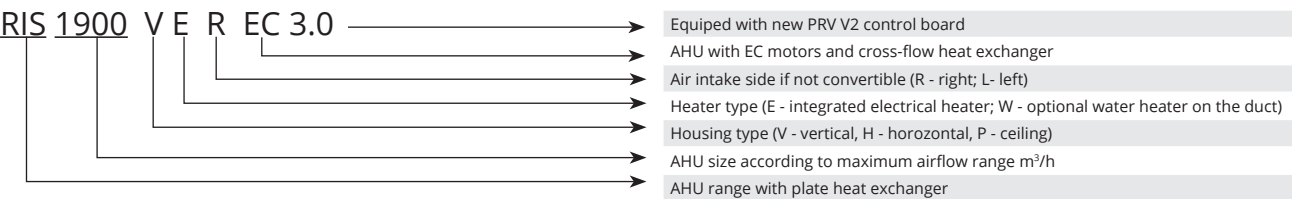
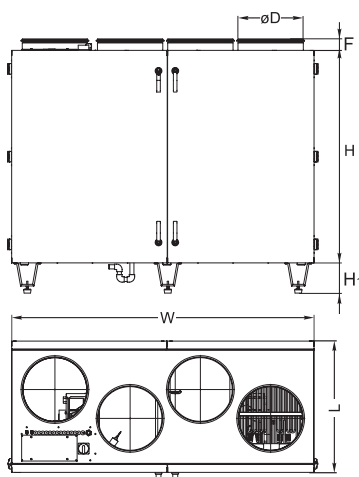


RIS V EC



Application	Ventilation of small public buildings, offices, other larger heated premises (sport facilities, conference rooms, shops, etc.)
Description	RIS V EC 3.0 units are designed for the ventilation of heated premises with efficient cross-flow heat exchangers. RIS 1900 EC units have left/right versions with integrated electrical heater or optional water heater on the duct. Energy savings are contributed by the cross-flow heat exchangers (with efficiency up to 60%), economical and silent EC fans, and high level of air tightness. Demand-level control options with CO₂ and humidity sensors. 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. *Units can be optionally provided with SIEMENS Climatix controllers.
The main Features	› Energy-efficient and low-noise EC fans. › Efficient plate heat exchangers with up to 65% heat recovery. › Controlled airflow. › Supply air temperature control. › Water/electrical heating options and left/right maintenance side versions. › Easy and quick mounting.
Construction	› Acoustic and thermal wall insulation – 50 mm. › Powder coated housing – RAL 7040. › Integrated pressure switch for filter pollution. › Heat exchanger anti-frost protection. › Motorized bypass damper. › Integrated electrical heater and optional (duct-based) water/DX heater/cooler. › Optional motorized supply and exhaust air dampers. › Panel filters M5/F7. › Stainless steel condensate tray. › Optional CO₂, pressure or airflow transmitters.





	Dimensions [mm]										
Unit	L	W	H			øD	H ₁		F		
RIS 1900VE/VW EC 3.0	802	1850	1300			400	185		70		

	Optional accessories										
	Ptouch Stouch MB-Gateway Flex	S-1141 S-RC02-F2	AKS	AVS	AVA	EKA NV PH	AP SKG	SP Supply	SP Exhaust	SSB Heating	SSB Cooling
Unit											
RIS 1900VE EC 3.0	+	+	400	-	400	400	400	SM230A-TP		-	81
RIS 1900VW EC 3.0	+	+	400	400	400	400	400	NF230A	SM230A-TP	61	81

