

Installation Manual  
(Translation of original  
instructions)

EN



**innova**

N420036A - Rev.08 - 09/2023

# **..2.0 Verticale**

10 - 12 HP DC Inverter

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*First of all, we would like to thank you for having chosen a device of our production.*

*We are sure you will be happy with it because it represents the state of the art in the technology of home air conditioning.*

*By following the suggestions contained in this manual, the product you have purchased will operate without problems giving you optimum room temperatures with minimum energy costs.*

INNOVA S.r.l.

## Conformity

This unit complies with the European directives:

- Low Voltage Directive 2014/35/UE
- EMC Directive 2014/30/EU
- RED Directive 2014/53/UE on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment
- RoHS Directive 2011/65/EU
- Directive 2017/1369/EU on energy labelling
- 2009/125/EU Directive and implementing regulation 206/2012/EU and Italian implementing regulation Legislative Decree no. 15 of 16/02/2011
- F-Gas Regulation 2014/517/EU on fluorinated greenhouse gases

And subsequent amendments.

**⚠** For declarations of conformity, certificates and other certification details please consult the website.

## Markings



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## CODING

### 1.1 Product related coding

This instruction manual refers to the following product codes.

 Check the correspondence with the technical rating plate on the product. See chapter "Identification" [p. 9](#).

..2.0 Verticale	
COMV10IC3II	..2.0 Verticale 10 HP DC Inverter
COMV12IC3II	..2.0 Verticale 12 HP DC Inverter

## GENERAL INFORMATION

### 2.1 About the manual

This manual was written to provide all the explanations for the correct management of the appliance.

- ⚠ This instruction manual forms an integral part of the device and therefore must be carefully preserved and must ALWAYS travel with it, even if you transfer the device to another owner or relocate it to other premises. If the manual gets damaged or lost, download a copy from the website.
- ⚠ Read this manual carefully before proceeding with any operation and follow the instructions in the individual chapters.
- ⚠ The manufacturer is not responsible for damages to persons or property caused by failure to follow the instructions in this manual.
- ⚠ This document is restricted in use to the terms of the law and may not be copied or transferred to third parties without the express authorization of the manufacturer.

#### 2.1.1 Editorial pictograms

The pictograms in the next chapter provide the necessary information for correct, safe use of the machine in a rapid, unmistakable way.

#### Related to security

- ⚠ **High risk warning (bold text)**
  - The operation described above presents a risk of serious physical injury, fatality, major damage to the appliance and/or to the environment if not carried out in compliance with safety regulations.
- ⚠ Low risk warning (plain text)
  - The operation described above presents a risk of minor physical injury or minor damage to the appliance and/or to the environment if not carried out in compliance with safety regulations.
- ⊘ Prohibition (plain text)
  - Refers to prohibited actions.
- ⓘ **Important information (bold text)**
  - This indicates important information that must be taken into account during the operations.

#### In the texts

- procedures
- lists

#### In the control panels

- actions required
- Expected responses following an action.*

#### In the figures

- 1 The numbers indicate the individual components.
- A The capital letters indicate component assemblies.
- ① The white numbers in black marks indicate a series of actions to be carried out in sequence.
- Ⓐ The black letter in white identifies an image when there are several images in the same figure.

#### 2.1.2 Pictograms on the product

Symbols are used in some parts of the appliance:

#### Related to security

- ⚠ **Caution: electrical danger**
  - The concerned personnel is informed to the presence of electricity and the risk of suffering an electric shock.

#### 2.1.3 Recipients

##### User

Non-expert person capable of operating the product in safe conditions for people, for the product itself and the environment, interpreting an elementary diagnostic of faults and abnormal operating conditions, carrying out simple adjustment, checking and maintenance operations.

##### Installer

Expert person qualified to position and connect (hydraulically, electrically, etc.) the unit to the plant; this person is responsible for handling and correct installation according to the instructions provided in this manual and the national standards currently in force.

To work on the refrigeration circuit, the installer must comply with the provisions of Regulation 303/2008/EC which defines, in accordance with Directive 842/2006/EC, the requirements for companies and personnel with regard to fixed refrigeration, air conditioning and heat pump equipment containing certain fluorinated greenhouse gases (F-gas licence).

##### Technical Service Centre

Expert and qualified person authorised directly by the manufacturer to carry out all routine and supplementary maintenance operations, as well as every adjustment, check, repair and replacement of parts necessary during the life of the unit itself.

Service personnel must comply with the provisions of Regulation 303/2008/EC which defines, in accordance with Directive 842/2006/EC, the requirements for companies and personnel with regard to fixed refrigeration, air conditioning and heat pump equipment containing certain fluorinated greenhouse gases (F-gas licence).

### 2.1.4 Manual organisation

The manual is divided into sections each dedicated to one or more target groups.

#### Coding

It addresses all recipients.

It contains the list of products and/or accessories referred to in the manual.

#### General information

It addresses all recipients.

It contains general information and important warnings that should be known before installing and using the appliance.

#### Product presentation

It addresses all recipients.

It contains the information to identify the product, its components, compatible accessories and destination of use.

#### Installation

It is addressed exclusively to the installer.

It contains specific warnings and all the information necessary for positioning, mounting and connecting the appliance.

#### Commissioning, maintenance and troubleshooting

They are addressed exclusively to the Technical Assistance Centre.

It contains specific warnings useful information for the most common commissioning and routine maintenance.

#### Technical information

It addresses all recipients.

It contains detailed technical information about the appliance.

## 2.2 General warnings

- ⚠ Specific warnings are given in each chapter of the document and must be read before starting operations.
- ⚠ All personnel involved must be aware of the operations and dangers that may arise when beginning all unit installation operations.
- ⚠ Installation performed outside the warnings provided in this manual and use of the appliance outside the prescribed temperature limits will invalidate the warranty.
- ⚠ The installation and maintenance of climate control equipment could be dangerous because there is pressurised refrigerant gas and live electrical components inside the appliances. The installation and subsequent maintenance phases must be carried out exclusively by authorised and qualified personnel.
- ⚠ Any contractual or extra-contractual liability for damage caused to persons, animals or property, due to installation, adjustment and maintenance errors or improper use is excluded. All uses not expressly indicated in this manual are not permitted.
- ⚠ Only qualified installer companies are authorised to install the device. After having completed installation, the installer will issue a declaration of conformity to the plant manager, as required by the applicable standards and the guidelines provided by contractor's instruction manual supplied with the device.
- ⚠ First start-up and repair or maintenance operations must be carried out by the Technical Assistance Centre or by qualified personnel following the provisions of this manual.
- ⚠ Do not modify or tamper with the appliance as this can lead to dangerous situations.
- ⚠ Use suitable accident-prevention clothing and equipment during installation and/or maintenance operations. The manufacturer is not liable for the non-observance of the current safety and accident prevention regulations.
- ⚠ In the event of liquid or oil leaks, set the master switch of the plant to "off" and close the water taps. Call the authorised Technical Assistance Centre or professionally qualified personnel as soon as possible and do not work on the appliance yourself.
- ⚠ In case of replacement of parts, use only original parts.
- ⚠ The manufacturer reserves the right to make changes to its models at any time to improve its product, without prejudice to the essential characteristics described in this manual. The manufacturer is not obliged to add such modifications to machines previously manufactured, already delivered or under construction.
- ⚠ The unit can be used by children over the age of 8, and by people with reduced physical, sensory or mental capabilities, or with no experience or necessary knowledge, as long as they are monitored or after they have received instructions on the safe use of the unit and have understood the dangers involved. Children must not play with the appliance. The cleaning and maintenance that must be performed by the user should not be carried out by children without supervision.

## 2.3 Basic rules of security

Please keep in mind that the use of products powered by electricity and water call for operators to comply with certain essential safety rules:

- ⊖ The use of the appliance to children and unassisted disabled persons is prohibited.
- ⊖ It is forbidden to touch the device with wet or damp body parts.
- ⊖ It is forbidden to carry out any operation before disconnecting the appliance from the power supply by setting the plant master switch to "off".
- ⊖ It is forbidden to modify the safety or adjustment devices or adjust without authorization and indications of the manufacturer.

- ⊖ It is forbidden to pull, unplug or twist the device's electric cables, even if it is disconnected from the mains.
- ⊖ It is forbidden to introduce objects and substances through the air inlet and outlet grilles.
- ⊖ It is forbidden to open the access doors of the device's internal parts without first having set main switch of the system to "off".
- ⊖ It is forbidden to dispose of, or leave in the reach of children, the packaging materials which could become a source of danger.

## 2.4 Disposal



The symbol on the product or its packaging indicates that the product must not be treated as normal household waste, but must be taken to the appropriate collection point for the recycling of electrical and electronic equipment.

Proper disposal of this product avoids harm to humans and the environment and promotes the reuse of valuable raw materials.

For more detailed information about the recycling of this product, contact your local city office, your household waste disposal service or the shop where you purchased the product.

Illegal disposal of the product by the user involves the application of the administrative sanctions provided for by the regulations in force.

This provision is only valid in the EU Member States.

- ⚠ Avoid disassembling the unit yourself.
- ⚠ This unit contains fluorinated greenhouse gases covered by the Kyoto Protocol. Maintenance and disposal operations must be carried out by qualified personnel only.
- ⚠ **Contact an authorised Technical Assistance Centre to disassemble the appliance.**



## PRODUCT PRESENTATION

### 3.1 Identification

The appliance can be identified by the rating plate:

#### Technical rating plate

⚠ According to EU Regulation No. 517/2014 concerning certain fluorinated greenhouse gases, it is mandatory to indicate the total amount of refrigerant present in the installed system. This information can be found on the rating plate of the unit.

⚠ Tampering with, removal of, or lack of identification plates will not allow for the safe identification of the product by its serial number and therefore invalidates the warranty.

### 3.2 Destination of use

These appliances have been designed for conditioning and/or heating rooms and they must be destined solely for

this purpose, in accordance with their performance characteristics.

### 3.3 Description of the appliance

The .2.0 range of air conditioners without an external unit are designed for indoor installation on a perimeter wall at the top or bottom, in a vertical position.

