KERS 50
SINGLE-ROOM HEAT RECOVERY UNIT WITH REMOTE CONTROL

CE 16

USER & INSTALLATION MANUAL

READ THIS MANUAL CAREFULLY BEFORE USING THE UNIT

INDEX

1. INTRODUCTION

This manual indicates the intended use of the unit and provides instructions for transportation, installation, mounting, setting and use the unit. It provides information regarding maintenance, spare parts order, staff education and residual risks.

The user and maintenance manual must be read and used as follows:

- Each operator involved in the use and maintenance of the unit must read this manual completely and carefully and respect what it is reported;
- The employer is obliged to ensure that the operator meets the requirements for the conduct of the units and has taken careful note of the manual; the employer must also inform the operator about the risks of accidents and in particular about the risks from noise, on provided personal protective equipment and on general safety rules by laws or international standards of the country of destination;
- The manual must always be available to users, managers, those responsible for transportation, installation, use, maintenance, repair and decommissioning;
- Keep the manual protected from humidity and heat and treat it as an integral part of the unit for its entire duration, take it to any other user or successive owner of the unit;
- Make sure that any update received is enclosed in the text;
- Do not damage, remove, tear or rewrite for any reason the manual or parts of it; if it is lost or partially ruined and you can no longer read its content is recommended to request a replacement to the manufacturer indicating the serial number of the machine.

Pay attention to the following symbols. Their function is to emphasize essential information like:

With reference to serious and dangerous situations that may occur with the use of the unit to ensure persons safety.

With reference to dangerous situations that may occur with the use of the unit to prevent damage to property and to the unit itself.

With reference to additional information or suggestions for proper use of the unit.

The manufacturer has the right to update products and manuals, without any obligation to update previous versions, except in particular cases.
This manual reflects the technical knowledge available at the time of commercialization of the unit and cannot be considered inadequate only because later updated according to new technologies.
To require updates or addition to the user manual, which shall be considered an integral part of the manual, forward the request to the contact details found in this manual.
Contact the manufacturer for further information and for any proposals to improve the manual.
The manufacturer asks, in case of transfer of the unit, to indicate the address of the new owner so to facilitate the transmission of any new additions of the manual to the new sender.

1.2 LIABILITY

The unit is guaranteed in accordance with the contractual arrangements at the moment of the sale.
The manufacturer is exonerated from any liability and obligation and will cancel the form of guarantee provided in the contract of sale for any accident to persons or property that may occur due to:

- Non-compliance of the instructions present in this manual regarding the management, use, maintenance and incidents extraneous to the routine and proper use of the unit

- Modifications made to the unit and to safety devices without prior written permission of the manufacturer;
- Attempted repair on their own or by not authorized people ;
- Missed periodic and constant maintenance or use of non-original spare parts.

In any case, should the user impute the incident to a defect of the unit, it will have to prove that the damage has been a major and direct consequence of this "defect".

1.3 STANDARD OPERATIONAL RULES

Service standards described in this manual are an integral part of the supply of the unit.
These rules are intended to the operator already instructed expressly to conduct this type of device and contain all the information necessary and indispensable for a safe and optimum use of the unit.
Hasty and patchy installations forcing to improvisation and this is the cause of many accidents.

Carefully read and strictly observe the following suggestions:

- **the first start-up must be made by qualified staff authorized by the manufacturer;**

- during installation or when you need to work on the unit, you must strictly follow the rules reported on this manual, observe the indications on-board units and take any necessary precautions;
  - accidents to persons and property can be avoided by following these technical instructions compiled with reference to Directive 2006/42 / EC and subsequent amendments. In any case always observe national safety regulations;
  - do not remove or damage protections, labels or notices, especially those required by law and, if no longer readable, replace them.

All operators must comply with the international regulations and of the destination country of the unit in order to avoid possible accidents.

The European Community has issued some guidelines concerning the safety and health of workers, among which include the directives 89/391/CEE, 89/686/CEE, 89/654/CEE, 89/655/CEE, 89/656/EEC, 86/188/EEC, 92/58/EEC and 92/57/EEC that each employer has the obligation to respect and make them respected.
The units have been designed and constructed according to the present state of the art and of the rules of the art.
Has made compliance with the laws, rules, regulations, ordinances, guidelines in force for such machines.
The materials used and the parts of equipment, as well as production, quality assurance and control procedures meet the highest requirements of safety and reliability.
Using them for the purposes specified in this user manual, with due diligence and perform accurate maintenance and revisions, you can maintain continuous and sustained performance and functionality of the unit.

1.4 OPERATIONS AND MAINTENANCE

The user manual can never replace proper and adequate experience; some maintenance jobs are particularly difficult, this manual is a reminder of the main activities to be performed by personnel with proper training, for example by attending training courses from the manufacturer.

Carefully read the following suggestions:

- A constant and careful preventive maintenance will always ensure a high operating safety of the unit. Never postpone necessary repairs and have them performed only by qualified personnel, using only original spare parts;
- Any work on the unit must be made by qualified personnel;
- Before carrying out any work or maintenance on the unit, make sure to remove the power supply;

- Make sure that safety devices are working properly and that you have doubts about how they work; otherwise not start in any case the unit;
- Use only tools specified from the manufacturer. To avoid injury, do not use tools worn or damaged, poor quality or improvised;

- Once made the cleaning unit, the operator must check that no parts are worn, damaged or not firmly attached, otherwise request the intervention of the maintenance technician;

- It is forbidden to use flammable fluids for cleaning operations

To clean the unit does not use diesel, petrol or solvents as the first leave an oily film that causes dust adhesion while solvents (even if weak) damage the paintwork. If a water jet gets inside the electrical devices in addition to oxidize the contacts, it can cause a malfunction. For this reason never use water or steam jets on sensors, connectors or any electrical part.

1.5 USE

KERS units are room by room heat recovery, to be installed in the wall, allowing to ventilate a room without channeling and without loss of heat by the emission of exhaust air.

Its use is recommended within the operating limits shown in this manual.

Place the unit in rooms where there is no danger of explosion, corrosion, fire and where there are vibrations and electromagnetic fields. It is also forbidden to operate in a different way from that described or to neglect the illustrated safety tasks.

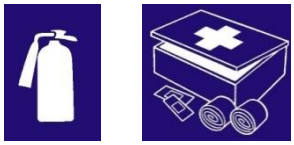
1.6 GENERAL SAFETY RULE

Use appropriate protective clothing

All operators must use personal protective equipment such as gloves, hard hat, eye goggles, accident prevention shoes and ear defenders against noise.

Fire extinguisher and first aid kit

Place a first aid kit and a fire extinguisher near the unit.
Regularly make sure that extinguishers are charged and that it is clear the usage mode.
In case of fire use in accordance with regulations and contact the fire department.
Periodically check that the first aid kit is complete.
Make sure you have nearby telephone numbers for first aid.



The fire extinguisher and first aid kit is responsibility of the owner on which you install the unit.

Warnings for checks and maintenance

Apply a sign "MAINTENANCE WORK" on all sides of the unit.
Carefully check the unit by following the list of operations described in this manual.

Cleaning instructions

- Do not use flammable liquids for cleaning purposes.
- Do not clean with oily products as the residue will cause to stick to the unit.
- Do not clean with solvents will cause damage to paintwork
- Do not use water or steam jets on sensors, connectors or any electrical components

Safety labels


Danger


High voltage


Do not touch


Moving parts


Risk of getting cut

2. PRODUCT DESCRIPTION

KERS fresh air recovery unit is designed to arrange permanent air exchange in flats, cottages, offices, hotels, cafes and other residential and public premises.
The unit is equipped with a ceramic heat exchanger that provides extract air thermal energy utilization for warming up of supply air. The total unit heat recovery efficiency reaches 91%.
The unit is designed for through-the-wall mounting.
The unit telescopic structure makes it suitable for installation in the walls from 240 mm up to 500 mm.
Telescopic ducts allow to overcome bigger wall thickness (see paragraph 9.5).
The low air velocity avoids troublesome currents present in conventional air conditioning systems and guarantees maximum environmental comfort.

