



**HIGH EFFICIENCY SINGLE-ROOM HEAT RECOVERY  
UNITS  
KERS 25 WITH REMOTE CONTROL**



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**USER AND INSTALLER MANUAL**

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BEFORE USING THE UNIT, READ THIS MANUAL CAREFULLY

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# 1 PREMISE

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This manual indicates the intended use of the unit and provides instructions for transporting, installing, mounting, adjusting and using the unit. Provides information for maintenance interventions, spare parts ordering, residual risks and staff training.

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

- Each operator and personnel assigned to use and maintenance of the unit must read this manual completely and with the utmost attention. He needs to respect what is reported;
- The employer is obliged to ensure that the operator possesses the aptitude requirements for running the unit and has carefully read the manual; The employer must also accurately inform the operator about the risks of injury and in particular about the risks deriving from noise, about the personal protective equipment provided and about the general accident prevention rules envisaged by international laws or standards and the country of destination of the unit;
- The manual must always be available to the user, managers, persons in charge of transport, installation, use, maintenance, repair and final dismantling;
- Keep the manual in areas protected from humidity and heat and consider it an integral part of the unit for its entire duration, handing it over to any other user or subsequent owner of the unit;
- Make sure that any updates received are incorporated into the text;
- Do not damage, remove, tear or rewrite the manual or parts of it for any reason, in case it is lost or partially damaged and therefore it is no longer possible to read its contents completely, it is recommended to request a new manual to the manufacturer by communicating the machine serial number on the data plate.

Pay close attention to the following symbols. Their function is to emphasize particular information such as:



With reference to serious dangerous situations that can occur when the unit is used to ensure safety for people.



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



With reference to additions or suggestions for the correct use of the unit.

The manufacturer has the right to update production and manuals, without the obligation to update previous versions, except in special cases.

This manual reflects the state of the art at the time the unit was placed on the market and cannot be considered inadequate only because it is subsequently updated on the basis of new technologies.

To request any updates to the user manual or additions, which will be considered an integral part of the manual, send the request to the addresses given in this manual.

Contact the manufacturer for further information and any suggestions for improvement of the manual.

The manufacturer invites, in case of sale of the unit, to indicate the address of the new owner to facilitate the transmission of any additions to the manual to the new sender.

## 1.1 RESPONSIBILITY

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The unit is guaranteed according to the contractual agreements stipulated at the sale.

The manufacturer considers himself exempt from any liability and obligation, and the form of guarantee provided for in the sales contract for any accident to persons or things that may occur due to:



- failure to observe the instructions contained in this manual with regards to operation, use, maintenance and events which are in any case unrelated to the normal and correct use of the unit;

- modifications made to the unit and safety devices without the prior written authorization of the manufacturer;
- attempts at repairs carried out on their own account or by unauthorized technicians;
- lack of periodic and constant maintenance interventions or use of non-original spare parts.

In any case, if the user attributes the accident to a defect of the unit, he must demonstrate that the damage occurred was a main and direct consequence of this "defect".

## 1.2 SERVICE RULES

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The service standards described in this manual are an integral part of the supply of the unit. Furthermore, these standards are intended for the operator who has already been expressly trained to operate this type of unit and contain all the information necessary and indispensable for safe operation and optimal use of the unit.

Hasty and incomplete preparations force improvisation and this is the cause of many accidents.

Read carefully and strictly respect the following suggestions:

- **The first start-up must be carried out exclusively by qualified personnel authorized by the manufacturer;**
- At the time of installation or when it is necessary to intervene on the unit, it is necessary to strictly comply with the rules given in this manual, observe the instructions on the unit and always apply all the necessary precautions;
- Possible accidents to people and things can be avoided by following these technical instructions compiled with reference to the machinery directive 2006/42 / EC and subsequent additions. In any case, always comply with national safety regulations;
- Do not remove or damage the protections, labels and writings, especially those required by law and, if no longer legible, you must replace them.

The machinery directive 2006/42 / EC gives the following definitions:



**DANGEROUS AREA:** any area inside and/or near a machine in which the presence of an exposed person constitutes a risk for the safety and health of the same.

**EXPOSED PERSON:** any person who is wholly or partially in a danger zone.

**OPERATOR:** the person or persons in charge of installing, operating, adjusting, maintaining, cleaning, repairing and transporting the machine.



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

The European Community has issued some directives concerning the safety and health of workers among which directives 89/391 / EEC, 89/686 / EEC, 89/654 / EEC, 89/655 / EEC, 89/656 / EEC, 86/188 / EEC, 92/58 / EEC and 92/57 / EEC which each employer is obliged to respect and to enforce.

The units have been designed and built according to the current state of the art and the current rules of the technique.

The laws, regulations, prescriptions, ordinances, directives in force for these machines have been observed.

The materials used and the equipment parts, as well as the production processes, quality assurance and control meet the highest safety and reliability requirements.

By using them for the purposes specified in this user manual, handling them with due diligence and carrying out accurate maintenance and overhauls to perfection, you can maintain continuous and lasting performance and functionality of the units.

### 1.3 INTERVENTIONS AND MAINTENANCE

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The user manual can never replace an adequate user experience; for some particularly demanding maintenance operations, this manual constitutes a reminder of the main activities to be carried out for operators with specific knowledge acquired, for example, by attending training courses at the manufacturer.

Read the following tips carefully:

- Constant and careful preventive maintenance always guarantees the high operational safety of the unit. Never postpone necessary repairs and have them carried out only and exclusively by specialized personnel, using only original spare parts;
- Operators' workplaces must be kept clean, tidy and free from objects that may restrict free movement.
- Operators must avoid clumsy operations, in awkward positions that can compromise their balance.
- The workplace must be adequately lit for the intended operations. Insufficient or excessive lighting can pose risks.
- Any intervention on the unit must be carried out by qualified personnel;
- Before carrying out any intervention or maintenance on the unit, make sure that the power supply has been disconnected;
- Make sure that the safety devices work correctly and that there is no doubt about their operation; otherwise do not start the unit under any circumstances;
- Use only tools prescribed by the unit manufacturer. To avoid personal injury, do not use worn or damaged, poor quality or improvised tools;



**- once the unit has been cleaned, the operator must check that there are no worn or damaged parts or not solidly fixed, otherwise ask for the intervention of the maintenance technician;**

- The use of flammable fluids in cleaning operations is prohibited.

To clean the unit, do not use diesel fuel, petroleum or solvents as the former leave an oily film that favors the adhesion of dust, while solvents (even if weak) damage the paint and therefore favor the formation of rust. If a jet of water penetrates electrical equipment as well as inducing oxidation of the contacts, it can cause the unit to malfunction. Therefore, do not use jets of water or steam on sensors, connectors or any electrical part.

### 1.4 INTENDED USE

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The KERS units are point heat recovery units (room by room), to be installed on the wall, which allow to ventilate a room without ducts and without dispersing heat with the emission of exhausted air.

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



**Place the unit in environments 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 what is indicated or to neglect operations necessary for safety.**

### 1.5 GENERAL SAFETY RULES

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#### 1.5.1 Wear protective clothing

Each operator must use personal protective equipment such as gloves, helmet to protect the head, safety goggles, safety shoes, noise protection headphones.