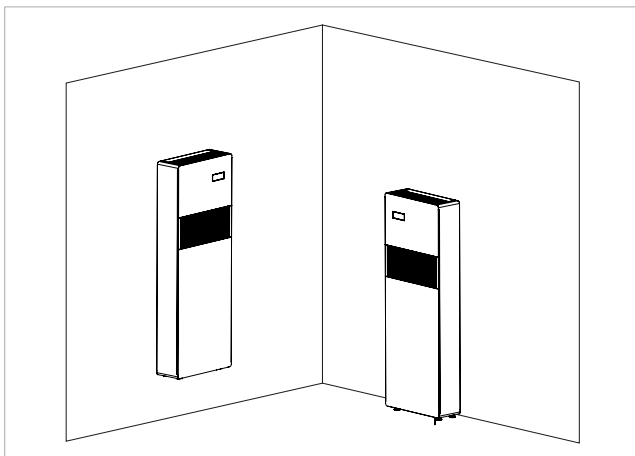
Inverter technology allows you to optimise the power for maximum comfort. The Dual Power function allows the required temperature to be reached in the shortest possible time (Inverter models only). Control is via a touch panel located on the unit or via a remote control.

**The appliance uses the refrigerant R410a.**

All models are heat pump models and are made in different sizes and performance:

**10 HP DC Inverter**

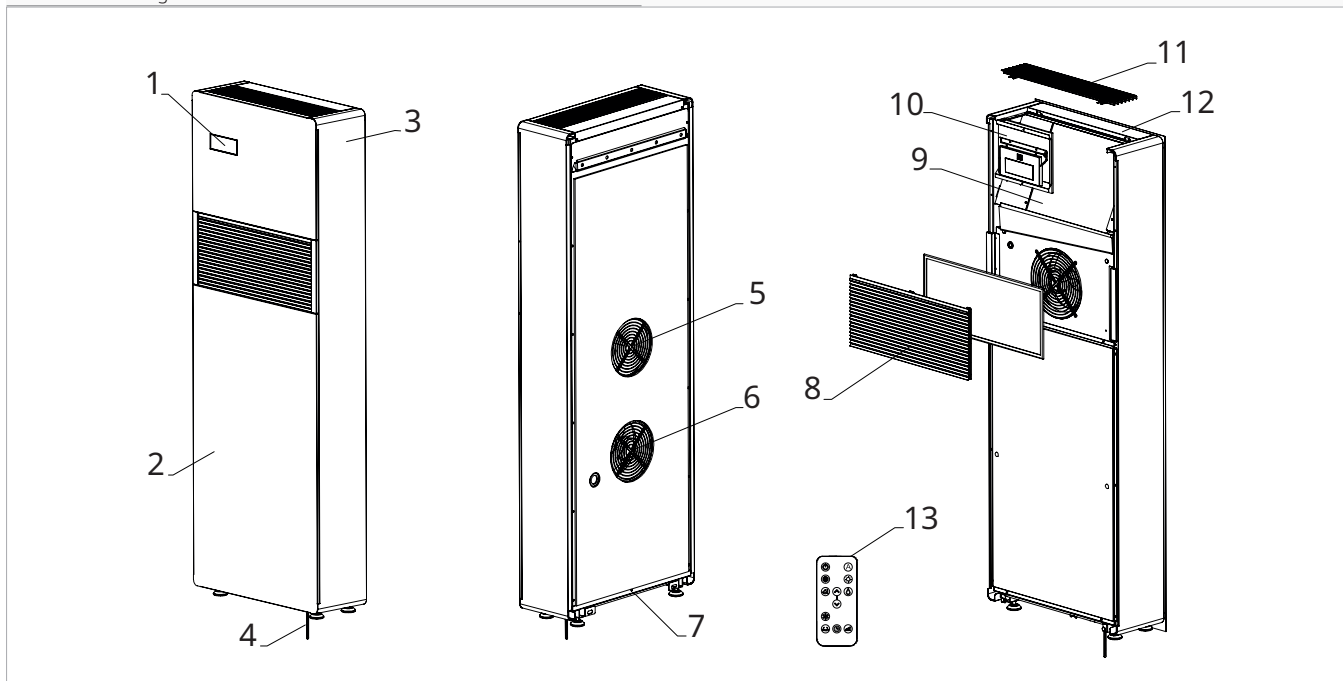
**12 HP DC Inverter**



### 3.4 Components

- 1. Control Panel
- 2. Front panel
- 3. Aesthetic side panel
- 4. Condensate drain
- 5. External air expulsion
- 6. External air intake
- 7. Anti-lifting bracket

- 8. Intake grid
- 9. Room air probe
- 10. Power supply terminal block
- 11. Air outlet grid
- 12. Air filter
- 13. Remote control



### 3.5 Compatible accessories

	Accessory description	Combinable products	Code
<b>Wall mounted controls smart touch series</b>			
<b>Control panels</b>			
	Smart touch electronic wall-mounted control panel with thermostat and room probe with integrated Wi-Fi module (supplied with 8 m connection cable). Colour black	All	ECA031II
	Smart touch electronic wall-mounted control panel with thermostat and room probe with integrated Modbus port (supplied with 8 m connection cable). Colour black	All	ECA032II
	Smart touch electronic wall-mounted control panel with thermostat and room probe with integrated Wi-Fi module (supplied with 8 m connection cable). Colour white	All	ECB031II
	Smart touch electronic wall-mounted control panel with thermostat and room probe with integrated Modbus port (supplied with 8 m connection cable). Colour white	All	ECB032II
<b>Accessories supplied separately</b>			
<b>Grids and other accessories</b>			
	Kit n. 2 external grilles with fixed fins 160 mm for outdoor	All	GB0738II
	Rain protection kit. Applicable only on fixed grids. DN 160 mm	All	GB0739II
	Kit n. 1 insect protection for intake hole only. Can only be applied to fixed outside grilles DN 160 mm.	All	GB0755II

## INSTALLATION

### 4.1 Preliminary warnings

- ⚠ **For detailed information on the products, refer to chapter "Technical information" p. 30.**
- ⚠ The installation must be carried out by the installer in accordance with national installation regulations. There is a risk of water leakage, electric shock or fire if the installation is not performed correctly.
- ⚠ During the installation, it is necessary to observe the precautions mentioned in this manual, and on the labels placed inside the equipment, as well as to adopt any precaution suggested by common sense and by the Safety Regulations in force in the place of installation.
- ⚠ Be sure to use the supplied or specified installation parts. Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.
- ⚠ Failure to apply the indicated rules may cause malfunctions of the appliances and relieves the manufacturer from any warranty and from any damage caused to persons, animals or property.
- ⚠ The air conditioners without an external unit are designed for indoor installation. The only components suitable for outdoor use are the external grilles for air inlet and outlet.

### 4.2 Reception

#### 4.2.1 Preliminary warnings

- ⚠ on receipt check them for any damage and, if any is found, accept the goods with reservation, and keep photographic evidence of any damage found
- ⚠ The package must be transported in an upright position; otherwise, notify the carrier immediately.
- ⚠ In the event of damage, notify the shipper within 3 days of receipt of any damage by registered mail with return receipt, submitting photographic evidence. Similar information should be sent by fax to the manufacturer (jurisdiction will be at the Court Trento for any dispute).
- ⚠ No notice of damage will be accepted after 3 days from delivery.
- ⚠ Unpack by check the contents of individual components against the packing list.

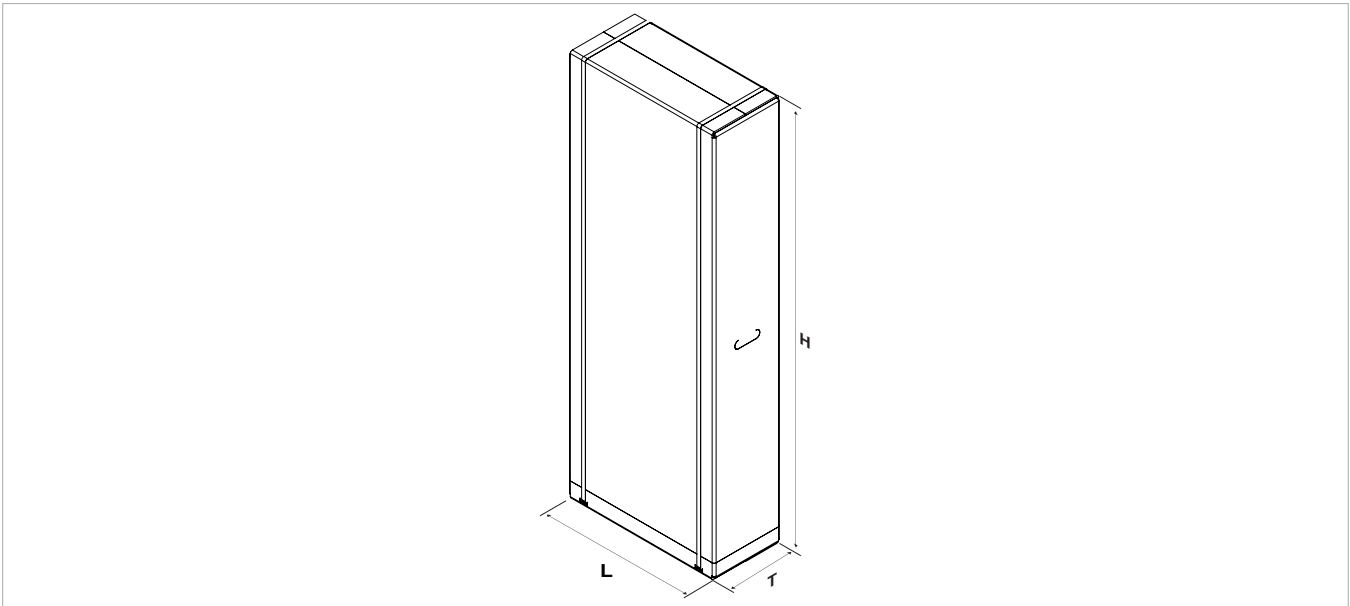
#### 4.2.2 Package description

The packaging is made of suitable material and carried out by experienced personnel.

All units are checked and tested and are delivered complete and in perfect conditions.

The appliance is shipped in standard packaging consisting of a cardboard sleeve and a set of expanded polystyrene protectors.