The exclusive use of components of the highest quality and electrical parts puts KERS units at the highest levels of the state of the art, in terms of efficiency, reliability and reduced noise levels.

2.2 STRUCTURE AND OPERATING LOGIC

The unit is composed of a ventilation unit, a heat exchanger, two filters, an outer protection hood and an outdoor sound insulating duct.
The duct and the outer insulation can be cut according to the size of the wall.
The two filters and the ceramic core are inserted into the duct. The filters purify the air and prevent dust or other bodies from entering the room or damaging the heat exchanger or the fan.

The unit is equipped with a non-volatile memory timer, which reports every 90 days of operation the opportunity to check the filters, through a LED, located on the right side of the unit. Once the filters are replaced or cleaned, the LED remains off for another 90 days of operation.

The hexagonal cells heat exchanger recovers the heat from the exhaust air in order to heat up the fresh air coming from outdoor into the room. The ceramic core is equipped with a cord that allows its extraction from the unit is wrapped in insulating and air-sealing material.

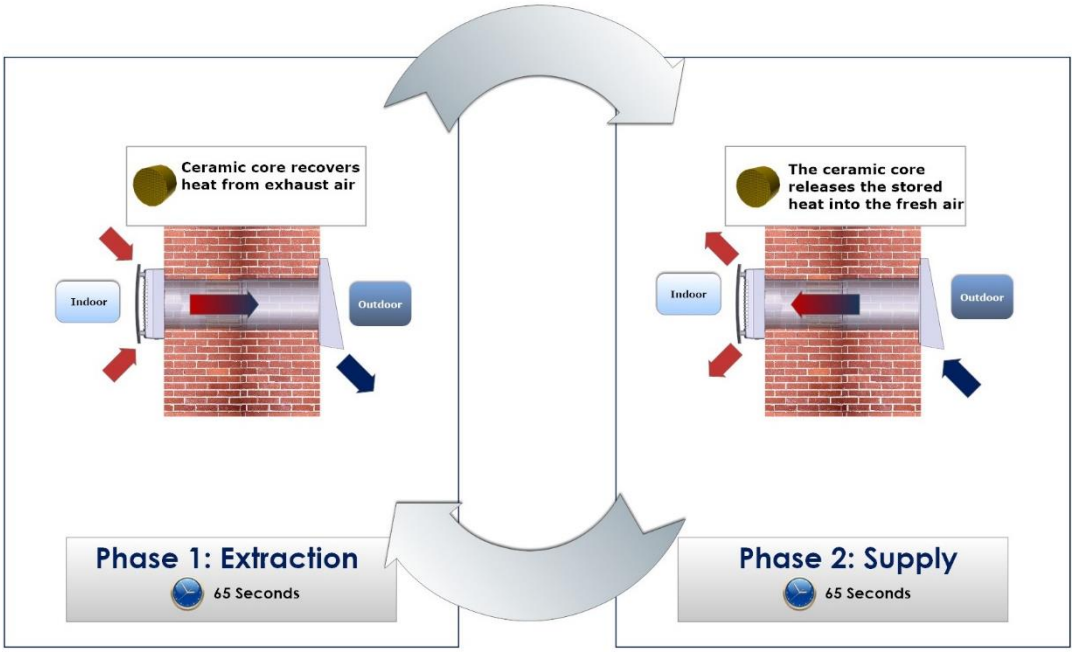
A louver closes automatically when the unit is in stand-by mode, to prevent unwanted draughts.
It is also possible to manually close the cover, as additional insulation to air, such as during holidays.
The ventilation unit must be installed in places where it is not possible the entrance of water or other substances that could damage its components.

KERS can operate in three modes:

Extract mode: the unit operates continuously in extraction
Supply mode: the unit operates continuously in supply
Heat recovery mode: the unit operates alternately in two phases (supply and extraction) each 65 seconds long.

Phase 1 - stale and hot air is extracted from the room. While flowing through the heat exchanger ceramic, heats it. So it moved up to 97% of the thermal energy. In 65 seconds the heat exchanger is heated and the unit switches to the second phase.

Phase 2 - the fresh air from the outside flows through the heat exchanger ceramic that heats the air to room temperature. In 65 seconds the ceramic exchanger cools and the unit switches to "Phase 1".



2.3 OPERATING LIMITS

The fan must only be used for indoor applications, with room temperature between -30° and +50° c, with relative humidity below 97%.

3. OPERATION OF MORE UNITS CONNECTED TO EACH OTHER

When in a room more than one KERS is installed, their operation should be placed in sync so as not to generate pressure imbalances in the environment. The devices must be connected in series between them (see section: electrical connection), so that when half of them works in extraction (phase 1), the other half work in supply (phase 2).
By connecting them in series, only one remote control which operates on the first device ("Master"), can control all the KERS installed in sync. Also units that operate in separate rooms can be connected in series, on condition that they have similar requirements between them and can be controlled by the same remote controller. Up to 10 KERS units can be linked in this way.

4. ELECTRICAL CIRCUITS

4.1 ELECTRICAL EQUIPMENT

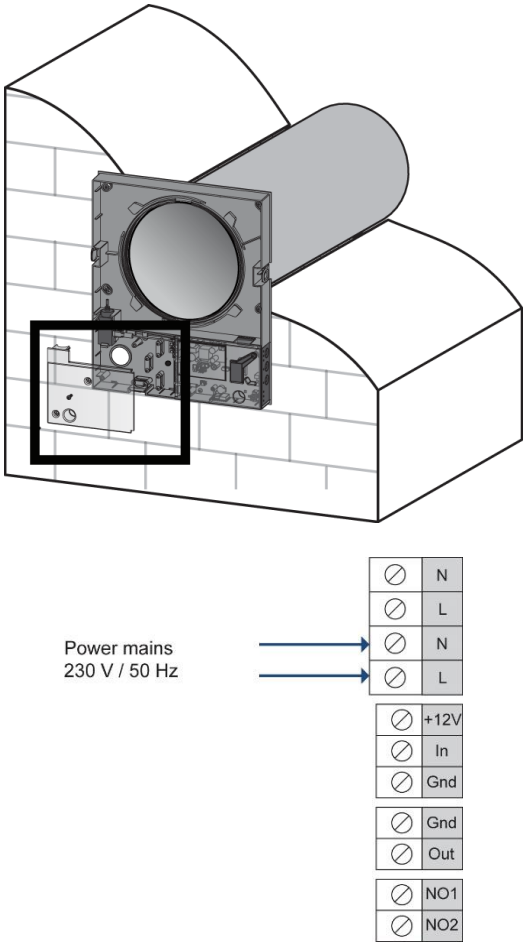
The board is constructed and wired in accordance with "Low Voltage" and EMC directive.

The fans, equipped with EC reversible and low-power motors, adjustable between 3.6 W and 5.2 W are extremely quiet. Once the fan is installed in the properly prepared opening (see section 9.4), connect to a power source (230 V AC 50 Hz).

