

RENEO S 350

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.
- Compatible with round 160 mm air ducts.



Air flow:
up to 410 m³/h
114 l/s



Heat recovery efficiency:
up to 93 %



Design

- The casing is made of expanded polypropylene (EPP) with high heat- and sound-insulating properties.
- **Reneo S 350 L** – left-handed unit
- **Reneo S 350 R** – right-handed unit
- The **Reneo S 351** units have flat service hatch design, suitable for decorative panel installation (delivered separately).



Air filtration

- Two built-in **Coarse 90% (G4)** filters provide efficient supply air filtration.
- Supply **ePM1 65% (F7)** filter is available as an option.

Bypass

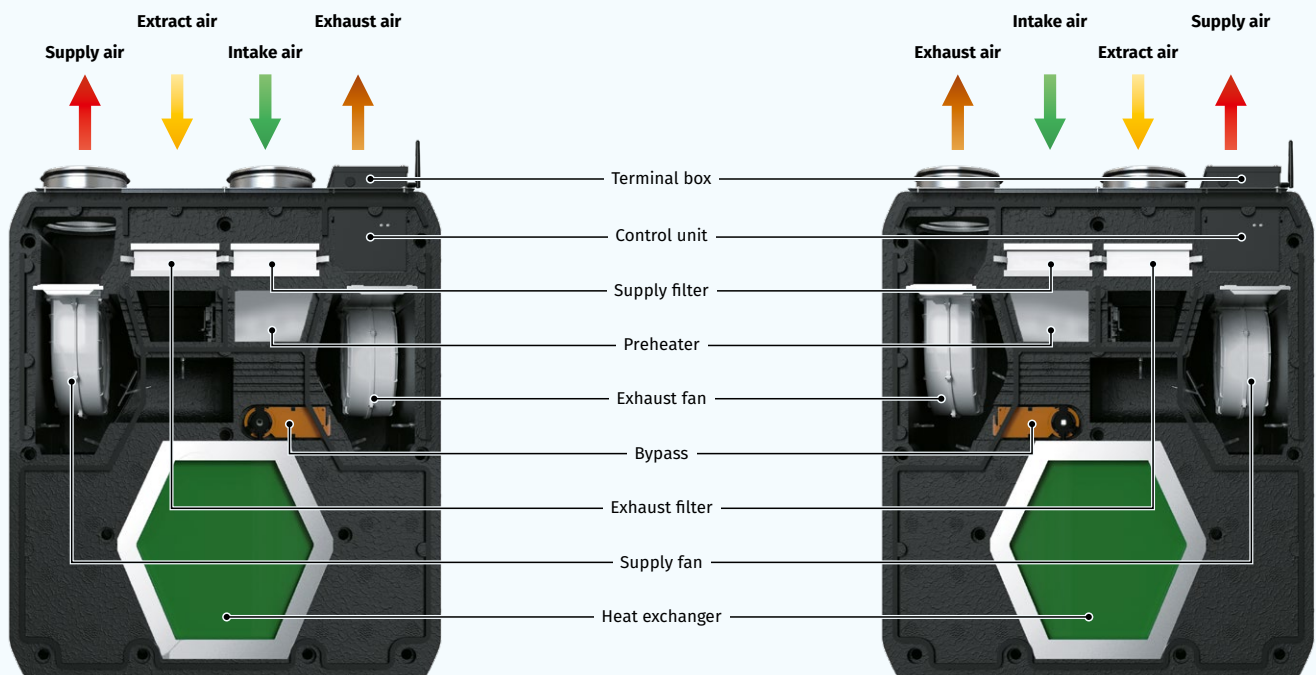
- The **Reneo S** units are equipped with a bypass, which can be opened if there is a need to cool down the ventilated area with cool intake air.

Fans

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

RENEO S 350 L

RENEO S 350 R



Heat recovery

- 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.
- The **Reneo S...-E** unit is equipped with an enthalpy counter-flow heat exchanger for heat and humidity recovery.



