

Series
RECOM 1S/SE EPP EC



Heat recovery air handling units
in sound- and heat-insulated casings.
Air flow up to **136 m³/h**.
Heat recovery efficiency up to **94 %**

Description

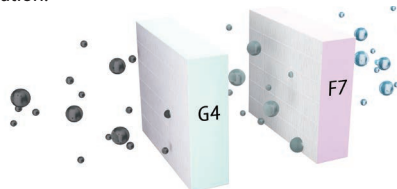
The air handling units are the fully featured ventilation units with heat recovery for air filtration, fresh air supply and stale air extract. The units offer energy-efficient ventilation for small apartments.

Casing

The casing is made of expanded polypropylene (EPP) possessing high heat- and sound-insulating properties.

Filter

Two built-in G4 and F7 filters provide efficient air filtration.

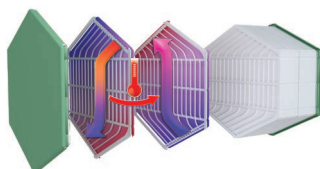


Fans

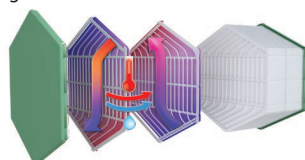
Efficient electronically commutated motors with external rotor and impeller with forward curved blades.

Heat exchanger

Recom-S units are equipped with a counter-flow polystyrene heat exchanger.



Recom-SE units are equipped with an enthalpy heat exchanger.



Automation

RECOM 1S/SE EPP EC units are equipped with an integrated control system and an FP wall-mounted control panel with LED indication.

Freeze protection

In the **RECOM 1S/SE EPP EC** units freeze protection is provided by the shutdown of the supply fan.

Mounting

The unit is designed for suspended ceiling mounting. The mounting position of the unit must provide service access for maintenance and repair.

Control and automation

Functions	FP
Control via external wired control panel	
Speed selection	+
Filter replacement indication	According to filter timer
Alarm indication	Alarm LED indication
Freeze protection	Cyclic shutdown of supply fan
Humidity control	Option
CO ₂ control	Option
Fire alarm connection	Option

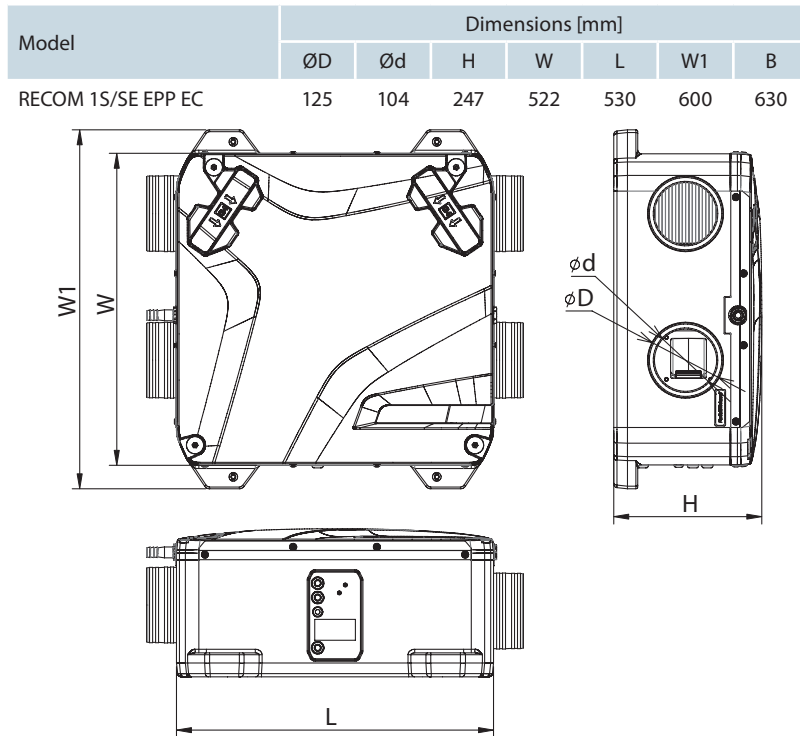
Accessories for air handling units

Model	G4 panel filter	F7 panel filter	Internal humidity sensor	CO ₂ sensor with indication	CO ₂ sensor	Humidity sensor	U-trap kit	Air damper	Electric actuator
RECOM 1S/SE EPP EC	SF 176x150x22 G4	SF 176x150x22 F7	HV2	CO2-1	CO2-2	HR-S	SG-32	RCD 125	LF230

