

# KOMFORT EC D5B180

## 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 m<sup>2</sup> of combined floor space.
- Dramatically reduces the effects of mould, condensation, CO<sup>2</sup> build up, VOC's, damp air and smells.
- 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 CO<sup>2</sup> monitoring.
- 5 year Blauberg warranty.

- Air flow:**  
up to 50 l/s (180 m<sup>3</sup>/h)
- Heat recovery efficiency:**  
up to 89 %
- Specific fan power (SFP)**  
Down to 0.85 w/l/s.
- Sound pressure level**  
Down to 33 dB(A).



### Benefits & Features

- Supply and extract airflow rate of up to 50 l/s (180 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 0.85 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 CO<sup>2</sup> and humidity monitoring.
- Low profile and lightweight construction allows easy wall mounting in cupboard of 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.
- Can be mounted horizontally or vertically.

## 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 39 Extract 43	15.0	0.87	89
Kitchen + 2 additional wet rooms	Supply 50 Extract 54	21.0	0.85	88
Kitchen + 3 additional wet rooms	Supply 61 Extract 64	27.0	0.93	86
Kitchen + 4 additional wet rooms	Supply 71 Extract 76	33.0	1.08	85

### 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 52 Extract 57	21.0	0.90	88
Kitchen + 2 additional wet rooms	Supply 65 Extract 70	29.0	1.00	86
Kitchen + 3 additional wet rooms	Supply 79 Extract 82	37.0	1.20	85

AVAILABLE NOW FROM  
**i-sells.co.uk**

Showroom:  
15 St John's Parade  
Sidcup High Street  
DA14 6ES


EMAIL: sales@i-sells.co.uk  
SALES: 020 8463 9696  
WEB: www.i-sells.co.uk



### Technical data

Parameters	KOMFORT EC D5B 180
Voltage [V/50-60 Hz]	1 ~ 230
Power [W]	49
Current [A]	0.4
Maximum air flow l/s (m <sup>3</sup> /h)	50 (180)
RPM [min <sup>-1</sup> ]	3770
Sound pressure level at 3 m [dBA]	33
Transported air temperature [°C]	-25...+60
Casing material	EPP
Insulation	15-30 mm, EPP
Extract filter	F7
Supply filter	G4 (Option: F7)
Connected air duct diameter [mm]	150
Weight [kg]	14
Heat recovery efficiency [%]	88-98
Heat exchanger type	Counter-flow
Heat exchanger material	Polystyrene
Mounting type	Ceiling/Wall
SEC class for S14 automation	A+
ErP	2016, 2018

