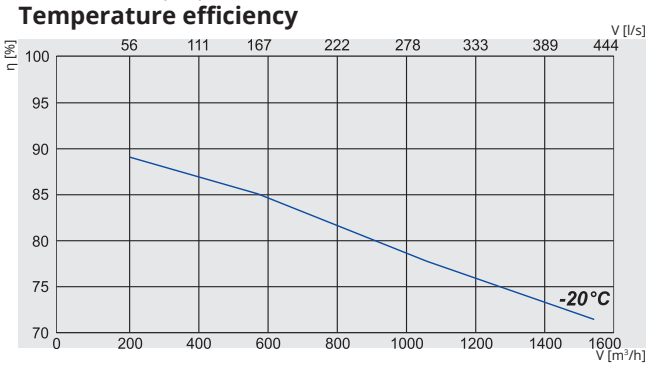


Specific fan power

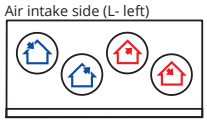


$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency

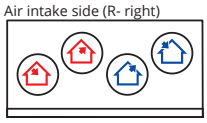


RIRS 1200VL EKO 3.0
Air intake side (L- left)



View from inspection side

RIRS 1200VR EKO 3.0
Air intake side (R- right)



View from inspection side

Exhaust air · Extract air · Outdoor air · Supply air

Article No.		Version
GAGRIRS1678_0003C	1200VEL EKO 3.0	Left-hand maintenace version with integrated electrical heater
GAGRIRS1679_0004A	1200VWL EKO 3.0	Left-hand maintenace version prepared for optional water heater
GAGRIRS1675_0001C	1200VER EKO 3.0	Right-hand maintenace version with integrated electrical heater
GAGRIRS1677_0002A	1200VWR EKO 3.0	Right-hand maintenace version prepared for optional water heater

1200VE / VW EKO 3.0				
Water heater (optional) VW ver.				AVS 315
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~2, 400
		[kW]		4,0
EC fans	phase/voltage	[50Hz/VAC]		~1, 230
exhaust	power/current	[kW/A]		0,408/2,71
	fan speed	[min^{-1}]		3400
supply	power/current	[kW/A]		0,415/2,81
	fan speed	[min^{-1}]		3400
Thermal efficiency up to*				75%
Max power consumption VE/VW		[kW/A]	4,84/15,69	0,84 /5,69
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	grey		7040
Weight (net, without packing)		[kg]		192
Comply with ERP				2016; 2018
Operation				indoors
Housing protection class	IP			34

* Calculated wet efficiency.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

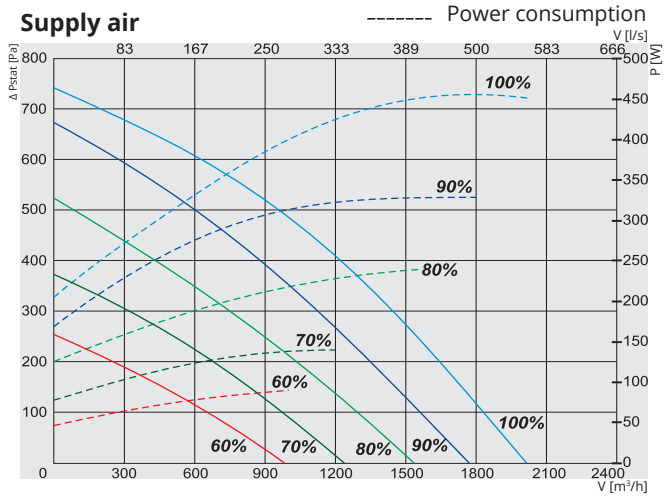
1200V EKO 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	78	63	74	71	70	69	64	55
Extract	67	57	63	56	52	53	51	37
Surrounding	57	47	54	49	47	49	46	36
Measured at 1351 m³/h, 181 Pa								

