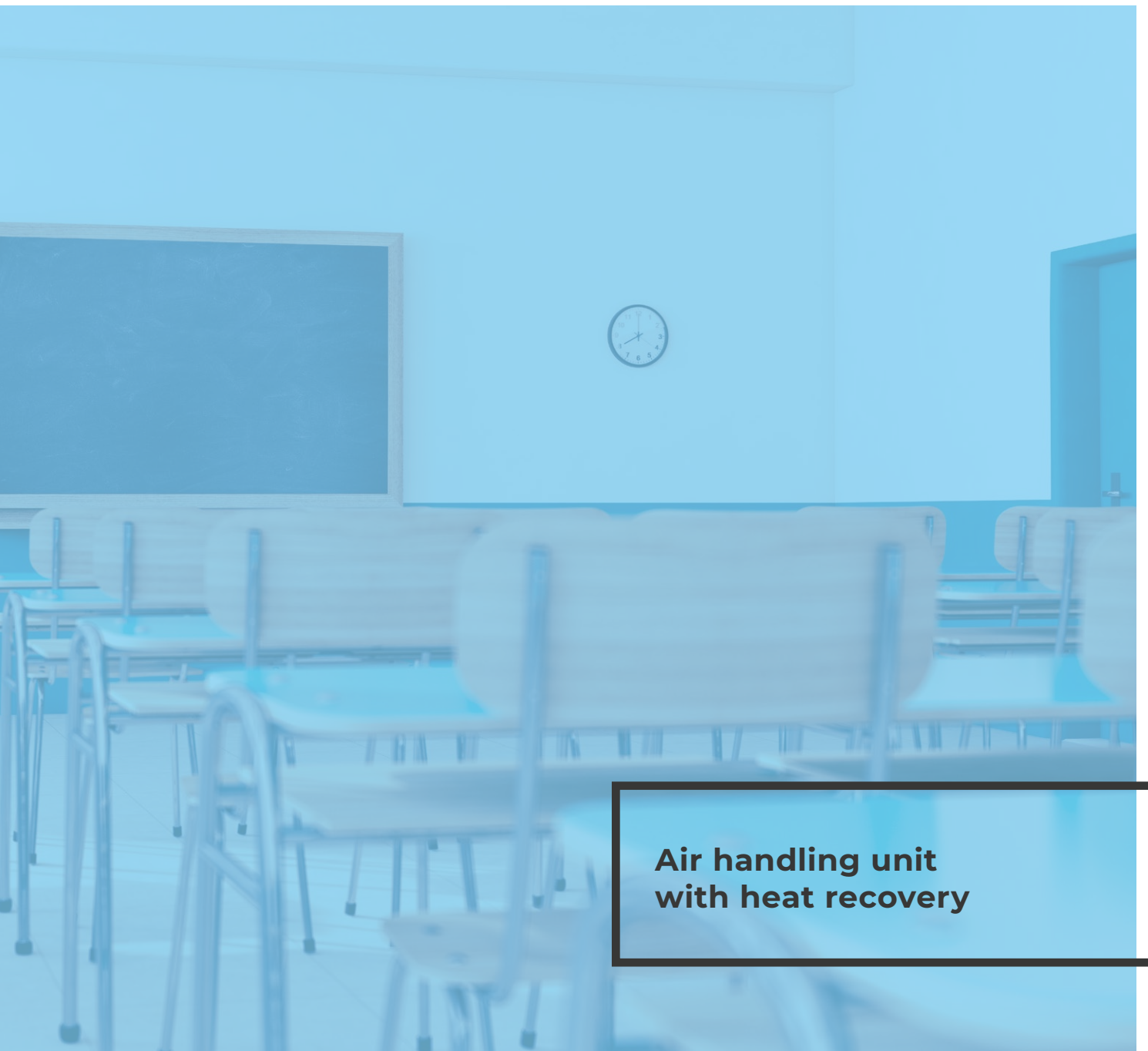


HYBRID



**Air handling unit
with heat recovery**

2

HYBRID

CENTRALISED VENTILATION UNIT FOR SMALL APARTMENTS



160 m³/h



95 %



33 dB(A)



FEATURES

Efficient centralised ventilation unit for small apartments.

