KOMFORT EC SB350 RANGE S21 WIFI

Heat recovery air handling units

Key Points

- Self-contained MVHR whole house heat recovery unit, designed for mounting in a loft or cupboard space.

- Provides a balanced supply of fresh, filtered, heat recovered air to the living areas, whilst simultaneously extracting stale, moist, odorous air from "wet" rooms.

- Control everything from your tablet, iphone, smart phone with built-in Wifi router.

- Dramatically reduces the effects of mould, condensation, CO2 build up, VOC's, damp air and odours.

- Recovers a large percentage of the heat that would otherwise be wasted during conventional ventilation.

- Easy to use controls with optional features including pollen/allergy filters, humidity sensors and CO2 monitoring.

- 5 year Blauberg warranty.

Air flow: up to 125 l/s (450 m³/h)

Heat recovery efficiency: up to 92 %

Specific fan power (SFP) Down to 0.8 w/l/s.
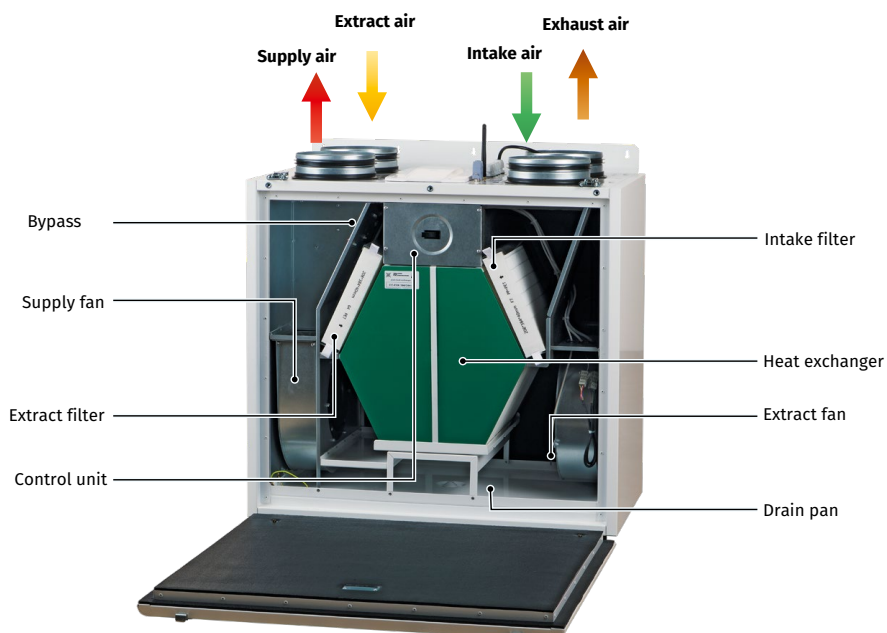
Sound pressure level Down to 28 dB(A).

Benefits & Features

- Supply and extract airflow rate of up to 191 l/s (690 m³/hour).

- Summer bypass overrides the heat recovery process in the warmer summer months.

- Extremely low energy consumption with an SFP (specific fan power) as low as 0.58 w/l/s.

- Standard grade G4 filter + F7 pollution/allergy filter.

- Fitted with German Blauberg, low energy EC motors for smooth, silent operation.

- Control everything from your tablet, iphone, smart phone with built-in Wifi router.

- ERP 2016, 2018 and A+ energy rating compliant.

- Holiday, trickle, boost, and purge speed control options.

- Easy commissioning via built-in runner + app.

- Independent BRE SAP Appendix Q listed (PCDB).

- Optional CO² humidity monitoring. VOC + PM

- Lightweight construction allows easy wall mounting in cupboard or loft space.

- Built-in frost protection.

- Fault and filter change indication as standard.

- Connect to fire alarm, external airflow dampers and cooling equipment.

- Highly efficient G4 & F7 pollen, allergy and hay fever filters fitted as standard.

- Reversible mounting (left or right handed).

