

Heat recovery unit  
decentralized

---

*First of all, we would like to thank you for having decided to give your preference to one of our products.*

*As you can see, you have made a winning choice as you have purchased a product that represents the state of the art in home air conditioning technology.*

*By implementing the suggestions contained in this manual, thanks to the product you have purchased, you will be able to enjoy optimal environmental conditions without problems with the least investment in terms of energy.*

## Compliance

This unit complies with the European directives:

- Low Voltage Directive 2014/35/EU through the implementation of the following technical standards: EN 60335-1:2012 + EN 60335-2-80:2003
- EMC Directive 2014/30/EU, through the implementation of the technical standards: EN 55014-1:2021 + EN 55014-2:2021 + EN IEC 61000-3-2:2019+A1:2021 + EN 61000-3-3:2013+A2:2021
- RoHS Directive 2011/65/EU through the implementation of the following technical standards: EN IEC 63000:2018
- European ErP Ecodesign Regulation No. 1254/2014

## Markings



# INDEX

## 1 General ...p. 5

- 1.1 About this manual .....[p. 5](#)
- 1.2 General warnings .....[p. 6](#)
- 1.3 Basic safety rules .....[p. 6](#)
- 1.4 Disposal .....[p. 7](#)

## 2 Product introduction ...p. 8

- 2.1 Identification .....[p. 8](#)
- 2.2 Intended use .....[p. 8](#)
- 2.3 Description of the appliance.....[p. 8](#)
- 2.4 External components list.....[p. 9](#)
- 2.5 Internal components list .....[p. 9](#)
- 2.6 Compatible accessories .....[p. 10](#)

## 3 Installation ...p. 12

- 3.1 Preliminary warnings .....[p. 12](#)
- 3.2 Reception .....[p. 12](#)
- 3.3 Storage.....[p. 12](#)
- 3.4 Installation location .....[p. 12](#)
- 3.5 Minimum installation distances .....[p. 13](#)
- 3.6 Positioning .....[p. 14](#)
- 3.7 Electrical connections .....[p. 17](#)
- 3.8 Finishing .....[p. 19](#)

## 4 Remote control...p.20

- 4.1 Interface .....[p. 20](#)

## 5 Commissioning ..p. 22

- 5.1 Preliminary warnings .....[p. 22](#)
- 5.2 Initial start-up .....[p. 22](#)
- 5.3 Delivery of the system .....[p. 24](#)
- 5.4 Switching off for long periods .....[p. 24](#)

## 6 Maintenance ...p. 25

- Routine maintenance .....[p. 25](#)

## 7 Troubleshooting ...p. 27

- 7.1 Preliminary warnings .....[p. 27](#)
- 7.2 Table of faults and remedies .....[p. 27](#)

## 8 Technical information ...p. 28

- 8.1 Technical data .....[p. 28](#)

---

8.2 Dimensions .....	<u>p. 29</u>
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## GENERAL INFORMATION

## 1.1 About this manual

This manual has been designed with the aim of providing all the explanations for the correct management of the appliance.

This instruction booklet is an integral part of the appliance and must therefore be carefully preserved and must ALWAYS accompany the appliance even if it is sold to another owner or user, or transferred to another system. In the event of damage or loss, download a copy from the website.

Read this manual carefully before proceeding with any operation and strictly follow the instructions in the individual chapters.

In each chapter of the document there are specific warnings that must be read before starting operations.

The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the rules contained in this booklet.

Document reserved by law with prohibition of reproduction or transmission to third parties without explicit authorization of the company.

### Editorial pictograms

The pictograms shown in the following chapter allow you to quickly and unambiguously provide the information needed for the correct use of the machine in safe conditions.

### Safety related

#### High risk warning (bold text)

- Indicates that the operation described presents, if not carried out in compliance with safety regulations, the risk of suffering significant physical damage, death, serious damage to the appliance and/or the environment.

Low risk warning (plain text)

- Indicates that the operation described presents, if not carried out in compliance with safety regulations, the risk of suffering minor physical damage to the appliance and/or the environment.
- Prohibition (plain text)
- Mark actions that absolutely must not be done.
- **Important information (bold text)**
- It indicates important information that must be taken into account in the operations being carried out.

#### In the texts

#### Purpose of the actions

#### ► Actions required

*Expected responses following an action*

#### • Lists

### In the figures

1 The numbers indicate the individual components.

A Capital letters indicate a set of components and the shares.