4.2 WIRING DIAGRAM

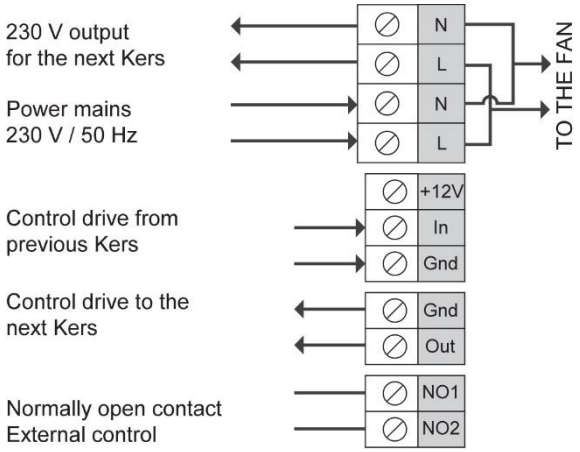
CONNECTION OF A SINGLE UNIT

The terminal block is protected by a transparent cover as shown in the figure. To access the terminal block see also section 7.2 of this manual.



The unit is built to work with AC single-phase 230 V/50 Hz.
To power the device use copper cables with a section between 0.5 mm² and 0.75 mm². Place upstream a circuit breaker with a higher nominal current than required by the device (see technical data table).

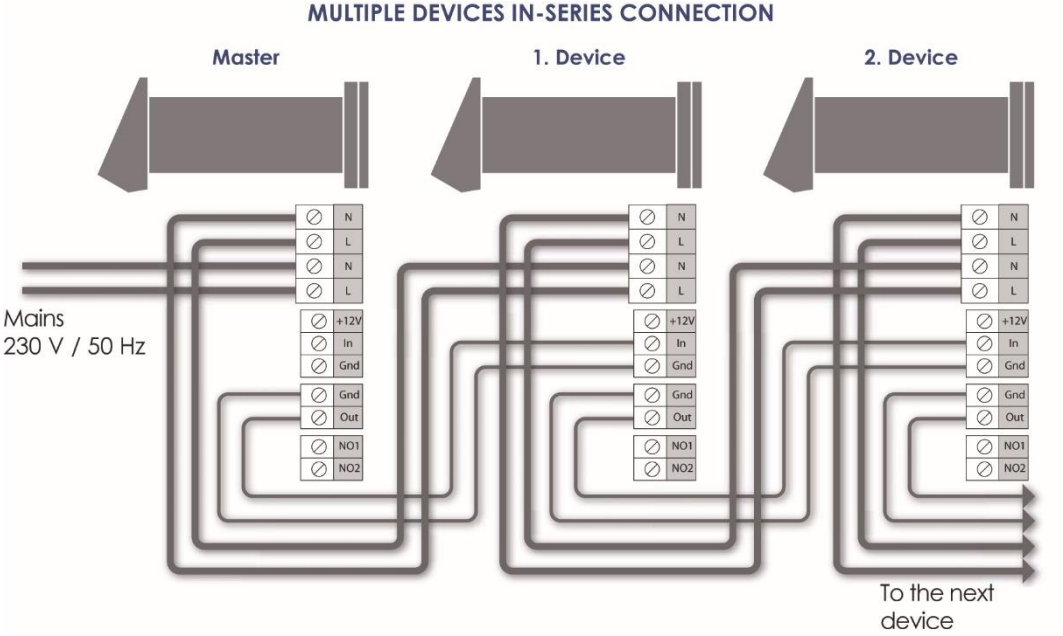
WIRING CONNECTION IN SERIES OF SEVERAL KERS (max. 10)



To power the devices (230V single phase 50 Hz) use used copper wires with a section between 0.5 mm² and 0.75 mm². For the control wiring, a shielded 0,25 mm2 will be enough.

Place upstream a circuit breaker with a higher nominal current than the sum of that required by all the devices (see technical data table).

When multiple KERS are connected in series, all are managed from the first one (master) and its on board switches or remote control. To connect in series the units together, connect the "output" terminal of the first KERS to the terminal strip "input" of the second KERS. In the same way connect the second Kers to the next and so on, up to a maximum of 10 units.



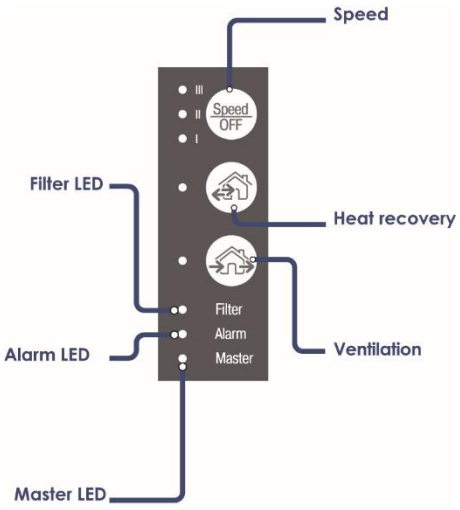
The first unit KERS (master) controls all the others. The units must be set in a way that half of them begin their cycle in extraction, and the other half in supply phase, this way the rooms will not be subject to air pressure imbalances. A series of dip-switch, located under the rubber end cap, allows to set such phases. (See chapter "setting DIP-switch").

5. ON BOARD SWITCHES AND REMOTE CONTROL

The unit can be controlled with the on-board switches or with a remote control.

5.1 ON BOARD SWITCHES

Switches on the unit are located on the right side of the device. If you have installed multiple Kers, only the first ("master") accepts the commands, either by switches or by remote control.
Control switches are capacitive type, so you will not need to push them.



The speed button is used to change the speed or to turn off the device. With repeated taps you pass, in sequence, from minimum speed, average speed, maximum speed, to the appliance is switched off. Three tiny LEDs next to the button will give feedback about which speed the unit is operating at.

The recovery button activates an intermittent ventilation with heat recovery, visual confirmation is given by the LED next to the button.

The ventilation button activates continuously the ventilation in only one direction (supply or extraction). The direction is determined by the position of the dip-switches (see next chapter). The selection confirmation is given by the LED next to the button.
Note: In this mode no heat recovery will take place.

The LEDs have the following meaning:
Filter: this LED turns on every 90 days and indicates the need to check the filters. For more details on how to clean or replace the filters, refer to the maintenance section. If multiple devices are connected in series and one of them requires the replacement of filters, the master unit LED will remain lit while the affected device LED will blink. This LED goes off as soon as the filters will be replaced.

Alarm: this LED, if on, indicates an internal fault in the device. If multiple devices are connected in series and one of them has a failure, the master device LED will remain on while the affected device LED will blink.

Master: this LED, if it is on, indicates that the device is deployed as master within a set of devices connected in series.

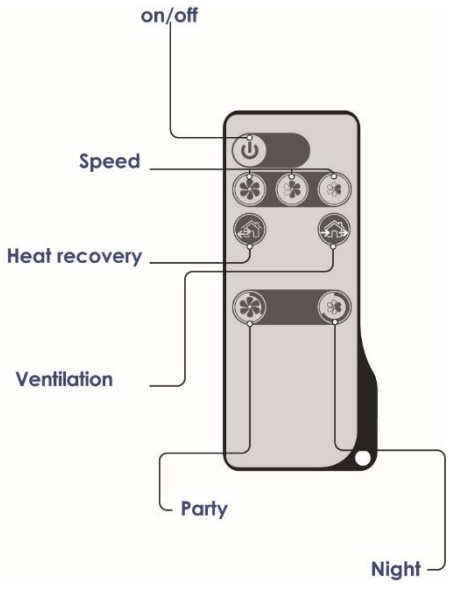
When all three LEDs are blinking together, it means that humidity-based control was activated through dip-switch setting (see also par. 5.3 - DIP SWITCH SETTING), and that the set humidity threshold was reached. During this time Kers will operate at maximum speed and it will not be possible to change the speed either from remote or from on-board buttons. Once room humidity is below the set threshold, Kers will revert to the previously set speed.

5.2 REMOTE CONTROL

The operating distance of the remote control may be affected by the environment in which it operates.

Control capabilities of the remote control:

- **"ON-OFF" button:** it turns on and off the unit. N.B. you can turn the unit on and off only when the appropriate dip has been correctly set on the machine. For more details, refer to the section "setting of the dip."