### 1.5.2 Fire extinguisher and first aid

Place a first aid kit and fire extinguisher near the unit.

Periodically make sure that the fire extinguishers are charged and that the way to use is clear.

In case of fire, use it according to the regulations in force and contact the fire brigade.

Check periodically that the first aid kit is complete.

Make sure you have first aid phone numbers nearby.



The supply of fire extinguisher and first aid kit is the responsibility of the owner of the building on which the unit is installed.

### 1.5.3 Warnings for checks and maintenance

Apply a sign with the words: "UNDER MAINTENANCE" on all sides of the unit.

Check the unit carefully by following the list of operations in this manual.



### 1.5.4 Safety tags



Generic alarm



Electric voltage



Danger of burns



Moving parts



Cut wounds

## 2 PRODUCT DESCRIPTION

KERS recuperators are designed to ventilate apartments, hotels, bars and any other civil, residential and commercial environment in a controlled manner.

The unit is equipped with a very high efficiency ceramic exchanger which allows to introduce fresh air into the room and to recover heat from the previously expelled exhausted air.

KERS recuperators combine state-of-the-art technical solutions (ceramic recuperator with 91% efficiency) with a pleasant aesthetics. The exposed installation is aesthetically pleasing thanks to the elegant external covers.

KERS is designed to be mounted in external walls with thickness from 300 mm to 570 mm on KERS 25. Special extensions allow to overcome greater thicknesses (see paragraph 9.5).

The low air speed avoids the annoying drafts present in traditional air conditioning systems and guarantees maximum environmental comfort.

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

### 2.1 STRUCTURE AND OPERATION

The unit consists of: a ventilation unit, a recuperator, two filters, an external protection hood and a telescopic duct. The length of the duct can be adjusted by sliding the duct section facing the room, inside the duct section facing outwards.

The two filters and the exchanger are inserted in the telescopic duct. The filters purify the new air and prevent the entry, from the outside, of objects that can damage the exchanger or the fan.

The unit is equipped with a non-volatile memory clock, which generates an audible signal every 90 days of operation to remind you to change or clean the filters. The signal repeats every 5 minutes until maintenance is completed. After maintenance, press the ON-OFF button on the remote control for 10 seconds to reset the clock: a long signal confirms that the clock has been reset.

Each time the ON-OFF button is pressed for 10 seconds, the non-volatile memory clock resets.

The heat exchanger recovers the heat of the exhaust air to heat the air introduced into the room. It is provided with a cord that facilitates its removal from the unit and with an insulation that also acts as a sealing gasket.

A shutter closes automatically when the appliance is in stand-by, to prevent the passage of unwanted air currents.

The ventilation unit must be installed in places where it is not possible to enter water or other substances that could damage its components. The fan must be on the inside of the wall.

KERS can work in three different modes:

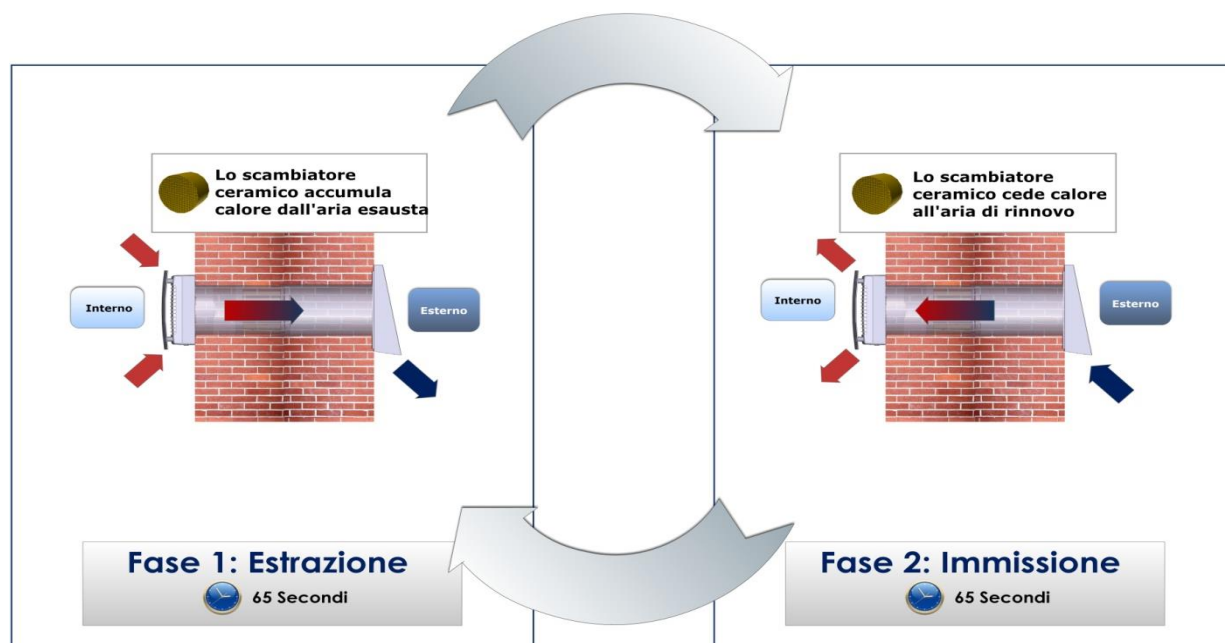
**Ventilation:** the unit works continuously in extraction.

**Injection:** the unit operates continuously in injection.

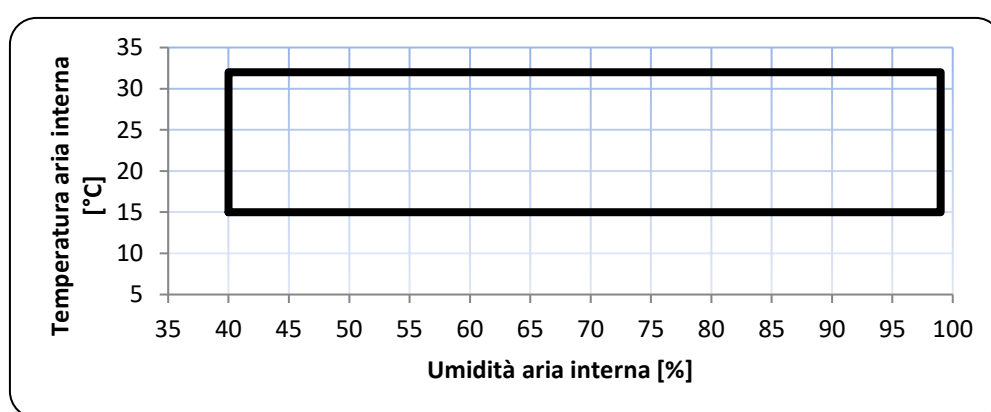
**Heat recovery:** the unit operates alternately in two phases of 65 seconds each:

2.1.1 Phase 1 - stale hot air is extracted from the room. As it flows through the ceramic heat exchanger, it heats it. Thus it transfers up to 91% of the thermal energy. In 65 seconds the exchanger is heated and the unit switches to phase 2.