1

The white numbers in black dots indicate a series of actions to be carried out in sequence.

A

The black letter in a white dot identifies an image when there are multiple images in the same figure.

### Pictograms on the product

The following symbols are used in some parts of the appliance:

### Safety related



#### Warning electricity hazard

- Warn relevant personnel of the presence of electricity and the risk of electric shock.

### Recipients

#### User

An inexperienced person capable of operating the product in conditions of safety for people, for the product itself and for the environment, interpreting basic diagnostics of faults and anomalous operating conditions, carrying out simple adjustment, verification and maintenance operations.

#### Installer

Experienced and qualified person to position and connect the unit to the system hydraulically, electrically, etc.: he is responsible for handling and correct installation as indicated in this manual and by current national legislation.

#### Service

Expert, qualified person authorised directly by the factory to carry out all ordinary and extraordinary maintenance operations, as well as any adjustments, checks, repairs and replacements of parts that may be necessary during the life of the unit itself.

### Organization of the manual

The manual is divided into sections, each dedicated to one or more recipients.

**General information**

It is addressed to all recipients.

Contains general information and important warnings that must be known before installing and using the appliance.

#### Product Introduction

It is aimed at all recipients and contains general information to learn about the product.

#### Installation and Command

It is addressed only and exclusively to the Installer. It contains specific warnings and all the information necessary for positioning, assembly, connection of the appliance and the control.

**Commissioning, Maintenance and Troubleshooting** They are addressed only and exclusively to the Technical Assistance Center.

Contains specific warnings and useful information for commissioning and routine maintenance. **Technical information**

It is addressed to all recipients.

Contains detailed technical information about the device.

## 1.2 General warnings

In each chapter of the document there are specific warnings that must be read before starting operations.

All personnel involved must be aware of the operations and dangers that may arise when starting any installation operations on the unit.

Installations carried out outside the warnings provided in this manual and use of the appliance outside the prescribed temperature limits will void the warranty.

Any contractual or extra-contractual liability for damages caused to persons, animals or things, by installation, adjustment and maintenance errors or by improper use is excluded. All uses not expressly indicated in this manual are not permitted.

The installation of the appliances must be carried out by a qualified company which, at the end of the work, issues the person responsible for the system with a declaration of conformity in compliance with the current regulations and the indications provided in the instruction booklet supplied with the appliance.

Initial start-up and repair or maintenance operations must be carried out by the Assistance Centre

Technician or qualified personnel as provided in this booklet.

Do not modify or tamper with the appliance as this may create dangerous situations.

During installation and/or maintenance operations, use suitable and accident-preventing clothing and tools. The manufacturer declines all responsibility for failure to comply with current safety and accident prevention regulations.

In case of liquid or oil leaks, turn the main switch of the system to "off" and close any water taps. Call, promptly, the authorized Technical Assistance Center, or professionally qualified personnel and do not intervene personally on the appliance.

When replacing components, use only original spare parts.

The manufacturer reserves the right to make changes to its models at any time in order to improve its product, without prejudice to the essential characteristics described in this manual. The company is not obliged to add such changes to machines previously manufactured, already delivered or under construction.

## 1.3 Basic safety rules

We remind you that the use of products that use electricity and water requires compliance with some fundamental safety rules such as:

This appliance can be used by children aged from 8 years and above and by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they are supervised or have received instructions on how to use the appliance safely and understand the hazards involved. Children must not play with the appliance.

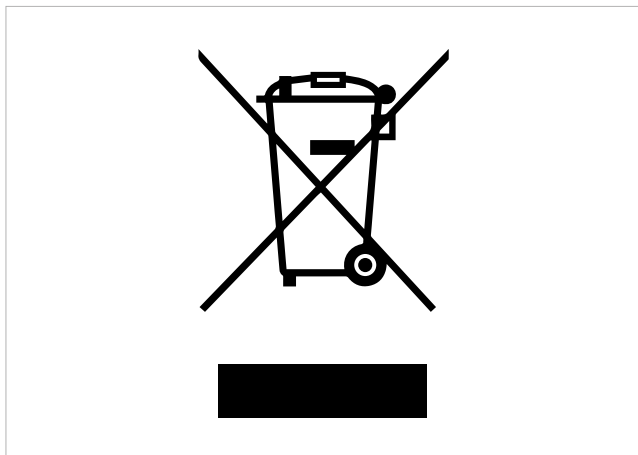
Cleaning and user maintenance must not be carried out by children without supervision.