### 4.3 Dimensions and weights with packaging



		..2.0 Verticale	
Models	m.u.	10 HP-Inverter 230 V	12 HP-Inverter 230 V
<b>Dimensions and weight for shopping</b>			
Total width	mm	580	580
Total height	mm	1547	1547
Total depth	mm	265	265
Weight	kg	62,0	62,0

### 4.4 Handling with packaging

#### 4.4.1 Preliminary warnings

- ⚠ The appliance must be handled only by qualified personnel, adequately equipped and with equipment suitable for the weight and dimensions of the appliance.
- ⚠ Stay clear of the area below and around it when the load is lifted off the ground.
- ⚠ Avoid dangerous situations when using a hoist to lift the appliance.

⚠ During transportation, the unit must be kept in vertical position.

#### 4.4.2 Movement methods

Boxes can either be carried singularly by hand by two operators or loaded on a forklift truck even stacked.

- ⚠ Check the indications on the packaging for the number of stackable packages.
- ⚠ In manual operation it is compulsory to respect always the maximum weight per person provided for by the national laws and standards.

### 4.5 Storage

#### 4.5.1 Preliminary warnings

- ⚠ Stored in accordance with the applicable national regulations.
- ⚠ Store the box in a closed environment protected from atmospheric agents and isolate it from the floor using planks or pallets.
- ⚠ Do not turn the packaging upside down.

⚠ Only place the appliance in a vertical position.

⚠ Store in a clean and dry place.

## 4.6 Unpacking

### 4.6.1 Preliminary warnings

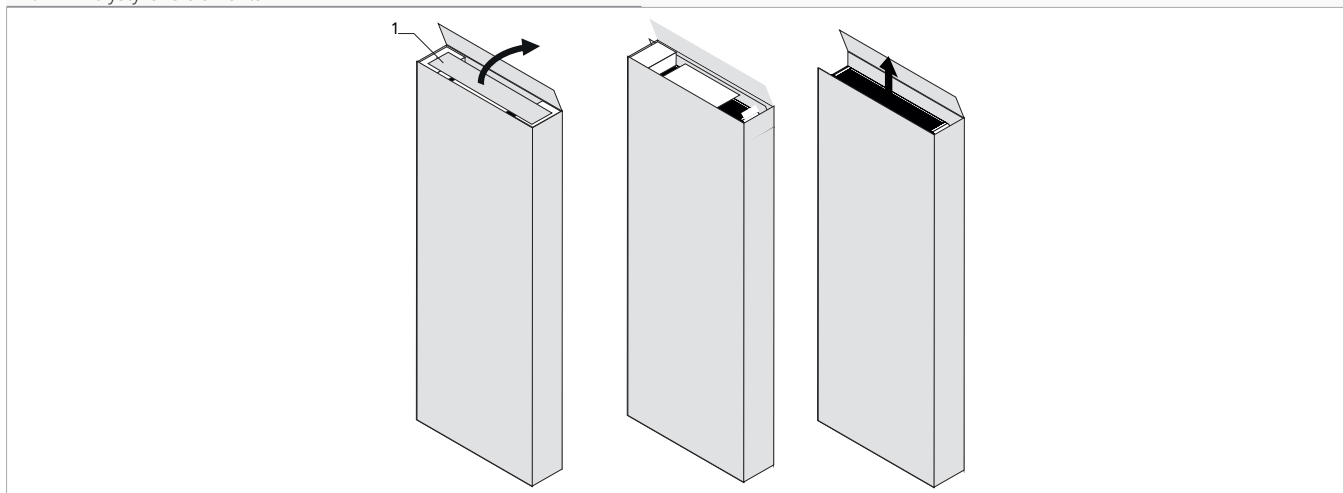
- ⚠ Check that no components were damaged during transport.
- ⚠ Dispose of the packaging components following the applicable waste disposal regulations. Check for disposal arrangements with your municipality.
- ⚠ Handle with care.
- ⚠ The equipment must always be handled vertically.

⚠ Check if there is refrigerant inside the package using an electronic leak detector suitable for the system refrigerant. If it is present, the refrigeration circuit is likely damaged. In this case, do not install the appliance and call the Technical Assistance Centre.

⊖ The packing material (cardboard, staples, plastic bags, etc.) must not be dispersed or abandoned in the surrounding environment and must be kept out of children reach, as it can be dangerous.

### 4.6.2 Remove the package

#### 1. Polystyrene elements



#### Remove the packing:

- open the cardboard packaging
- remove the polystyrene elements

- remove the accompanying components
- remove the appliance from the box

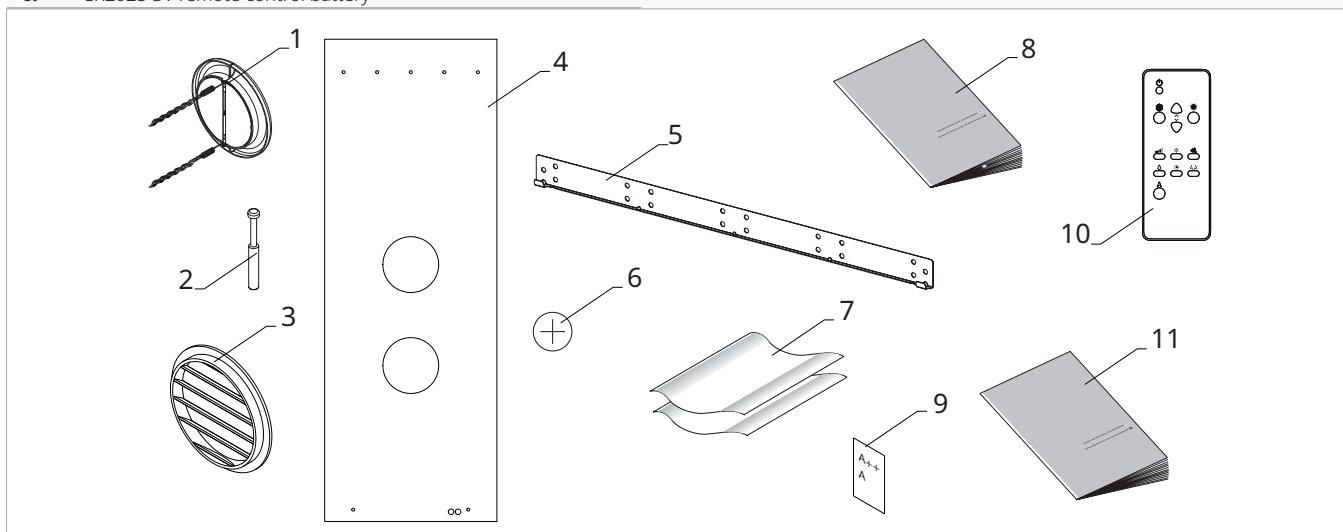
#### Accompanying material

They are included with the appliance, inside the packaging:

⚠ Check the presence of the individual components.

- |    |  |
|----|--|
| 1. | External grids (2 pcs.)                              |
| 2. | Screws and dowels kit (6 pcs)                        |
| 3. | External fixed grid for air inlet and outlet (2 pcs) |
| 4. | Paper template for holes                             |
| 5. | Wall mounting bracket                                |
| 6. | CR2025 3V remote control battery                     |

- |     |                                    |
|-----|------------------------------------|
| 7.  | Wall-mounted roll-up tubes (2 pcs) |
| 8.  | Control panel user manual          |
| 9.  | Energy efficiency label            |
| 10. | Remote control                     |
| 11. | Installation Manual                |



## 4.7 Handling without packaging

### 4.7.1 Preliminary warnings

- ⚠ The appliance must be handled only by qualified personnel, adequately equipped and with equipment suitable for the weight and dimensions of the appliance.
- ⚠ The appliance is unbalanced on the right (compressor side)

### 4.7.2 Movement methods

- ⚠ The unit can be moved manually for short distances. In this case it is necessary to check carefully that the weight of the unit does not exceed the regulations in relation to the number of people used.

## 4.8 Installation site

The location of the appliance must be determined by the plant engineer or a competent person and must take into account both purely technical requirements and any national/local legislation in force.

This appliance is designed for vertical indoor installation.

- ⚠ The appliance must be installed against a wall communicating with the outside.
- ⚠ The appliance is stated as having an IPX0 protection rating, therefore it is not suitable for outdoor installation and in rooms with presence of water (swimming pool rooms, etc.).

- ⚠ Provide the following:
  - a nearby drain for the outflow of condensate
  - a compliant power supply nearby
  - fixing elements suitable for the type of support

### 4.8.1 Preliminary warnings

- ⚠ Avoid installing the unit near:
  - obstacles or barriers that cause recirculation of the exhaust air
  - narrow places where the sound level of the appliance can be enhanced by reverberations or resonances
  - environments with the presence of flammable or explosive gases
  - very humid environments (laundries, greenhouses, etc.)
  - environments with aggressive atmospheres
  - solar radiation and proximity to heat sources
- ⚠ Avoid placing the unit within 1 metre of radio and video equipment.
- ⚠ Do not install over heat sources.
- ⚠ Make sure that:
  - the installation site of the unit must be chosen with the utmost care to guarantee adequate protection from shocks and consequent damage
  - the wall is able to support the weight of the appliance
  - the wall section does not feature building supporting elements, pipes or power lines
  - there are no obstacles to the free circulation of air through the holes (plants, leaves...)
  - the appliance must be installed in a position where it can be easily serviced
  - the safety distances between the units and other appliances or structures are scrupulously respected so that the air entering and leaving the fans is free to circulate
- ⚠ If the appliance is installed incompletely or on an inappropriate base, it could cause damage to persons or property if it should detach from its base.
- ⚠ The unit should not be installed in a position where the air flow is aimed directly at the people nearby.