2.1.2 Phase 2 - fresh air flows from the outside through the hot ceramic exchanger which heats the air down to room temperature. In 65 seconds the ceramic exchanger cools down and the unit switches to "phase 1".



## 2.2 OPERATIONAL LIMITS



### 3 OPERATION OF SEVERAL APPLIANCES CONNECTED TO EACH ONE

When several KERS recovery units are installed in a single room, it is necessary to synchronize their operation so as not to put the environment under pressure or vacuum. The devices must be connected in series with each other (see chapter: electrical connections), so that when half of them work in extraction (phase 1), the other half works in supply (phase 2).

With the series connection, a single remote control, which operates on the first device, is sufficient to manage all the KERS installed. Appliances operating in different rooms can also be connected in series, provided that they have similar needs to each other and can be controlled by the same user terminal.

The maximum number of KERS that can be connected in series with each other, is of up to ten pieces.

## 4 ELECTRICAL CIRCUITS

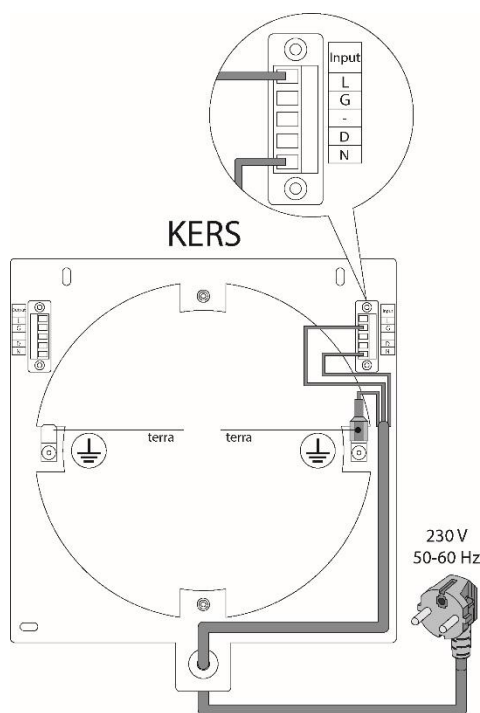
### 4.1 ELECTRICAL EQUIPMENT

The electrical panel is made and wired in accordance with the Low Voltage and Electromagnetic Compatibility regulations.

The fans, equipped with low consumption reversible EC motors, adjustable between 1.4 W and 7.3 W, are extremely quiet (22-29db). Once the fan has been installed in the suitably prepared opening (see paragraph 9.4), connect an electric power socket (220 W with 50 Hz).

### 4.2 WIRING DIAGRAMS

#### 4.2.1 CONNECTION OF A SINGLE UNIT



**Grounding is mandatory. The installer must provide for the connection of the earth cable.**

The unit is built to work with AC 230 V / 50Hz. To facilitate the connection work, KERS is supplied with a wired cable and plug, connected on the "INPUT" terminal board on the L = line and N = neutral terminals. The earth is connected to the special tab, as shown in the figure.



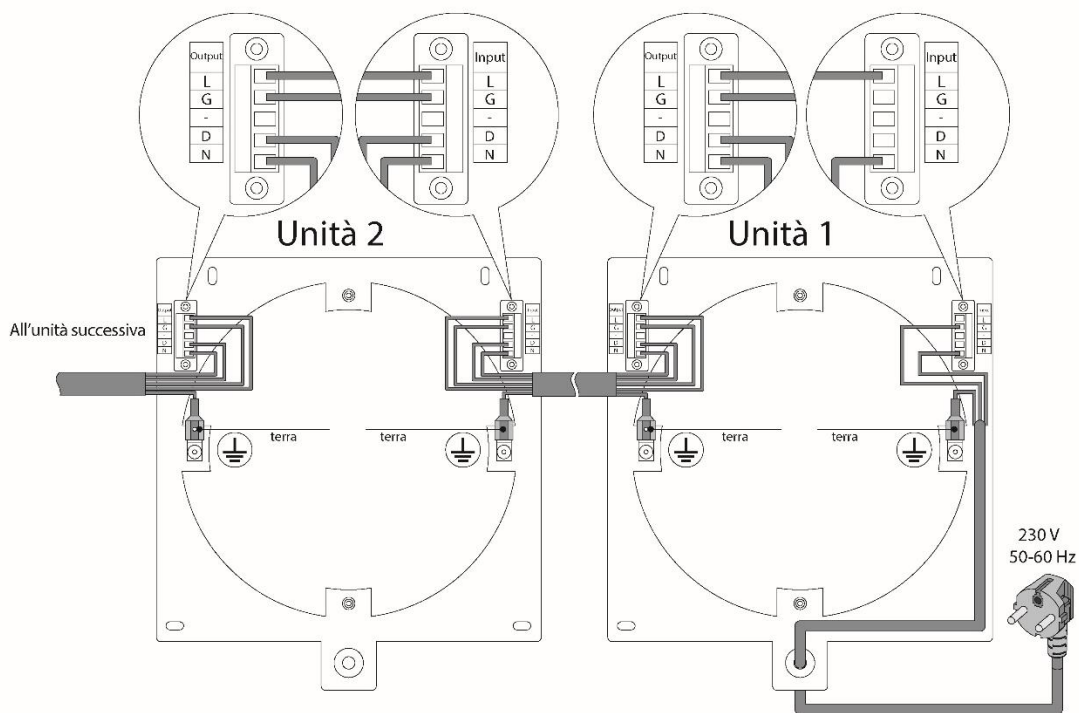


If the site conditions require it, it is allowed to remove the Schuko plug supplied with the machine and its cable up to the terminals of the appliance, in compliance with the L / N / Earth connections, without thereby voiding the product warranty.

#### 4.2.2 WIRING DIAGRAM FOR SERIES CONNECTION OF SEVERAL KERS (max. n°10)

4.2.3 When several KERS recovery units are connected in series with each other, they are all managed by the first and its user control unit. To connect the units in series, connect the "output" terminal block of the first KERS with the "input" terminal block of the second KERS. In the same way, connect the second Kers to the next, up to a maximum of 10 units.

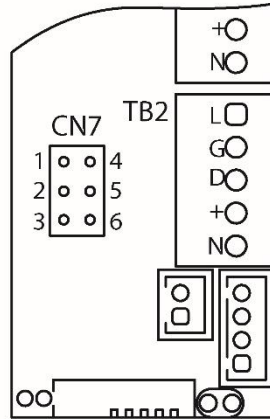
For easy connection, use 5-wire cable (not included in delivery) with a cross-section of 0.5 mm<sup>2</sup> and insulation suitable for 230 V AC voltage. Always remove the plug from the socket before making connections.



The first KERS unit controls all the others. Each unit must be programmed so that all inputs and extractions are not simultaneous and do not put the environment under pressure or depression.

The jumper on the CN 7 terminal board determines the direction of the air flow when the fan is active. When the jumper is located between 1 and 2 of the CN 7 terminal board, the air is extracted in "phase 1" (KERS leaves the factory with jumper between 1 and 2). When the jumper is between 2 and 3, the extraction takes place in "phase 2".