Heaters, coolers and RMG/VVP/VXP
data online selection program: www.solda.it

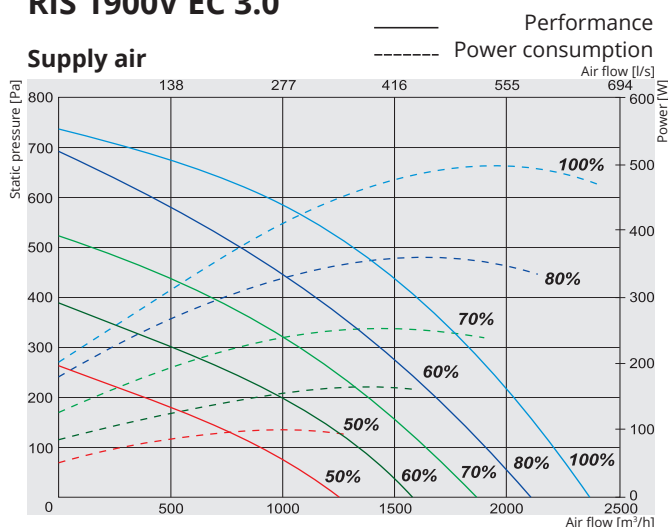
Accessories

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	Thermic water valve actuator  SSB p. 195	Shuft-off damper  SKG p. 212
Actuator for dampers  SP p. 210	Circular duct silencer  AKS p. 216	Mounting clamp  AP p. 219	Heating coil  AVS p. 185	Circular duct water cooler  AVA p. 193	Electrical duct pre-heater  EKA NV PH p. 201	Mixing point  RMG p. 196	2 and 3 way valves  VVP/VXP p. 197

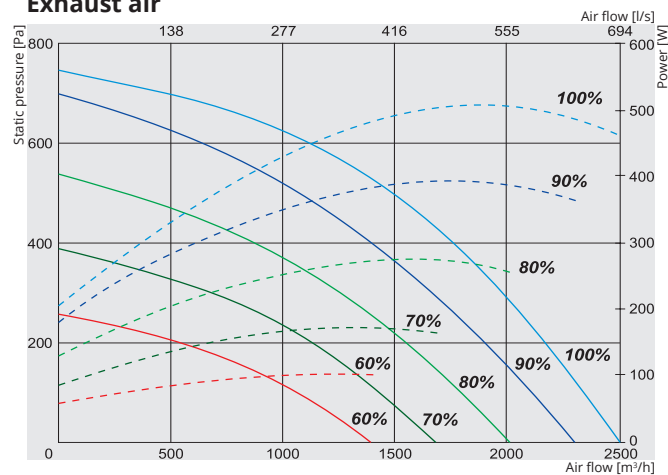
RIS V EC

RIS 1900V EC 3.0

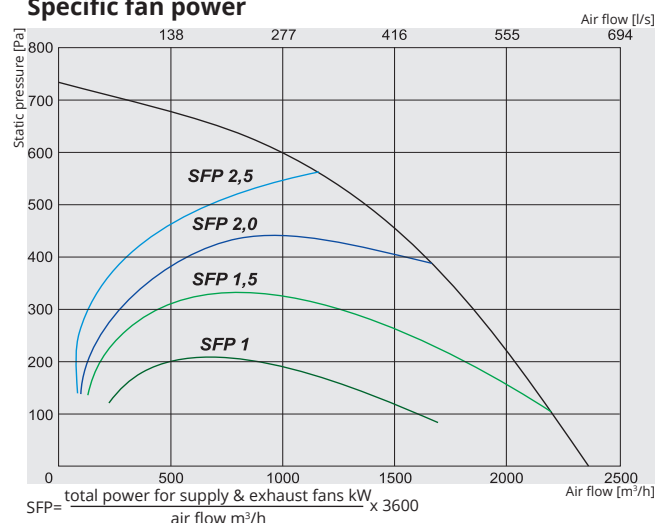
Supply air



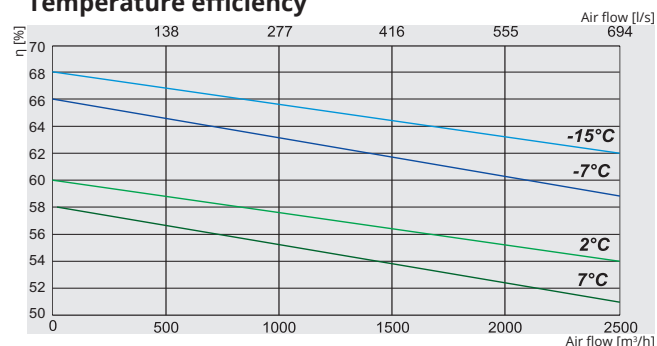
Exhaust air



Specific fan power

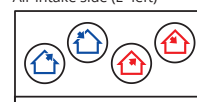


Temperature efficiency



RIS 1900VL EC 3.0

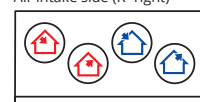
Air intake side (L- left)