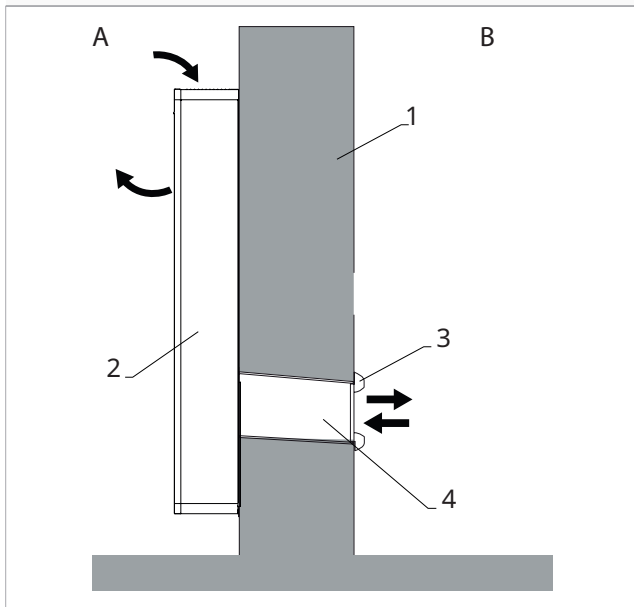




### 4.10.2 Installation arrangement

#### Wall drilling for ducts

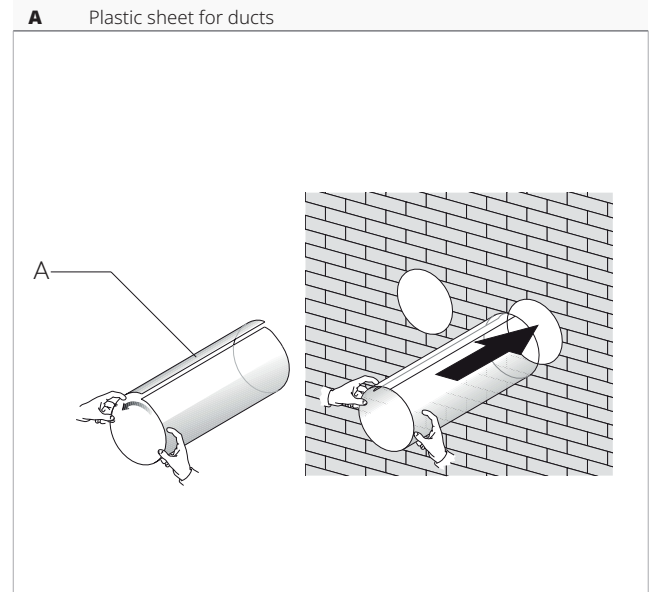
<b>A</b>	Side of the wall towards the interior
<b>B</b>	Side of the wall towards the exterior
<b>1.</b>	Perimeter wall
<b>2.</b>	Unit
<b>3.</b>	Return and expulsion grilles
<b>4.</b>	Outside air ducts



- position the paper template
- mark the positions of the holes for the ducts
- use a drill
- drill a pilot hole
- use a core drill
- drill the through hole into the wall
- keep a downward inclination toward the external side

- ⚠ The maximum length of the holes is 1 meter.
- ⚠ The two holes must have a diameter of 162 mm, as specified in the paper template.
- ⊖ Curves are prohibited.
- ⚠ To prevent the creation of large quantities of dust and debris in the room it is recommended to couple the core drill to a vacuum system.
- ⚠ Proceed with caution in the vicinity of the outer wall in order to avoid the breakage of plaster around the hole.
- ⚠ Take precautions so that the drilled material does not fall on persons and objects below.

#### Positioning the ducts



- measure the depth of the holes drilled in the wall
- subtract 5 mm from the measurement
- cut the plastic sheets supplied to size
- roll the plastic sheet
- insert the rolled sheet into the hole
- position so that the edges of the sheet are 2 mm inside both ends of the hole

#### Positioning outside air dampers

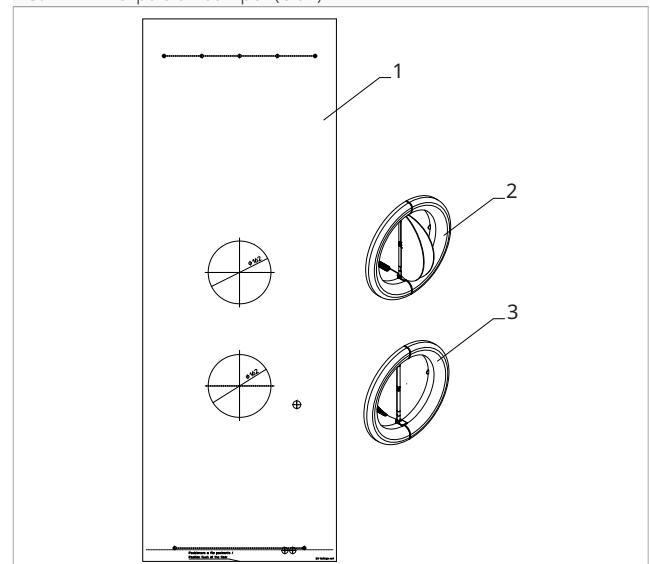
Before proceeding with the installation of the external air dampers, it is necessary to discern the one to be positioned on the air intake from the one intended for the expulsion. The dampers are identified with the labels:

**IN:** air intake damper

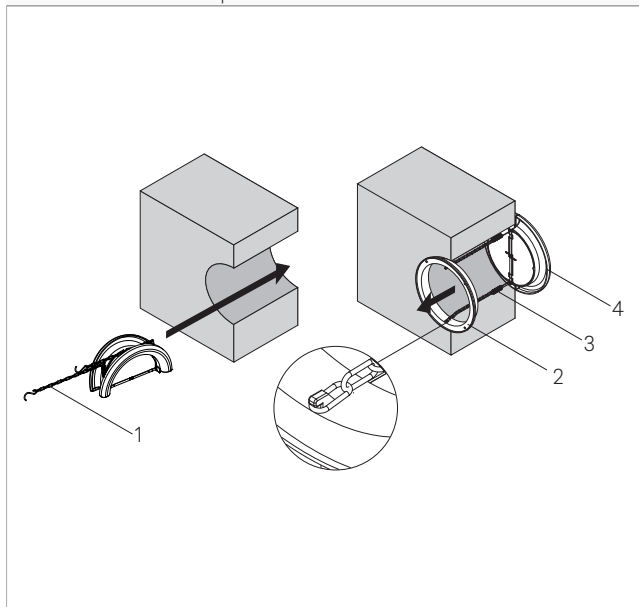
**OUT:** air delivery damper

- ⚠ Use only the dampers supplied with the unit.

<b>1.</b>	Paper template
<b>2.</b>	Air intake damper (IN)
<b>3.</b>	Air expulsion damper (OUT)



1. Chain
2. Counterflange
3. Spring
4. External air damper



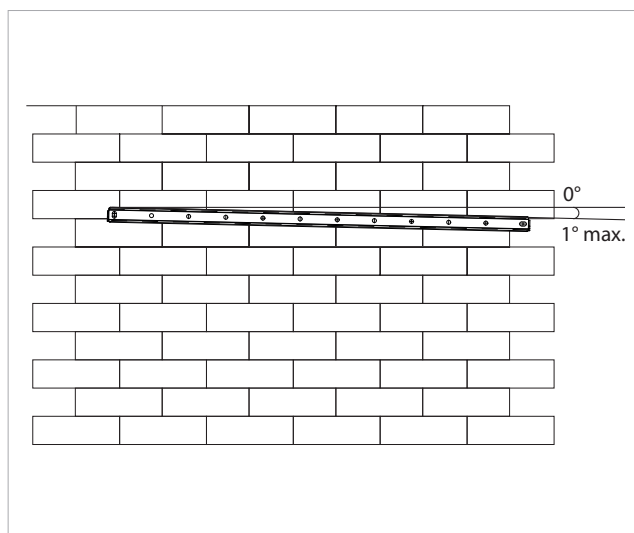
- fold the damper
- insert it in the duct until it comes out on the other side of the wall
- hold the chains with the other hand so that the damper does not fall
- open the damper outside of the hole
- rotate the damper so that the flaps are in vertical position
- insert the counterflange in the hole toward the interior of the room
- rotate it so that the hooks are in vertical position
- pull the chains so that the springs are in tension
- hook the chains to the counterflange
- cut off the excess of chain

### Fixing the bracket

The devices are provided with metallic support for mounting on the wall.

- use the paper template
- mark the positions of the fixing holes
- use a drill
- mark the position of the mounting holes
- fix the metallic support with the screws and the wall plugs

- ⚠ The 6 plugs supplied make it necessary to make holes with a diameter of 8 mm.
- ⚠ Place the metallic support on a level surface that is capable of supporting its weight.



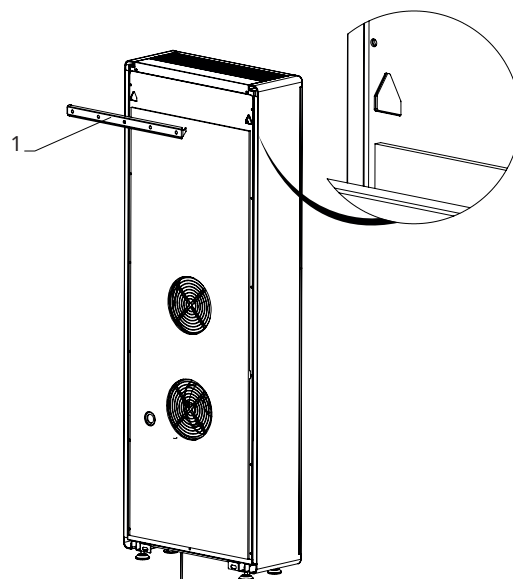
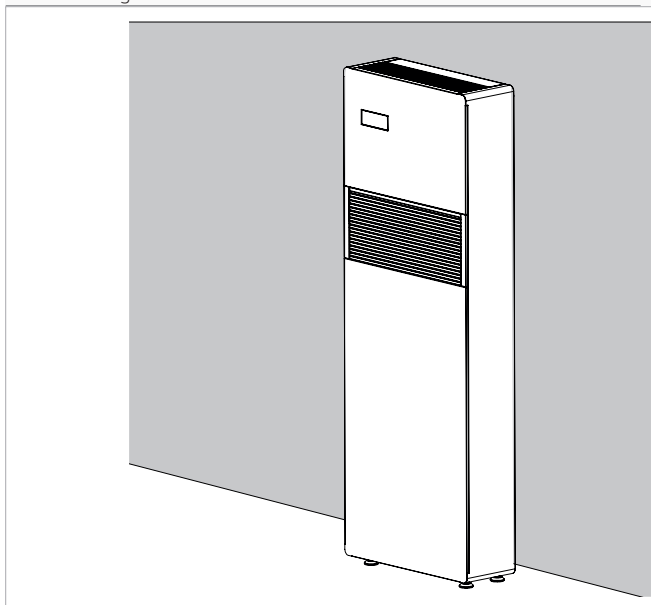
- ⚠ Check that the installation is horizontal using a water level.
- ⚠ A maximum inclination of 1° towards the right side of the appliance is allowed to facilitate the drainage of condensate.