The sequence of KERS in series must be: first KERS = jumper between 1 and 2; according to KERS = jumper between 2 and 3; third KERS = jumper between 1 and 2; fourth KERS = jumper between 2 and 3 and so on.

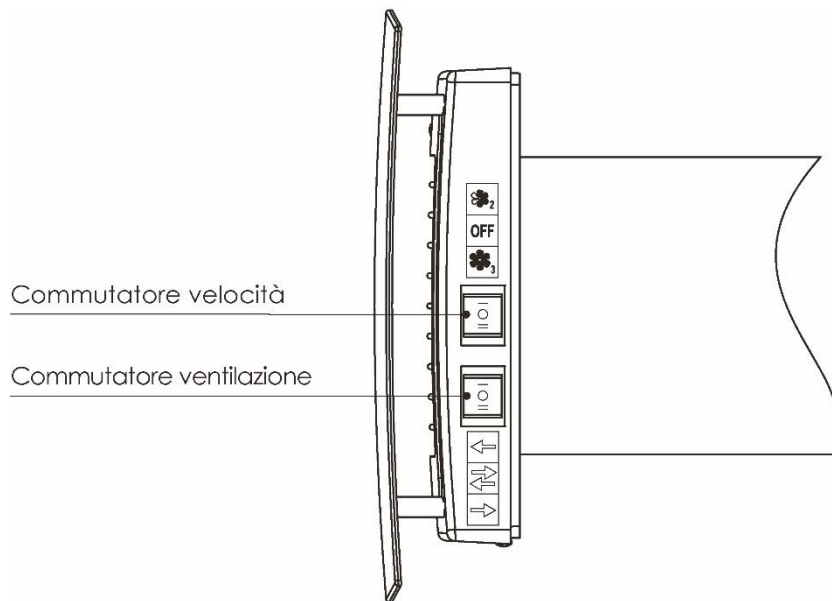


Internal view of the CN7 terminal board, side on which one must operate to move the jumper.

## 5 BUTTONS AND REMOTE CONTROL FOR MANAGEMENT OF THE UNIT

The unit can be controlled with buttons located on the fan casing or with a remote control. The buttons allow you to activate second and third speeds and to set three of the four possible ventilation modes. The remote control has more extensive control capabilities.

### 5.1 BUTTONS ON-BOARD



**The speed switch** has three positions, by means of which the fan speed is managed:

OFF = fan off

Fully colored impeller = high speed

Partially colored impeller = low speed.

**The ventilation switch** has three positions, by means of which the operating modes are defined:

- Central position (two opposite arrows) = "heat recovery" mode. Extraction and input alternate.
- Top position (arrow pointing inwards: = input mode (from factory). When the KERS are connected in series and the jumper on the CN 7 terminal board is on 3-4 (see chapter "Operation of several appliances connected to each other"), the appliance operates in extraction mode.
- Bottom position, arrow pointing outwards = extraction mode. When the KERS are connected in series and the jumper on the CN 7 terminal board is on 3-4 (see chapter "Operation of several devices connected together"), the device works in feed-in mode.

To switch on the fan, insert the plug into the power socket and select the desired speed with the switch.

To turn off the fan, move the button to the central position.

Use the ventilation switch to select the operating modes.

To use the remote control, put the switches in the middle position.

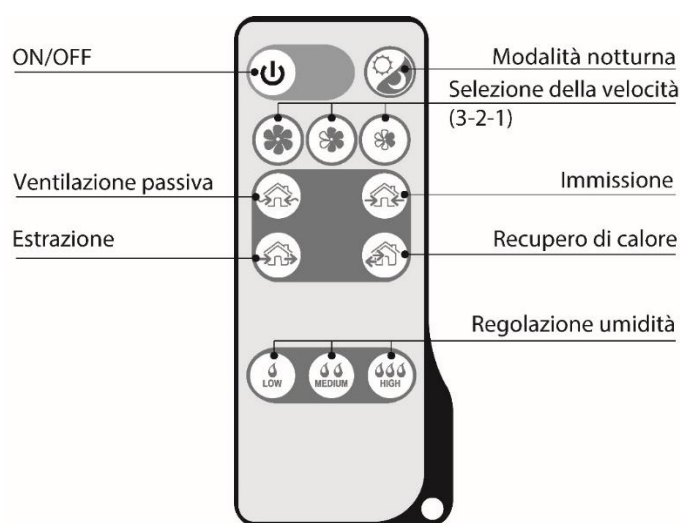
## 5.2 REMOTE CONTROLLER

The remote control works only if the buttons on board are both in an intermediate position.

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

Possible operations with the remote control:

- "ON-OFF" button: turns the unit on and off. N. B. At each operation the remote control emits a "beep" to check the battery charge. When pressed for about 10 seconds, up to a long BEEP, it interrupts the acoustic signal emitted to remind you to clean the filters.
- "Night mode" button: The unit is equipped with a photo sensor which, when "Night mode" is on, changes the fan speed according to the light conditions. To activate night mode, press the button once and wait for confirmation with a long beep. To leave this mode, press the "Night mode" button a second time; the change is signaled by a short beep. (Night mode is affected by the brightness of the environment)



- Speed selection button: three different buttons allow you to change the fan speed (and its flow rate). The button with the darkest fan activates the highest speed, and vice versa.
- Passive ventilation button: allows you to open the fan shutter and let the air circulate naturally, without activating the fan.
- Enter button: allows you to introduce fresh air into the rooms at the set speed. All the KERS connected in series operate in input, regardless of the position of the jumper on terminal CN7.
- Extraction button: allows you to extract air from the rooms. The operating mode of all the KERS connected in series is determined by the position of the jumper on terminal CN7.
- Heat recovery button: activates heat recovery. The unit operates for 65 seconds in injection and 65 seconds in extraction. The heat recovery unit exchanges energy between the outgoing and incoming air. The jumper of the CN7 terminal synchronizes the KERS.
- Humidity control buttons: allows you to select three humidity levels (low, medium and high). Humidity control is only possible in "heat recovery" mode. If the indoor humidity exceeds the predefined level, the unit increases the speed. When the humidity drops below the set level, KERS reduces the speed. To deactivate the command, press a button that selects the fan speed. The humidity control can only be activated with the remote control.

Make sure that the remote control is properly powered before use (batteries charged, contacts free and clean). The remote control works only in the absence of interference or external noise. The operating range depends on the external conditions, on the charge level of the batteries, on the positioning with respect to the machine.

