

RENEO S

Heat and energy recovery air handling units

Features

- Air handling units for efficient supply and exhaust ventilation in flats, houses, cottages and other buildings.
- Heat recovery minimizes ventilation heat losses during the cold season and reduces air conditioner load during the hot season.
- Controllable air exchange for creating the best suitable indoor microclimate.



Air flow:
up to 445 m³/h



Heat recovery efficiency:
up to 91 %



Design

- The casing is made of expanded polypropylene (EPP) with high heat- and sound-insulating properties.
- **Reneo S ... L** – left-handed unit.
- **Reneo S ... R** – right-handed unit.
- The **Reneo S 351, 381 CF, 401** units have flat service hatch design, suitable for decorative panel installation (delivered separately).



- **Reneo S ... CF** units are available with **Constant flow** function – the fans automatically maintain a constant air volume regardless of pressure changes in the duct system. Stable airflow is ensured up to 300 Pa external static pressure.

Air filtration

- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply **ePM1 60% (F7)** filter is available as an option.

Fans

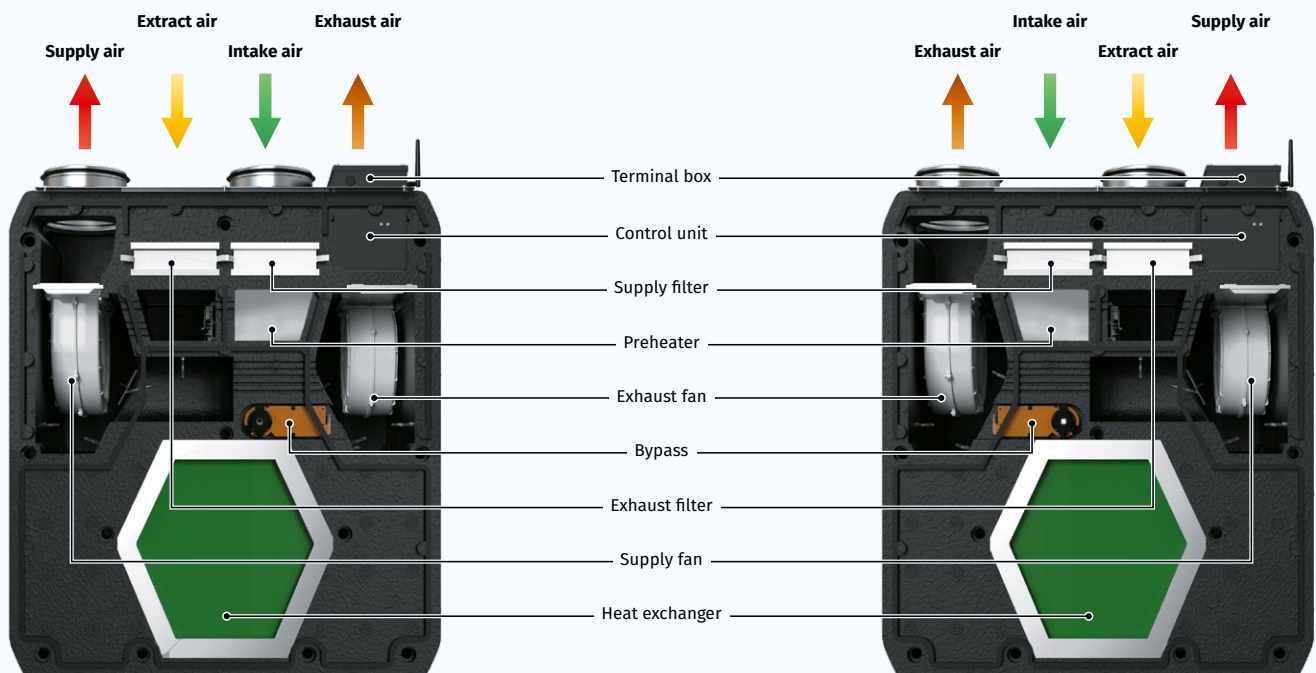
- The unit is equipped with high-efficiency **EC** external rotor motors and centrifugal impellers with forward-curved blades.

Bypass

- The **Reneo S** units are equipped with a bypass, which can be opened if there is a need to cool down the ventilated area with cool intake air.