Precautions must be taken to prevent backflow of gas into the room from the flue pipe or other fuel-burning appliances.

- The appliance must not be used by children or unassisted disabled persons.
- It is prohibited to touch the appliance with wet or damp parts of the body.
- It is forbidden to carry out any operation before disconnecting the appliance from the electrical power supply by setting the main switch of the system to "off".
- It is prohibited to modify the safety or regulation devices without the authorization and instructions of the appliance manufacturer.
- It is forbidden to pull, detach or twist the electrical cables coming out of the appliance, even if it is disconnected from the electrical power supply.
- It is forbidden to introduce objects and substances through the openings provided for air intake and outlet.

- It is forbidden to open the doors to access the internal parts of the appliance without first having set the main switch of the system to "off".
- It is forbidden to dispose of packaging material or leave it within the reach of children as it may be a potential source of danger.

## 1.4 Disposal



The symbol on the product or on 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.

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

For more detailed information about recycling 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 will result in the application of administrative sanctions provided for by current legislation.

This provision is valid only in EU Member States.

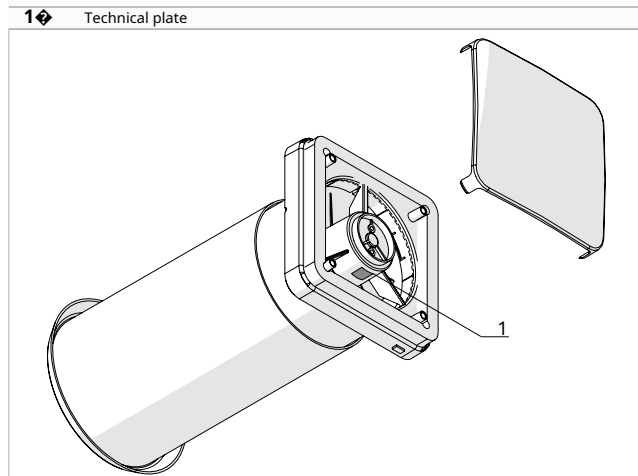
Avoid disassembling the appliance yourself.

**To disassemble the appliance, contact an authorised Technical Assistance Centre only.**

## PRODUCT INTRODUCTION

### 2.1 Identification

The appliance can be identified by the technical plate:



#### Technical plate

Reports the technical and performance data of the appliance.

Tampering with, removing or missing identification plates does not allow for the safe identification of the product through its serial number and therefore voids the warranty.

### 2.2 Intended use

The unit is a heat recovery unit that allows for the creation of high-performance Controlled Mechanical Ventilation without the need to create a system with pipes, diffusers and centralised units.

The appliance works on the principle of regenerative heat recovery through a ceramic exchanger placed inside

inside the unit and a DC Brushless fan with reverse cycle operation.

The air is constantly filtered through a Coarse filter installed on the front plate and easily accessible.

The control systems allow the choice of autonomous or coordinated operation of the installed devices, via temperature, humidity, light and IAQ sensors.

### 2.3 Description of the appliance

**Structure:** High resistance structure made of anti-UV and anti-static ABS

**Fans:** the unit is equipped with axial fans with DC Brushless motor

**Recovery:** High efficiency regenerative heat exchanger

**Filtration:** G3 low pressure drop filter

**Installation kit:** Telescopic pipe installation kit and external grille with flexible mesh for indoor and outdoor installation

**Adjustment:** The system management is entrusted to advanced but easy-to-use electronics, the regulation manages automatic, manual and combined operation.