RIRS V EKO

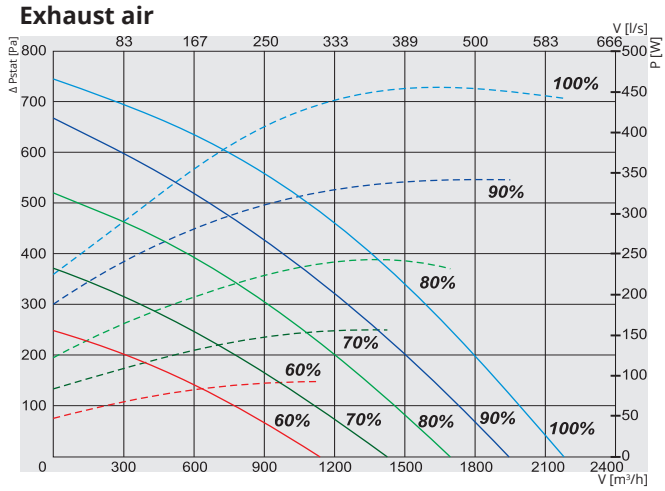
RIRS 1900V EKO 3.0

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

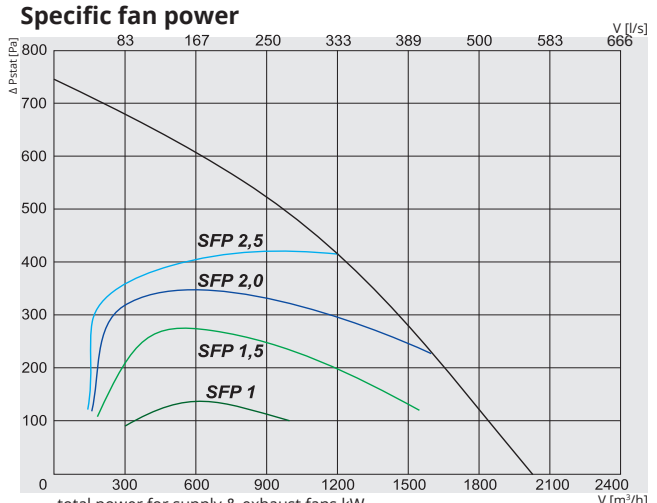
Supply air



Exhaust air

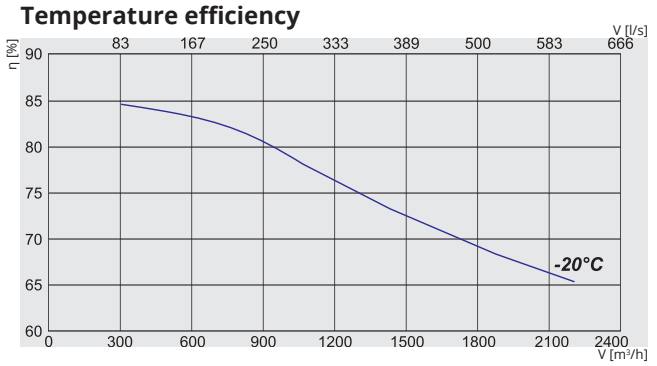


Specific fan power



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

Temperature efficiency



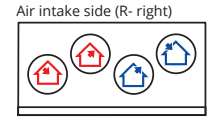
RIRS 1900VL EKO 3.0

Air intake side (L- left)

View from inspection side

RIRS 1900VR EKO 3.0

Air intake side (R- right)



View from inspection side

Exhaust air | Extract air | Outdoor air | Supply air

Article No.		Version
GAGRIRS1712_0011B	1900VEL EKO 3.0	Left-hand maintenace version with integrated electrical heater
GAGRIRS1713_0012A	1900VWL EKO 3.0	Left-hand maintenace version prepared for optional water heater
GAGRIRS1708_0009B	1900VER EKO 3.0	Right-hand maintenace version with integrated electrical heater
GAGRIRS1711_0010A	1900VWR EKO 3.0	Right-hand maintenace version prepared for optional water heater

1900VE / VW EKO 3.0				
Water heater (optional) VW ver.				AVS 315
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~3, 400
		[kW]		9,0
EC fans	phase/voltage	[50Hz/VAC]		~1, 230
exhaust	power/current	[kW/A]		0,47/3,1
	fan speed	[min^{-1}]		2540
supply	power/current	[kW/A]		0,47/3,1
	fan speed	[min^{-1}]		2540
Thermal efficiency up to*				75%
Max power consumption VE / VW		[kW/A]	9,96/19,37	0,96/6,37
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	grey		7040
Weight (net, without packing)		[kg]	180	178
Comply with ERP				2016; 2018
Operation				indoors
Housing protection class	IP			34

* Calculated wet efficiency.

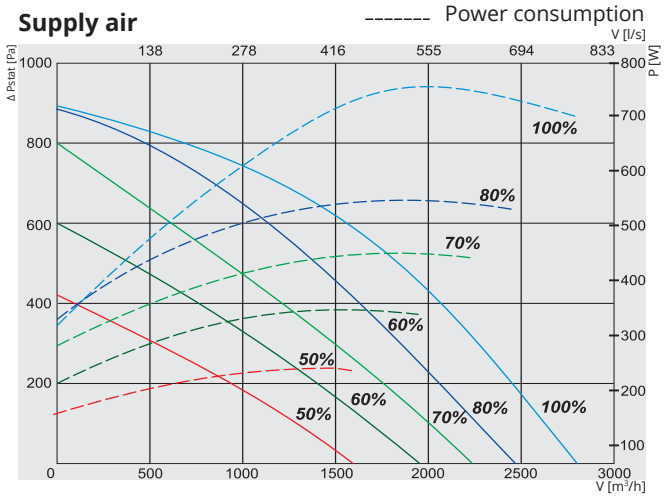
Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

1900V EKO 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	58	76	71	72	71	70	62
Extract	69	56	67	60	54	58	57	48
Surrounding	60	44	57	51	49	53	52	45
Measured at 1830 m³/h, 101 Pa								

