

Technical data sheet: Punctual recuperator Kers Evo

Card code: XSCT00144- Date 26/02/2022

Family: Heat recovery units



Description

The Kers Evo series consists of devices used for double-flow mechanical ventilation, with heat recovery, to be installed in a hole in the wall. The units are designed to provide the individual room with the necessary amount of fresh air and to remove the exhausted air. It also recovers the heat contained in the exhausted air and transfers it to the supply air.

Each unit is equipped with:

- Energy saving EC fans with speed control.
- Ceramic heat exchanger with hexagonal cells, with efficiency up to 97% and equipped with anti-bacterial treatment.
- Class G3 filters (optional F7) installed on both sides of the exchanger to clean the intake air and protect the exchanger.
- Included remote that allows you to control the appliance without wiring ducts.
- Sound insulation from external noise of 42 dB in accordance with building regulation 5/12/97
- Sectionable, soundproof plastic duct.
- Exhaust and supply grilles

All the units, conforming to the European directives, are provided with the CE marking and the relative certificate of conformity.

Field of use

Kers Evo units are designed to perform the following functions in each individual room:

- Provide fresh air, drawn from outside the building, with a flow rate of up to 50 m3/h of fresh air.
- Recover up to 97% of the heat from the stale air extracted from the rooms to heat (in winter) and cool (in summer) the new air, before releasing it into the environment, with significant energy savings.
- Filter air coming from outside and air extracted from the locals.

The units are designed for use in residential construction, and in particular to ventilate rooms for which it is not considered useful to install centralized systems.

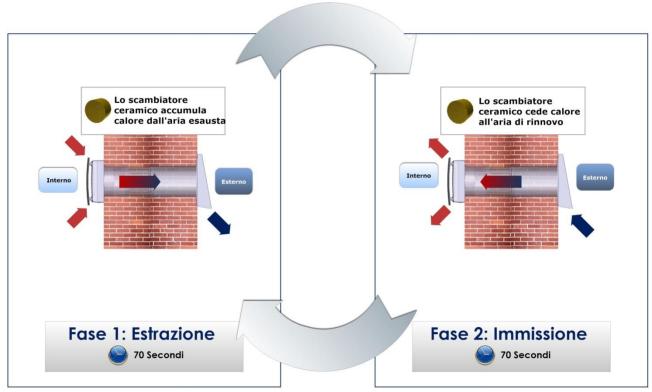
They can be installed through walls and are therefore particularly suitable for the recovery and partial renovation of rooms in which mold forms due to insufficient ventilation.

The maximum air flow rate of each unit is 50 m3/h. Since they operate in alternating mode (50% of the time in extraction and 50% in injection), the effective exchange rate is 25 m3/h.

The Kers 50 Evo recuperators provide air exchange in rooms with a floor area of up to 18 square meters, while the Kers 25 Evo recuperators serve up to 9.2 square meters (calculated considering an air renewal rate of 0.5 vol/h and an internal room height of 2.7 m).



Operation modes



The machine is equipped with a fan with EC motor with energy recovery, able to reverse the air flow inside the recuperator, it works in two phases:

Step 1:

The fan extracts the hot air from the room and sends it outside, through the recuperator. This cools the air and retains the heat in it.

Step 2:

The fan reverses the flow and draws in cool air from outside. This, in contact with the recuperator, heats up before entering the room.

The remote control, as standard, allows you to select:

- Manual speed.
- The threshold of the desired relative humidity.
- The operation mode (automatic, input only, eject only)
- Nighttime attenuation at super minimum speed.
- Power on and off

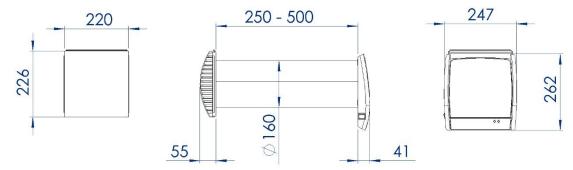
From the buttons on the device you can:

• Turn the unit on and off.