**Models:** 2 sizes with different capacities are available

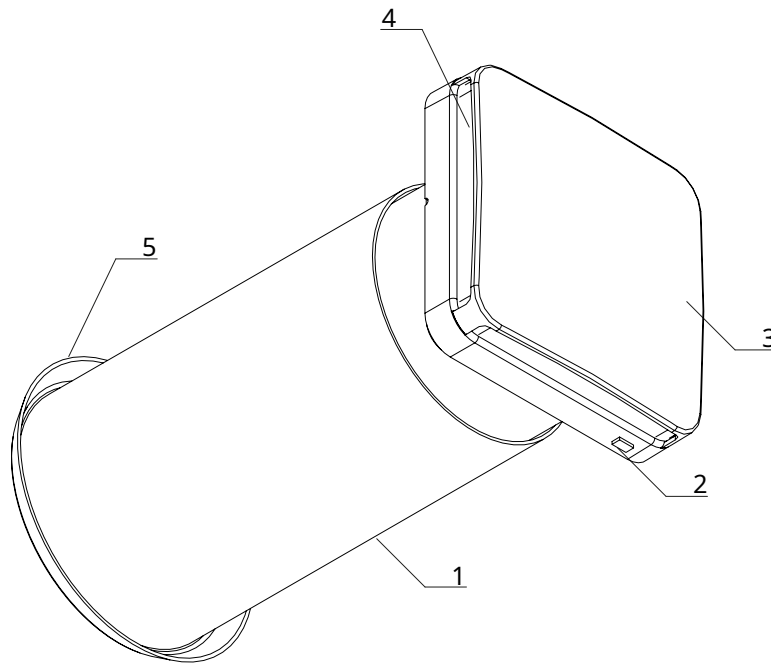


## 2.4 External components list

### Configuration A

- |    |                     |
|----|---------------------|
| 1. | Telescopic air duct |
| 2. | Led                 |
| 3. | Aesthetic cover     |

- |    |        |
|----|--------|
| 4. | Filter |
| 5. | Grill  |

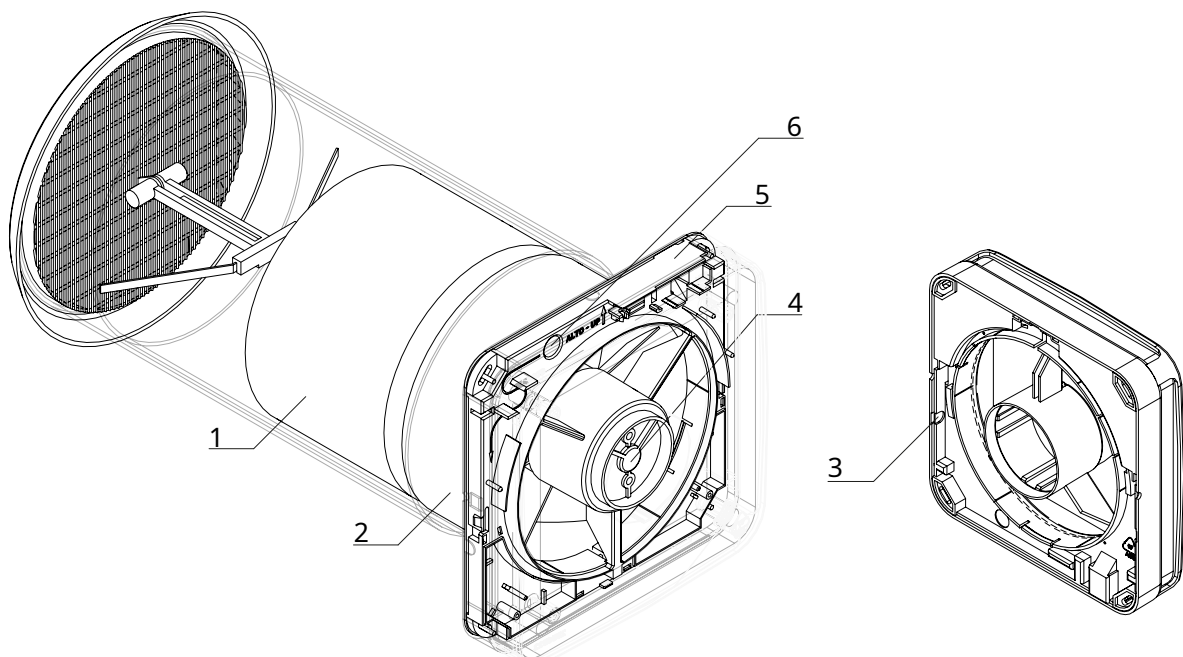


## 2.5 Internal components list

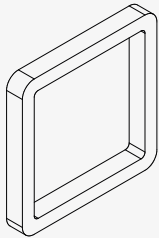
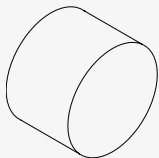
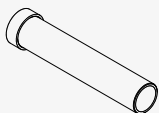

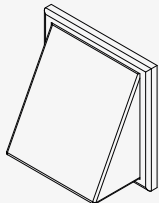
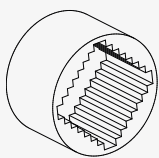
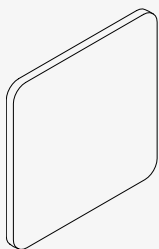
### Configuration A

