

Single-room heat recovery ventilation unit with enthalpy ceramic heat exchanger

RECOM mini ECO heat recovery unit is a modern solution that combines balanced ventilation with heat recovery, an optional built-in electric heater, temperature sensor, as well as a user-friendly interface. With its compact and multi-purpose design, the device provides an effective way to improve indoor air quality without losing valuable heat (or coolness). The unit is designed for through-the-wall installation inside a prepared hole in an outer wall of the building. RECOM mini ECO is a decentralized unit and does not require ducting, therefore it is typically much easier to install. This makes them excellent for retrofitting in flats, apartments, hotels, houses, cottages, social and commercial indoor areas that have insufficient space to install a centralized system with ducts.

FEATURES:

- · Simultaneously supplies and extracts air through a single hole in the outer wall.
- Separate settings for each EC fan ensure balanced ventilation.
- · Reducing heat losses caused by heat and energy recovery.
- Efficient ceramic heat exchanger of hexagonal cellular structure with automatic frost protection system.
- · Version with electric heater available.
- · G3 supply and extract filters.
- · Temperature sensor.
- · Controlled with an Android or iOS smartphone or tablet.
- · House ventilation control via cloud service from anywhere in the world.

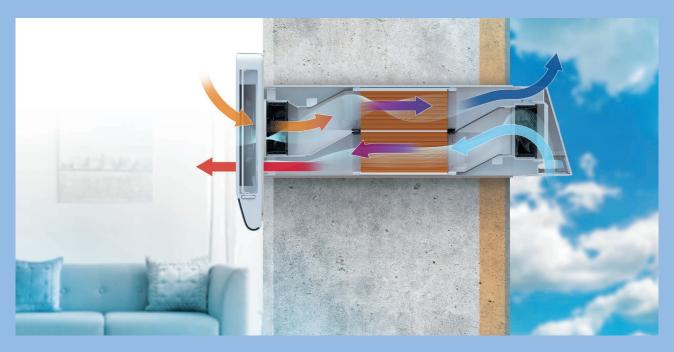
RECOM mini ECO

Defrost indication

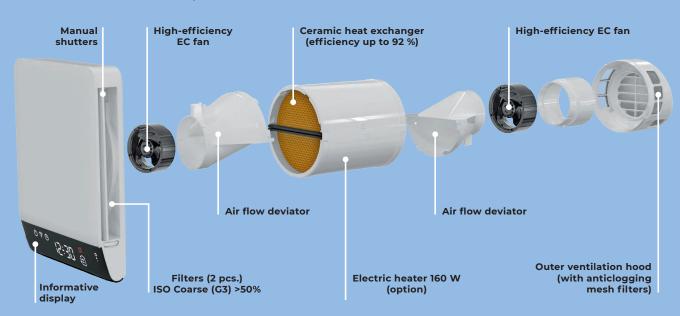
FUNCTIONS



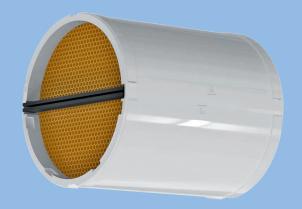
MODES OF OPERATION



- **Heat recovery mode** simultaneously supplies and removes air through one opening in the outer wall with a cyclical change in the direction of air. The defrosting algorithm is activated by a triggered temperature sensor.
- **Ventilation mode** active operation of both fans, simultaneous supply and exhaust without changing direction.
- **Supply mode** active operation of both fans, simultaneously pumping air into the room. Activation of the electric heater is possible.
- **Exhaust mode** active operation of both fans, simultaneously removing air to the outside. Activation of the electric heater is not possible.



CERAMIC HEAT EXCHANGER



- The process of heat recovery occurs through regeneration with the preservation of moisture, which is very important for the cold and dry winter period.
- No moisture condensation occurs in the heat recovery mode in winter.
- High regeneration efficiency due to the innovative hexagonal structure of the heat exchanger cells.

 Recovers up to 92% of heat from extracted air.
- The cartridge, which includes the regenerator, is sealed because it is made of ABS plastic, therefore it reduces the accumulation of dirt on the heat exchanger and facilitates cleaning.
- The regenerator is protected with a hydrophilic layer that prevents the penetration of moisture and the development of fungi, mold and bacteria on its surface.

UNIT OPERATING LOGIC

•	To increase the efficiency of the RECOM mini ECO, the regenerator is divided into two parts,
	which are isolated from one another, thus eliminating the transfer of air, heat and moisture
	between them

One of the fans operates in the supply mode: fresh cold intake air from outside flows through the first regenerator, and absorbs accumulated heat and humidity.