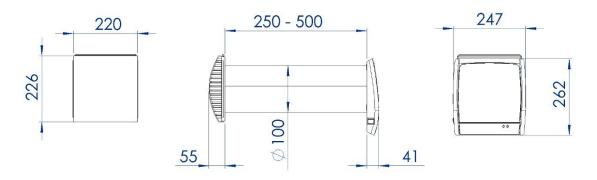


Technical drawing

Kers 50 Evo



Kers 25 Evo



Technical Data

Description Code		KERS 50 Evo single-room recuperator with remote control VRKS51	KERS 25 Evo punctual recuperator with remote control VRKS26			
Air flow rate at maximum speed	mc/h	50	25			
Air exchange	mc/h	25	12.5			
Efficiency of ceramic recuperator	%	Up to 97%	Up to 97%			
Noise level at maximum speed (at 1m)	dB(A)	30	37			
Noise level at maximum speed (at 3 m)	dB(A)	25	33			
Noise level at minimum speed (at 1m)	dB(A)	20	33			
Noise level at minimum speed (at 3 m)	dB(A)	11	28			
Noise level at super low speed (at 3 m)	dB(A)	9	13			
Treated air temperature	°C	-20 / + 50				
Electric power consumption vel. max	W	5.2	5.4			
Electric current absorbed vel. max	Α	0.031	0.032			
On-board filters	-	2				
Filtration class EN 779		G3 (optional F7)				
Power	V/ph/Hz	230/1/50				
Protection	-	IP 24				



Capacity table Kers Evo

			KERS 50 Evo single-room recuperator with remote control	KERS 25 Evo single-room recuperator with remote control
		υ.m.	-	
	Supply/extract flow rate	m3/h	50	25
Speed III	Effective exchange rate	m3/h	25	12.5
	Supply/extract flow rate	m3/h	30	15
Speed II	Effective exchange rate	m3/h	15	7.5
	Supply/extract flow rate	m3/h	15	10
Speed I	Effective exchange rate	m3/h	7.5	5
Acoustic atte	enuation of outside noise when the d	dB(A)	42	42

<u>Item specifications</u>

VRKS51 - KERS 50 Evo single-room heat recovery ventilation unit with remote control

Single-room heat recovery ventilation unit, to be inserted in perimeter walls, with ceramic exchanger with hexagonal cells with very high efficiency of 97%, able to treat a maximum flow rate of 50 mc/h of air alternatively in input and in extraction, for an internal volume that can be served up to 50^{m3} . Features windproof snap closure. Sound pressure at 3 m less than 21 dB according to UNI EN ISO 3746:1997, sound attenuation of external noise of 42 dB, energy-saving EC motor, power consumption less than 6 W. Supplied with remote control.

VRKS26 - KERS 25 Evo punctual recuperator with remote control

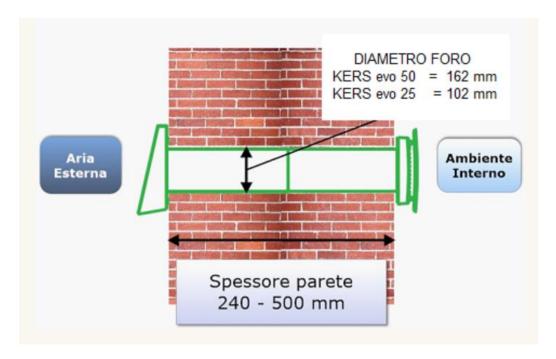
Single-room heat recovery unit, to be inserted in perimeter walls, with ceramic exchanger with hexagonal cells with very high efficiency up to 97%, able to treat a maximum flow rate of 25 mc/h of air alternatively in input and in extraction, for an internal serviceable volume up to 25^{m3} . Quietness lower than 29 dB according to UNI EN ISO 3746:1997, acoustic attenuation of external noise of 42 dB, energy-saving EC motor, power consumption less than 6 W, supplied with remote control with humidity control.

<u>Installation Diagram and Charts</u>

To install the recuperator it is necessary to make a through hole in a wall in contact with the external air with the diameter indicated in the figure, the duct can be adapted to the actual thickness of the wall. Only 230 V power supply is required. Adjustment is done with the onboard pop-up buttons or with the included remote control.



Installation requirements Kers Evo



It is possible to connect to Kers a straight section of pipe with a nominal diameter of 160 mm and a maximum permissible length of 3 meters.