- |    |  |
|----|--|
| 1. | Ceramic exchanger                          |
| 2. | Fan cover                                  |
| 3. | Pre-cut for external electrical connection |

- |    |   |
|----|---|
| 4. | Fan   |
| 5. | Appliance body                                |
| 6. | Pre-cut for under-floor electrical connection |



## 2.6 Compatible accessories

Description		Code
<b>Standard filter</b>		
	FDR - G3 Replacement Filter	AHRC0041
<b>Replacement ceramic exchanger</b>		
	SCR1 - Replacement ceramic exchanger Dn 100	AHRC0052
	SCR2 - Replacement ceramic exchanger Dn 160	AHRC0051
<b>ISO kit + ISO preparation</b>		
	KIS1 - Hole preparation with insulated pipe Dn 100	SCE112001
	KIS2 - Hole preparation with insulated pipe Dn 160	SCE116001
<b>Corner kit</b>		
	KUA1 - Angle outlet kit Dn 100	AHRC0090
	KUA2 - Angle outlet kit Dn 160	AHRC0091
<b>ABS external grilles</b>		
	External aesthetic plastic grill Dn 100	AHRC0030
	External aesthetic plastic grille Dn 160	AHRC0031
<b>Silencers</b>		
	Silencer for Dn 100 units	AHRC0032
	Silencer for Dn 160 units	AHRC0033
<b>Aesthetic coverages</b>		
	CF1 - Mirror metal front cover	AHRC0111
	CF2 - Satin metal front cover	AHRC0112
	CF3 - Front cover metal curtain	AHRC0113
	CF4 - Glossy metal front cover	AHRC0121
	CF5 - Glossy Black Front Cover	AHRC0122
	CF6 - Wenge wood front cover	AHRC0131
	CF7 - Bleached wood front cover	AHRC0132
	CF8 - Natural wood front cover	AHRC0133
	CF9 - MDF front cover	AHRC0141
<b>Accessories</b>		

Description	Code
 <p data-bbox="539 331 687 360">Mounting frame</p>	AHRC0061

## INSTALLATION

### 3.1 Preliminary warnings

**For detailed product information, please refer to chapter 8 p. 28.**

Installation must be performed by the installer. If the installation is not performed correctly, there may be a risk of electric shock or fire.

During installation, it is necessary to observe the precautions mentioned in this manual and on the labels placed inside the appliances, as well as adopt all precautions suggested by common sense and by the safety regulations in force in the place of installation.

It is recommended to use only the specific components for installation provided. The use of other components may cause water leakage, electric shock or fire.

Failure to apply the indicated rules may cause malfunctions of the equipment and releases the company from any form of guarantee and from any damage caused to people, animals or things.

### 3.2 Reception

#### Preliminary warnings

Upon receipt of the package, check that the packaging is not damaged, otherwise collect the goods with reservation, producing photographic evidence of any damage.

In case of damage, notify the carrier of any damage within 3 days of receipt by registered mail. Presenting photographic documentation, send similar information by fax to the manufacturing company.

No information relating to damages incurred can be taken into consideration after 3 days from delivery.

#### Package Description

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

The units are all checked and tested and are delivered complete and in perfect condition.

The device is shipped with standard packaging consisting of a cardboard box and a series of expanded polystyrene protectors.

### Storage

#### Preliminary warnings

Storage must be carried out in accordance with applicable national regulations.

Store in a closed environment protected from atmospheric agents, isolated from the ground by crosspieces or pallets with temperatures not lower than 0 °C, up to a maximum of 40 °C.

### 3.4 Installation location

The location of the appliance must be established by the system designer or by a competent person and must take into account both strictly technical requirements and any national/local legislation in force.

The appliance is intended to be installed indoors.

The installation position must be chosen close to a wall communicating with the outside.

The device is declared with IPX0 protection degree, therefore it is not suitable for outdoor installation or in rooms with the presence of water (swimming pools, etc.).

#### Preliminary warnings

Avoid installing the unit near:

- obstacles or barriers that cause the recirculation of the expelled air
- narrow places where the sound level of the appliance may be amplified by reverberations or resonances
- environments with the presence of flammable gases, explosive gases
- very humid environments (laundries, greenhouses, bathrooms with high humidity, etc.) to avoid the formation of condensation on the external panels of the unit

- environments with the presence of aggressive, explosive atmospheres or flammable fluids
- solar radiation and proximity to heat sources

**Avoid installing the unit near the sea. Salty atmospheres cause corrosion and oxidation of the internal components, compromising the operation of the unit.**

Avoid placing the unit within 1 meter of radio and video systems.