View from inspection side

RIS 1900VR EC 3.0

Air intake side (R- right)



View from inspection side

Exhaust air Extract air Outdoor air Supply air

Article No.	Version
GAGRIS1715_0108A	1900VEL EC 3.0 Left-hand maintenance version with integrated electrical heater
GAGRIS1699_0004B	1900VER EC 3.0 Right-hand maintenance version with integrated electrical heater
GAGRIS1716_0108A	1900VWL EC 3.0 Left-hand maintenance version prepared for optional water heater
GAGRIS1715_0108A	1900VVR EC 3.0 Right-hand maintenance version prepared for optional water heater

1900VE /VW EC 3.0

Water heater (optional) HW ver.	AVS 400
EC Fans	-phase/voltage [50Hz/VAC] ~1,230
Electrical heater HE ver.	-phase/voltage [50Hz/VAC] ~3,400
	-power consumption [kW] 12,0
EC Fans	-phase/voltage [50Hz/VAC] ~1,230
exhaust	-power/current [kW/A] 0,51/3,3
	-fan speed [min ⁻¹] 2540
supply	-power/current [kW/A] 0,49/3,1
	-fan speed [min ⁻¹] 2540
Motor protection class	IP-54
Thermal efficiency	60%
Max power consumption	[kW/A] 13,00/23,72 1,00/6,42
Control board	PRV V2
Filter class	-exhaust M5
	supply F7
Thermal insulation	[mm] 50
Weight	[kg] 227
Operation	indoors/outdoors***

* Calculated wet efficiency.

**For temperatures lower than recommended, use electrical pre-heater to ensure balanced operation.

***With proper roof mounted.

Temperature efficiency (balanced mass flow):
Extract air = 20°C/60%RH
Outdoor air = -15°C / -7°C / 2°C / 7°C

1900V EC 3.0	Lwa total, dB(A)	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Supply	84	58	75	76	78	79	75	66
Extract	69	61	63	65	63	55	51	44
Surrounding	63	47	56	57	56	55	52	42

