

KOMFORT EC S5B270

Heat Recovery Ventilation Unit



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.
- Suitable for dwellings of up to 250 m² of combined floor space.
- 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 83 l/s (300 m³/h)
- Heat recovery efficiency:**
up to 81 %
- Specific fan power (SFP)**
Down to 0.71 w/l/s.
- Sound pressure level**
Down to 25 dB(A).

Benefits & Features

- Supply and extract airflow rate of up to 83 l/s (300 m³/hour).
- Double 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 0.71 w/l/s.
- High grade G4 filter with F8 pollution/allergy filter upgrade.
- Fitted with German Blauberg, low energy EC motors for smooth, silent operation.
- User friendly controls.
- ERP 2016, 2018 and A+ energy rating compliant.
- Holiday, trickle, boost, and purge speed control options.
- Easy commissioning via USB connection to laptop.
- Independent BRE SAP Appendix Q listed (PCDB).
- Optional CO² and humidity monitoring.
- 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.
- Designer flush or surface mounting controls.
- Reversible mounting (left or right handed).

SAP Appendix Q Performance - PCDB (Product Characteristic Database)

SAP Results 2005

Exhaust Terminal Configuration	Fan Speed Setting	Air Flow Rate (l/s)	Specific Fan Power (w/l/s)	Heat Exchange Efficiency (%)
Kitchen + 1 additional wet room	Supply 33% Extract 35%	15.0	0.75	86
Kitchen + 2 additional wet rooms	Supply 40% Extract 43%	21.0	0.72	85
Kitchen + 3 additional wet rooms	Supply 48% Extract 52%	27.0	0.81	84
Kitchen + 4 additional wet rooms	Supply 56% Extract 61%	33.0	0.97	83
Kitchen + 5 additional wet rooms	Supply 63% Extract 69%	39.0	1.14	82
Kitchen + 6 additional wet rooms	Supply 71% Extract 77%	45.0	1.37	81

SAP Results 2012

Exhaust Terminal Configuration	Fan Speed Setting	Air Flow Rate (l/s)	Specific Fan Power (w/l/s)	Heat Exchange Efficiency (%)
Kitchen + 1 additional wet room	Supply 40% Extract 44%	21.0	0.73	85
Kitchen + 2 additional wet rooms	Supply 51% Extract 55%	29.0	0.86	84
Kitchen + 3 additional wet rooms	Supply 61% Extract 66%	37.0	1.08	82
Kitchen + 4 additional wet rooms	Supply 71% Extract 78%	45.0	1.39	81



Technical data

Parameters	KOMFORT EC S5B270 S14
Voltage [V/50-60 Hz]	1 ~ 230
Power [W]	162
Current [A]	1.2
Maximum air flow l/s (m ³ /h)	83 (300)
RPM [min ⁻¹]	3200
Sound pressure level at 3 m [dBA]	34
Transported air temperature [°C]	-25...+50
Casing material	EPP
Insulation	15-26 mm, EPP
Extract filter	G4
Supply filter	G4 (Option: F8)
Connected air duct diameter [mm]	125
Weight [kg]	13
Heat recovery efficiency [%]	87-98
Heat exchanger type	Counter-flow
Heat exchanger material	Polystyrene
Mounting type	Wall
SEC class for S14 automation	A+
ErP	2016, 2018

Control Functions

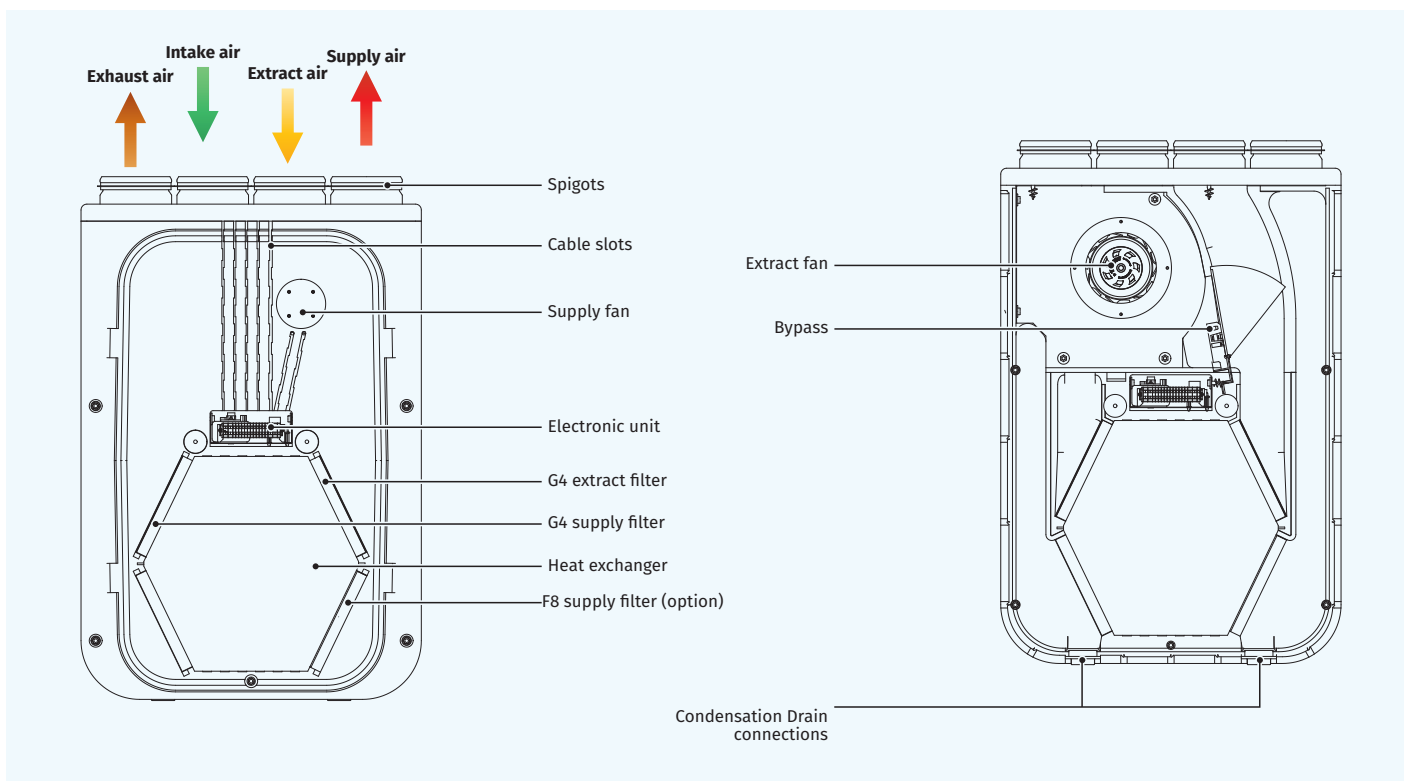
Functions	S14
Control Functions	
Unit on/off	✓
Holiday, trickle, boost & purge speed options	✓
Filter change alarm	✓
Alarm failure indication	✓
Summer bypass control	Manual
Control cable (10m)	✓
UK Plug & lead	✓
Fan speed adjustment from 0 to 100 %	✓
Additional equipment available	
Internal humidity sensor	Optional
Fire contacts (NC)	✓
Air damper contacts	✓
F8 Pollen/ Pollution/ Allergy filter	Optional