General Technical Data

Parameters	KOMFORT EC SB350
Voltage [V/50-60 Hz]	1 ~ 230
Power [W]	178
Current [A]	1.4
Maximum air flow l/s (m³/h)	125 (450)
RPM [min⁻¹]	3200
Sound pressure level at 3 m [dBA]	28
Transported air temperature [°C]	-25...+40
Casing material	Polymer coated steel
Insulation	40 mm Mineral wool
Extract filter	G4
Supply filter	F7
Connected air duct diameter [mm]	160
Weight [kg]	64
Heat recovery efficiency [%]	85-92
Heat exchanger type	Counter-flow
Heat exchanger material	Polystyrene
Mounting type	Wall/Floor
SEC class for S14 automation	A+
ErP	2016, 2018

General Arrangement

Extract air — Supply air — Intake air — Exhaust air — Bypass — Supply fan — Extract filter — Control unit — Intake filter — Heat exchanger — Extract fan — Drain pan

Design

o The casing is made of high-quality, polymer coated steel, internally filled with a heat- and sound-insulated layer of mineral wool.
o The spigots are located at the top of the unit, and are rubber sealed for airtight connection to the air ducts.
o The units are equipped with either hinged service panel for easy maintenance operations or separate access for quick filter replacement, Depending on the model.
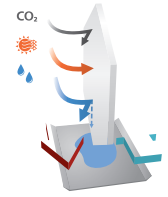
Air filtration

o The built-in F7 supply filter and G4 extract filter provide efficient air filtration.
o KOMFORT EC SB350 units are equipped with F7 supply and G4 extract filters.
o KOMFORT EC SB550 units are equipped with G4 and F7 filters for supply and G4 filters for extract.

Fans

o Highly-efficient EC motors and centrifugal impellers are used for air supply and exhaust.
o EC motors have the best power consumption to air flow ratio and meet the latest demands concerning energy saving and high-efficient ventilation.
o Dynamically balanced impellers.
o EC motors are fully speed controllable.

All **KOMFORT EC SB** units have a counter-flow polystyrene heat exchanger that maximises heat recovery efficiency.
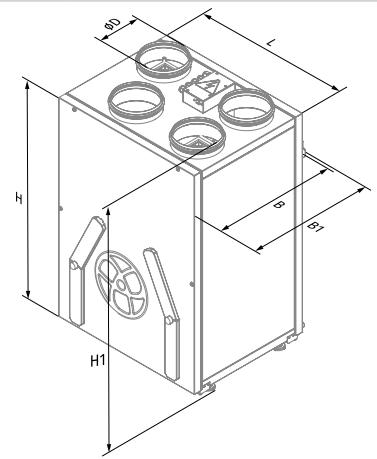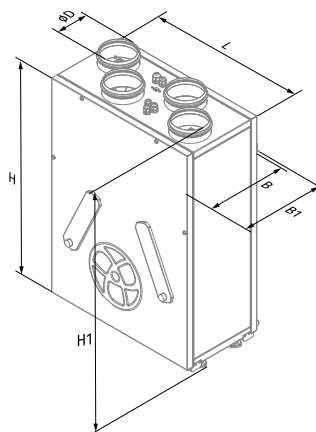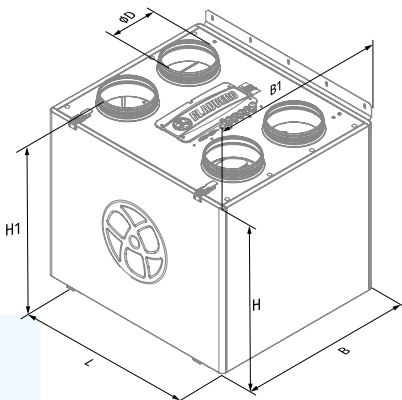
Control Functions

Functions Control Functions	Blauberg App
Speed Switching - Select from trickle, boost and purge ventilation speeds.	✓
Simple manual speed control, boost and timer override functions.	✓
24 hour, 7 day programmable scheduling.	✓
Condensation, humidity and temperature monitoring capabilities.	✓
Allergy sensing, CO2, VOC, Pollen & airborne particle monitoring and control.	✓
Auto summer bypass operation to prevent overheating in summer months.	✓
Anti frost protection for increased heat recovery efficiency.	✓
Dirty filter alarms.	✓
Simple fault finding menu.	✓
Control of electric and water preheaters, reheaters & coolers.	✓
Fire alarm connection.	✓