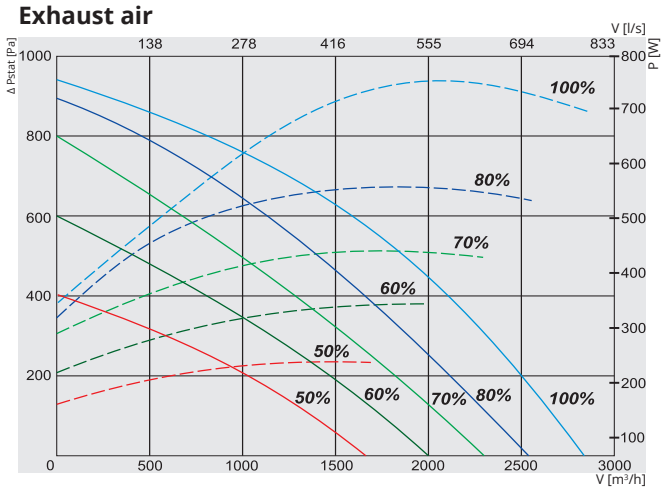
RIRS 2500V EKO 3.0

Performance
Power consumption

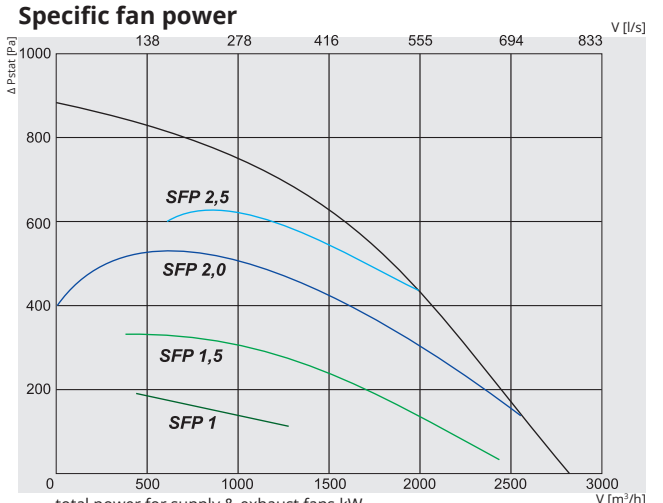
Supply air



Exhaust air

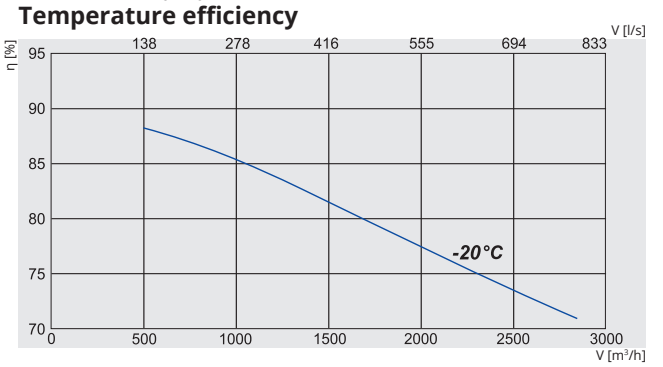


Specific fan power



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

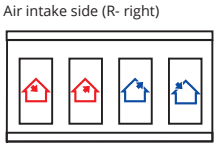
Temperature efficiency



RIRS 2500VL EKO 3.0
Air intake side (L- left)

View from inspection side

RIRS 2500VR EKO 3.0
Air intake side (R- right)



View from inspection side

Exhaust air Extract air Outdoor air Supply air

Article No.		Version
GAGRIRS1883_0066B	2500VE EKO 3.0	Integrated electrical heater
GAGRIRS1887_0069A	2500VW EKO 3.0	Optional water heater
GAGRIRS1901_0074B	2500VE EKO 3.0-RHX	Integrated electrical heater and 0-10 rotor
GAGRIRS1902_0075A	2500VW EKO 3.0-RHX	Optional water heater and 0-10 rotor control

2500VE / VW EKO 3.0

Water heater (optional) VW ver.				SVS-V
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~3, 400
		[kW]		9
EC fans	phase/voltage	[50Hz/VAC]		~1, 230
exhaust	power/current	[kW/A]		0,75/3,3
	fan speed	[min^{-1}]		2800
supply	power/current	[kW/A]		0,76/3,32
	fan speed	[min^{-1}]		2800
Thermal efficiency up to*				75%
Max power consumption VE / VW		[kW/A]	10,55/19,97	1,55/6,97
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	grey		7040
Weight (net, without packing)		[kg]	280,0	270,0
Comply with ERP				2016; 2018
Operation				indoors/outdoors**
Housing protection class	IP			34

* Calculated wet efficiency.
**Under covered area.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

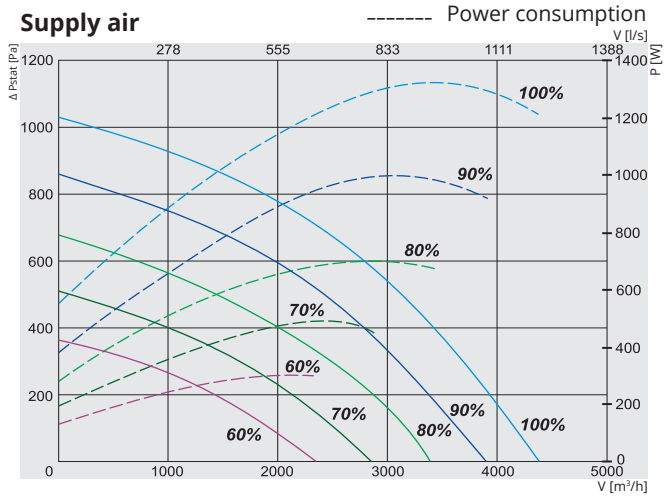
2500V EKO 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	78	61	68	72	73	70	64	62
Extract	67	59	62	63	57	52	48	43
Surrounding	62	45	54	59	52	52	49	46
Measured at 2355 m³/h, 214 Pa								