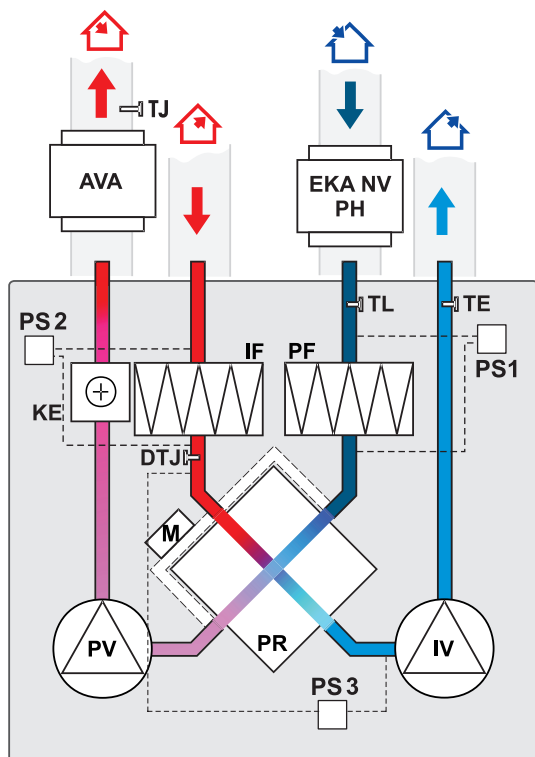
Measured at 1959 m³/h, 221 Pa

Certifications

EUROVENT certified
heat exchanger performance

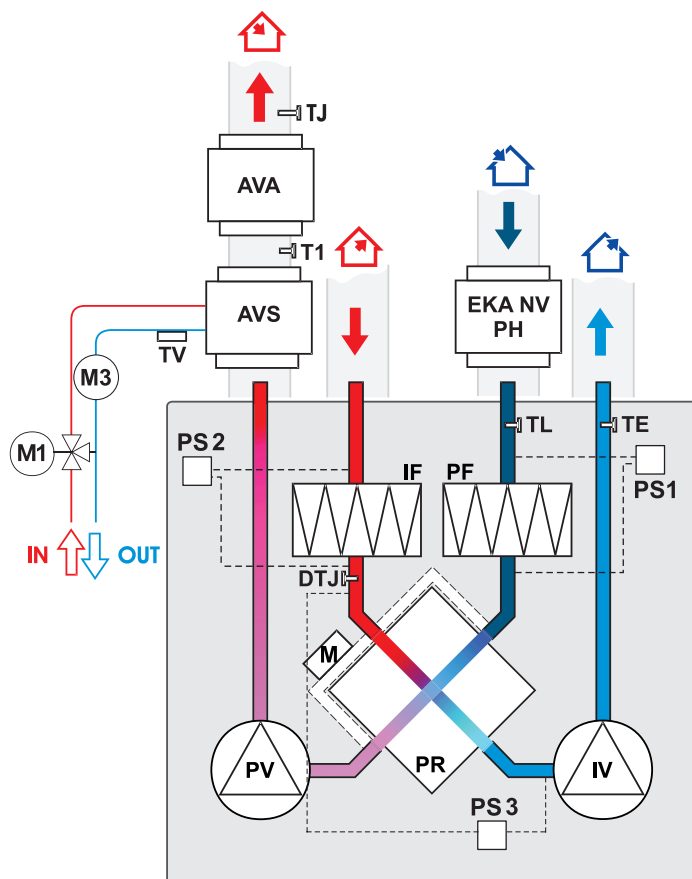


RIS 1900VE EC 3.0 (vertical) versions with electrical heater



- IV - exhaust air fan
- PV - supply air fan
- PR - plate heat exchanger
- KE - electrical heater
- PF - filter for supply air (class F7)
- IF - filter for extract air (class M5)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- TE - temperature sensor for extract air
- DTJ - humidity + temperature sensor
- M - by-pass damper
- PS1 - supply air differential pressure switch
- PS2 - extract air differential pressure switch
- PS3 - heat exchanger antifrost pressure switch
- AVA - optionally supplied water cooler
- EKA NV PH - optional fresh air pre-heater

RIS 1900VW EC 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 - supply air fan
- PR - plate heat exchanger
- PF - filter for supply air (class F7)
- IF - filter for extract air (class M5)
- TJ - temperature sensor for supply air
- TL - temperature sensor for fresh air
- TE - temperature sensor for extract air
- DTJ - humidity + temperature sensor
- T1 - antifrost thermostat
- TV - antifrost sensor
- M - by-pass damper
- M1 - optionally supplied mixing valve and motor
- M3 - water heater circulatory pump
- PS1 - supply air differential pressure switch
- PS2 - extract air differential pressure switch
- PS3 - heat exchanger antifrost pressure switch

This is principal mounting scheme.

FUNCTIONS			
Description of the functions		PRV V2	
		RIS EC 3.0	
		E	W
Functions			
4 speeds for easy and user-friendly control ("Stop" – the unit is stopped; "Low", medium", and "High". Service menu allows adjusting each speed individually)	Date and time settings	✓	✓
		✓	✓
	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 thermostat (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	✓	✓
Bypass damper	3-position actuator control	✓	✓
Filter pollution monitoring	By pressure switch (NC)	✓	✓
	By filter timer	✓	✓
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 controller

2 Only sensors