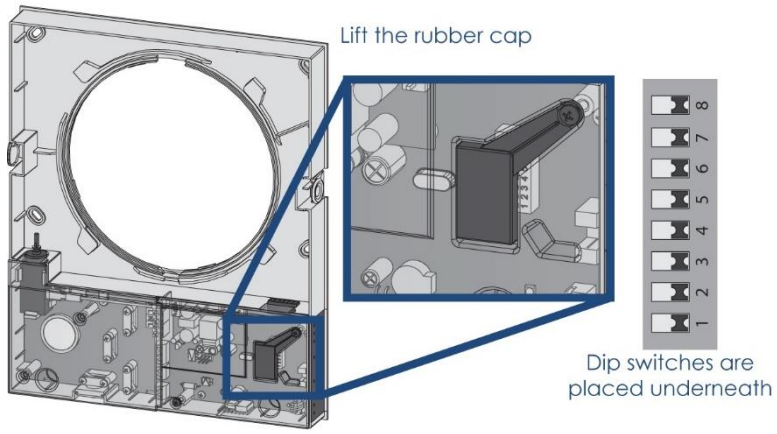


- **Speed selection button**: three buttons allow you to change the fan speed (and its flow). The button with the darker fan activates the highest speed, and vice versa.
- **Ventilation button**: the device operates in fan mode only. The air flow direction (supply or extraction) is determined by the location of the dip two (by default the unit operates in extraction).
- **Heat recovery button**: it enables the heat recovery. The unit operates for 65 sec in supply and for 65 seconds in extraction. The heat recovery system recovers the energy in sequence from the exhaust flow into the fresh air supply flow.
- **Button party**: the device keeps the maximum speed for four hours. After this time, it goes back to the previously set speed. To disable this function, press any of the three speed buttons.
- **Night button:** the device will operate at minimum speed for eight hours, after which it will return to the previously set speed. To disable the function, press any of the three speed buttons

Make sure the remote control is properly powered before the use (charged batteries, free and clean contacts). The remote control should not be affected by interferences or external EMC noise. The operating range depends on the external conditions, the level of charge of the batteries and the distance from the unit.

5.3 DIP SWITCH SETTING

The operation mode of the unit can be changed by acting on the dip switches located on board of the device. To access to these switches, please remove the front panel and lift the rubber cap covering them.



The meaning of each dip-switch is the following:

Dip-switch 1: Possibility to turn off the unit (public buildings)

Position	Description
	**Turning the ventilator off is allowed** The speed switch position can turn off the fan.
	**Turning the ventilator off is not allowed** The speed switch cannot turn off the fan altogether, it is only possible to go from min. speed up to max. speed.

Dip-switch 2: Airflow direction

Position	Description
	**Air supply** This positioning of the switch enables supply operation of the ventilator in Ventilation mode. In heat recovery mode, the fan starts operating first in supply mode.

	**Air extraction** This positioning of the switch enables extract operation of the ventilator in Ventilation mode. In heat recovery mode, the fan starts operating first in extract mode.

To prevent pressure imbalances in a room, the sequence for the KERS in series can be for example the following: first KERS = switch to the right; second KERS = switch left; third KERS = switch to the right; fourth KERS = switch left, and so on.

Switch 3/4/5: Humidity based control

The unit can also work to keep humidity below a certain preset level. This mode is especially useful in all those rooms where there is no permanent occupation but that may have mold problems due to excessive moisture. In this case you will get a ventilation focused on solving or preventing the problem with the least electricity consumption.
To enable this mode, you must use the dip switch 3/4/5 by setting the humidity threshold. The unit continuously measures the humidity of the air extracted from the environment and if it exceeds the set humidity value, it will activate the maximum speed. When the room humidity has dropped below the set value, the device will return to the previously set speed. Before returning to the preset speed, a delay can be set with the dip switch 6 and 7.

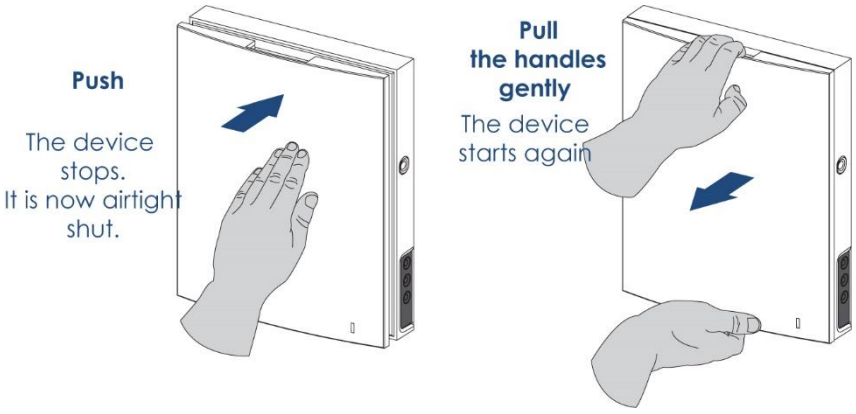
Position	Description
	Humidity sensor is disabled
	Humidity setpoint at **40%**
	Humidity setpoint at **50%**
	Humidity setpoint at **60%**
	Humidity setpoint at **70%**
	Humidity setpoint at **80%**

Dip-switch 6/7: Setting of delay in regulation based on the ambient humidity

Posizione	Description
	No delay
	The unit waits for **5 minutes** before returning to the previously set speed
	The unit waits for **15 minutes** before returning to the previously set speed
	The unit waits for **30 minutes** before returning to the previously set speed

5.4 AIRTIGHT SEALING OF THE UNIT

During periods of inactivity, for example during holidays, you can seal the device and avoid any possible draft: gently press the front towards the wall. Once closed the unit will turn off automatically.
To open the front panel gently pull it towards you, acting on the handles that are located at the top and bottom of the device. Once the front panel is opened, the device will reactivate the ventilation at the previously set speed



6. TECHNICAL DATA

6.1 MAIN TECHNICAL DATA

Description		**KERS 50 heat recovery ventilation unit with remote control**
Codice		**-**
Air flow at maximum speed	mc/h	50
Air exchange	mc/h	25
Heat recovery efficiency	%	Fino a 97%
Noise level at maximum speed (at 1m)	dB(A)	30
Noise level at maximum speed (at 3 m)	dB(A)	21
Noise level at minimum speed (at 1m)	dB(A)	20
Noise level at minimum speed (at 3 m)	dB(A)	11
Temperature working range	°C	-20 / + 50
Electrical power consumption – max speed	W	5.2
Electrical Current– max speed	A	0,031
On board filters	-	2
Filter class EN 779		G3 (F7 as optional)
Power	V/ph/ Hz	230/1/50
Protection	-	IP 24

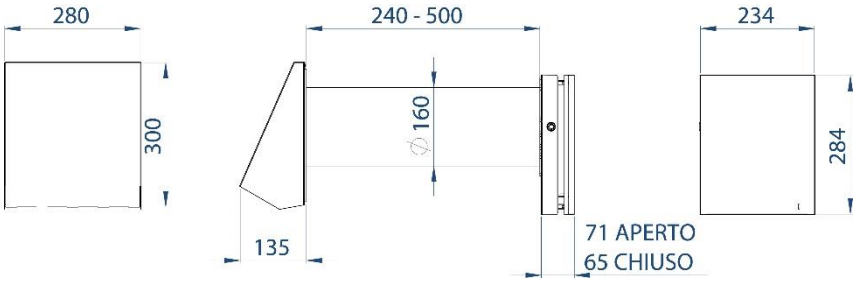
Table of flow rates and acoustic performance of Kers