RIRS V EKO

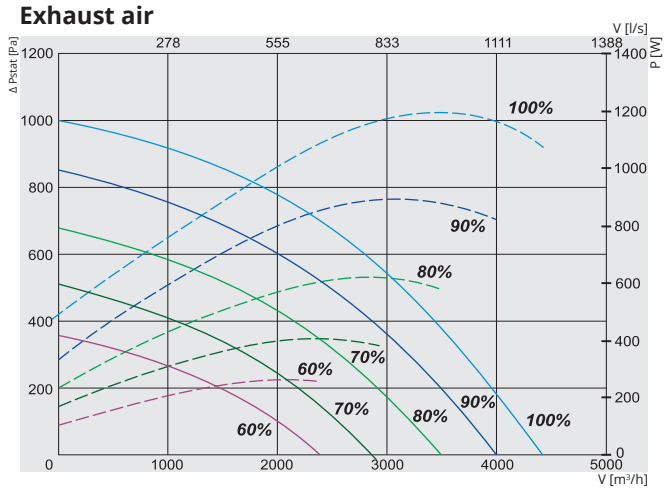
RIRS 3500V EKO 3.0

Performance
Power consumption

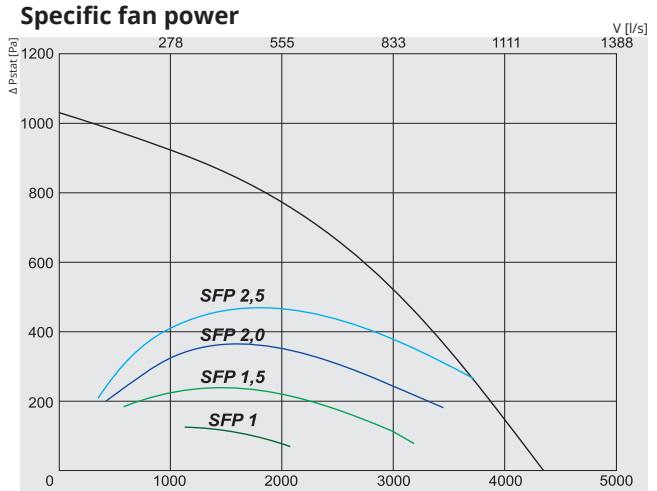
Supply air



Exhaust air

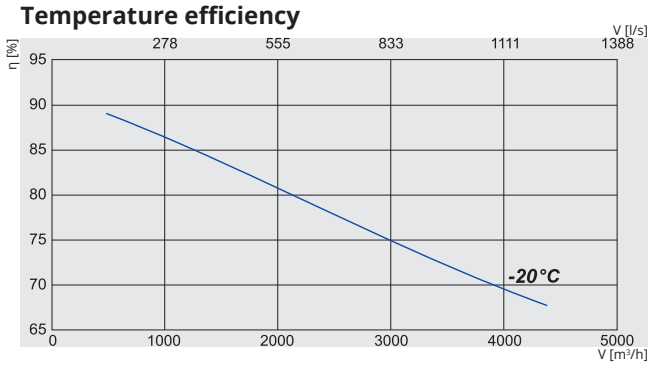


Specific fan power



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

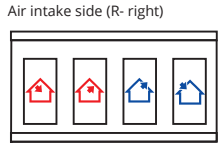
Temperature efficiency



RIRS 3500VL EKO 3.0
Air intake side (L- left)

View from inspection side

RIRS 3500VR EKO 3.0
Air intake side (R- right)



View from inspection side

Exhaust air Extract air Outdoor air Supply air

Article No.		Version
GAGRIRS1884_0067B	3500VE EKO 3.0	Integrated electrical heater
GAGRIRS1886_0070A	3500VW EKO 3.0	Optional water heater
GAGRIRS1897_0076B	3500VE EKO 3.0-RHX	Integrated electrical heater and 0-10 rotor
GAGRIRS1898_0077A	3500VW EKO 3.0-RHX	Optional water heater and 0-10 rotor control

3500VE / VW EKO 3.0				
Water heater (optional) VW ver.				SVS-V
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~3, 400
		[kW]		12
EC fans	phase/voltage	[50Hz/VAC]		~1, 230
exhaust	power/current	[kW/A]		1,35/6
	fan speed	[min^{-1}]		2390
supply	power/current	[kW/A]		1,33/5,7
	fan speed	[min^{-1}]		2390
Thermal efficiency up to*				75%
Max power consumption VE / VW		[kW/A]	14,72/29,35	2,72/12,05
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	grey		7040
Weight (net, without packing)		[kg]	380,0	370,0
Comply with ERP				2016; 2018
Operation				indoors/outdoors**
Housing protection class	IP			34

* Calculated wet efficiency.
**Under covered area.

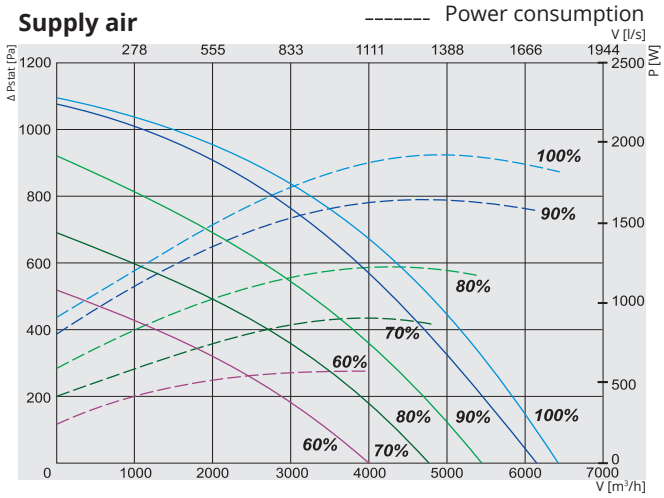
Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

3500V EKO 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	82	60	74	75	76	75	73	68
Extract	72	58	70	66	60	57	51	43
Surrounding	64	55	58	59	57	53	49	45
Measured at 3728 m³/h, 242 Pa								