## Positioning the device

⚠ Check that the fixing bracket is securely attached to the wall.

⚠ Check that electrical connection and condensate drainage arrangements have been made, if necessary.

### 1. Fixing bracket

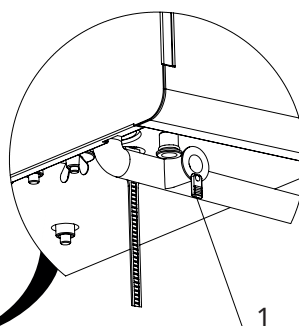
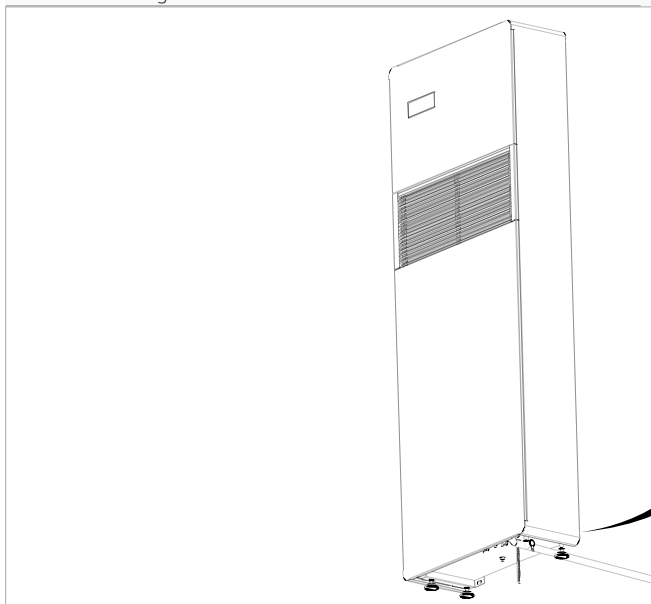


- lift the device
- Fit the bracket in the provided places on the unit

⚠ The operations of electrical connection and fixing the condensate drain must be carried out with the appliance spaced from the wall by means of a wooden wedge or similar object.

⚠ After completion, check with care that no fissures remain behind the back of the unit, especially in the area of the air inlet and outlet pipes.

### 1. Anti-lifting bracket



To increase the safety of the installation, it is possible to anchor the unit to the wall by means of a special bracket on the bottom of the unit.

⚠ The position of the holes can be taken from the installation template.

## 4.11 Condensation drain preparation

This appliance is complete with a tray for collecting the condensation produced during heating, cooling and dehumidification operation.

The size and positioning of the drainage tube are shown below.

In heating operation, condensation should be conveyed to a appropriate place by providing a condensate drain.

In cooling or dehumidification operation, the unit has a system for self-disposal of condensation.

In these modes of operation, an external condensate drain does not need to be provided.

In cooling or dehumidification function, in extreme operating condition (high temperature and high humidity) the unit may not be able to automatically dispose of the produced condensate, in this case the display will show OF.

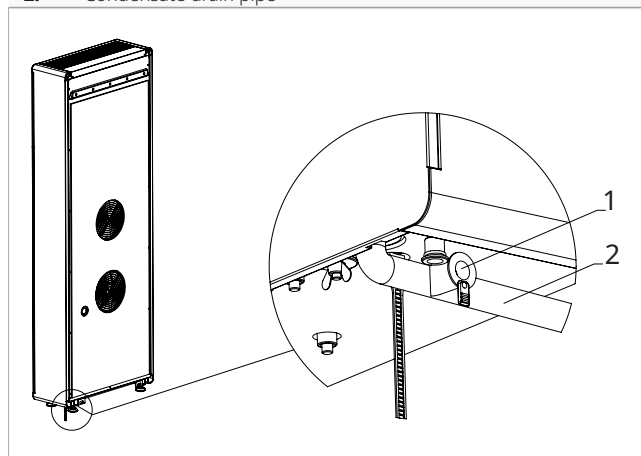
Refer to the "Maximum condensate collection level warning" [p. 28](#) section for more details.

### 4.11.1 Preliminary warnings

- ⚠ If the line flows into a container (e.g. a tank), do not close the container hermetically and avoid immersing the draining pipe into the water.
- ⚠ A solenoid valve will guarantee the drainage of condensate from the internal tray when the maximum level is reached.
- ⚠ The hole for the condensation pipe must always slope towards the outside.
- ⚠ The exact position in which to place the pipe mouth is indicated on the template.
- ⚠ Check that the expelled water does not cause any damage or problems to people or objects. During winter, this water may create sheets of ice outside.
- ⚠ When connecting the condensation drain, be careful not to squeeze the rubber duct.
- ⚠ It is possible to empty the collection tray using the safety drain at the base of the appliance if necessary.
- ⚠ If you do not want to prepare an external drainage pipe in "cold only" mode, it is advisable to close the condensate drain with a plug.

### 4.11.2 Positioning

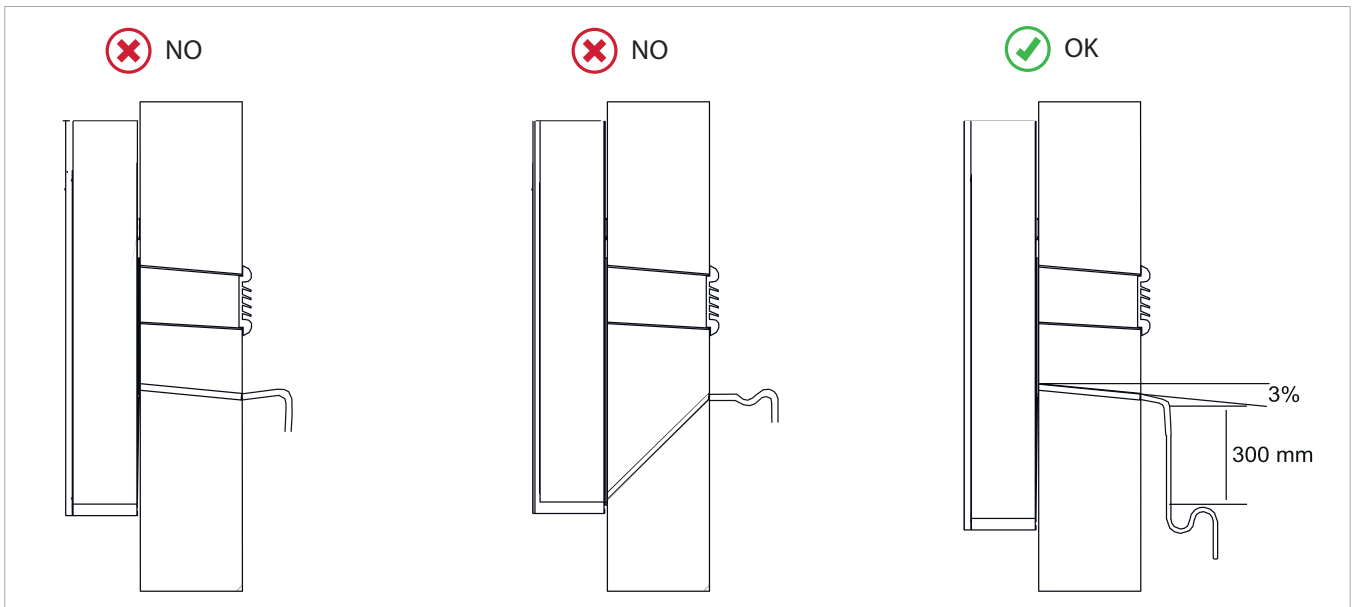
1. Safety drain for emptying tray
2. Condensate drain pipe



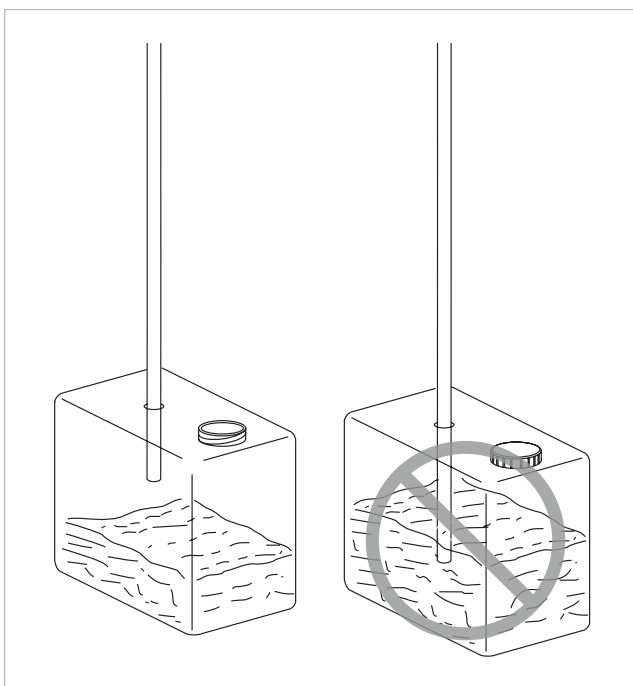
The device is factory supplied with a stub pipe connected to the condensation drain connection. If it is not enough:

- remove the nozzle from the discharge connection
- connect a drainage pipe of greater length not supplied
- keep a minimum slope of 3% towards the drain location
- insulate fitting points

- ⚠ Use plastic drainage pipes.
- ⚠ Avoid pipes made of metallic material.
- ⚠ Drainage pipes can be made of rigid or flexible material with a minimum internal diameter of 16 mm.
- ⚠ Make sure all joints are sealed to prevent leakage of water.
- ⚠ Condensate drainage pipes must be insulated for both indoor and outdoor sections of the house to avoid condensation on the surface and/or freezing problems.
- ⚠ If needed it is possible to empty the condensation collection pan through a safety drain provided on the base of the device. See Chapter Extraordinary maintenance



- ⚠ Drainage of condensation occurs by gravity.
  - ⚠ The drain line must have a minimum slope of 3%.
- If using a jug for collecting the condensation:**



- ⚠ Avoid the hermetic closure of the container.
- ⚠ Prevent the end of the drainage tube from falling below the water level.