			Recuperatore KERS 50
		u.m.	**-**
Speed III	Air flow in supply/extraction	m3/h	50
	Air exchange rate	m3/h	25
	Noise level at 1 m	dB(A)	30
	Noise level at 3 m	dB(A)	21
Speed II	Air flow in supply/extraction	m3/h	30
	Air exchange rate	m3/h	15
	Noise level at 1 m	dB(A)	27
	Noise level at 3 m	dB(A)	18
Speed I	Air flow in supply/extraction	m3/h	15
	Air exchange rate	m3/h	7,5
	Noise level at 1 m	dB(A)	20
	Noise level at 3 m	dB(A)	11
Acoustic insulation of outdoor noise (fan off)		dB(A)	42

6.2 ENERGY LABEL DATA

Trade mark		**Ideal Clima**					
Model		**VRKS50**					
Specific energy consumption **(SEC)**,		Cold		Average		Warm	
	kWh/(m².a)	-86,5	A+	-41,8	A	-16,0	E
Type of ventilation unit	-------	Bidirectional					
Type of drive installed	--------	Multi-speed					
Type of heat recovery system	---------	Regenerative					
Thermal efficiency Δt 13°C **[ηt]**	%	90%					
Maximum flow rate	m³/h	25					
Electric power input	W	6					
Sound power level	dB(A)	45					
Reference flow rate	m³/s	0,04					
Reference pressure difference	Pa	0					
Specific power input **(SPI)**	W/(m³/h)	0,28					
Control typology	-------	Local demand control					
Maximum internal leakage rates	%	2,7%					
Maximum external leakage rates	%	2,7%					
Mixing rate of bidirectional units	%	1%					
Airflow sensitivity at +20 Pa and -20 Pa	m³/h	0,41					
The indoor/outdoor air tightness	m³/h	0,49					
Internet address	-------	www.idealclima.eu					
The annual electricity consumption for 100m² **(AEC)**	kWh electricity/a	1,9					
The annual heating saved **(AHS)**	kWh primary energy/m².a	Cold		Average		Warm	
		90,4		46,3		21,0	

6.3 DIMENSIONS



7. AFTER SALES & MAINTENANCE

7.1 TROUBLESHOOTING

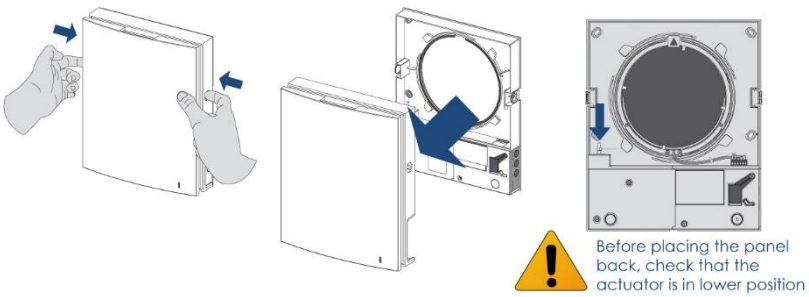
On the following pages the most common reasons are reported that may cause the unit to stop or to operate incorrectly. The subdivision is made according to easily identifiable symptoms.

NR	FAILURE	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
1	The unit does not start	No power supply to the unit	Verify its presence in power terminals
		The motor is blocked and impeller is clogged	Turn off the unit. Solve the jam motor, clean the propellers. Restart the unit
2	Insufficient air flow	It has been set a too low speed.	Choose a higher speed level
		The filter, the fan or the heat exchanger, is dirty	Clean or replace the filters, clean the fan and the heat recovery (see "maintenance" chapter).
3	The circuit breaker goes off	A short circuit has produced an overload	Turn off the unit and contact a service center
4	Vibrations and noise	The fan is dirty	Clean the fan
5	Vibrations and noise	The screws of the case or of the outer cap are loose	Tighten the screws of the unit and the outer cap.
		Deformation of the motor unit: the fan blades touch the duct.	Slightly loosen the screws

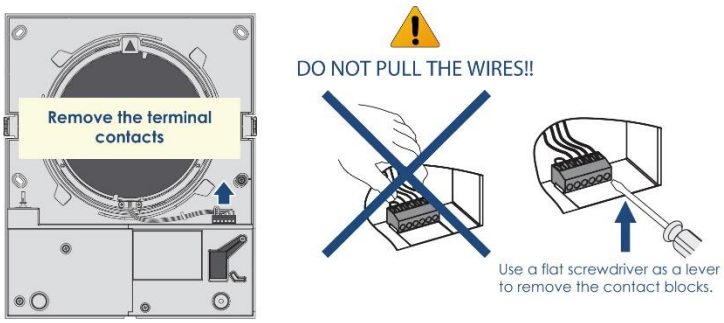
7.2 ROUTINE MAINTENANCE

Disconnect the unit from power mains before any maintenance.

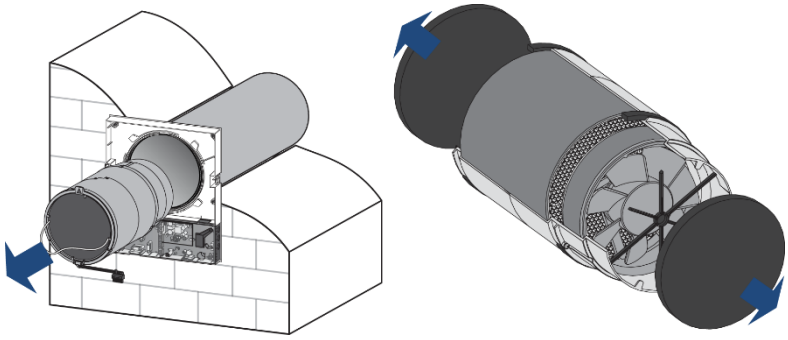
A proper operation of the unit requires regular cleaning of filters or their replacement when needed. You should also clean the fan impeller and ceramic exchanger from any dust that may accumulate over the time.
Follow these steps:
Press simultaneously on the hooks placed to the sides of the front panel and pull it gently toward you to remove it.



Disconnect the terminal box using a screwdriver. Do not pull the wires to prevent damage to the unit.
Note: Put the front panel back in position only after the actuator has retracted completely at the bottom (wait at least 5 mins).



Extract the body of the unit using the supplied string. Remove the filters from the body.



Filters cleaning

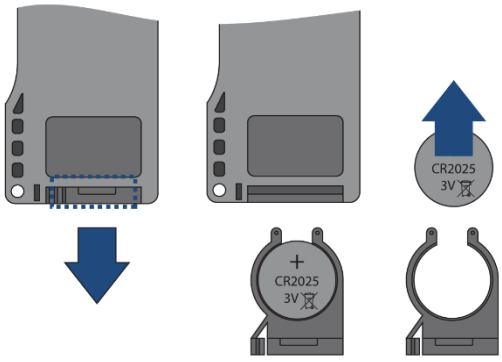
Clean the filters when needed, but in any case, not less than once in a year. An on-board LED turns on as a cleaning reminder.
To reset the filter cleaning timer, power the unit for about 10 seconds, with the green terminal block interrupted (engine disconnected and circuit board powered).
Clean the filter with water and let them dry. The filters must be reinserted only when they are completely dry. You may clean the filters with a vacuum cleaner. The filter lifespan, if properly maintained, is about three years.

Ceramic exchanger cleaning

Over time, dust may build up on the ceramic core, even with regular filters maintenance. Clean also the ceramic heat exchanger to ensure high efficiency of energy recovery. For this operation, we recommend the use of a vacuum cleaner at minimum speed.

Replacement of the remote-control battery (if necessary)

If the unit no longer responds to the remote control, you may need to replace the battery: gently slide the battery case on the back of the remote control, you can use a screwdriver. The battery type is **CR2505**.