### Control Functions

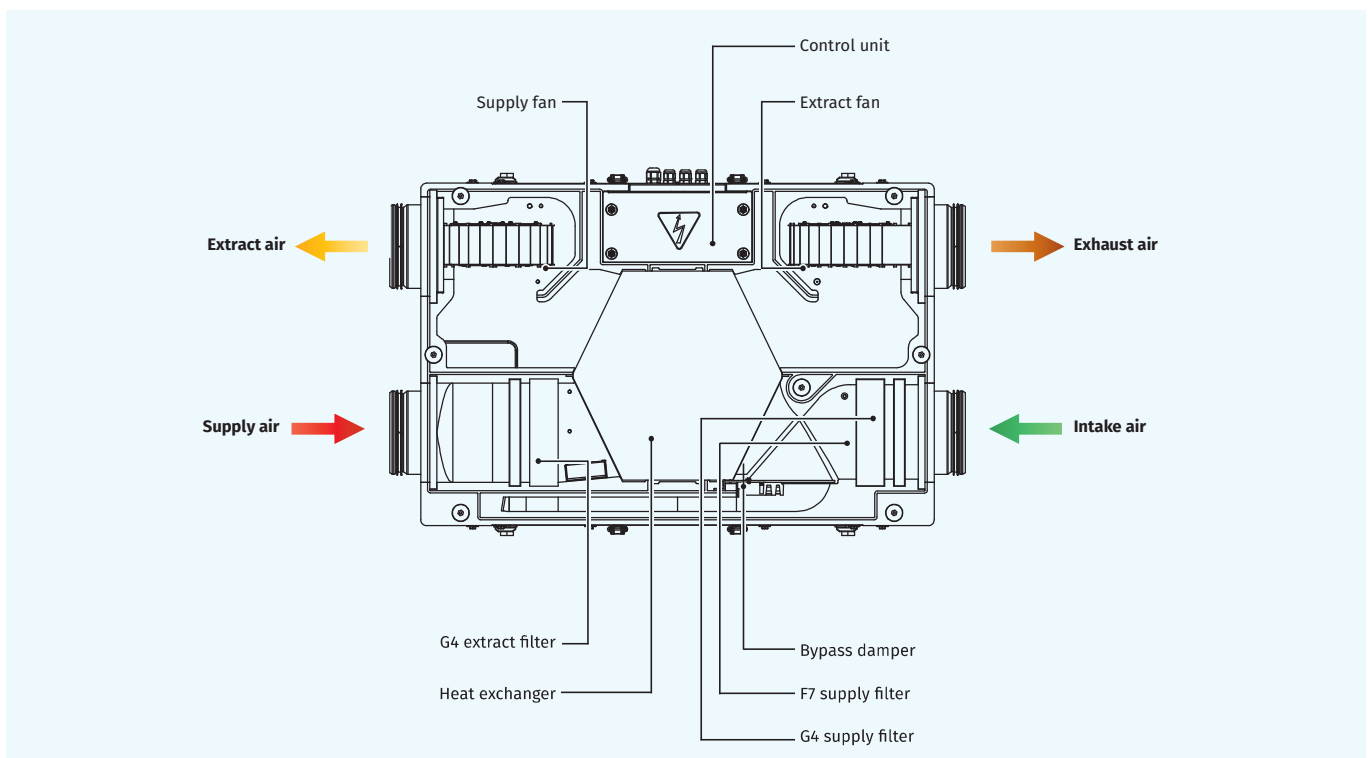
Functions	S14
	
Control Functions	
Unit on/off	✓
Holiday, trickle, boost & purge speed options	✓
Filter change alarm	✓
Alarm failure indication	✓
Summer bypass control	Manual
Control cable (10m)	✓
UK Plug & lead	✓
Fan speed adjustment from 0 to 100 %	✓
<b>Additional equipment available</b>	
Internal humidity sensor	Optional
Kitchen hood, CO <sub>2</sub> or humidity sensor contacts (NO)	✓
Fire contacts (NC)	✓
Air damper contacts	✓
DX cooler control contacts (NO)	✓
F8 Pollen/ Pollution/ Allergy filter	Optional

### Sound Data

Sound power level, A-filter applied.

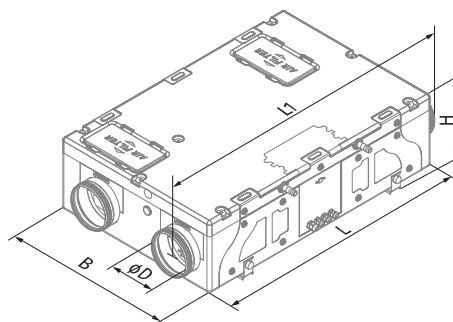
Sound power level, A-weighted	General	Octave frequency band [Hz]								LpA, 3 m [dBA]	LpA, 1 m [dBA]
		63	125	250	500	1000	2000	4000	8000		
L <sub>WA</sub> to supply inlet [dBA]	59	27	46	54	55	53	48	44	35		
L <sub>WA</sub> to supply outlet [dBA]	60	27	46	54	55	53	49	44	35		
L <sub>WA</sub> to exhaust inlet [dBA]	55	25	41	50	51	44	42	39	30		
L <sub>WA</sub> to exhaust outlet [dBA]	55	26	41	51	51	44	42	39	31		
L <sub>WA</sub> to environment [dBA]	54	18	36	47	49	48	43	37	33	33	43

\* Data provided for point 1 of the air flow diagram



### Overall dimensions [mm]

Model	D	B	H	L	L1
KOMFORT EC D5B180(-E)	150	600	264	900	1009



### Airflow & Performance

Total power. Total sound pressure level.

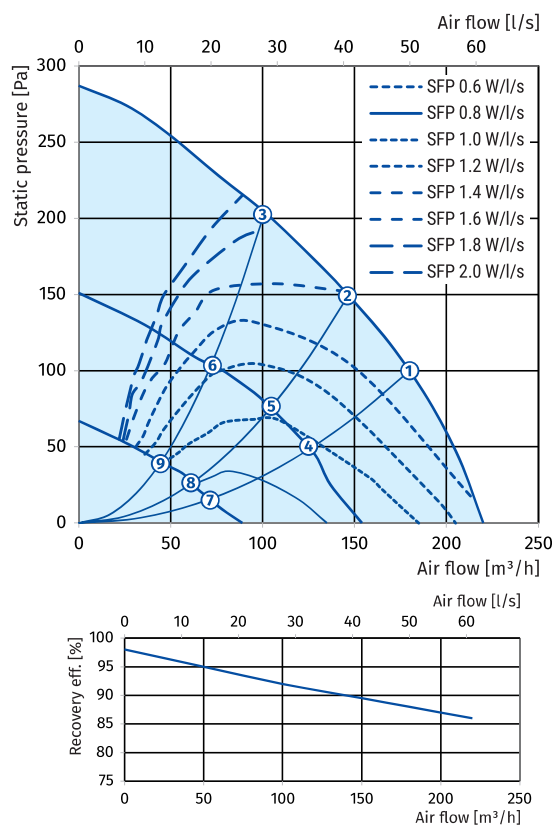
Point	Total power of the unit [W]	Sound pressure level at 3 m (1m) [dBA]
1	77	33 (43)
2	64	33 (43)
3	53	32 (42)
4	31	29 (39)
5	30	28 (38)
6	26	27 (37)
7	14	23 (33)
8	13	21 (31)
9	12	19 (29)

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) [%]



### Accessories

	KOMFORT EC S5B270 S14		KOMFORT EC S5B270 S14
G4 Panel Filter	 FP 182x254x18 G4 (Fitted as standard)	External CO <sub>2</sub> Sensor	CD-2
F8 Panel Filter	 FP 182x254x18 F8	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