**If draining into the sewage system:**

- ⚠ The discharge system must feature a suitable syphon in order to prevent air from entering the vacuum system. The syphon also prevents odours and insects from entering the system.
- ⚠ The syphon must feature a plug in its lower part or must otherwise allow for a quick disassembly for cleaning purposes.

**If using an open drain:**

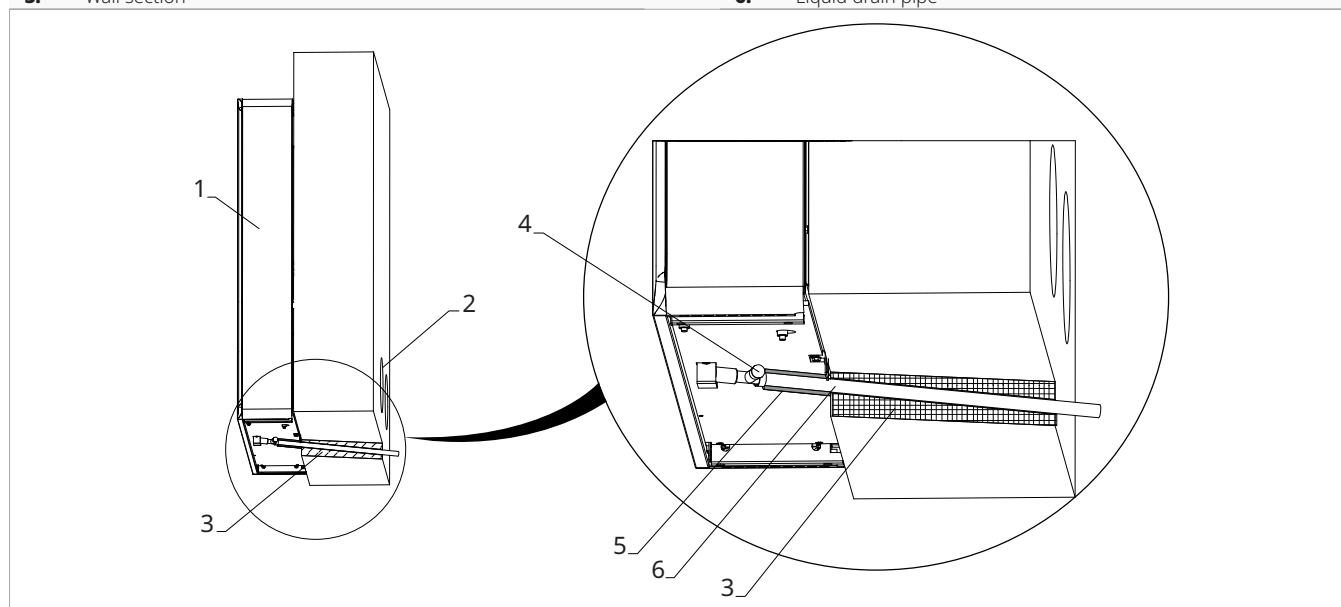
- ⚠ If the condensation is not collected, it will be deposited on the support surface. The water could freeze if the outdoor temperatures are below zero, thus creating a hazard. In this case, appropriate barriers should be installed in order to prevent people from approaching the area.

**4.11.3 Condensate drain pipe insulation**

In case of condensate drain pipe use, the pipe must be coated with anti-condensation insulation for the internal part of the building and the wall (internal diameter 10 mm).

- ⚠ The insulation must be fitted until the condensate drain pipe is plugged into the connection provided on the unit.

1.	...2.0 Verticale	4.	Emergency drain
2.	Ventilation holes	5.	Insulator
3.	Wall section	6.	Liquid drain pipe



## 4.12 Electric connections

The device is supplied with a power cable with plug (Y-connection).

In case of using a socket near the device, insert the plug.

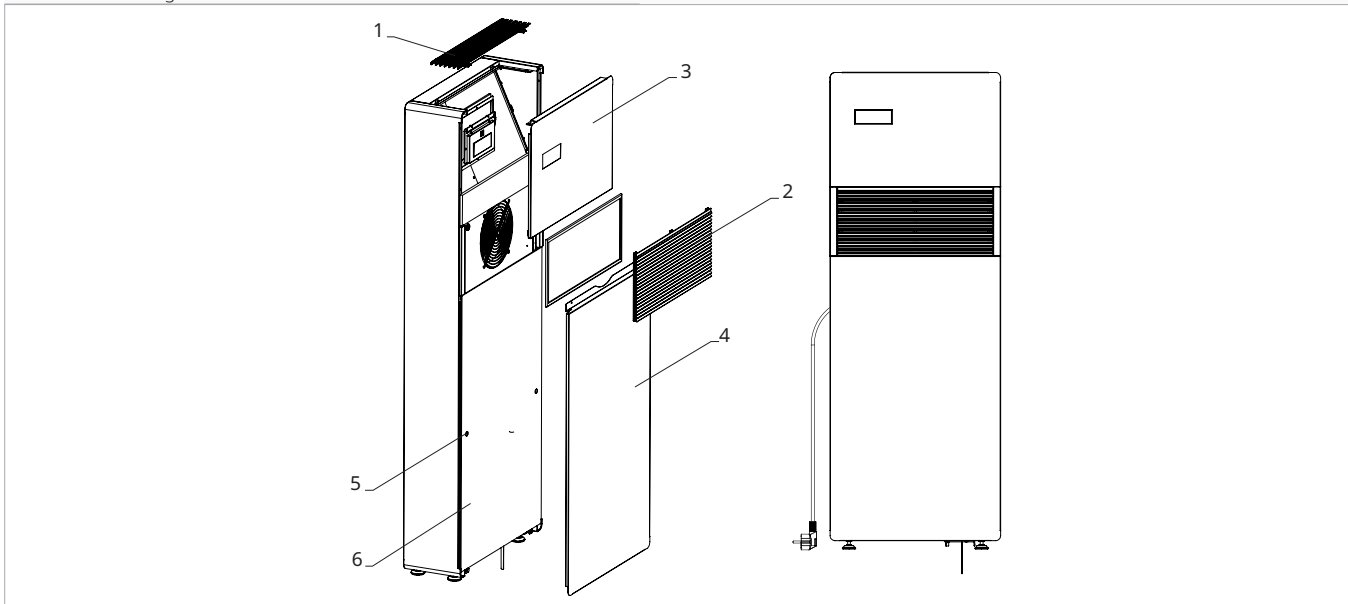
### 4.12.1 Preliminary warnings

- ⚠ If you need to replace the power cable, contact only qualified staff and in compliance with the applicable national laws.
- ⚠ Before connecting the conditioner check that:
  - the power supply voltage and frequency values comply with the data plate of the appliance.
  - the line has a suitable earth connection and that it is sized for the maximum absorption of the conditioner (minimum cable section equal to 1,5 mm<sup>2</sup>).
  - the socket used is compatible with the plug provided
- ⚠ The electrical connection can be made by a cable recessed into the wall as indicated on the installation template.
- ⚠ The appliance must be connected to 230V/50 Hz mains via an omnipolar switch with a contact opening distance of minimum 3 mm, or using a device enabling the complete disconnection of the appliance in overvoltage III category conditions.
- ⚠ Please check that the power supply is provided with suitable protections against overloads and/or short-circuits (using a 10 Amp Time delay fuse or other equivalent devices is recommended).
- ⚠ To prevent any risk of electrocution, always disconnect the main circuit breaker before making electric connections or performing any maintenance on the units.
- ⚠ Access to the electrical panel is only necessary when replacing the wired cable or when using the presence contact.

### 4.12.2 Access to the electrical panel

- 1. 230V/50 Hz power supply terminal block
- 2. Presence contact CP
- 3. Upper water outlet grille
- 4. Air intake grille

- 5. Front panel
- 6. Fixing screws
- 7. Front closure panel



- ⚠ Access to the electrical panel is only permitted to qualified personnel.
- ⚠ Before doing any work, make sure that the supply power is disconnect.

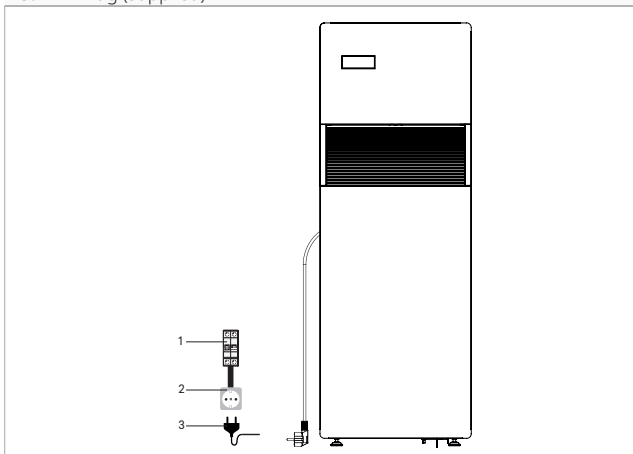
- To access:**
- remove the cosmetic panels (if fitted)
- To access the connections:**
- unscrew the screws of the electrical panel
  - remove the electrical panel cover

### 4.12.3 Connection

The appliance leaves the factory fully wired and equip-ped with a cable with Y-type plug for connection to the power supply. To power the unit simply insert the plug into a suitable socket protected by a circuit breaker.

- ⚠ In the event of damage to the power cable, contact the Technical Service Centre or qualified personnel for replacement.
- ⊘ It is forbidden to replace damaged cables yourself.