Checking and cleaning of the outside hood
The outside hood might become clogged over time because of leaves or other objects that will reduce the airflow and consequently the performance of the unit. Check that the external hood is free from obstructions at least twice a year and clean it according to need.

8. DISPOSAL OF THE UNIT

When the unit reaches its end of life and it needs to be removed and replaced, the structure and components, if unusable, must be stripped down and recycled according to their basic components.

9. UNIT INSTALLATION

9.1 PRELIMINARY CHECKS

INSPECTION
After receiving the unit, check its integrity: the unit left the factory in perfect condition; any possible damage must be immediately claimed to the transport company and recorded on the Delivery Note before signing it.

LIFTING AND TRANSPORT
During unloading and positioning of the unit, it is highly recommended to avoid abrupt or violent handling. The handling should be performed carefully and gently, avoiding to use as strengths points the unit components.

In all lifting operations make sure you have firmly anchored the unit, in order to prevent accidental toppling or falling.

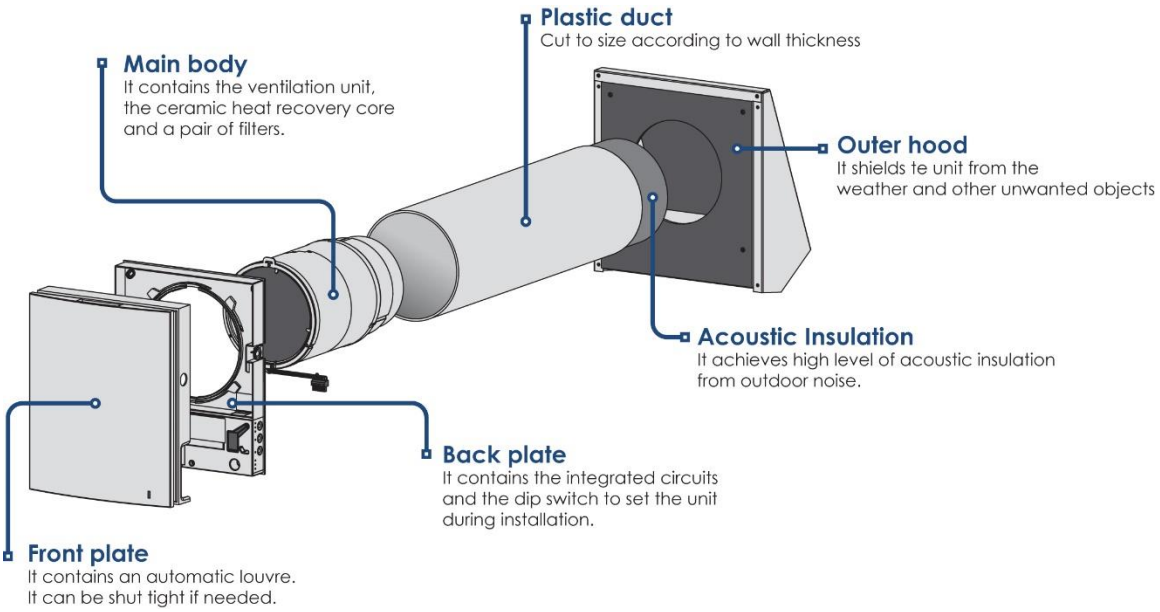
UNPACKING
The packaging unit must be removed carefully without causing damage to the unit; the materials constituting the package are different in nature, wood, cardboard, nylon etc.. It is good practice to keep them separately and deliver them to the disposal or possibly to the recycling companies responsible for this purpose and thus reduce the environmental impact.

9.2 INTENDED USE

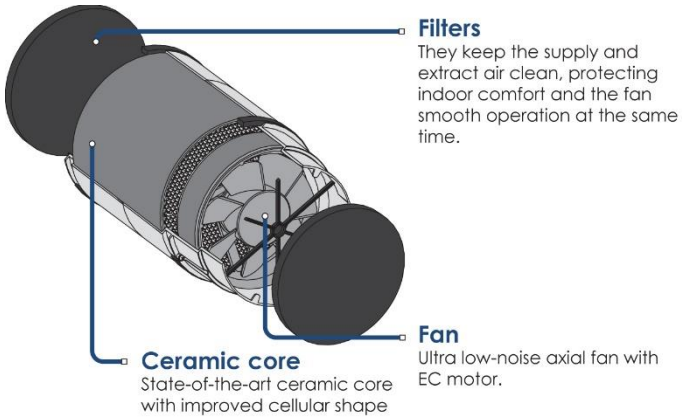
KERS models are designed and built for indoor installation.
Do not install the fan unit outside and make sure it is not exposed to weather such as rain, hail, frost and humidity.

9.3 EXPLODED VIEW OF THE COMPONENTS

Assembly drawing



Central body



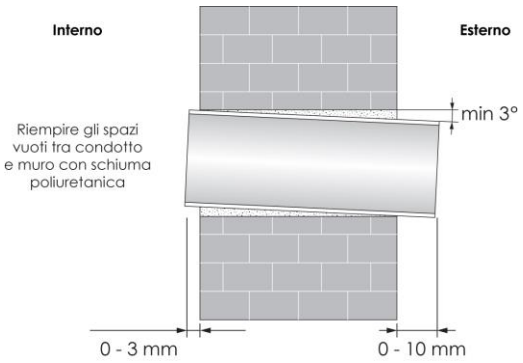
9.4 WALL MOUNTING

Hole preparation

Drill a hole through the wall with diameter min. 162 mm, inclined outwardly between 2° and 3°.

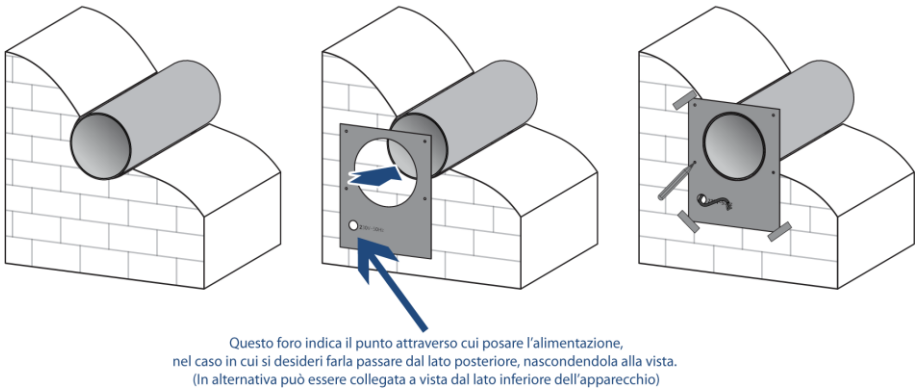
Telescopic duct insertion

When several KERS are installed in series (see separate section) it is necessary to allow for connecting wires between a KERS and the others, as well as for the power wire.
The duct must be level with the inside wall (maximum 3 mm overhang) and should protrude from the outdoor wall for up to 10 mm.
Keep an inclination towards the outside between 2° and 3° to prevent possible condensation could from flow inward.
Fill the space between the duct and wall hole with insulation material, e.g. with polyurethane foam.



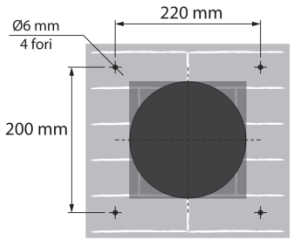
Positioning installation template

Place on the internal wall the cardboard template supplied with the unit and secure it temporarily (for example, with adhesive tape). Make sure the hole in the centre of the template is properly aligned with the plastic duct. Make sure the template is aligned, use a spirit level if necessary. You can then mark the position of the four holes to be drilled for fixing the front panel to the wall with the provided screws. A fifth hole on the template indicates the point from where the power wire can come out of the wall (if multiple devices are installed in series, control wires can go through this same hole). When used in this step, the power cord is hidden from view.
Alternatively, the power cable may enter from fairlead on the underside of the fan, but the wire remains in view.