Can be installed vertically on the wall, or suspended under the ceiling.

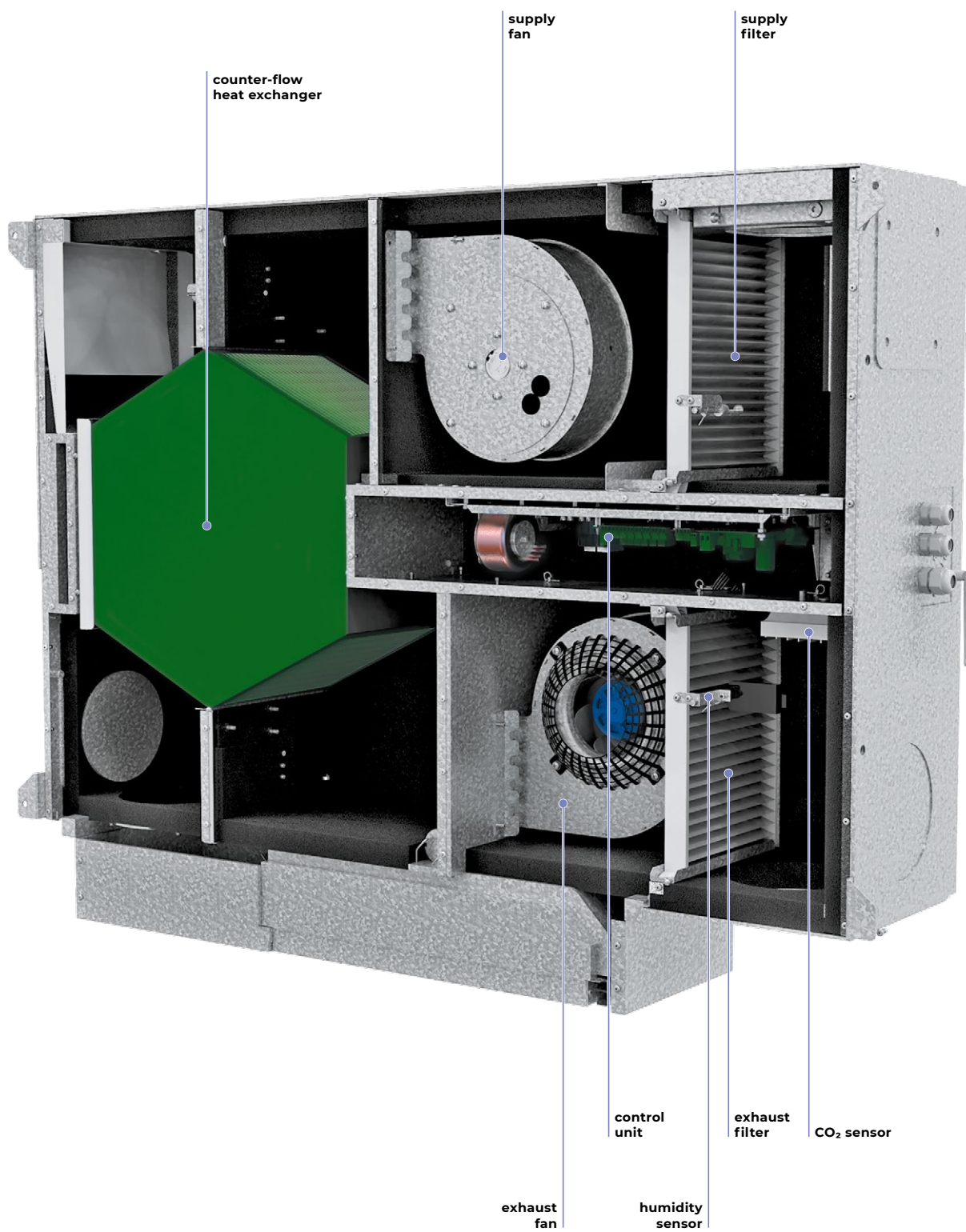
Concealed installation is possible due to optional revision door.