Do not install above heat sources.

Make sure that:

- the place where the unit is to be installed must be chosen with the utmost care in order to ensure adequate protection from any impacts and possible consequent damage
- the support surface is able to support the weight of the appliance
- the support surface does not involve load-bearing elements of the building, pipes or electrical lines

- the functionality of load-bearing elements is not compromised
- there are no obstacles to the free circulation of air through the holes (plants, leaves, etc.)
- the appliance is installed in a position that allows for easy maintenance
- the safety distances between the units and other equipment or structures are scrupulously respected so that the air entering and exiting the fans is free to circulate

If the appliance is installed incompletely or on an unsuitable surface, it could cause damage to people or things if it were to come loose.

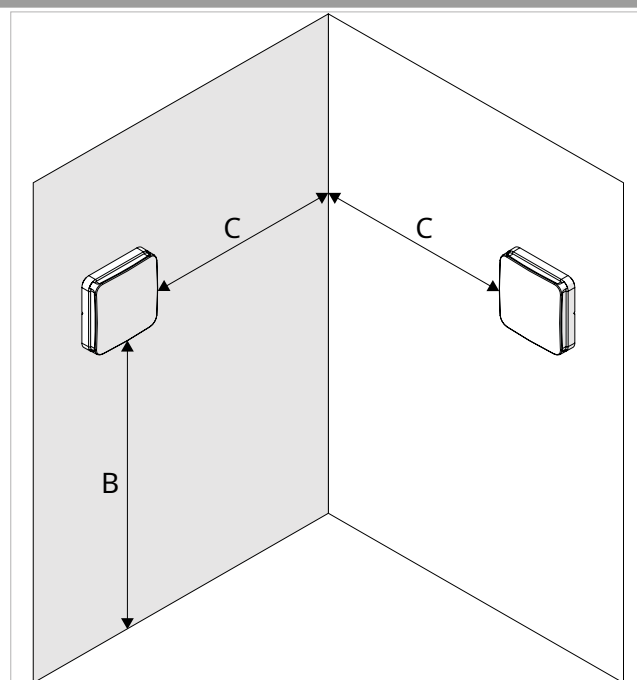
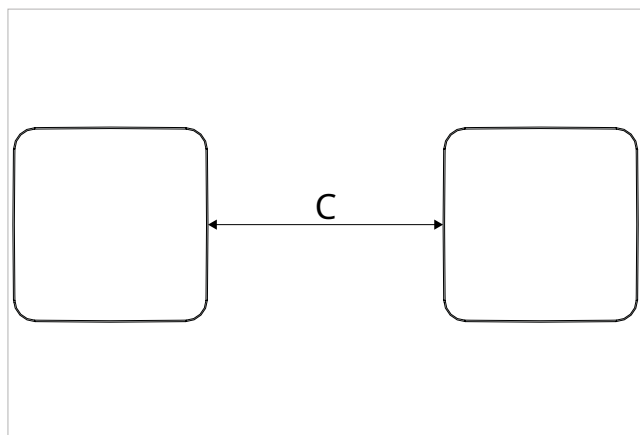
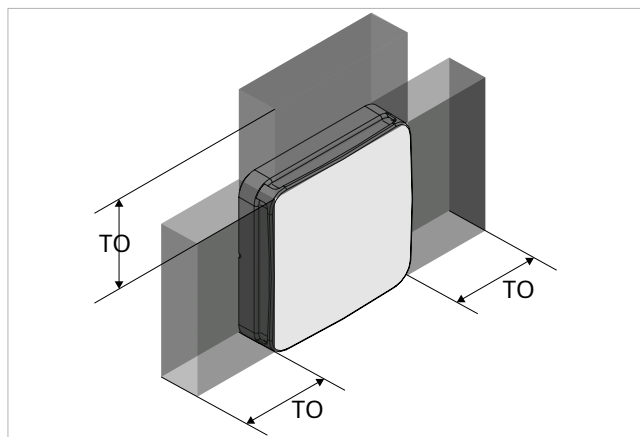
The appliance must not be placed in a position where the air flow is directed directly at the person.

Provide a compliant power supply nearby.