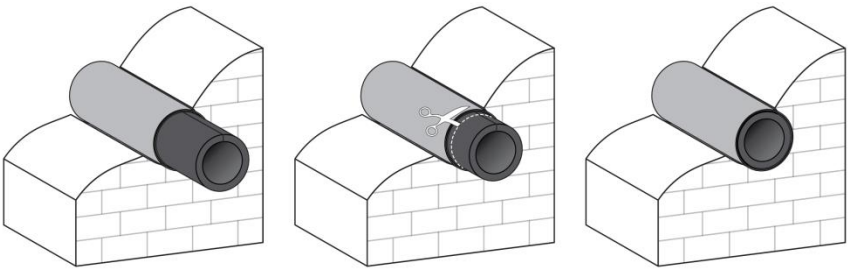


Installation of the outdoor hood and cover-hood

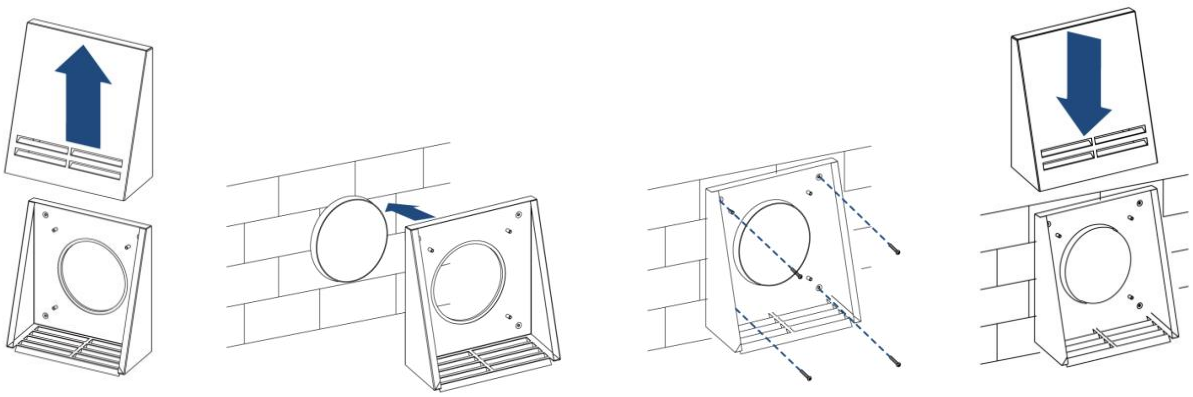
Go outdoor and perform 4 holes at least 40 mm deep, according to the distances shown in the figure:



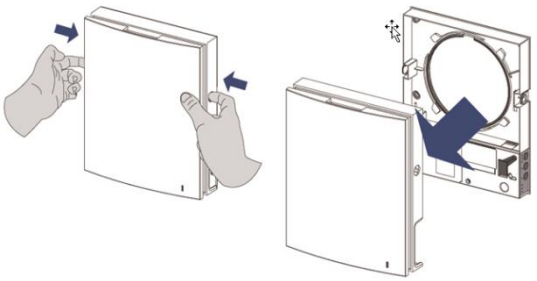
Without removing the protective paper, roll up and put in the duct the insulation. Insert once the isolation within the duct up to the stop. Mark on the circumference of the insulation the part to be removed so that it is flush with the wall. Pull out the insulation and cut off excess part. Then insert back the insulation in the duct.



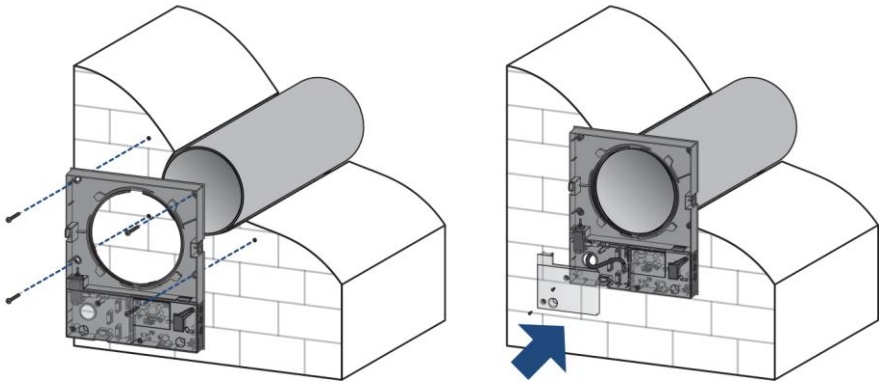
Remove the grid-cover from the grill by sliding it upwards.
Screw the grid to the outside wall using the 4 plug screws 4 x 40 mm (supplied with the unit).
Re-mount the grid-cover sliding it down along the outside grill.



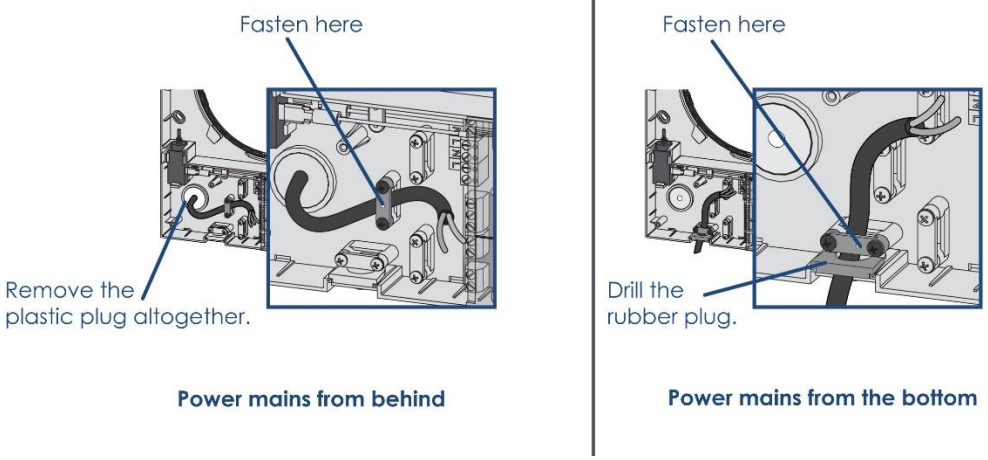
Front panel installation
Press simultaneously the two hooks on the sides, lift the front of the indoor unit and remove the front plate



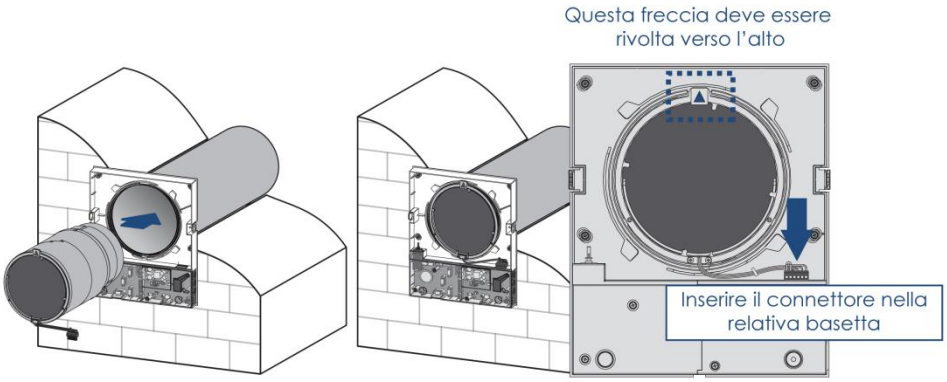
Fix the rear part of the unit against the wall with the supplied screws. Open the transparent cover to connect the DC power cable to the terminals according to the wiring electric diagram.