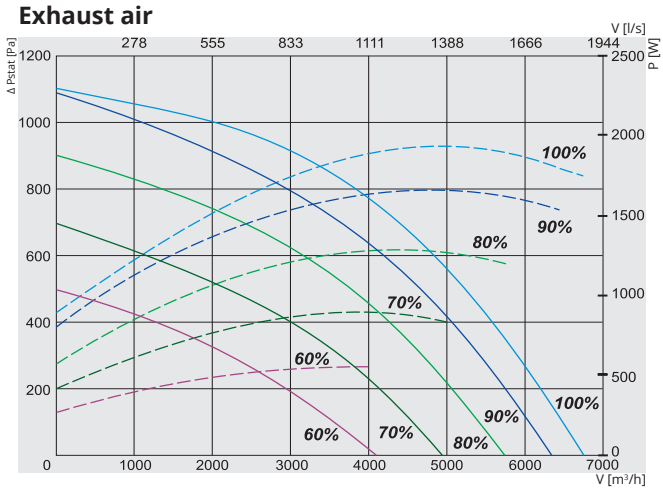
RIRS 5500V EKO 3.0

Performance
Power consumption

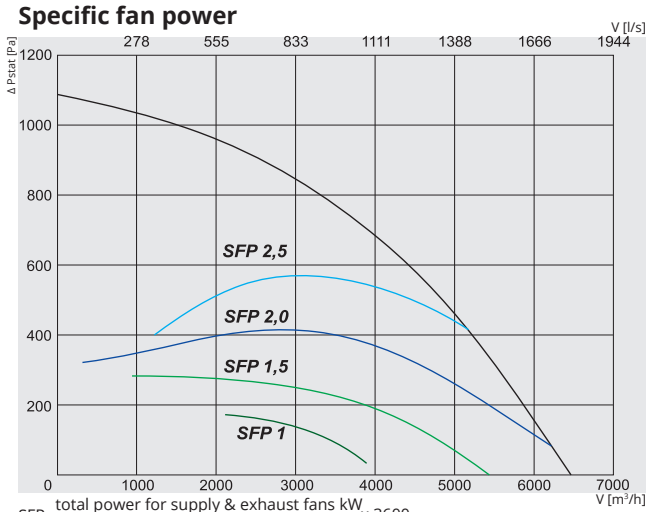
Supply air



Exhaust air

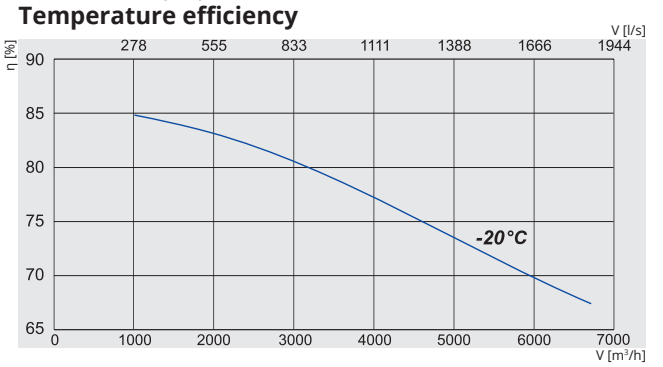


Specific fan power



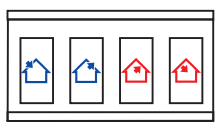
$$SFP = \frac{\text{total power for supply \& exhaust fans kW}}{\text{air flow m}^3/\text{h}} \times 3600$$

Temperature efficiency



RIRS 5500VL EKO 3.0

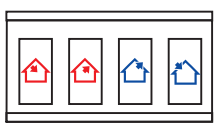
Air intake side (L- left)



View from inspection side

RIRS 5500VR EKO 3.0

Air intake side (R- right)



View from inspection side

Exhaust air | Extract air | Outdoor air | Supply air

Article No.		Version
GAGRIRS1885_0068B	5500VE EKO 3.0	Integrated electrical heater
GAGRIRS1890_0071A	5500VW EKO 3.0	Optional water heater
GAGRIRS1895_0078B	5500VE EKO 3.0-RHX	Integrated electrical heater and 0-10 rotor
GAGRIRS1896_0079B	5500VW EKO 3.0-RHX	Optional water heater and 0-10 rotor control

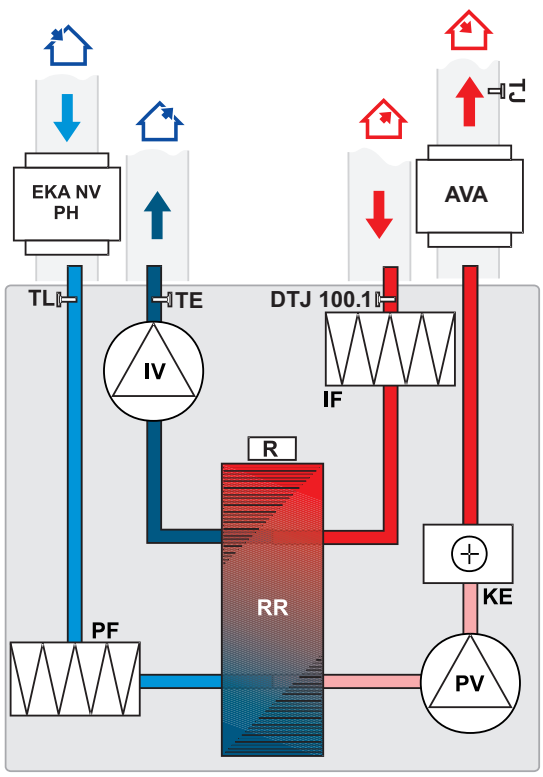
5500VE / VW EKO 3.0				
Water heater (optional) VW ver.				SVS-V
Electrical heater VE ver.	phase/voltage	[50Hz/VAC]		~3, 400
		[kW]		18
EC fans	phase/voltage	[50Hz/VAC]		~3, 400
exhaust	power/current	[kW/A]		1,9/3,1
	fan speed	[min⁻¹]		2180
supply	power/current	[kW/A]		1,9/3,1
	fan speed	[min⁻¹]		2180
Thermal efficiency up to*				75%
Max power consumption VE / VW		[kW/A]	21,84/32,55	3,84/6,55
Control board				PRV V2
Filter class	exhaust/supply			M5/F7
Housing insulation, mineral wool		[mm]		50
Colour	RAL	grey		7040
Weight (net, without packing)		[kg]	580,0	565,0
Comply with ERP				2016; 2018
Operation				indoors/outdoors**
Housing protection class	IP			34