## 6 TECHNICAL DATA

### 6.1 MAIN FEATURES

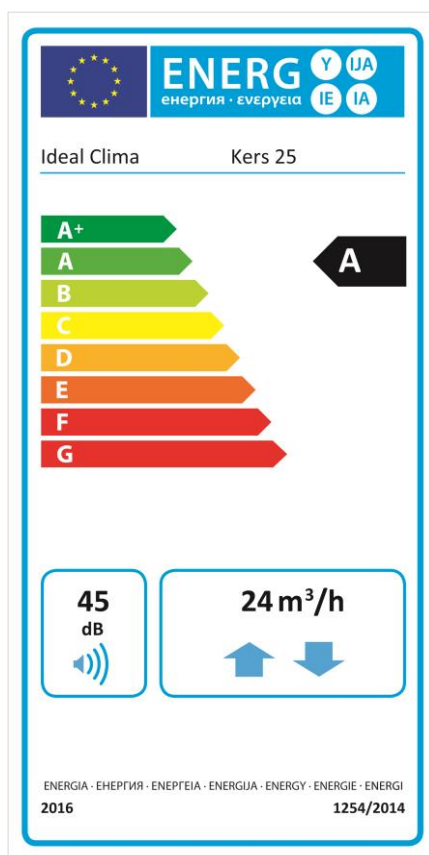
Description		Heat Recovery Unit Kers 25 with remote
Code		VRKS25
Air flow at maximum speed	mc / h	24
Air exchange	mc / h	12
Efficiency of ceramic recuperator	%	up to 90
Thermal power recovered in winter	W	185
Thermal power recovered in the summer	W	65
Sound pressure at maximum speed (at 1m)	dB (A)	42.5
Sound pressure at maximum speed (at 3m)	dB (A)	33.2
Operating air temperature	°C	-20 / + 50
Power consumption speed max	W	5.5
Electrical current speed max	A	0.027
On-board filters	-	2
Filtration class EN 779		G3
Power Supply	V / ph / Hz	230/1/50
Limit temperature conditions of use	T.	-20°C +50°C
Limit humidity conditions of use	RH	80%
Insulation class	-	IP 24

### 6.2 SOUND PRESSURE

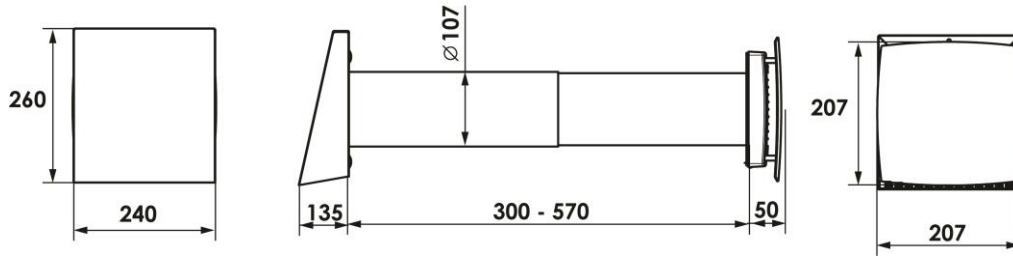
		u.m.	Heat Recovery Unit Kers 25 with remote
			VRKS25
<b>Speed III</b>	Input/output flow	m <sup>3</sup> / h	23
	Effective airflow rate	m <sup>3</sup> / h	11.5
	Sound pressure at 1 m	dB (A)	43
	Sound pressure at 3 m	dB (A)	33
<b>Speed II</b>	Input/output flow	m <sup>3</sup> / h	15.5
	Effective airflow rate	m <sup>3</sup> / h	7.9
<b>Speed I</b>	Input/output flow	m <sup>3</sup> / h	6.7
	Effective airflow rate	m <sup>3</sup> / h	3.8
	Sound pressure at 1 m	dB (A)	33
	Sound pressure at 3 m	dB (A)	24
Acoustic attenuation of external noise with fan stopped		dB (A)	16

## 6.3 ENERGY LABEL

Brand		Ideal Clima			
Model	u.m.	VRKS25			
Specific Energy Consumption (SEC),	kWh/(m <sup>2</sup> .y)	Cold -77	Warm A+	Hot -40	A -16 E
Type of ventilation	--	Bidirectional			
Starting type	--	Multiple Speeds			
Type of heat recovery	--	Regenerative			
Efficiency $\Delta$ t. 13°C [ $\eta$ t]	[ $\eta$ t]	80%			
Maximum flow m <sup>3</sup> /h	m <sup>3</sup> /h	24			
Power consumption	W	5.32			
Sound power	dB (A)	45			
Reference range	m <sup>3</sup> /s	0.005			
Reference head	Pa	0			
Specific Power (SPI)	W/m <sup>3</sup> /h	0.235			
Type of control	-	Local Environment Control			
Maximum internal leakage	%	2,7%			
Maximum external leakage	%	2,7%			
Mixture rate of bidirectional units, %	%	1%			
Airflow sensitivity changes of +20 Pa and -20 Pa	m <sup>3</sup> /h	13 / 73			
Airtightness indoor/outdoor, m <sup>3</sup> /h	m <sup>3</sup> /h	0.45			
Internet address	-	<a href="http://www.idealclima.eu">www.idealclima.eu</a>			
Annual electricity consumption (AEC)	kWh	2			
Annual heating savings (AHS), primary energy.	kWh	Cold 87	Warm 44	Hot 20	



## 6.4 DIMENSIONAL DRAWINGS



## 7 AFTER SALES

### 7.1 TROUBLESHOOTING

The following pages list the most common causes that can cause the unit to block, or at least to malfunction. The division is made on the basis of easily identifiable symptoms.

NUMBER	ANOMALY	ANALYSIS OF POSSIBLE CAUSES	CORRECTIVE ACTIONS
1	The unit does not start up.	No power supply to the unit.	Check for its presence on the power supply terminals.
		Motor blocked, impeller clogged.	Turn off the unit. Resolve engine jam, clean propellers. Restart the unit.
		Excessive inclination of the hole >2° Prevents coupling of the motor unit with the terminals	Pull out the motor assembly and often tighten it until a good coupling is obtained
2	Low air flow	Too low speed has been set.	Choose a higher speed
		The filter, either of the fan or of the exchanger, is dirty	Clean or replace the filters, clean the fan and the recuperator (see the maintenance chapter).
3	The circuit breaker trips	A short circuit produced an overcurrent.	Turn off the unit and contact a service center.
4	The unit continues to play and the fan does not rotate	Possible absence of one or both jumpers on the CN7 terminal board (located near the green INPUT connector).	Contact the service center to solve the problem.
5	The unit emits a beep	The time counter for filter cleaning has tripped	See the maintenance chapter "replacing the filters and cleaning the exchanger". Press the ON-OFF control for about 10 seconds, until Kers emits more consent beeps.
6	Vibrations and noises	The fan is dirty	Clean the fan
7	Vibrations and noises	The screws of the housing or 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 pipe.	Loosen the fixing screws and shim

## 7.2 ROUTINE MAINTENANCE

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Disconnect the unit from the mains before any maintenance operation.

Proceed as follows:

- Remove the front panel.
- Pull to remove the fan unit
- Clean the fan blades. Clean the fan with a soft brush or vacuum cleaner. Do not use water, abrasive solvents or sharp objects. The fan blades should be cleaned once a year.
- Remove the air conveyor. Take out the ceramic recuperator with great care so as not to drop it. Remove the filters
- Clean the filters (2 or 3 times a year). Every 90 days, KERS generates a sound to remind you to clean or change the filters. The life of the filters, if cleaned regularly, is of three years.
- When the maintenance of the filters has been completed, press the ON-OFF button for 10 seconds. A long beep confirms that the timer has been reset.
- The ON-OFF button resets the memory each time it is pressed for 10 seconds.
- Also clean the passages of the outer cap once a year.