Clean air due to the use of an F7 filter for supply air filtration.

Low noise operation from 13 dB(A) at 3 m.

Simple installation due to variable location of the spigots.

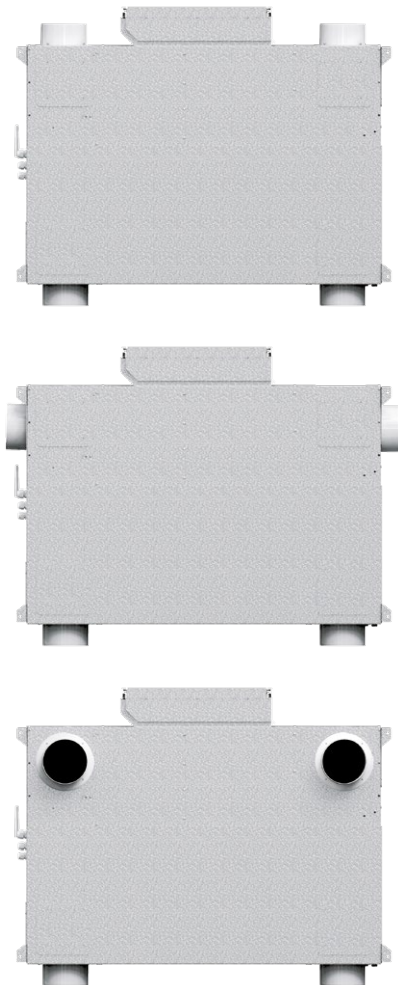
Design



Casing

The casing is made of galvanized sheet metal. The unit is heat- and sound-insulated with a 20 mm layer of foam. The service panel is easy to open for filter maintenance. The unit is equipped with four $\varnothing 125$ mm spigots. The position of the spigots can be changed to simplify duct installation.

Flanges can be installed in three different directions providing wide range of installation options.



Fans

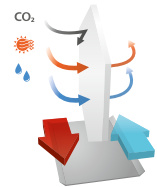
The units feature high-performance, electronically commutated (EC), external rotor motors with forward curved blades. These state-of-the-art units offer excellent energy efficiency. In addition to that, EC motors combine high performance and optimum control over the entire speed range. EC motors have an excellent power efficiency (up to 90 %).

Heat recovery

The **Hybrid** unit is equipped with a plate counter-flow polystyrene heat exchanger for heat recovery. The unit condensate is collected and drained to the drain pan under the heat exchanger.



The **Hybrid E** unit is equipped with an enthalpy plate counter-flow heat exchanger for energy (heat and humidity) recovery. Due to humidity recovery condensate is not generated in the enthalpy heat exchanger.



The air flows are completely separated in the heat exchanger. Thus smells and contaminants are not transferred from the extract air to the supply air.

Heat recovery is based on heat and/or humidity transfer through the heat exchanger plates. In the cold season supply air is heated in the heat exchanger by transferring the heat energy of warm and humid extract air to the cold fresh air. Heat recovery minimizes ventilation heat losses and heating costs respectively.

In the warm season the heat exchanger performs reverse and intake air is cooled in the heat exchanger by the cool extract air. That reduces operation load on air conditioners and saves electricity.

Control and automation

The **Hybrid S21** units are equipped with an integrated automation system. The remote control panel is not included in the delivery set (sold separately).

The S21 controller allows integrating the unit into the Smart Home system or **BMS (Building Management System)**.

Unit control via Wi-Fi using the mobile application Blauberg AHU.