- 1. Circuit breaker
- 2. Y-type socket
- 3. Plug (supplied)

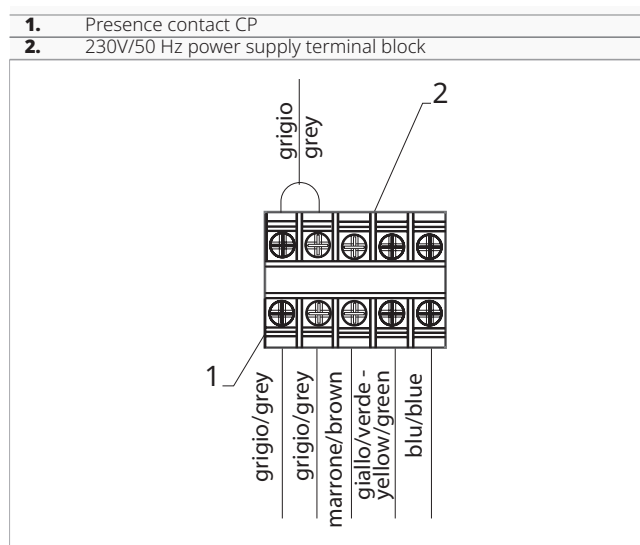


### 4.12.4 CP occupancy contact input connection

When the CP contact opens (very low voltage, connected to a free non-live contact) the appliance is put in stand-by and CP appears on the display.

Through this contact it is possible to connect an external device that inhibits operation of the unit such as: window opening contact, remote on/off, infrared presence sensor, activation ba-dge etc.

- ⚠ We recommend using a double insulation cable.
- ⚠ If the CP contact is not closed, the device does not start and the CP alarm appears on the display.



## 4.13 Functions

### 4.13.1 Setting cooling only or heating only mode


It is possible to disable the heating or cooling function by setting the unit to cold only or hot only mode.

- keep pressed the **A** button on the display for 5 seconds  
*Appear HC (heating and cooling).*
- press again the **A** key  
*Appear CO cooling only.*
- press again the **A** key  
*Appear HO heating only.*  
*Wait for 3 seconds without touching anything to memorise the setting.*

### 4.13.2 Brightness control


The display brightness sensor can be disabled (leaving the maximum brightness at all times).

#### To adjust the brightness of the display:

- press the  key for 10 seconds  
*"ds" (disabled) or "En" (enabled) appears.*


### 4.13.3 Touch screen display key lock

#### To activate the lock:

- press the key for 3 seconds   
*The key lock function is activated on the display.*  
*The stand-by symbol flashes every second.*


 Any action is prevented by the user.

#### To deactivate the lock:

- press the key for 3 seconds   
*The lock remains active also for the next operations performed via remote control and in the event of a power failure.*

### 4.13.4 hotel function

#### To enable the Hotel function:

- press the  key for 10 seconds

#### If the "En" function is enabled :

- the dehumidification and Auto functions are disabled
- only ventilation, heating and cooling are left on
- is reduced from 22 to 28 in cooling mode and from 16 to 24 in heating mode.

## 4.14 Operations after installation

Before leaving the site, the packaging should be gathered up and all traces of dirt that have deposited on the unit during assembly should be eliminated with a damp cloth.

Once all the checks and controls on the correct operation of the appliance have been completed, the installer must explain the following to the user:

- the basic characteristics of the appliance
- the instructions for use
- the routine maintenance
- how to clean the filter

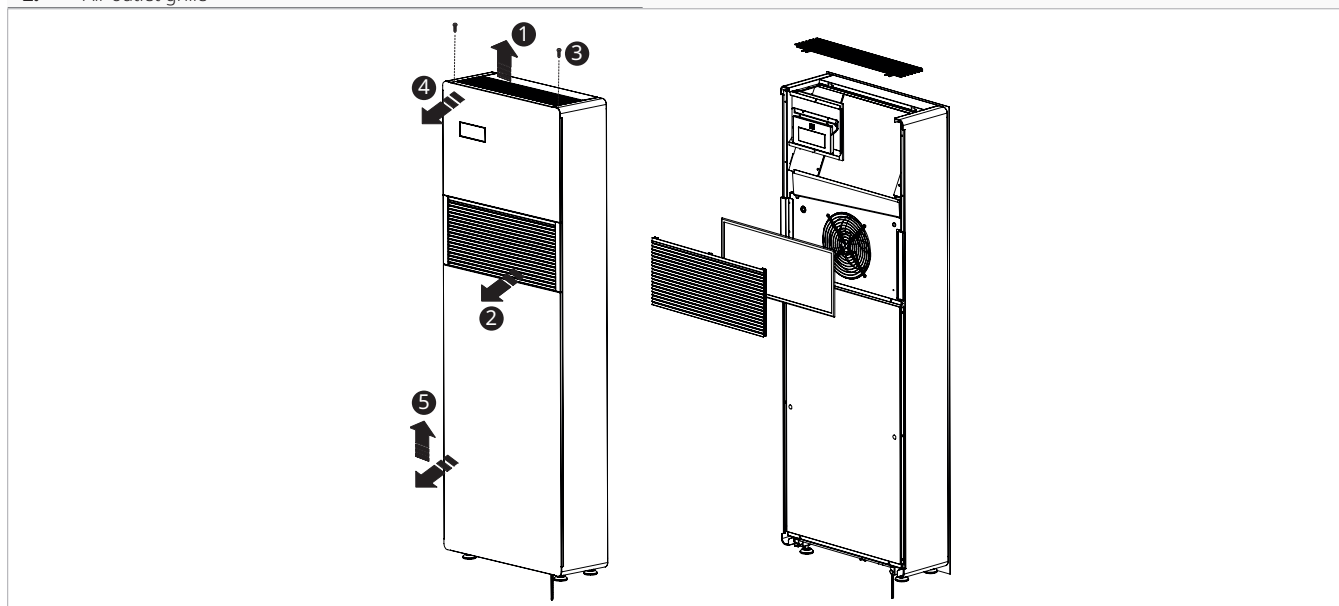


## 4.15 Disassembly and assembly of cosmetic panels and grilles

⚠ Before doing any work, make sure that the supply power is disconnect.

1. Air intake grille
2. Air outlet grille

3. Fixing screws



### To remove:

- remove the air intake grille
- remove the air outlet grille
- Unscrew the two screws
- remove the two screws securing the aesthetic panel
- remove the aesthetic panel by pushing it upwards

⚠ To assemble the panels, proceed in reverse order.

## MAINTENANCE

### 5.1 Preliminary warnings

**Before each cleaning and maintenance intervention:**

- disconnect the device from the power mains by turning the system master switch to "OFF"
- wait for the components to cool down in order to avoid any burns

- ⊖ Carrying out any technical or cleaning work before disconnecting the unit from the power supply is forbidden.
- ⚠ Make sure that there is no voltage before operating.
- ⚠ After completing the maintenance work, must be restored the original condition.

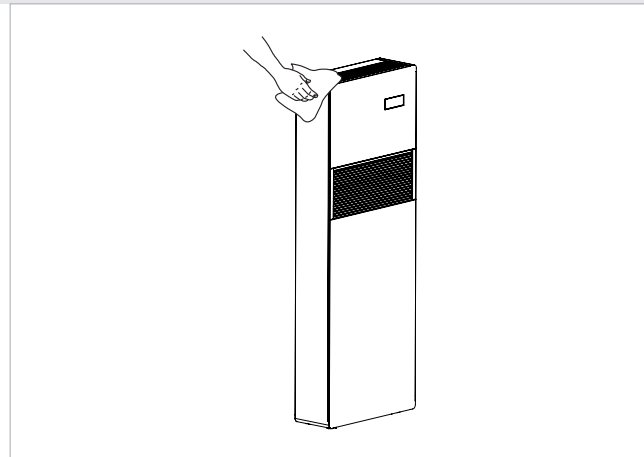
### 5.2 Routine maintenance

The routine maintenance plan includes the following cleaning operations.

#### 5.2.1 External cleaning

Clean the external surfaces with a soft damp cloth.

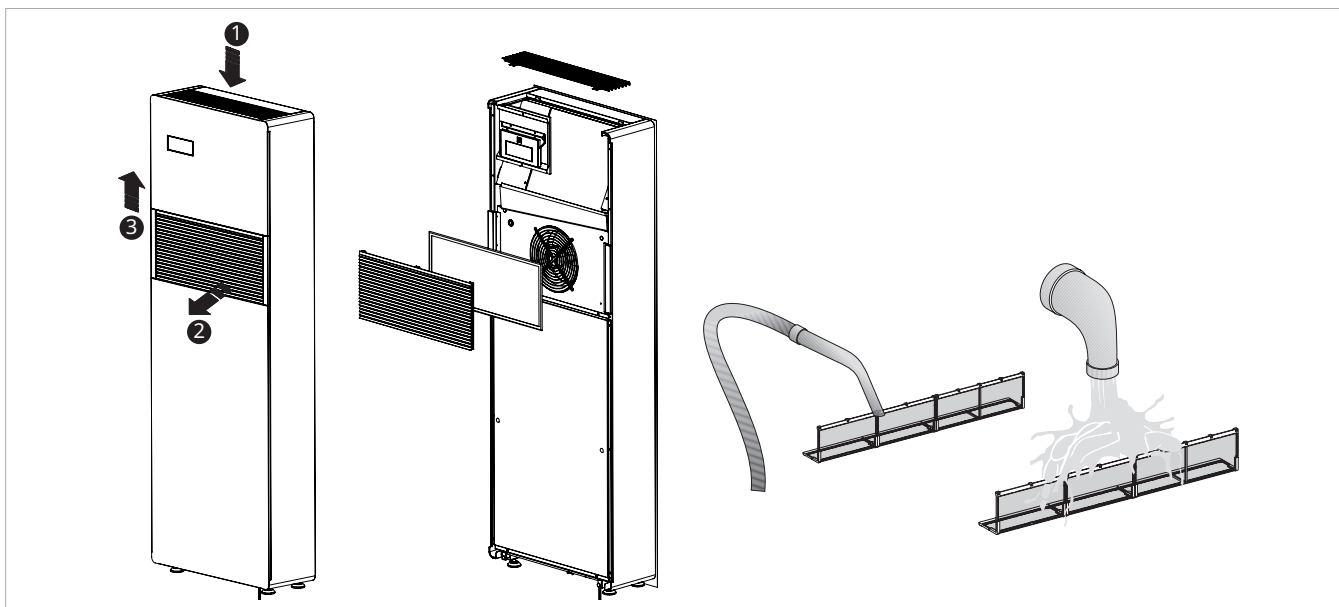
- ⚠ Disconnect the unit from the power supply before each cleaning and maintenance intervention by setting the main power supply switch to off.
- ⚠ Do not use abrasive sponges or abrasive or corrosive detergents as you might damage the painted surfaces.