Sound Data

Sound power level, A-filter applied.

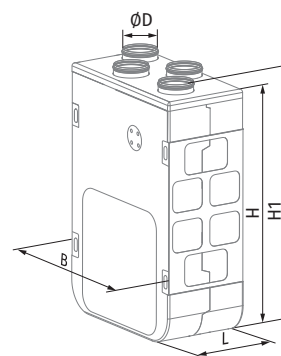
Sound power level, A-weighted	General	Octave frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L _{WA} to supply inlet [dBA]	82	65	63	65	80	74	74	68	64		
L _{WA} to supply outlet [dBA]	66	60	56	55	63	58	49	40	33		
L _{WA} to exhaust inlet [dBA]	85	64	67	71	81	77	79	75	67		
L _{WA} to exhaust outlet [dBA]	71	51	64	62	68	60	60	50	42		
L _{WA} to environment [dBA]	55	37	45	44	53	43	43	40	38	34	44

* Data provided for point 1 of the air flow diagram



Overall dimensions [mm]

Model	D	B	H	H1	L
KOMFORT EC S5B270	125	590	852	893	316



Airflow & Performance

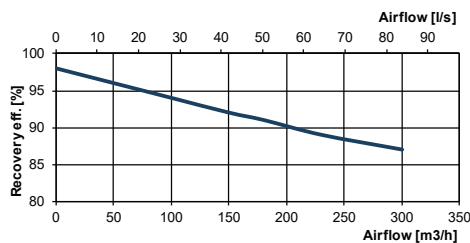
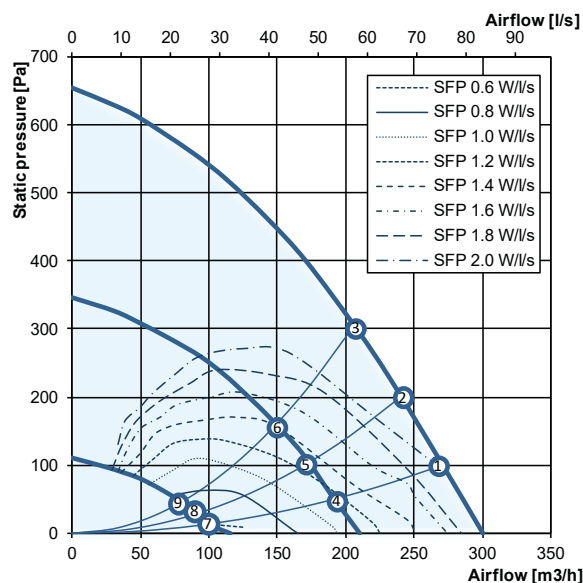
Point	Total power of the unit [W]	Sound pressure level at 3m (1m) [dBA]
1	153	34(44)
2	150	34(44)
3	142	33(43)
4	62	30(40)
5	60	29(39)
6	59	28(38)
7	17	27(37)
8	17	23(33)
9	16	23(33)

Calculation of the exhaust air temperature:

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

where

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



Accessories

	KOMFORT EC S5B270 S14		KOMFORT EC S5B270 S14	
G4 Panel Filter		FP 182x254x18 G4 (Fitted as standard)	External CO ₂ Sensor	CD-2
F8 Panel Filter		FP 182x254x18 F8	External Humidity Sensor	HR-S
Internal Humidity Sensor		FS2	Silencer	SD-125
External CO ₂ Sensor with visual indication		CD-1	Electric Actuator	LF230