## 8 PUTTING THE UNIT OUT OF SERVICE

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When the unit reaches the end of its expected life and needs to be removed and replaced, the structure and the various components, if unusable, must be demolished and divided according to their product type.



## 9 INSTALLATION

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### 9.1 PREMISES

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#### 9.1.1 INSPECTION

Upon receipt of the unit, check its integrity: the machine left the factory in perfect condition; any damage must be immediately reported to the carrier and noted on the Delivery Sheet before countersigning it.

#### LIFTING AND TRANSPORT

During unloading and positioning of the unit, the utmost care must be taken to avoid abrupt or violent maneuvers. Internal transport must be carried out with care and delicacy, avoiding using machine components as strengths.



In all lifting operations, make sure you have firmly anchored the unit, in order to avoid accidental overturning or falls.

#### 9.1.2 UNPACKING

The packaging of the unit must be removed with care without causing damage to the machine; the materials that make up the packaging are of a different nature, wood, cardboard, nylon etc. It is good practice to keep them separately and deliver them for disposal or possible recycling to the companies responsible for the purpose and thus reduce their environmental impact.

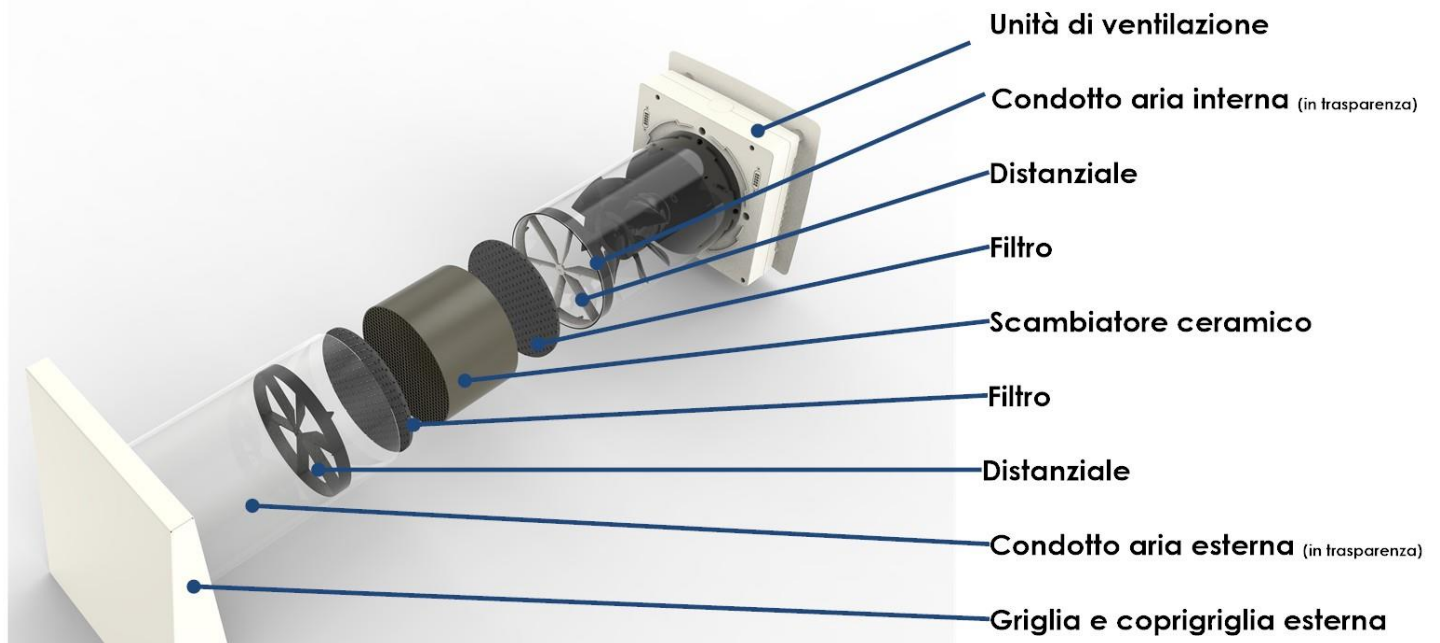
### 9.2 POSITIONING

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All KERS models are designed and built for indoor installation. Do not install the fan unit outdoors and make sure that it is not exposed to atmospheric agents such as: rain, hail, humidity and frost.

## 9.3 EXPLODED VIEW



The spacer can also be in the form of a simple ring or glued to the duct, according to the production lot.

	u.m.	<b>Punctual KERS 25 recovery unit</b>
		<b>VRKS25</b>
Internal duct diameter	mm	103
External duct diameter	mm	107

## 9.4 WALL MOUNTING

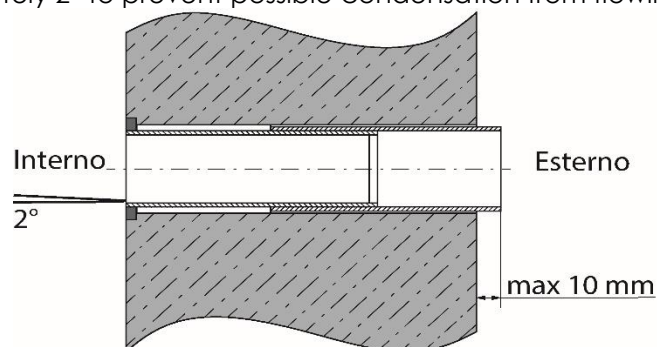
### 9.4.1 Hole preparation

Prepare a through hole in the wall with a diameter of 110 mm for KERS 25, inclined outwards by no more than 2°.

### 9.4.2 Telescopic duct insertion

When several KERS recovery units are installed in series with each other (see specific chapter), it is necessary to provide passages for the connection cables between one KERS and the other, as well as for the power supply cable.

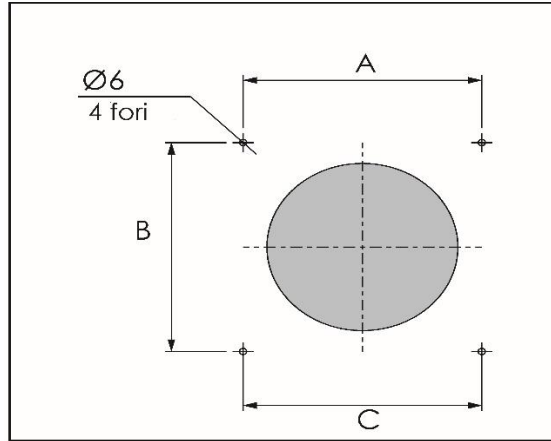
Install the telescopic tube inside the drilled hole, so that the smaller diameter faces the inside of the room. The telescopic tube must be flush with the internal wall and must protrude from the external wall by 10 mm. Keep an outward inclination of approximately 2° to prevent possible condensation from flowing inward.