Designation key

TM	Model	Casing modification	Heat exchanger type	Nominal size	Modification	Casing type	Heater	Controller	Service side
RECOM	1S/SE	C – Compact	_ – heat recovery T – energy recovery	Air flow m ³ /h / 10	0 – standard	P – suspended	_ – w/o heater	FP	_ – universal

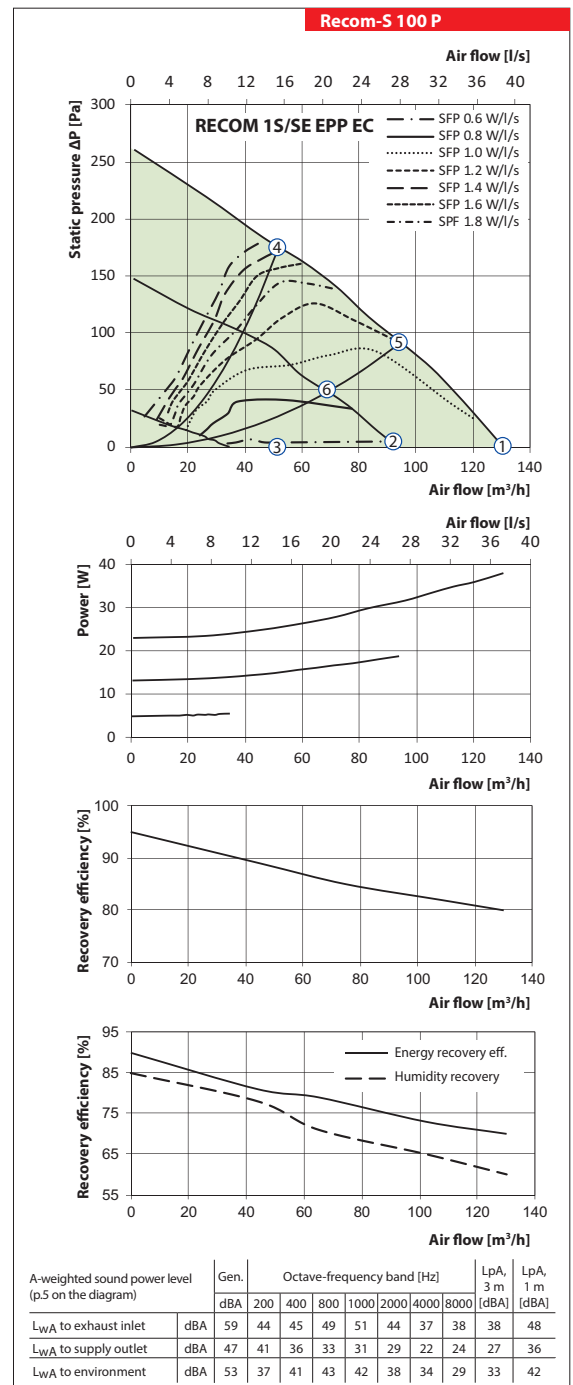
Overall dimensions



Technical data

	RECOM 1S EPP EC	RECOM 1SE EPP EC
Voltage [V/50-60 Hz]	1~ 230	
Max. unit power [W]	38	
Max. unit current [A]	0.34	
Max air flow [m³/h]	130	
Max. sound pressure level at 3 m distance (breakout) [dBA]	32	
Max. operating temperature [°C]	- 23...+40	
Case material	EPP	
Insulation [mm]	25	
Extract filter	G4 / Coarse > 60%	
Supply filter	G4 / Coarse > 60% (option F7 / ePM1 60%)	
Connected air duct diameter [mm]	100 / 125	
Weight [kg]	8	
Heat recovery efficiency [%]	82-94	73-88
Heat exchanger type	Counter-flow	
Heat exchanger material	Polystyrene	Enthalpy
SEC class	A+	A

Point	Air flow [m³/h] (ls)	Total sound pressure level (breakout) at 3 m (1 m) distance [dBA]
	RECOM 1S/SE EPP EC	RECOM 1S/SE EPP EC
1	130 (36)	32 (42)
2	91 (25)	25 (35)
3	52 (14)	16 (26)
4	52 (14)	31 (41)
5	96 (27)	33 (42)
6	68 (19)	25 (34)



Calculation of air temperature downstream of the heat exchanger:

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

where

t_{outd} is outdoor air temperature [°C]

t_{extr} is extract air temperature [°C]

k_{hr} is heat exchanger efficiency (according to the diagram) [%]