RENEO S ... L

RENEO S ... R



Heat recovery

- o The **Reneo S** unit is equipped with a counter-flow polystyrene heat exchanger for heat recovery. The condensate is collected and drained to the drain pan under the heat exchanger.
- o The **Reneo S...-E** unit is equipped with an enthalpy counter-flow heat exchanger for heat and humidity recovery.



Control and automation

- o **Reneo S S21** units are equipped with an integrated automation system. The remote control panel is not included in the delivery set.
- o The S21 controller allows to integrate the unit into the **Smart Home** system or **BMS (Building Management System)**.
- o Unit control is done via Wi-Fi using the mobile application **Blauberg Home**.



Download the **Blauberg Home** app for Android



Download the **Blauberg Home** app for iOS







Mounting

- o The units are designed for suspended wall and floor mounting.

- o The **Reneo S S14** units are equipped with an integrated automation system and an S14 wall-mounted sensor control panel.

Automation functions

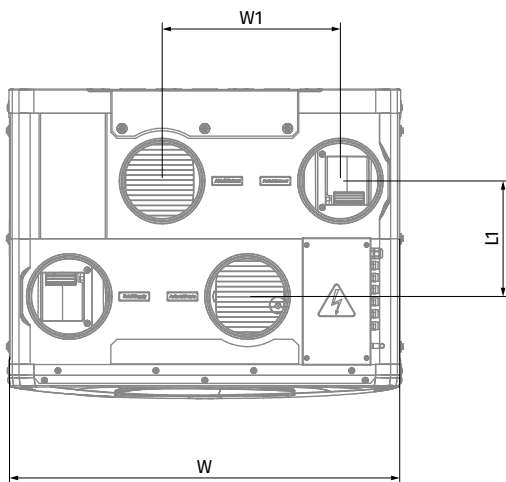
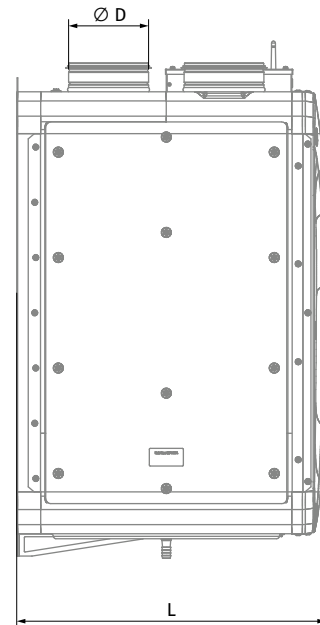
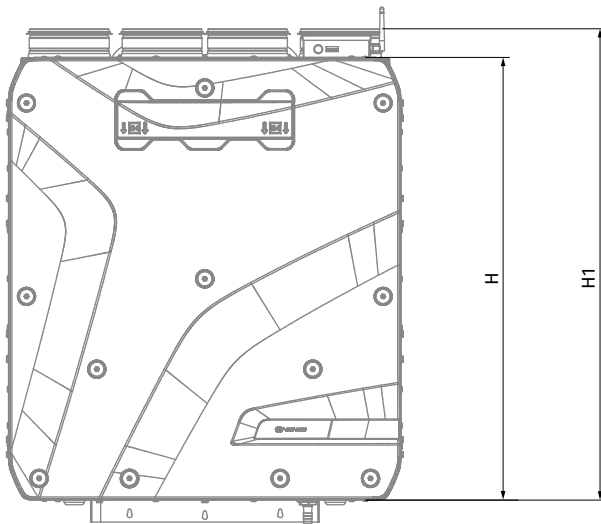
Functions	Reneo S S21	Reneo S S14
Unit control via Wi-Fi using a mobile application	+	-
Unit control via a wired remote control panel	S22 control panel (option) 	S14 control panel 
Unit control via a wireless remote control panel	S22 Wi-Fi control panel (option) 	-
Unit control via a wired remote LCD control panel	S25 control panel (option) 	-
BMS (Building Management System)	RS-485	-
	Wi-Fi	-
	Ethernet	-
	MODBUS (RTU, TCP)	-
Blauberg Cloud Server service	+	-
Speed selection	+	+
Filter replacement indication	by filter timer by filter clogging differential pressure switch	by filter timer -
Alarm indication	full alarm description in the mobile application	LED alarm indication
Week-scheduled operation	+	-
Bypass	automatic	-
	manual	manual
Timer	+	-
Boost mode	+	-
Fireplace mode	+	-
Freeze protection	through cyclic stops of the supply fan	through cyclic stops of the supply fan
	through preheating (option)	-
Reheater connection	option	-
Minimum supply air temperature control	+	-
Humidity control	option	option
CO ₂ control	option	option
VOC control	option	-
PM2.5 control	option	-
Fire alarm sensor connection	+	+

Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

Designation key

Series	Casing type	Heater	Size (Nominal airflow / 10)	Modification	Heat exchanger type	Unit version	Controller type	Airflow control
Reneo	S: vertical	-: w/o heater E: integrated preheater	40	0: standard 1: flat service hatch suitable for decorative panel installation	-: heat recovery E: energy recovery	L: left-handed R: right-handed	S21	-: standard

Model	Ø D	H	H1	L	L1	W	W1
Reneo S 400	160	880	939	616	230	770	355

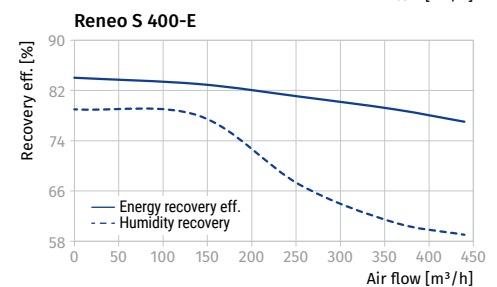
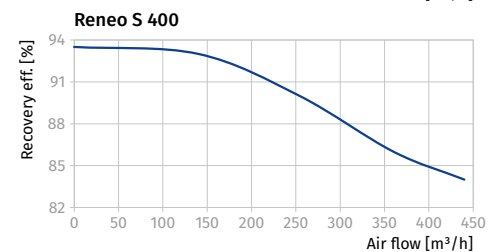
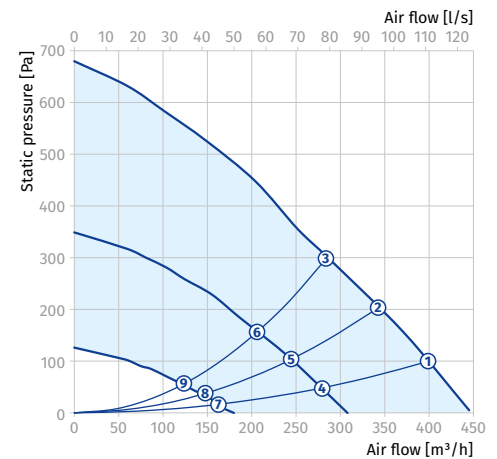


COUNTERFLOW RESIDENTIAL AHU IN EPP CASING
















Parameters	Reneo S 400	Reneo S 400-E	Reneo SE 400	Reneo SE 400-E
Voltage [V / 50–60 Hz]	230	230	230	230
Max. unit power without electric heater [W]	178	178	178	178
Integrated electric heater power [W]	-	-	1050	1050
Max. unit power [W]	178	178	1228	1228
Max. unit current without electric heater [A]	1.4	1.4	1.4	1.4
Integrated electric heater current [A]	-	-	4.66	4.66
Max. unit current [A]	1.4	1.4	6.06	6.06
Max. air flow [m ³ /h]	445	445	445	445
Sound pressure level at 3 m distance* [dBA]	26	26	26	26
Transported air temperature [°C]	-25...+40	-25...+40	-25...+40	-25...+40
Case material	EPP	EPP	EPP	EPP
Insulation	45 mm	45 mm	45 mm	45 mm
Extract filter	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%	G4 / Coarse > 60%
Supply filters	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)	G4 / Coarse > 60% (option F7 / ePM1 60%)
Connected air duct diameter [mm]	160	160	160	160
Weight [kg]	26	26	26	26
Heat recovery efficiency [%]	93	83	93	83
Heat exchanger type	Counterflow	Counterflow	Counterflow	Counterflow
Heat exchanger material	Polysterene	Enthalpy membrane	Polysterene	Enthalpy membrane
SEC class	A+	A	A+	A