Control and automation

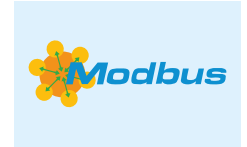
- Reneo S S21** units are equipped with an integrated automation system. The remote control panel is not included in the delivery set.
- The S21 controller allows to integrate the unit into the **Smart Home** system or **BMS (Building Management System)**.
- Unit control is done via Wi-Fi using the mobile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



Download the **Blauberg Home** app for Android



Download the **Blauberg Home** app for iOS







Mounting

- The units are designed for suspended ceiling mounting, floor mounting, vertical or horizontal wall mounting

- 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 | - |
| Cooler 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 | option |

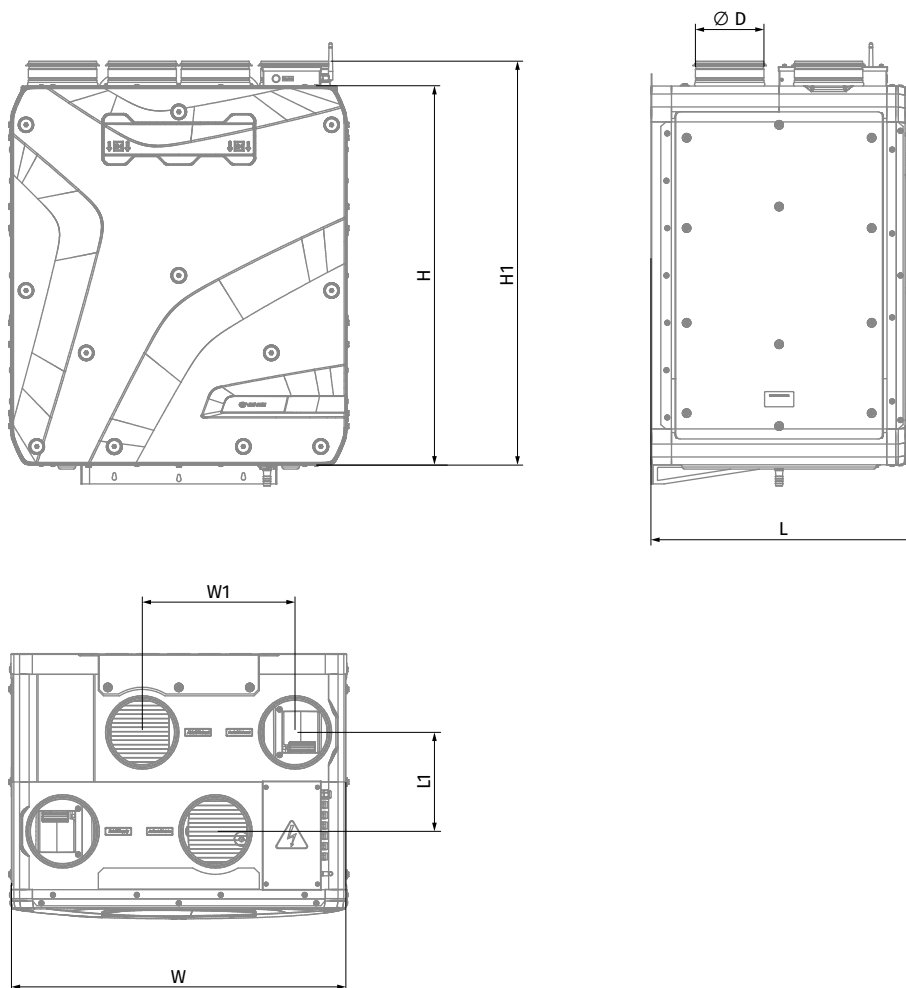
Option: the function is available when purchasing the appropriate accessory (see the "Accessories" section).

Designation key

| Series | Casing type | Heater | Nominal size | Modification | Heat exchanger type | Unit version | Controller type |
|--------|-------------|--|---------------------|---|--|-----------------------------------|-----------------|
| Reneo | S: vertical | -: w/o heater E: integrated preheater | 35: nominal airflow | 0: standard 1: flat service hatch suitable for decorative panel installation | -: heat recovery E: energy recovery | L: left-handed R: right-handed | S21 S14 |

Overall dimensions [mm]