- Meanwhile, the other fan operates in the exhaust mode: warm stale air is extracted from the room to the outside, and while passing through the other regenerator, it gradually heats the air up and transfers some of the moisture.
- After 70 seconds operation the fans change the rotation direction and the opposite processes start.

ALL FUNCTIONS IN YOUR SMARTPHONE

RECOM mini ECO combines compact size and a wide range of functions that are easy to track in a smartphone application.







AND EVEN MORE.

Just say «Hey Google...» and test, control and run Recom Home in English, German, Swedish, Norwegian, Danish, Polish, Dutch, French, Spanish*.

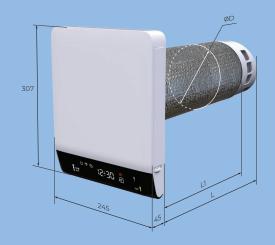


*Important: The feature availability could depend on your country, region and language. Check it for your speaker/smartphone or ask its manufacturer.

DIMENSIONS [mm]

Madal	Overall dimensions [mm]					
Model	ØD	L	u	Wall thickness		
RECOM mini ECO 160-044-E	162	540	439	240*440		
RECOM mini ECO 160-055-E		650	550	450550		
RECOM mini ECO 160-70-E		800	700	560700		
RECOM mini ECO 160-100-E		1100	1000	7101000		

^{*} With an optional expansion joint



TECHNICAL DATA

		RECOM mini ECO		RECOM mini ECO-E			
Speed		1	2	3	1	2	3
Voltage / Frequency	V/Hz	z 220-240		220-240 \	V 50/60 Hz		
Max. unit power without electric heater	W	3	5	8	3	5	8
Integrated electric heater power	W	-			160		
Max. unit current without electric heater	А	0.02	0.03	0.04	0.02	0.03	0.04
Max. unit current with electric heater	А	-		0.93	0.94	0.95	
Air flow in heat recovery mode	m³/h	10	30	48	10	30	48
Air flow in heat recovery mode	l/s	3	8	13	3	8	13
Air flow in supply (exhaust) mode	m³/h	15	60	80	15	60	80
Air flow in ventilation mode	m³/h	10	30	48	10	30	48
SFP	W/I/s	1.08	0.6	0.6	1.08	0.6	0.6
Sound pressure level @ 1m	dBA	24	36	50	24	36	50
Sound pressure level @ 3m	dBA	14	27	40	14	27	40
Noise attenuation according to DIN EN ISO 10140-2: 2010	dBA	40/44 40/45					
Classification of air flow sensitivity to pressure difference variations in accordance with EN 13141-8		S3					
Indoor/outdoor airtightness classification of the complete unit in accordance with EN 13141-8		DI					
Heat recovery efficiency	%	≤ 92 ≤ 90					
Heat exchanger material		Ceramic					
Heat exchanger type		Regenerative					
Transported air temperature	С	-15 + 50 -25 + 50)			
Filter		G3					
Ingress Protection rating	IP	x4					
SEC class		А					

ASSORTMENT

Options & functions	RECOM mini ECO	RECOM mini ECO-E
Heat recovery, supply only, extract only modes	+	+
3 speeds with independent adjustment from 10 to 100% for supply and exhaust	+	+
Temperature sensor	+	+
Light sensor	+	+
Electric heater	-	+
Frost protection by heating the regenerator with exhaust air	+	+
Filter maintenance indication	+	+
Remote control using an IR remote control and a smartphone via Wi-Fi	+	+
Functional smartphone application with voice control, cloud service works with Google Home or Alexa	+	+
Functional smartphone application with voice control, cloud service and air quality level statistics	+	+
Main screens in the smartphone application	- Speed (3 speeds) - Speed (smooth adjustment)	- Speed (3 speeds) - Speed (smooth adjustment) - Heater

ACCESSORIES

Option	RECOM mini ECO
External compensator pad	CPO-40 RECOM mini ECO 160 CPO-80 RECOM mini ECO 160 CPO-120 RECOM mini ECO 160 CPO-160 RECOM mini ECO160 CPO-200 RECOM mini ECO160
Expansion kit for thick walls	KLW RECOM mini ECO 160 L055 KLW RECOM mini ECO 160 L07 KLW RECOM mini ECO 160 L1
Metal decorative cuff for indoor installation	MP RECOM mini ECO 160
Filter G3	SF RECOM mini ECO G3 (2 pcs.)
Filter G4	SF RECOM mini ECO G4 (2 pcs.)