* Sound pressure level [dBA] at 3 m distance is specified at point 4 in average spherical free-field, for comparative use only

Sound power level, A-weighted	Total	Octave frequency band [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Point 1											
LWA to supply inlet [dBA]	61	35	38	42	48	53	48	43	45	40	50
LWA to supply outlet [dBA]	64	37	40	44	51	56	50	45	47	43	53
LWA to exhaust inlet [dBA]	50	33	36	40	40	39	33	28	26	29	39
LWA to exhaust outlet [dBA]	48	31	34	38	38	37	31	27	25	27	37
LWA to environment [dBA]	55	31	39	38	44	45	42	37	34	36	45
Point 4											
LWA to supply inlet [dBA]	55	29	31	35	42	50	39	35	35	34	44
LWA to supply outlet [dBA]	57	30	33	37	44	53	41	37	37	36	46
LWA to exhaust inlet [dBA]	41	24	27	31	30	32	20	19	23	20	30
LWA to exhaust outlet [dBA]	43	25	28	33	32	34	21	20	24	22	32
LWA to environment [dBA]	46	21	29	28	34	39	30	26	24	26	35



		Reneo S 400(-E) S21	Reneo SE 400(-E) S21	Reneo S 400(-E) S21	Reneo SE 400(-E) S21
G4 panel filter		FP 496x150x60 Coarse 90% G4	FP 496x150x60 Coarse 90% G4	FP 496x150x60 Coarse 90% G4	FP 496x150x60 Coarse 90% G4
F7 panel filter		FP 496x150x60 ePM1 65% F7	FP 496x150x60 ePM1 65% F7	FP 496x150x60 ePM1 65% F7	FP 496x150x60 ePM1 65% F7
Decorative panel		-	-	EP-Reneo S 351	EP-Reneo S 351
LCD control panel		S25	S25	S25	S25
Control panel		S22	S22	S22	S22
Wireless control panel		S22 Wi-Fi	S22 Wi-Fi	S22 Wi-Fi	S22 Wi-Fi
Internal humidity sensor		FS2	FS2	FS2	FS2
Internal CO ₂ sensor		CD-3	CD-3	CD-3	CD-3
CO ₂ sensor with indication		CD-1	CD-1	CD-1	CD-1
CO ₂ sensor		CD-2	CD-2	CD-2	CD-2
Humidity sensor		HR-S	HR-S	HR-S	HR-S
Electric preheater		EVH 160 S21 V.2	-	EVH 160 S21 V.2	-
Electric reheater		ENH 160 S21 V.2	ENH 160 S21 V.2	ENH 160 S21 V.2	ENH 160 S21 V.2
Syphon kit (for the units without an enthalpy heat exchanger)		SFK 20x32	SFK 20x32	SFK 20x32	SFK 20x32
Silencer		SD 160	SD 160	SD 160	SD 160
Air damper		VKA 160	VKA 160	VKA 160	VKA 160
Electric actuator		TF 230	TF 230	TF 230	TF 230

		Reneo S 550 S21	Reneo SE 550 S21	Reneo S 550 S14
G4 panel filter		FP 596x164x60 Coarse 90% G4	FP 596x164x60 Coarse 90% G4	FP 596x164x60 Coarse 90% G4
F7 panel filter		FP 596x164x60 ePM1 60% F7	FP 596x164x60 ePM1 60% F7	FP 596x164x60 ePM1 60% F7
LCD control panel		S25	S25	-
Control panel		S22	S22	-
Wireless control panel		S22 Wi-Fi	S22 Wi-Fi	-
Internal humidity sensor		FS2	FS2	FS2
Internal CO ₂ sensor		CD-3	CD-3	-
CO ₂ sensor with indication		CD-1	CD-1	CD-1
CO ₂ sensor		CD-2	CD-2	CD-2
Humidity sensor		HR-S	HR-S	HR-S
Electric reheater		ENH 200 S21 V.2	ENH 200 S21 V.2	-
Syphon kit (for the units without an enthalpy heat exchanger)		SFK 20x32	SFK 20x32	SFK 20x32
Silencer		SD 200	SD 200	SD 200
Air damper		VKA 200	VKA 200	VKA 200
Electric actuator		TF230	TF230	TF230