KOMFORT EC SB550 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.

Air flow: up to 192 l/s (690 m³/h)

Heat recovery efficiency: up to 92 %

Specific fan power (SFP) Down to 0.8 w/l/s.

Sound pressure level Down to 26 dB(A).

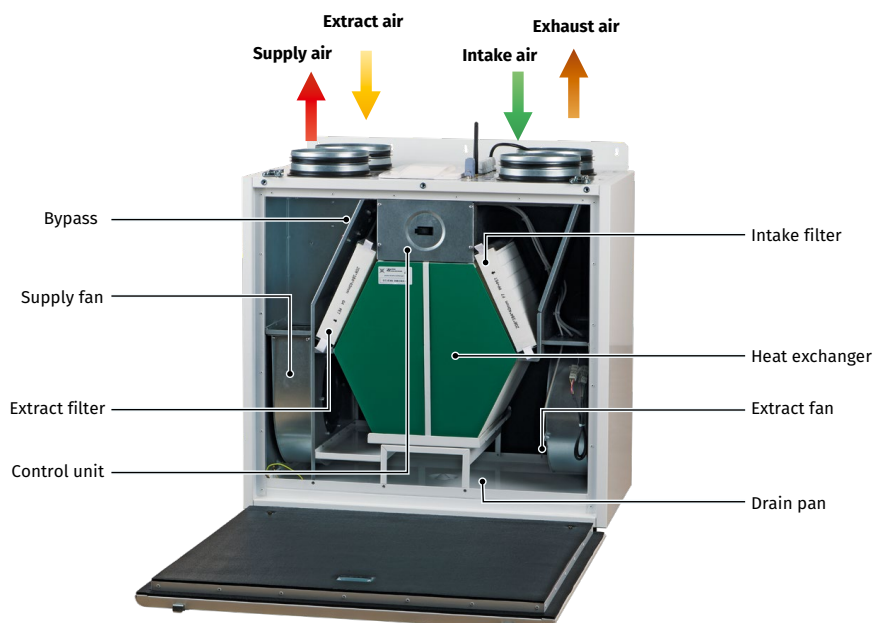BMS   WiFi READY   EC motor   ErP 2016   ErP 2018

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 SB550
Voltage [V/50-60 Hz]	1 ~ 230
Power [W]	337
Current [A]	2.4
Maximum air flow l/s (m³/h)	192 (690)
RPM [min⁻¹]	3860
Sound pressure level at 3 m [dBA]	26
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]	200
Weight [kg]	83
Heat recovery efficiency [%]	84-92
Heat exchanger type	Counter-flow
Heat exchanger material	Polystyrene
Mounting type	Wall/Floor
SEC class for S14 automation	A+
ErP	2016, 2018

General Arrangement

Supply air   Extract air   Intake air   Exhaust air

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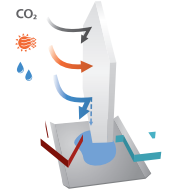Heat exchanger
Extract fan
Drain pan

Design

- The casing is made of high-quality, polymer coated steel, internally filled with a heat- and sound-insulated layer of mineral wool.
- The spigots are located at the top of the unit, and are rubber sealed for airtight connection to the air ducts.
- 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