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AHU app
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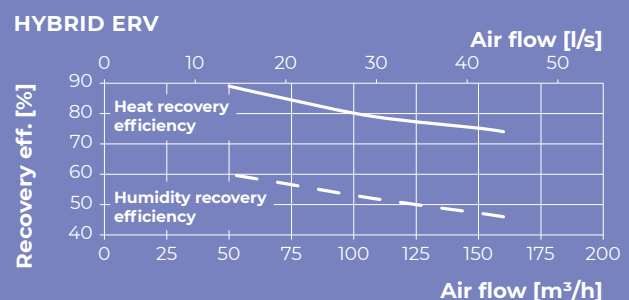
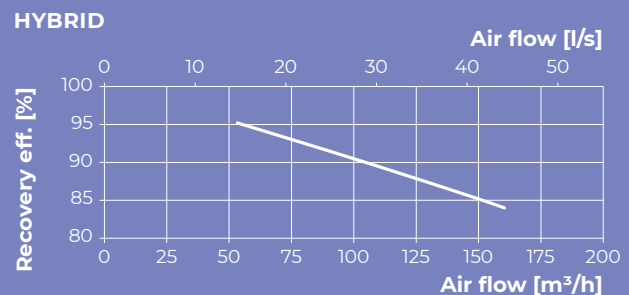
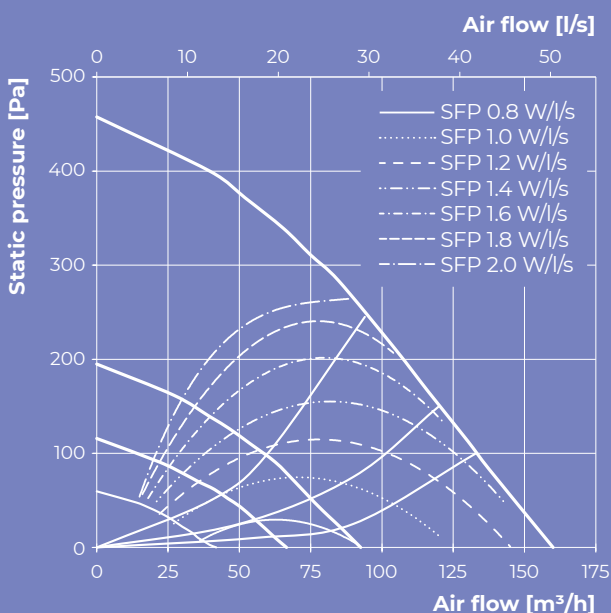
The **Hybrid S14** units are equipped with an integrated automation system and the S14 wall mounted sensor control panel with LED-indication.