#### 5.2.2 Cleaning the filters

Clean the air filter after a period of continuous use and according to the concentration of impurities in the air, or when you wish to start-up the appliance after a period of inactivity.

- ⚠ The filter is located in the top part of the appliance.
- ⚠ Wait for the components to cool down in order to avoid any burns.
- ⚠ Pay attention to the sharp edges.
- ⚠ For grid disassembly operations see chapter "Disassembly and assembly of cosmetic panels and grilles" p. 25.
- ⚠ For grid assembly operations see chapter "Disassembly and assembly of cosmetic panels and grilles" p. 25.
- ⚠ Do not use detergents or solvents.
- ⚠ After filter cleaning check if the panel is properly mounted.
- ⊖ It is forbidden to use the device without mesh filter.

**To clean the filter:**

- remove the grid
- extract the filter by lifting it
- remove the dust from the filter with a vacuum cleaner or by washing it in running water
- allow it dry
- put the filters back on top of the coils, taking care to position them correctly

## TROUBLESHOOTING

### 6.1 Troubleshooting table

In the event of a malfunction, please refer to the following table. If, after performing the suggested checks, the prob-

lem is not solved, please contact the authorised technical assistance.

Anomalies	Possible causes	Remedies
The appliance doesn't switch on	No power supply	Check there is power supply (by turning a light on, for example). Check that the thermal-magnetic circuit breaker used exclusively to protect the appliance has not been tripped (if it has, reset it). If the problem repeats immediately, please call the Service Centre and avoid trying to make the appliance work.
	Remote control batteries have run out	Check that the appliance can be turned on using the touch-screen display and substitute the batteries.
The appliance does not cool/heat adequately.	The temperature set is too high or too low.	Check and, if necessary, adjust the temperature setting on the remote control
	The air filter is clogged	Check the air filter and clean it if necessary
	Check that there are no other obstacles to the air flow both inside and outside.	Remove anything that might block the air flow.
	The heating and cooling load has increased (for example, a door or a window has been left open or an appliance has been installed in the room which generates a lot of heat).	Try to reduce the heating and cooling load of the room following instructions below: Cover large windows exposed to sunlight with curtains or with external maskings (blinds, porches, reflecting films, etc.); The air conditioned room must remain closed for as long as possible; Avoid turning on halogen lamps or other high energy consumption appliances such as small ovens, steam irons, hot plates etc.).

### 6.2 Diagnosis of possible anomalies

If the conditioner blocks because of an alarm (see following table), please communicate to the assistance centre the code on the display to facilitate interventions.

Acronym to display	Cause	Function
E1	Faulty room temperature RT probe	It is possible to normally activate the Cooling, Dehumidification and Heating modes. The regulation only monitors the internal coil antifreeze.
E2	Faulty internal coil IPT sensor	None of the modes can be activated.
E3	Faulty outdoor air temperature OT probe	None of the modes can be activated.
E4	Faulty external coil OPT sensor	It is possible to normally activate the Cooling, Dehumidification and Heating modes. The control performs defrosting cycles at fixed times.
E5	Faulty indoor air fan motor	None of the modes can be activated.
E6	Faulty outdoor air fan	None of the modes can be activated.
E7	Lack of communication with the display	None of the modes can be activated.
E8	Compressor discharge probe failure	None of the modes can be activated.
CP	Open CP contact	The appliance does not switch on. Check the connection of the terminals.

#### 6.2.1 Open CP contact

If the presence contact is not closed, the appliance will not start and the **CP** alarm appears on the display.

⚠ Please refer to chapter "CP occupancy contact input connection" [p. 23](#).

#### 6.2.2 Maximum condensate collection level warning

In heating operation, condensate drains free through the appropriate pipe.

In case of an OF alarm, check that the condensation drain line is not bent or obstructed to prevent water from draining out.

In cooling or dehumidification function, in extreme operating condition (high temperature and high humidity) the unit may not be able to automatically dispose of the produced condensate, in this case the display will show OF. The OF sign, is not an error, but an alarm indicating that the water has reached the maximum level of the condensate drip tray.

In this case, it is necessary to drain the condensate manually:

- place the basin (not supplied) below the condensate drain pipe
- drain the water using the cap on the condensate drain pipe

⚠ If after performing the procedure, the OF alarm remains, you should contact the Technical Service Center.

### 6.2.3 Use of the appliance

⚠ Objects or structural obstacles (furniture, curtains, plants, leaves, blinds, etc.) must not obstruct the normal air flow both from the internal and from the external grids.

⚠ Do not lean against, or worse sit on, the body of the conditioner, this would damage the appliance.

⚠ Do not move the horizontal air outlet flap manually. Always use the remote control to perform such operation.

⚠ In the event of water leaks, turn off the appliance and disconnect the electric power supply. Call the nearest service centre.

⚠ During heating mode, the conditioner eliminates periodically any ice formed on the external battery. In such situation, the machine keeps on working, but it does not dispense warm air to the room. This phase can last from 3 up to maximum 10 minutes.

⚠ The appliance must not be installed in rooms where explosive gases develop or where there are humidity and temperature conditions that exceed the maximum levels reported on the installation manual.

⚠ Clean the air filter regularly as described in the specific paragraph.

## TECHNICAL INFORMATION

### 7.1 Technical data

Models	m.u.		10 HP	12 HP
<b>Cooling performance (AT 35°C; AT 27°C)</b>				
Maximum cooling capacity Dual Power	(1)	kW	2,60	3,11
Nominal cooling capacity	(1)	kW	2,04	2,35
Minimum Cooling Capacity	(1)	kW	0,81	0,92
EER			2,72	2,75
Energy efficiency class	(2)		A	
<b>Heating performance (AT 7°C; AT °C)</b>				
Maximum heat output Dual Power	(3)	kW	2,64	3,05
Nominal heat power	(3)	kW	2,10	2,36
Minimum heat output	(3)	kW	0,68	0,79
Total absorbed power	(3)	kW	0,67	0,75
COP			3,10	3,15
Energy class			A	
<b>Electrical data</b>				
Power Supply		V/ph/Hz	230/1/50	230/1/50
total input power		kW	0,95	1,06
Maximum absorbed current		A	4,40	4,80
<b>Aeraulic data indoor</b>				
Ventilation speed		Nr.	3	3
<b>General characteristics</b>				
Air flow rate at maximum internal speed		m <sup>3</sup> /h	380	400
Air flow rate at maximum external speed		m <sup>3</sup> /h	460	480
Air flow rate at medium internal speed		m <sup>3</sup> /h	310	320
Air flow rate at medium outdoor speed		m <sup>3</sup> /h	380	390
Air flow rate at minimum internal speed		m <sup>3</sup> /h	260	270
Air flow rate at minimum external speed		m <sup>3</sup> /h	330	340
Type of compressor			Rotary - DC Inverter	
<b>Sound data</b>				
Nominal sound pressure	(4)	dB(A)	41	43
Minimum sound pressure level	(4)	dB(A)	28	29
<b>Refrigerant gas data</b>				
Refrigerant			R410a	
Refrigerant charge		kg	0,56	0,56
1. Outdoor air temperature 35 °, relative humidity 41%. Ambient temperature 27 ° C; relative humidity 47%. Performance according to EN 14511 2. Energy Efficiency according to Directive 626/2011 3. Fresh air temperature 7 °C, relative humidity 87%. Room temperature 20°C, relative humidity 59% (max). Performance according to UNI 14511 4. Internal side sound pressure measured in semi-anechoic chamber at a distance of 2 m according to ISO 7779				

Min. cooling temp. room temp. 18 °C / outdoor temp. -5 °C - Max. cooling temp. room temp. 32 °C / outdoor temp. 43 °C

Min. heating temperature Room temperature 5 °C / Outside temperature -10 °C - Max. heating temperature Room temperature 25 °C / Outside temperature 18 °C

### Reference conditions

		Environment T	External T
(1)	Cooling mode tests (EN 14511)	DB 27 °C - WB 19 °C	DB 35 °C - WB 24 °C
(2)	Heating mode tests (EN 14511)	DB 20 °C - WB 15 °C	DB 7 °C - WB 6 °C
(3)	Heating mode tests	DB 20 °C - WB 15 °C	DB -7 °C - WB -8 °C
(4)	Internal side sound pressure measured in semi-anechoic chamber at a distance of 2 m.		
(5)	Internal side sound pressure measured in accordance with regulation EN 12012		

### Operating limits

	Indoor environment T	External environment T
Maximum operating temperature in cooling mode	DB 32 °C	DB 43 °C
Minimum operating temperature in cooling mode	DB 18 °C	DB -5 °C
Maximum operating temperatures in heating mode	DB 27 °C	DB 18 °C
Minimum operating temperatures in heating mode	DB 5 °C	DB 10 °C

## 7.2 Dimensions

		..2.0 Verticale	
Models	m.u.	10 HP-Inverter 230 V	12 HP-Inverter 230 V
<b>Product dimensions and weight</b>			
Total width	mm	500	500
Total height	mm	1398	1398
Total depth	mm	185	185
Wall hole diameter	mm	162	162
Wall holes distance	mm	293	293
Empty weight	kg	57,0	57,0

## 7.3 Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment.

All guidelines must therefore be allowed at all times to ensure safe use of the equipment.

## 7.4 RED Compliance Statement

### Compliance with 2014/53/EU Radio Equipment Directive (RED).

In accordance with Article 10.8(a) and 10.8(b) of the RED, the following table provides information on the frequency

bands used and the maximum RF transmit power of the product for sale in the EU:

Frequency range (MHz)	Max. Transmit Power
2400-2472	< 20

Hereby, the company declares that the device is in compliance with Directive 2014/53/EU.

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

⚠ For declarations of conformity, certificates and other certification details please consult the website.



**innova**

INNOVA S.r.l.  
Via I Maggio 8 - 38089 Storo (TN) - ITALY  
tel. +39.0465.670104 - fax +39.0465.674965  
[info@innovaenergie.com](mailto:info@innovaenergie.com)