Cable entry can take place as shown, both on the back side that the bottom side of the device.



Insert the cartridge into the air duct as figured below. The pointer must be directed upwards.
Then fix the wire with the protruding clamp and connect the socket connector to the circuit board.



Install the front panel taking care that the actuator pin completely retracted at the bottom, to prevent any damage to it.

9.5 FIRST START-UP

Kers will not start if the front panel is hermetically sealed. Gently pull toward you to open it using the handle located on the top and bottom of the device. A 5-mm opening will be enough.

Make sure the wall socket is powered at 230 V. Insert the plug into the socket and, if there is, close the circuit breaker. Check that everything works.

If the unit is installed stand-alone, command one of the three speed using buttons on board.
If multiple Kers are connected in series, command one of the three speed with the buttons of the master device. (The Master device is easily identified because it is the only one with the "Master" LED on.

10. INSTALLATION FROM INSIDE THROUGH FLEXIBLE GRIDS

To install grids on exterior inaccessible walls are available suitable flexible grids (optional), which can be installed from the inside.
Grids for 50 Kers are the following:

ITEM CODE	DESCRIPTION
VTGF03	FLEXIBLE OUTDOOR GRILLE FOR KERS 50 WHITE
VTGF04	FLEXIBLE OUTDOOR GRILLE FOR KERS 50 COPPER

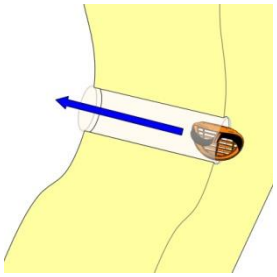
Warnings

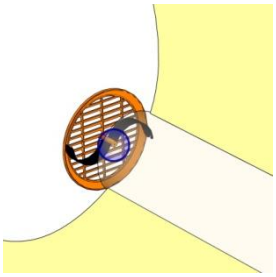
It may happen that during installation the grill falls outside. Make sure that this possibility does not cause accidental damage to persons or things, temporarily fencing off the outside area.

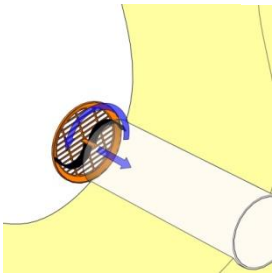
The metal hood and its cover (supplied with the unit) must not be used if you decide for flexible grids.

Flexible external grid installation

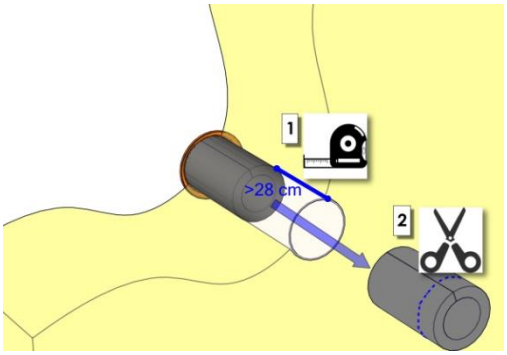
Slightly bend the grid and slide it inside the duct. Holding it firmly by the central peg, get it out completely from the duct, so that it can expand and return to its original shape. Pull and simultaneously rotate the grill clockwise. The springs fit into the duct and adhere to the wall, locking the grille in position.

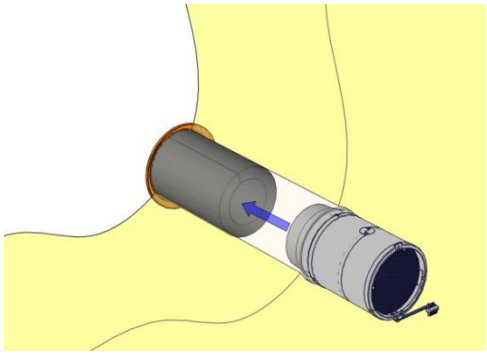






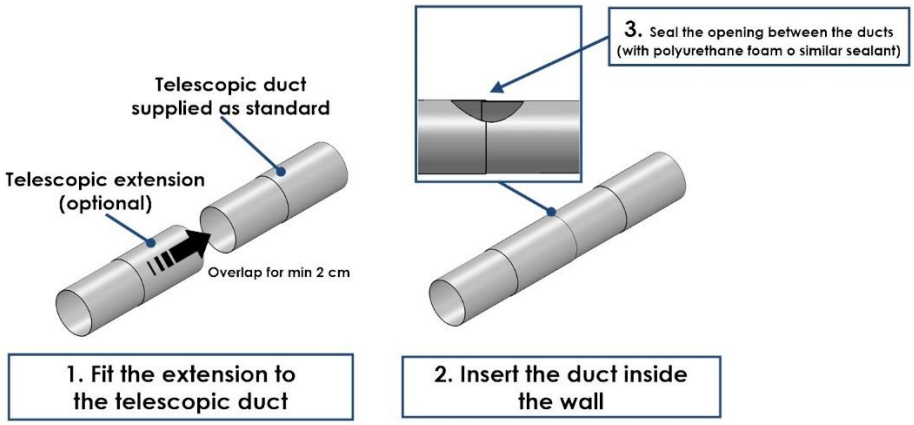
Without removing the protective paper, roll up the insulation and place it once within the duct up to the stop. Measure the distance that separates the insulation from the entrance of the duct: must be at least 28 cm. If it were lower, pull out the insulation and cut off excess. Reinsert the insulation into the duct. Insert the main body of the unit until it stops, without pushing off the grid.





11. EXTENSION DUCT FOR THICKER WALLS

In case the wall thickness is greater than maximum extensibility of the duct supplied with the unit, you can use the accessory telescopic extension duct Kers (code VPKT04), which increases the length by up to 80 cm.
The extension is fitted on the supplied telescopic duct, taking care that the female extension fits on the male duct. It's good practice to seal in this moment the small crack that is formed between the duct and extension to prevent any moisture of the walls from infiltrating inside the device.



12. INTERNATIONAL WARRANTY

The warranty for this product is governed by the sale terms and conditions of Ideal Clima Srl (version 3.0) of which we quote the relevant part related to warranty:
Ideal Clima guarantees its products for defects or manufacturing defects, with the express exclusion of any defect or done regarding the installation, operation and maintenance of the product. - 15.2 Beneficiaries - Ideal Clima provides products only to professional companies. By placing the order, the customer declares that the products are intended for use within their professional, commercial or business activity.
It is excluded the application of the rule 1999/44 / EC and the D.Leg nr. 24 of February 2, 2002. The guarantee is expressed in respect of products supplied by Ideal Clima and exclusively for the benefit of the Customer.
Ideal Clima reserves the right to apply their own warranty terms, directly or indirectly through individuals identified by this, to the end user only upon explicit request and authorization of the Customer, which is still entitled to the fulfillment of any obligation to the end user under the legislation in force. - 15.3 Performance warranty. The warranty service implies, at the discretion of Ideal Clima, the replacement of the defective product. In any case the manufacturing defects must be deemed such by Ideal Clima technical staff. Parts replaced under warranty remain property of Ideal Clima and must be returned back carriage free. -
15.4 Effect and duration - The warranty starts from the date of purchase and lasts two years. The date of purchase is proven by invoice and proof of delivery. The Customer shall be relieved of warranty unless the defect is brought to the attention of Ideal Clima within 8 days of discovery and before the expiration of the maximum term of duration of warranty. The warranty period is not changed by warranty reparations -
15.5 Limitations and Exclusions - This warranty does not cover defects due to transport, handling of the product, incorrect storage (eg. not dry rooms, direct sunlight etc.), installation and / or maintenance is not performed by qualified and authorized personnel according to the manufacturer's instructions and regulations, operation outside of the product intended use, use of water, gas and electricity that are not suitable to the product, improper use or maintenance of the product, normal wear. –

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