* Calculated wet efficiency.
**Under covered area.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -20°C

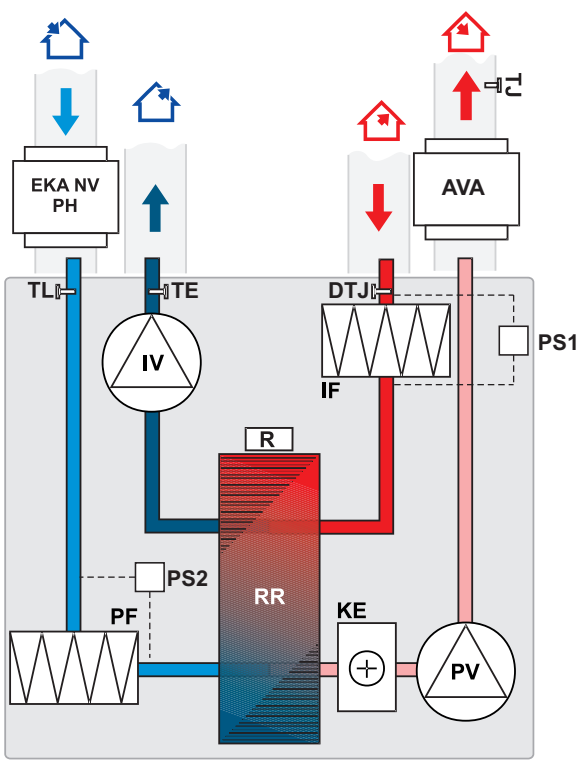
5500V EKO 3.0	Lwa total, dB(A)	LWA, dB(A) 125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	87	68	80	81	82	78	77	74
Extract	75	63	69	72	66	63	58	55
Surrounding	74	58	66	69	68	65	51	54
Measured at 5652 m³/h, 246Pa								

RIRS 400VE EKO 3.0 / RIRS 700VE EKO 3.0 (vertical) **versions with electrical heater**



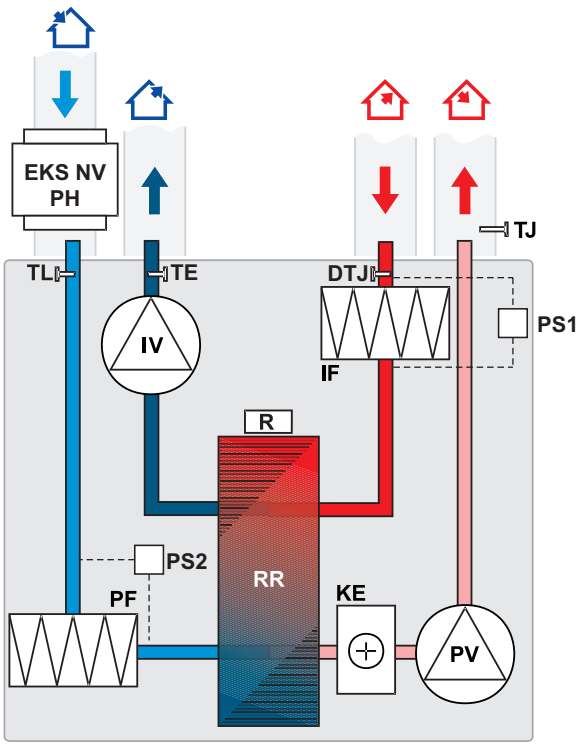
IV - exhaust air fan
PV - supply air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class F7)
IF - extract air filter (class M5)
TJ - temperature sensor for supply air
TL - temperature sensor for fresh air
TE - temperature sensor for exhaust air
DTJ - humidity + temperature sensor for extract air
EKA NV PH - optional fresh air pre-heater
AVA - optionally supplied water cooler

RIRS 1200VE EKO 3.0 / RIRS 1900VE EKO 3.0 (vertical) **versions with electrical heater**