Automation functions

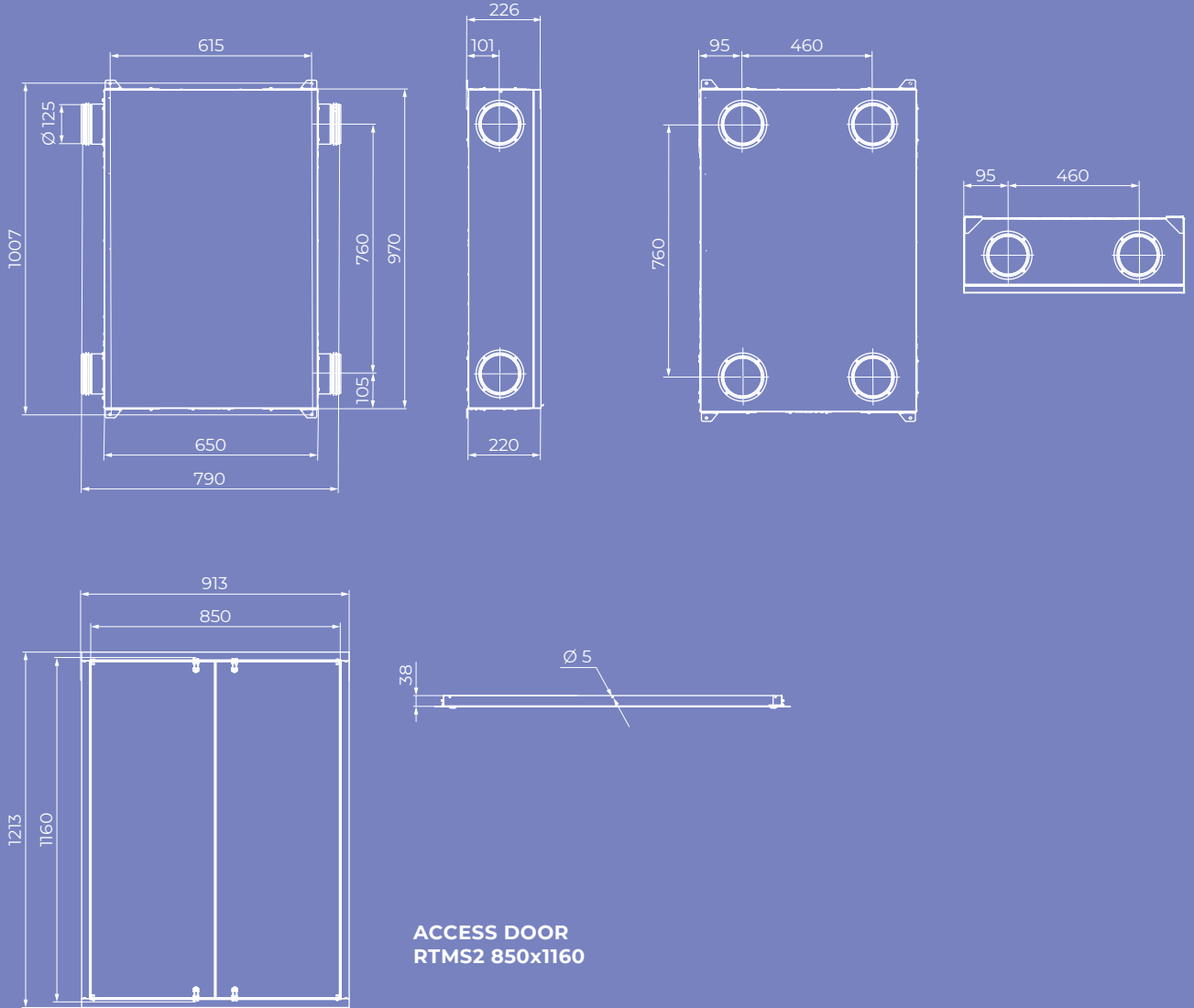
| Functions | Hybrid S21 | Hybrid S14 |
|---|--|---|
| Unit control via Wi-Fi using a mobile application | + | - |
| Unit control via a wired remote control panel |  S22 control panel (option) |  S14 control panel |
| Unit control via a wireless remote control panel |  S22 Wi-Fi control panel (option) | - |
| Unit control via a remote wired 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 timer |
| | by filter clogging differential pressure switch | LED indication about alarms |
| Alarm indication | full alarm description in the mobile application | - |
| Week-scheduled operation | + | - |
| Bypass | automatic | manual |
| | manual | - |
| Timer | + | - |
| Boost mode | + | - |
| Fireplace mode | + | using cyclical stops of the supply fan |
| Freeze protection | through cyclic stops of the supply fan | - |
| | through preheating (option) | - |
| Reheater connection | option | - |
| Cooler connection | option | - |
| Minimum supply air temperature control | + | option |
| Humidity control | option | option |
| CO ₂ control | option | - |
| VOC control | option | - |
| PM2.5 control | option | option |
| Fire alarm sensor connection | option | - |

