

# 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.
- 5 year Blauberg warranty.



**Air flow:**  
up to 192 l/s (690 m<sup>3</sup>/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).



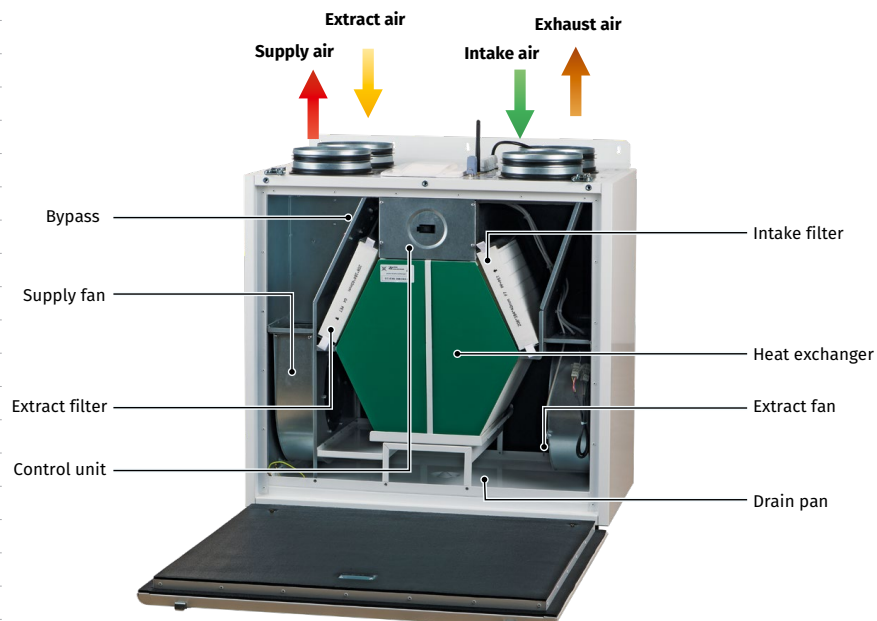
### Benefits & Features

- Supply and extract airflow rate of up to 191 l/s (690 m<sup>3</sup>/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 CO<sup>2</sup> 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 (m <sup>3</sup> /h)	192 (690)
RPM [min <sup>-1</sup> ]	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



## Design

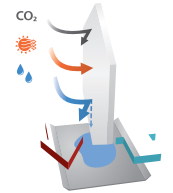
- The casing is made of high-quality, polymer coated steel, internally filled with a heat- and sound-insulated layer of mineral wool.
- The spigots are located at the top of the unit, and are rubber sealed for airtight connection to the air ducts.
- The units are equipped with either hinged service panel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

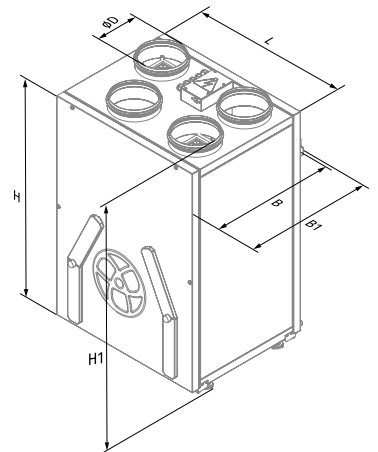
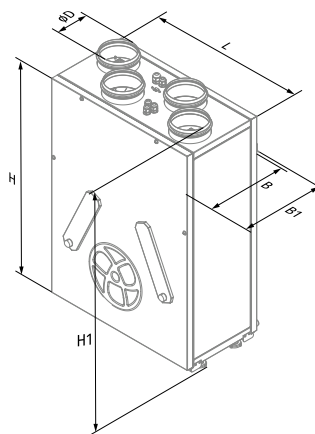
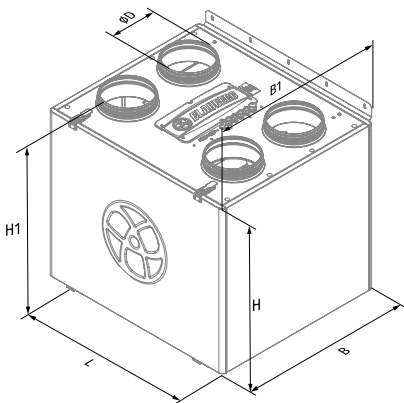
## Control Functions

Functions	Blaubeerg App
Control Functions	
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

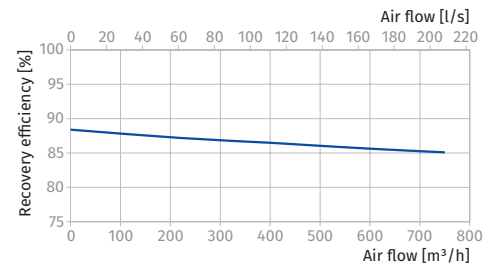
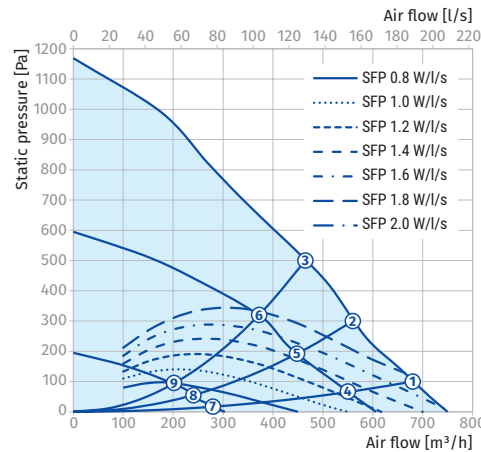
### Sound power level, A-filter

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]	54	47	42	50	44	41	39	39	31		
LWA to supply air outlet [dBA]	69	63	56	65	59	55	50	52	46		
LWA to exhaust air inlet [dBA]	54	47	41	51	43	33	31	34	30		
LWA to exhaust air outlet [dBA]	65	61	61	61	55	46	43	46	40		
LWA 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 (1m) [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)



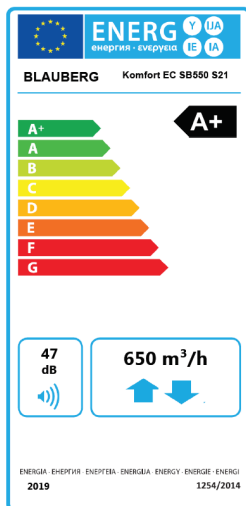
### Calculation of the exhaust air temperature:

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

where

$t_{\text{outd}}$  – outdoor air temperature [°C],  
 $t_{\text{extr}}$  – extract air temperature [°C],  
 $k_{\text{hr}}$  – 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 <sub>2</sub> Sensor with visual Indication		CD-1	Electric Actuator	LF230



- Meets Ecodesign standards.
- ErP 2016 compliant.



- Meets Ecodesign standards.
- ErP 2018 compliant.