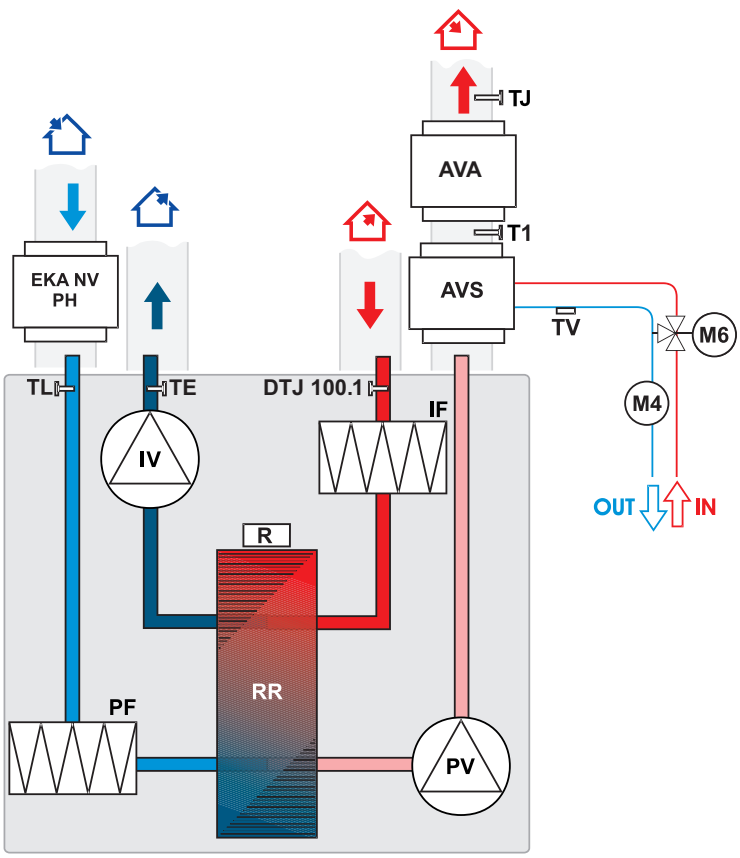
PS1 - supply air differential pressure switch
PS2 - extract air differential pressure switch
DTJ - humidity + temperature sensor
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class F7)
IF - extract air filter (class M5)
TJ - temperature sensor for supply air
TL - temperature sensor for fresh air
TE - temperature sensor for exhaust air
EKA NV PH - optional fresh air pre-heater
AVA - optionally supplied water cooler

RIRS 2500VE EKO 3.0 / RIRS 3500VE EKO 3.0 / RIRS 5500VE EKO 3.0 (vertical) versions with electrical heater



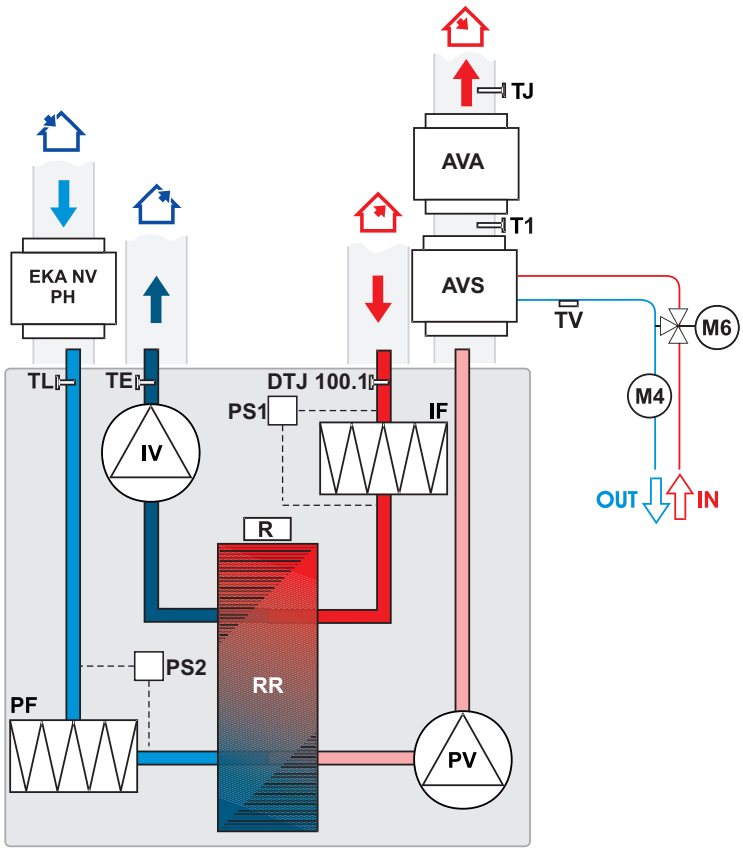
PS1 - supply air differential pressure switch
PS2 - extract air differential pressure switch
DTJ - humidity + temperature sensor for extract air
IV - exhaust air fan
PV - supply air fan
RR - rotary heat exchanger
R - rotor motor
KE - electrical heater
PF - fresh air filter (class F7)
I F - extract air filter (class M5)
TJ - temperature sensor for supply air
TL - temperature sensor for fresh air
TE - temperature sensor for exhaust air
EKS NV PH - optional fresh air pre-heater