Technical data

| Model | Hybrid | | | Hybrid ERV | | |
|--|---------------------------|----|-----|---------------------------|----|-----|
| Voltage [V / 50/60 Hz] | 1~ 230 | | | 1~ 230 | | |
| Max. unit power without electric heater [W] | 58 | | | 58 | | |
| Max. unit current without electric heater [A] | 0.5 | | | 0.5 | | |
| Max air flow [m ³ /h] | 160 | | | 160 | | |
| RPM [min ⁻¹] | 2800 | | | 2800 | | |
| Speed [m ³ /h] | 60 | 90 | 160 | 60 | 90 | 160 |
| Sound pressure level LpA to environment at 1 m [dBA] | 23 | 34 | 42 | 23 | 34 | 42 |
| Sound pressure level LpA to environment at 3 m [dBA] | 13 | 26 | 33 | 13 | 26 | 33 |
| Operating temperature [°C] | -25...+40 | | | -25...+40 | | |
| Case material | Aluzinc | | | Aluzinc | | |
| Insulation [mm] | 20 | | | 20 | | |
| Extract filter | Coarse 90% / G4 | | | Coarse 90% / G4 | | |
| Supply filter | ePM1 70% / F7 (G4 option) | | | ePM1 70% / F7 (G4 option) | | |
| Connected air duct diameter [mm] | 125 | | | 125 | | |
| Weight [kg] | 31 | | | 31 | | |
| Heat recovery efficiency [%] | 84-95 | | | 74-89 | | |
| Humidity recovery efficiency [%] | - | | | 47-60 | | |
| Heat exchanger type | Counter-flow | | | Counter-flow | | |
| Heat exchanger material | Polystyrene | | | Enthalpic membrane | | |
| SEC class | A+ | | | A | | |



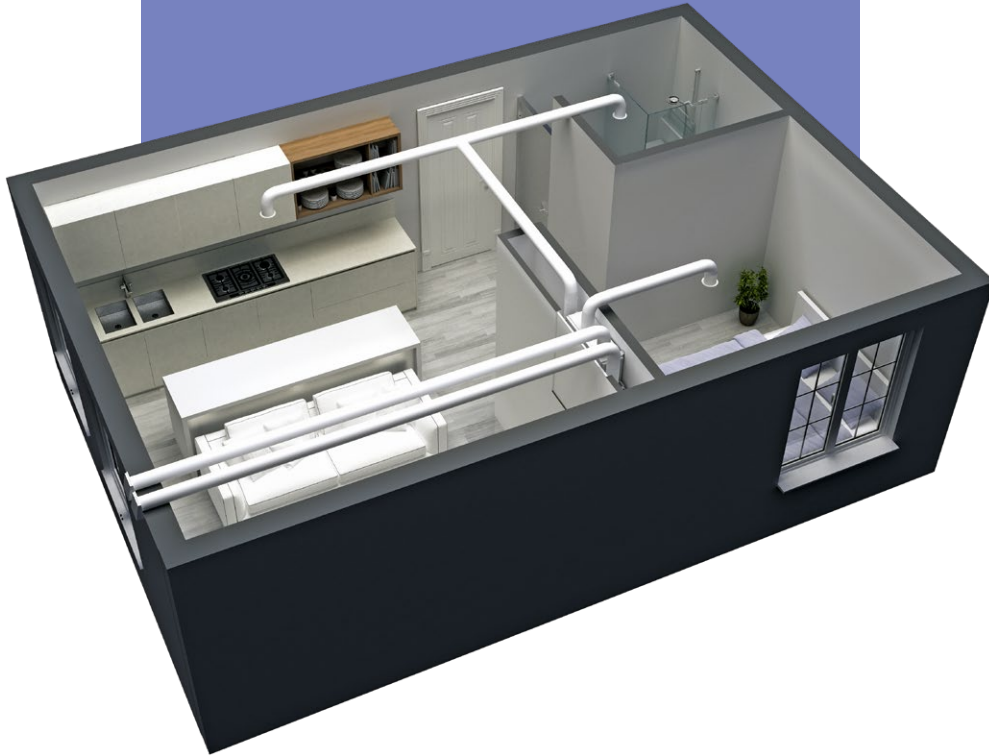
Overall dimensions [mm]