Installation from inside using flexible grids

For the installation of grilles on inaccessible external walls, special flexible grilles for Kers Evo are available as accessories, which allow the installation of the device completely from the inside. The codes are as follows:

CODE	DESCRIPTION
VTGF01	FLEXIBLE EXTERNAL GRILLE FOR KERS 25 WHITE
VTGF02	FLEXIBLE EXTERNAL GRILLE FOR KERS 25 COPPER COLOR
VTGF03	FLEXIBLE EXTERNAL GRILLE FOR KERS 50 WHITE
VTGF04	FLEXIBLE EXTERNAL GRILLE FOR KERS 50 COPPER COLOR



Warnings



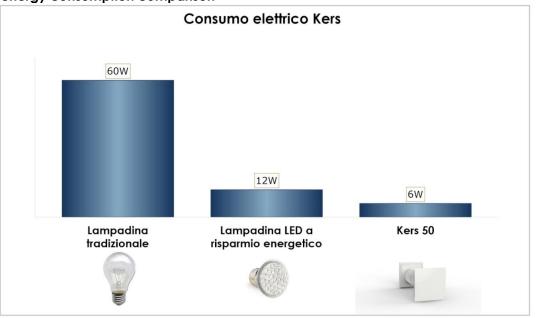
There is a risk during installation that the grille will fall to the outside. Make sure that this eventuality does not cause damage to people or property by fencing off the area outdoor if necessary.



The outdoor hood and its support supplied with the appliance should not be used if you opt for flexible grilles.



Kers Evo energy consumption comparison

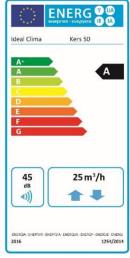


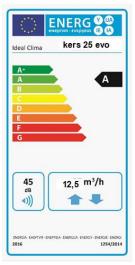
Data for ENERGY LABEL purposes

Data for ENERGY LABEL purposes							
Brand		Ideal Clima					
Model		VRKS51					
Specific Energy Consumption (SEC),		Cold		Tempered		Hot	
	kWh/(^{m2} .a)	-86.5	Α+	-41.8 <i>A</i>	4	-16.0	Ε
Type of ventilation unit		Bidirectional					
Installed drive type		Multiple Speeds					
Type of heat recovery ventilation		Regeneration					
Efficiency Δt 13°C [ηt]	%	80,4					
Maximum flow rate	m3/h	25					
Electrical power consumption,	W	6					
Sound Power Level,	dB(A)	45					
Reference flow rate,	m3/s	0,0048					
Reference pressure difference,	Ра	0					
Specific power input (SPI),	W/(m3/h)	0,277					
Type of control		Local Environment Control					
Maximum internal leakage	%	2,7%					
Maximum external leakage	%	2,7%					
Mixing rate of bidirectional units, %	%	1%					
Airflow sensitivity variations of +20 Pa	m3/h	0.41					
and -20 Pa		0,41					
Indoor/outdoor air tightness,	m3/h	0,49					
Internet address		www.idealclima.eu					
Annual electricity consumption	kWh electricity/a						
(AEC), per 100 sqm		1,9					
Annual Heating Savings (AHS),	kWh primary	Cold		Tempered	b	Ho [.]	
Allibar Healing Savings (Alls),	energy/sq.a	90,4		46,3		21,0)



Brand		ldeal Clima				
Model		VRKS26				
Specific Energy Consumption (SEC),		Cold		Tempered	Hot	
	kWh/(^{m2} .a)	-77	A+	-40 A	-16.0 E	
Type of ventilation unit		Bidirectional				
Installed drive type		Multiple Speeds				
Type of heat recovery ventilation		Regeneration				
Efficiency Δt 13°C [ηt]	%			83		
Maximum flow rate	m3/h	12,5				
Electrical power consumption,	W	4				
Sound Power Level,	dB(A)	45				
Reference flow rate,	m3/s	0,0024				
Reference pressure difference,	Ра	0				
Specific power input (SPI),	W/(m3/h)	0,322				
Type of control		Local Environment Control				
Maximum internal leakage	%	2,7%				
Maximum external leakage	%	2,7%				
Mixing rate of bidirectional units, %	%	1%				
Airflow sensitivity variations of +20 Pa and -20 Pa	m3/h	0,41				
Indoor/outdoor air tightness,	m3/h	0,45				
Internet address		www.idealclima.eu				
Annual electricity consumption	kWh electricity/a					
(AEC), per 100 sqm	,	1,9				
Annual Heating Savings (AHS),	kWh primary	Со	old	Tempered	Hot	
Armodi Healing Savings (Ans),	energy/sq.a	87	7	44	20	





The data and information shown is compiled with the utmost care. Ideal Clima S.r.l. reserves the right to make any changes deemed necessary for the improvement of its products, and to the information and technical data reported, at any time and without notice. We disclaim any responsibility for typographical errors, omissions or inaccuracies. For the verification of data relevant to projects or realizations, please contact Ideal Clima Technical Office directly.