RIRS 400VW EKO 3.0 / RIRS 700VW EKO 3.0 (vertical) versions with water heater



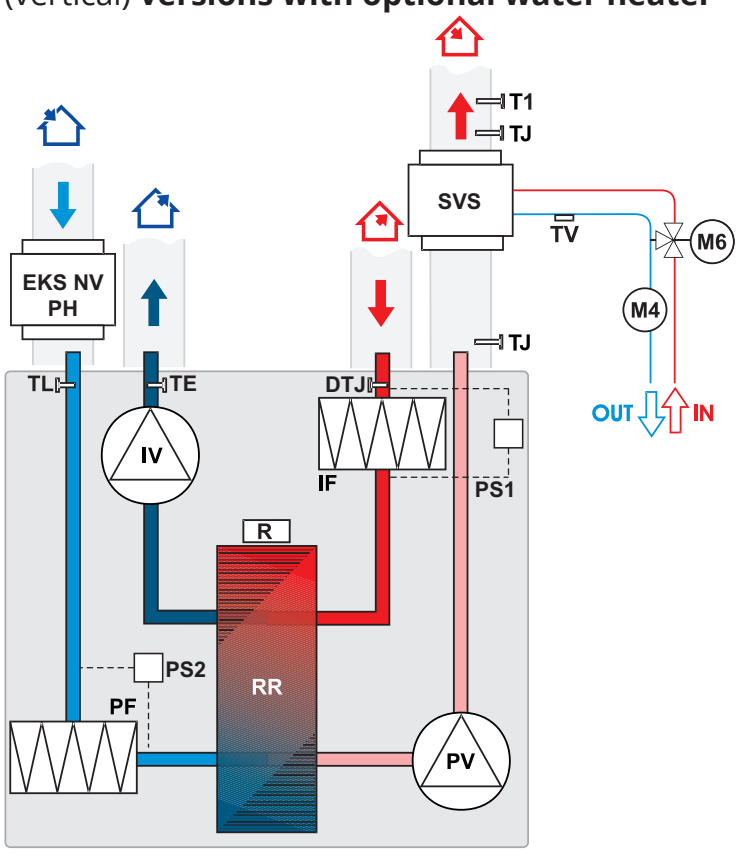
AVS - optionally supplied water heater
AVA - optionally supplied water cooler
EKA NV PH - optional fresh air pre-heater
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class F7)
IF - extract air filter (class M5)
TJ - supply air temperature sensor
TL - fresh air temperature sensor
M1 - optionally supplied mixing valve and motor
T1 - antifrost thermostat
TV - antifrost sensor
TE - temperature sensor for exhaust air
DTJ - humidity + temperature sensor for extract air
M6 - optionally supplied mixing valve and motor
M4 - water heater circulation pump

RIRS 1200VW EKO 3.0 / RIRS 1900VW EKO 3.0 (vertical) versions with water heater



PS1 - supply air differential pressure switch
PS2 - extract air differential pressure switch
AVS - optionally supplied water heater
AVA - optionally supplied water cooler
EKA NV PH - optional fresh air pre-heater
DTJ - humidity + temperature sensor
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class F7)
IF - extract air filter (class M5)
TJ - air temperature sensor
TL - air temperature sensor
M6 - optionally supplied mixing valve and motor
M4 - water heater circulation pump
T1 - antifrost thermostat
TV - supplied antifrost sensor
TE - temperature sensor for exhaust air

RIRS 2500VW EKO 3.0 / RIRS 3500VW EKO 3.0 / RIRS 5500VW EKO 3.0 (vertical) versions with optional water heater



SVS - optionally supplied water heater
PS1 - supply air differential pressure switch
PS2 - extract air differential pressure switch
DTJ - humidity + temperature sensor
IV - exhaust air fan
PV - supplied air fan
RR - rotary heat exchanger
R - rotor motor
PF - fresh air filter (class F7)
IF - extract air filter (class M5)
TJ - air temperature sensor
TL - air temperature sensor
TE - temperature sensor for exhaust air
M6 - optionally supplied mixing valve and motor
M4 - water heater circulation pump
T1 - antifrost thermostat
TV - supplied antifrost sensor
EKS NV PH - optional fresh air pre-heater

FUNCTIONS		
Description of the functions	PRV V2	
	RIRS EKO 3.0	
	E	W
Functions		
Date and time settings	✓	✓
4 speeds for easy and user-friendly control ("Stop" – the unit is stopped; "Low", medium", and "High". Service menu allows adjusting each speed individually)	✓	✓
BOOST function (Fans operate at highest speed)	✓	✓
Comfortable air temperature function	✓	✓
Cold/heat recovery	✓	✓
Fire place function	✓	✓
Dryness protection	✓	✓
Weekly schedule	✓	✓
Holiday schedule	✓	✓
User and service control levels	✓	✓
Manual air flow balancing	✓	✓
CO_2 level indication and reduction function	✓	✓
Night cooling function	✓	✓
Relative humidity (RH) level indication and reduction function	✓	✓
Software and configuration update possibility	✓	✓
Supply air temperature control according to the extract air sensor	✓	✓
Monitoring function (all sensors and I/O)	✓2	✓2
Mode switch (start/stop)	✓	✓
Extracted air relative humidity converter	✓	✓
Manual components control	✓1	✓1
Functional units		
Fans		
Soft start and stop	✓	✓
Fan failure protection	✓	✓
Speed synchronous/asynchronous 0-10V control	✓	✓
Electric heater		
On/Off / PWM control	✓	
Manual protection	✓	
Overheat protection (additional protection software)	✓	✓
Water heater		
Pulse-width modulation (PWM) valve actuator control		✓
Protection using temperature sensor		✓
Protection using termostat (NC)		✓
Circulation pump control		✓
Return water temperature sensor		✓
DX cooler		
Control On/Off		✓
Water cooler		
Pulse-width modulation (PWM) valve actuator control		✓
Control with three-positional valve actuator	✓	✓
Filter pollution monitoring		
By pressure switch (NC)	✓	✓
By filter timer	✓	✓
Rotor		
Pulse-width modulation (PWM) (0-10VDC) motor control	✓	✓
On/Off motor control	✓	✓
Motor belt levers protection	✓	✓
Sensors		
Supply air temperature sensor	✓	✓
Fresh air temperature sensor	✓	✓
Exhaust air temperature sensor	✓	✓
Extract air temperature sensor	✓	✓
Emergency signals and inputs/outputs		
Fire protection input	✓	✓
Working indication output	✓	✓
Alarm indication output	✓	✓
Remote controllers		
Stouch	✓	✓
Flex	✓	✓
Ptouch	✓	✓
MB-Gateway	✓	✓

1	**With FLEX TEST remote controler**	**2**	**Only sensors**