### 9.4.3 Mounting plate positioning

Connect the mounting plate: For the connection, refer to what is indicated in the drawing in chapter 4.3. Fix the mounting plate to the wall with 4, 4x40, screws and 6x40 plugs, included in the supply.





**Please note :** Do not tighten the fixing screws, in order not to deform the plastic material support. This could make the fan noisy

KERS 25 recovery unit		
	u.m.	VRKS25
A	mm	150
B	mm	150
C	mm	150

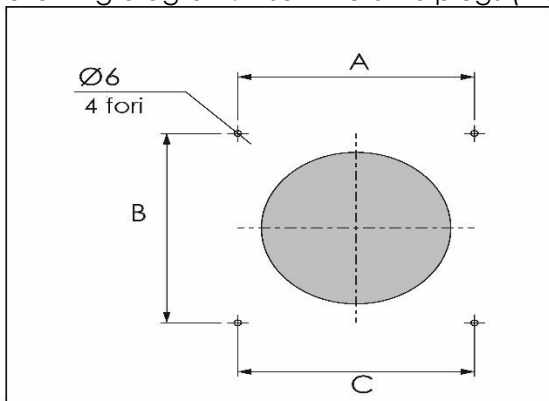
Align the telescopic duct flush with the mounting plate and fill the gaps between the wall and the telescopic duct with foam sealing (polyurethane). The telescopic duct must not protrude beyond the surface of the mounting plate.

Install in a successive order, from the inside, the filter, the ceramic exchanger, the filter and the spacer inside the telescopic duct (exploded drawing 10,3).

Install the ventilation unit on the mounting plate.

#### 9.4.4 Positioning of the external hood

Mark the fixing holes for the external hood and drill 40 mm deep holes for 6x40 dowels in the positions of the following diagram. Insert the 6x40 plugs (included in the supply) into the holes.



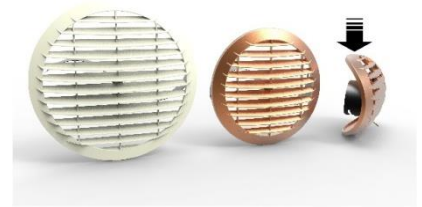
Recovery unit		
SINGLE-ROOM KERS 25		
	u.m.	VRKS25
A	mm	150
B	mm	150
C	mm	150

Disassemble the external hood to allow access to the fixing holes and fix the rear part of the hood to the wall. Refit the upper part of the external hood.

## 10 INSTALLATION FROM INSIDE USING FLEXIBLE GRIDS

For installation of grids on inaccessible external walls, special flexible grids are available for Kers (optional), which can be installed from the inside.

The grids for Kers 25 are as follows:



CODE	DESCRIPTION
VTGF01	FLEXIBLE OUTDOOR GRILLE FOR KERS 25 WHITE
VTGF02	FLEXIBLE OUTER GRILLE FOR KERS 25 COPPER COLOR

### 10.1.1 Warning

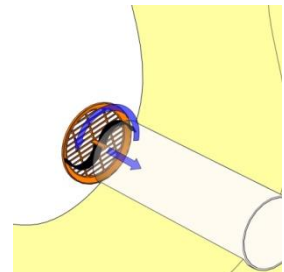
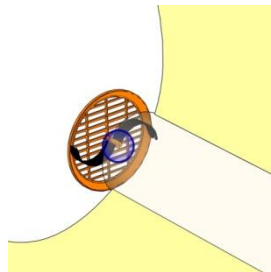
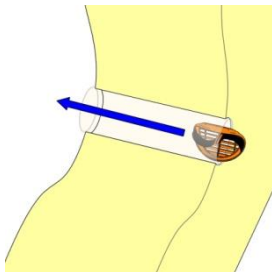


There is a risk, during installation, that the grid will fall outside. Make sure that this eventuality does not cause damage to people or things, possibly cordoning the access to the outside area .

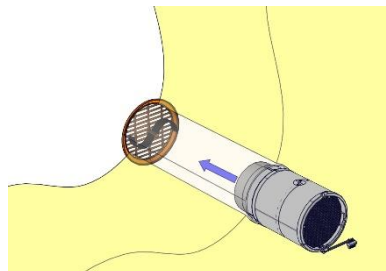
The metal grill and the relative grill cover supplied with the appliance must not be used if you opt for flexible grids.

### 10.1.2 Flexible outdoor grille installation

Slightly flex the grille and slide it into the duct. Holding it firmly by the center peg, pull it completely out of the duct so that it can expand and return to its original shape. Pull towards you and at the same time rotate the grill counterclockwise. The springs retract into the duct and adhere to the wall, locking the grille in place.



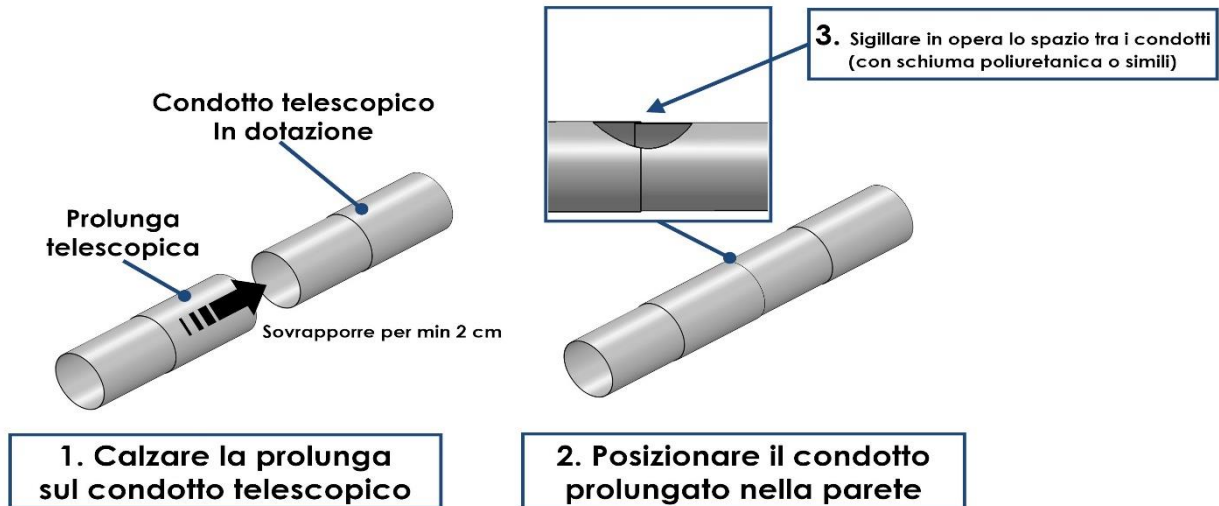
Then insert all the components of the device from the inside, until complete assembly. Refer to the instructions in the paragraph **Errore. L'origine riferimento non è stata trovata.** on page **Errore. Il segnalibro non è definito.**.



## 11 EXTENSION OF THE DUCT FOR THICK WALLS

If the wall thickness is greater than the maximum extensibility of the duct supplied with the appliance, it is possible to use the Kers telescopic extension accessory (code VPKT03 for Kers 25 and VPKT04 for Kers 50), which increases its length up to a further 80 cm.