Overall dimensions [mm]

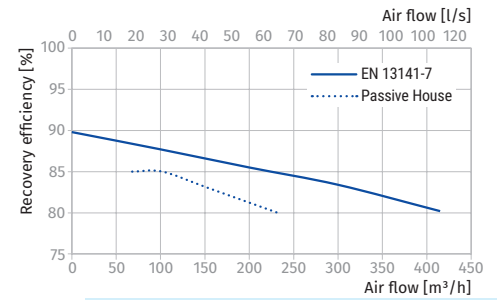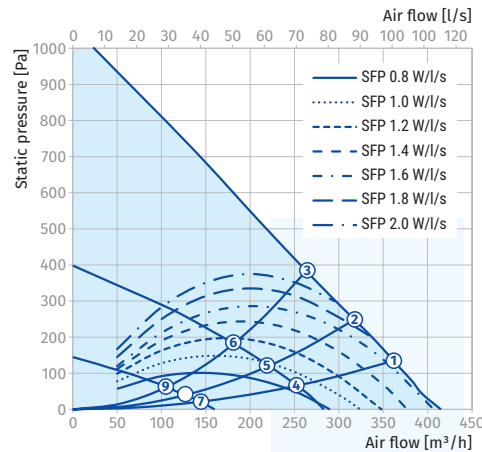| Model	Ø D	Ø D1	B	B1	H	H1	L
KOMFORT EC SB350(-E) S21/S14	160	18	583	600	760	675	730
KOMFORT EC SB550(-E) S21/S14	200	18	720	730	760	675	823

KOMFORT EC SB350 S21

Sound power level, A-filter applied.

Sound power level, A-weighted	General	Octave frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
LwA to supply air inlet [dBA]	**56**	50	46	53	45	39	34	36	32		
LwA to supply air outlet [dBA]	**64**	56	52	63	52	39	38	43	35		
LwA to exhaust air inlet [dBA]	**56**	52	46	53	45	38	34	36	31		
LwA to exhaust air outlet [dBA]	**64**	58	53	62	51	40	38	42	33		
LwA surrounding [dBA]	**49**	45	40	44	38	33	29	27	22	**28**	**38**

* Data provided for point 1 of the air flow diagram

Total power. Total sound pressure level.

Point	Total power of the unit [W]	Sound pressure level at 3 m (1 m) [dBA]
1	165	28 (38)
2	165	27 (37)
3	165	27 (37)
4	63	23 (33)
5	62	22 (32)
6	60	22 (32)
7	21	15 (25)
8	20	14 (24)
9	20	14 (24)

Air flow [l/s] / Static pressure [Pa] / Air flow [m³/h]

Legend:
- SFP 0.8 W/l/s
- SFP 1.0 W/l/s
- SFP 1.2 W/l/s
- SFP 1.4 W/l/s
- SFP 1.6 W/l/s
- SFP 1.8 W/l/s
- SFP 2.0 W/l/s

Air flow [l/s] / Recovery efficiency [%] / Air flow [m³/h]

Legend:
- EN 13141-7
- Passive House

Calculation of the exhaust air temperature:

$$t = t_{outd} + k_{hr} \times (t_{extr} - t_{outd}) / 100,$$

where
t_{outd} – outdoor air temperature [°C],
t_{extr} – extract air temperature [°C],
k_{hr} – heat exchanger efficiency (according to the diagram) [%]

Energy Rating

Accessories

	KOMFORT EC SB			KOMFORT EC SB
G4 Panel Filter		FP 182x254x18 G4 (Fitted as standard)	LCD Display	S25
F Panel Filter		FP 182x254x18 f7 (Fitted as standard)	External Humidity Sensor	HR-S
Internal Humidity Sensor		FS2	Silencer	SD-125
External CO$_2$ Sensor with visual Indication		CD-1	Electric Actuator	LF230

○ Meets Ecodesign standards.
○ ErP 2016 compliant.

○ Meets Ecodesign standards.
○ ErP 2018 compliant.