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

Fans

- Highly-efficient EC motors and centrifugal impellers are used for air supply and exhaust.
- EC motors have the best power consumption to air flow ratio and meet the latest demands concerning energy saving and high-efficient ventilation.
- Dynamically balanced impellers.
- 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
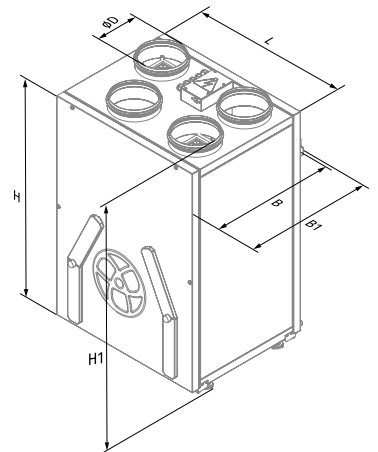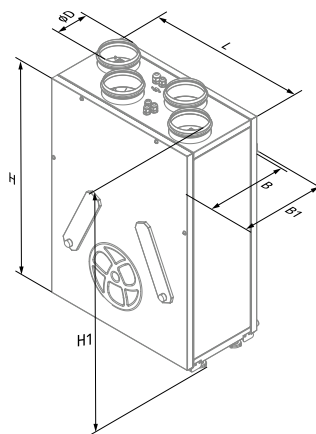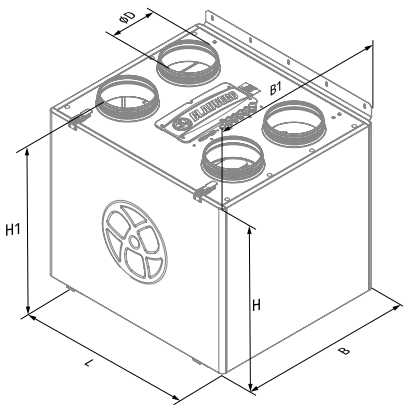
KOMFORT EC SB550 S21

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		
L$_{wA}$ to supply air inlet [dBA]	**54**	47	42	50	44	41	39	39	31		
L$_{wA}$ to supply air outlet [dBA]	**69**	63	56	65	59	55	50	52	46		
L$_{wA}$ to exhaust air inlet [dBA]	**54**	47	41	51	43	33	31	34	30		
L$_{wA}$ to exhaust air outlet [dBA]	**65**	61	61	61	55	46	43	46	40		
L$_{wA}$ surrounding [dBA]	**47**	42	42	43	36	31	28	26	21	**26**	**36**

* 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	332	26 (36)
2	331	26 (36)
3	332	25 (35)
4	133	24 (34)
5	129	24 (34)
6	126	22 (32)
7	32	15 (25)
8	31	14 (24)
9	30	13 (23)

SFP 0.8 W/l/s
SFP 1.0 W/l/s
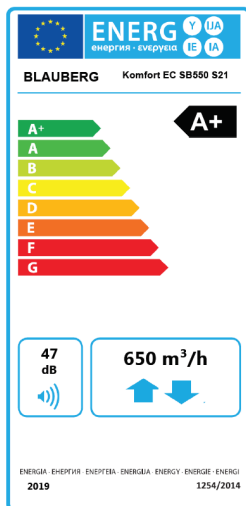SFP 1.2 W/l/s
SFP 1.4 W/l/s
SFP 1.6 W/l/s
SFP 1.8 W/l/s
SFP 2.0 W/l/s
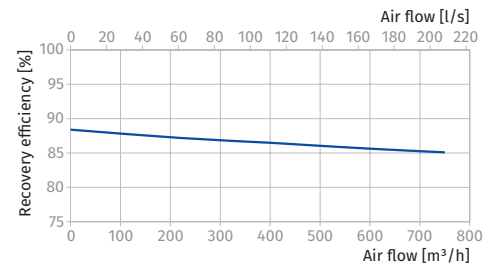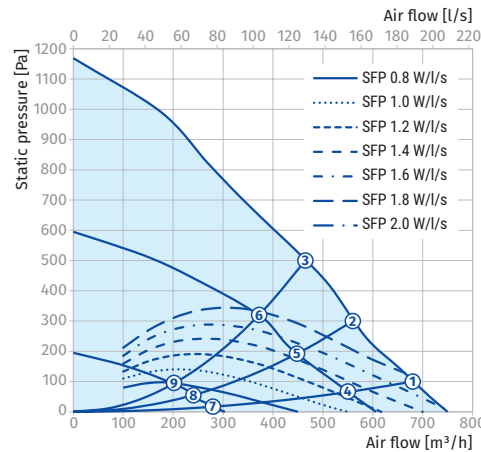
Calculation of the exhaust air temperature:

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

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.