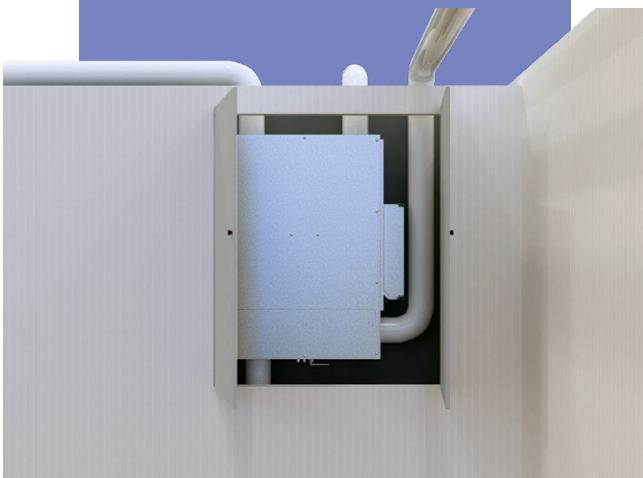


Mounting

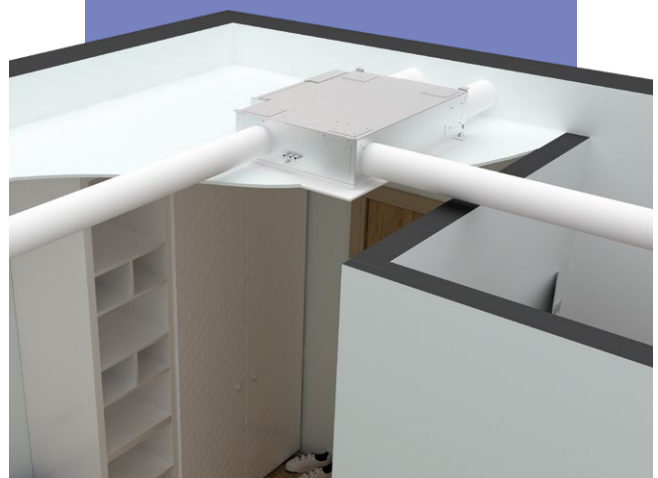
For concealed mounting



Wall flush mounting



Ceiling flush mounting



Accessories

| | | Hybrid R S14 Hybrid L S14 | Hybrid R ERV S14 Hybrid L ERV S14 | Hybrid R S21 Hybrid L S21 | Hybrid R ERV S21 Hybrid L ERV S21 |
|--|---|------------------------------|--------------------------------------|------------------------------|--------------------------------------|
| G4 panel filter |  | FP 233x175x22 G4 | FP 233x175x22 G4 | FP 233x175x22 G4 | FP 233x175x22 G4 |
| F7 panel filter |  | FP 233x175x22 F7 | FP 233x175x22 F7 | FP 233x175x22 F7 | FP 233x175x22 F7 |
| Control panel |  | - | - | S22 | S22 |
| Wireless control panel |  | - | - | S22 Wi-Fi | S22 Wi-Fi |
| LCD control panel |  | - | - | S25 | S25 |
| Humidity sensor |  | FS2 | FS2 | FS2 | FS2 |
| Humidity sensor |  | HR-S | HR-S | HR-S | HR-S |
| CO₂ sensor |  | CD-2 | CD-2 | CD-2 | CD-2 |
| CO₂ sensor with indication |  | CD-1 | CD-1 | CD-1 | CD-1 |
| VOC sensor |  | - | - | DPWQ30600 | DPWQ30600 |
| CO₂ sensor |  | - | - | DPWQ40200 | DPWQ40200 |
| Humidity sensor |  | - | - | DPWC11200 | DPWC11200 |
| Outer grille |  | VDA 125 CFn AI | VDA 125 CFn AI | VDA 125 CFn AI | VDA 125 CFn AI |
| Access doors |  | RTMS2 850x1160 | RTMS2 850x1160 | RTMS2 850x1160 | RTMS2 850x1160 |



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