The extension is fitted on the supplied telescopic duct, taking care that the female of the extension fits on the male of the duct. It is a good idea to seal the small gap that is formed between the duct and the extension on site to prevent any moisture from the walls from infiltrating the appliance.



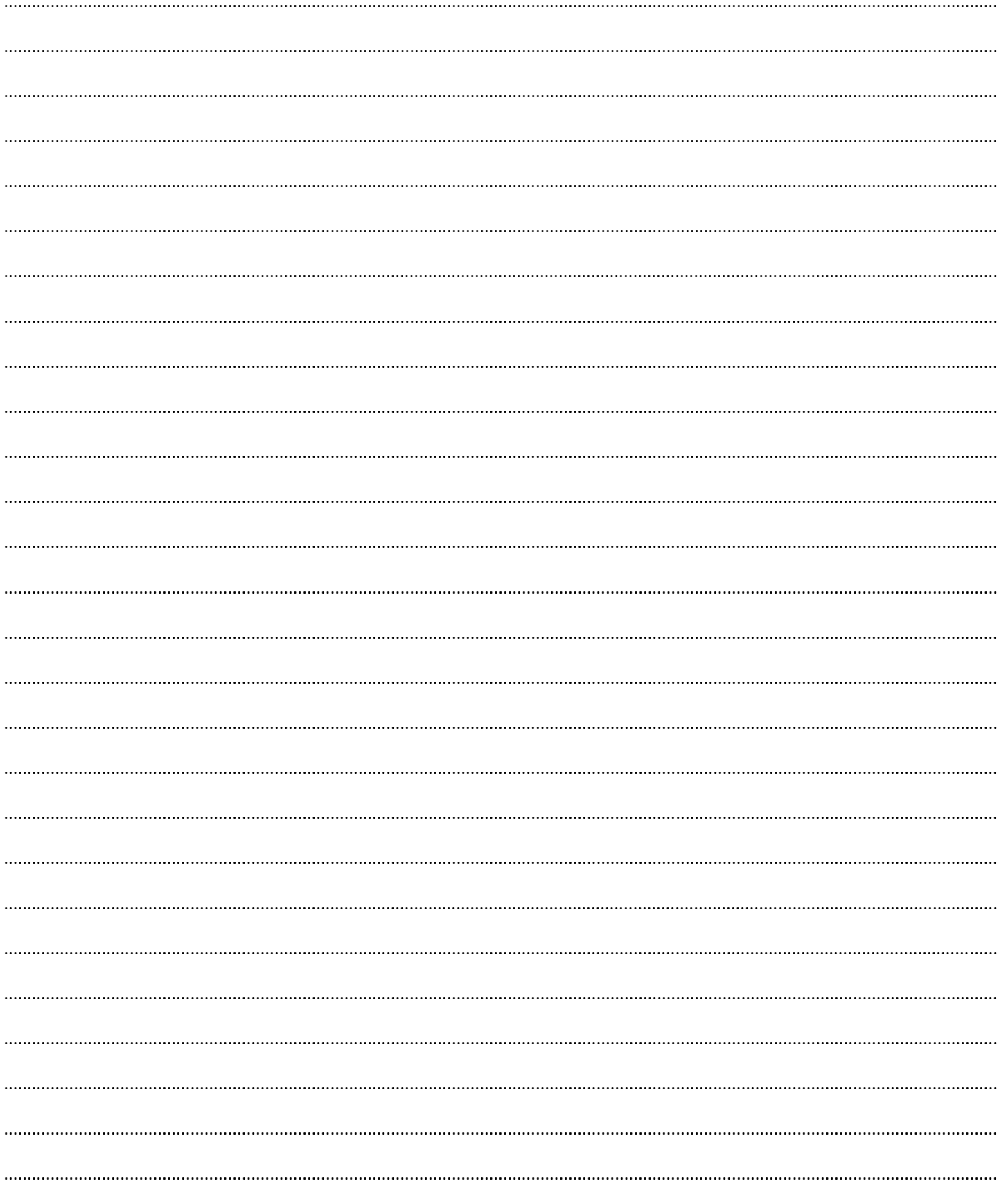
## 12 FIRST START

Check that the wall socket is powered at 230 V. Insert the socket into the plug and check that everything works.

## 13 NOTE

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A series of horizontal dotted lines for writing notes.



## 14 WARRANTY CONDITIONS

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The guarantee of this product is governed by the Ideal Clima general conditions of sale (version 3.0) of which we report the part relating to the guarantee:

Ideal Clima guarantees its products against manufacturing faults or defects, with the express exclusion of any defect or fact inherent in the installation, operation and maintenance of the product. - 15.2 Recipients - Ideal Clima supplies products only to professional companies. By giving the order, the client declares that the products are intended for use in the context of his professional, commercial or entrepreneurial activity. The application of the 1999/44 / EC standard and of the Legislative Decree nr. 24 of 2 February 2002. The warranty is limited to the products provided by Ideal Clima and only to the customer. Ideal Clima reserves the right to apply their own conditions to guarantee, directly or indirectly through the subjects to be identified, the end user only upon specific request and authorization of the Client, who remains entitled to the fulfillment of any obligations with the end user in accordance with the regulations in force. - 15.3 performance under warranty-the intervention under warranty implies, in Ideal Clima's opinion, the repair or replacement of the defective product. In case of repair, the client undertakes to have its final customer perform those repairs that Ideal Clima considers essential, allowing access to the plant. In case of replacement, Ideal Clima undertakes to replace its defective products with other products with equal or superior characteristics, excluding any expense of restoration of the property (labor, travel, transport, works etc.). In any case, production defects must be recognized by Ideal Clima technicians. The components replaced under warranty remain the property of Ideal Clima, to which they must be returned free of charge. - 15.4 validity and duration-the warranty starts from the date of purchase of the product and has a duration of two years. The date of purchase is evidenced by the invoice and the DDT. In case of dispute about the date of delivery, the batch/date of production/serial number shown on the product will be authentic. The customer shall forfeit the warranty if he does not report the defect within 8 days of the discovery and before the expiry of the maximum term of the warranty. The duration of the warranty is not changed by warranty interventions - 15.5 limitations and exclusions - the warranty does not cover defects attributable to transport, handling of the product, poor storage (eg. non-dry environments, direct sun exposure etc.), installation and/or maintenance not carried out by qualified personnel and enabled, according to the manufacturer's instructions and the regulations in force, usage not in accordance with product characteristics, use of water, gas and electricity which is not suitable to the product, use or maintenance, improper product, normal wear and tear - 15.6 Right call: Ideal Clima reserves the right to ask for a contribution for the intervention of the technical assistance centre authorized, starting from the seventh month of the warranty period. This contribution will be quantified in advance and will have to be paid directly to the CAT. This contribution will also be due if the product is defective.



IDEAL CLIMA srl  
BRESCIA - Italy  
Tel +39.030.35.45.319 - Fax +39 030.51.09.329  
info@idealclima.eu - [www.idealclima.eu](http://www.idealclima.eu)  
Version: 4 - March 2017