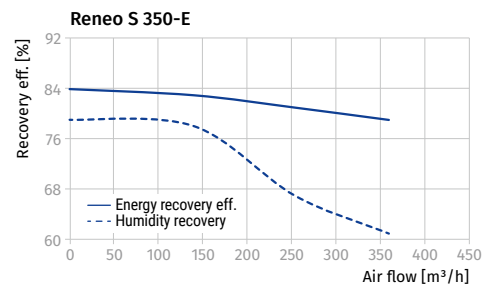
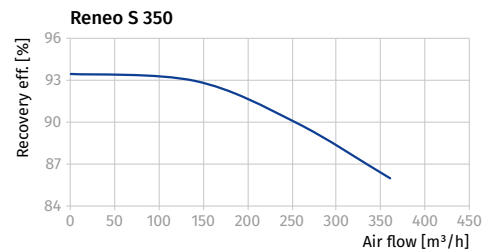
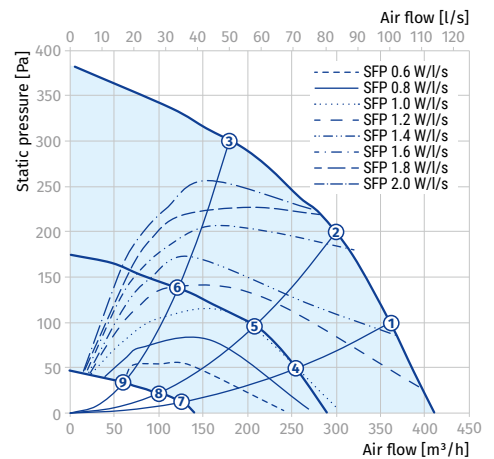
| Model | Ø D | H | H1 | L | L1 | W | W1 |
|---------|-----|-----|-----|-----|-----|-----|-----|
| Reneo S | 160 | 880 | 939 | 616 | 230 | 770 | 355 |



Technical data


















| Parameters | Reneo S 350 | Reneo S 350-E | Reneo SE 350 | Reneo SE 350-E |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Voltage [V / 50-60 Hz] | 230 | 230 | 230 | 230 |
| Max. unit power without electric heater [W] | 213 | 213 | 213 | 213 |
| Integrated electric heater power [W] | - | - | 1050 | 1050 |
| Max. unit power [W] | 213 | 213 | 1263 | 1263 |
| Max. unit current without electric heater [A] | 1.62 | 1.62 | 1.62 | 1.62 |
| Integrated electric heater current [A] | - | - | 4.66 | 4.66 |
| Max. unit current [A] | 1.62 | 1.62 | 6.28 | 6.28 |
| Max. air flow [m³/h] | 410 | 410 | 410 | 410 |
| Sound pressure level at 3 m distance [dBA] | 26 | 26 | 26 | 26 |
| Max. operating temperature [°C] | 45 | 45 | 45 | 45 |
| Case material | EPP | EPP | EPP | EPP |
| Insulation | 45 mm | 45 mm | 45 mm | 45 mm |
| Extract filter | Coarse >60 % | Coarse >60 % | Coarse >60 % | Coarse >60 % |
| Supply filters | Coarse >60 % (option: ePM1 60 %) | Coarse >60 % (option: ePM1 60 %) | Coarse >60 % (option: ePM1 60 %) | Coarse >60 % (option: 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 | Counter-flow | Counter-flow | Counter-flow | Counter-flow |
| Heat exchanger material | Polysterene | Enthalpy membrane | Polysterene | Enthalpy membrane |
| SEC class | A+ | A | A+ | A |


















| 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 |



EPP HEAT AND ENERGY RECOVERY AIR HANDLING UNITS

Accessories

| | | Reneo S 350(-E) S21 | Reneo SE 350(-E) S21 | Reneo S 350(-E) S14 |
|---|---|-----------------------------|-----------------------------|-----------------------------|
| G4 panel filter |  | 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 |
| Decorative panel |  | - | - | - |
| 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 | 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 preheater |  | EVH 160 S21 V.2 | - | - |
| Electric reheater |  | 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 |
| Silencer |  | SD 160 | SD 160 | SD 160 |
| Air damper |  | VKA 160 | VKA 160 | VKA 160 |
| Electric actuator |  | TF230 | TF230 | TF230 |

| | | Reneo S 351(-E) S21 | Reneo SE 351(-E) S21 | Reneo S 351(-E) S14 |
|---|---|-----------------------------|-----------------------------|-----------------------------|
| G4 panel filter |  | 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 |
| Decorative panel |  | EP-Reneo S 351 | EP-Reneo S 351 | EP-Reneo S 351 |
| 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 | 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 preheater |  | EVH 160 S21 V.2 | - | - |
| Electric reheater |  | 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 |
| Silencer |  | SD 160 | SD 160 | SD 160 |
| Air damper |  | VKA 160 | VKA 160 | VKA 160 |
| Electric actuator |  | TF230 | TF230 | TF230 |