### 3.5 Minimum installation distances

The safety zones for the assembly and maintenance of the appliance are shown in the figure. The spaces established are necessary to avoid barriers to the air flow and to allow normal cleaning and maintenance operations.

Make sure that there is sufficient space to allow the removal of the panels for ordinary and extraordinary maintenance operations.



Models	um	02	05
<b>Minimum distances</b>			
TO	mm	100	100
B	mm	1800	1800
C	mm	1200	1200

## 3.6 Positioning

### Preliminary warnings

The unit must be installed inside the room.

Please check that:

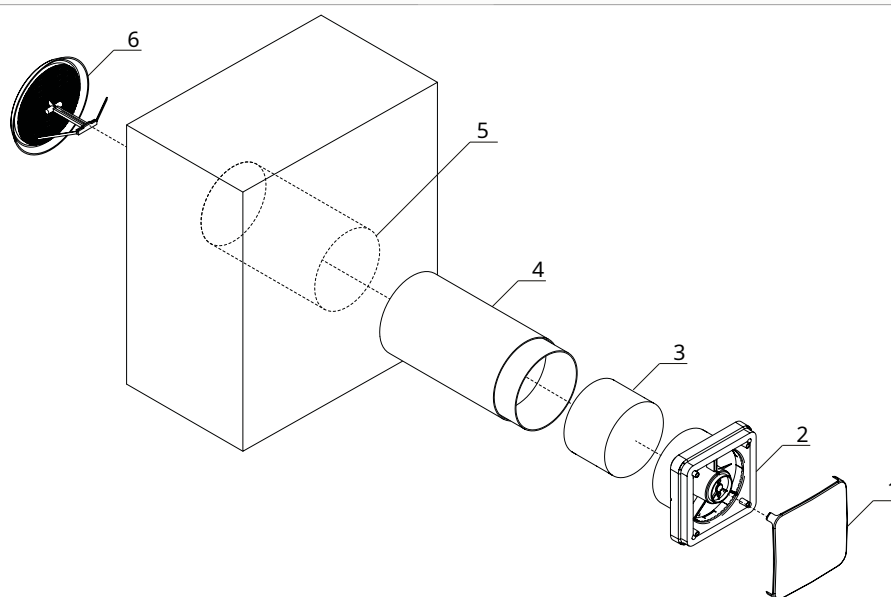
- the surface area does not involve pipes or electrical lines
- the functionality of load-bearing elements is not compromised

### Mounting the unit

#### General assembly diagram

- |    |                   |
|----|-------------------|
| 1. | Aesthetic cover   |
| 2. | Appliance body    |
| 3. | Ceramic exchanger |

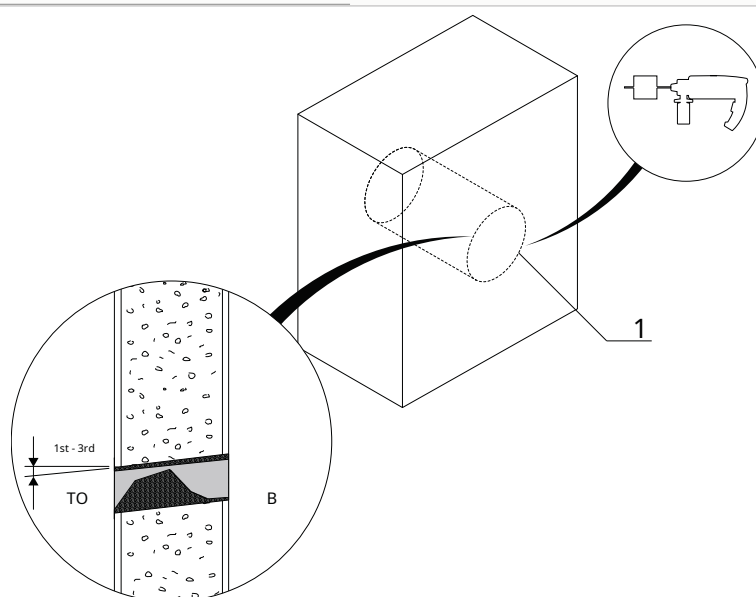
- |    |  |
|----|--|
| 4. | Telescopic air duct                          |
| 5. | Core drilling Ø 110 model 02, Ø 162 model 05 |
| 6. | Grill  |



### Coring

- |   |            |
|---|------------|
| A | Outer side |
| B | Inner side |

- |    |  |
|----|--|
| 1. | Core drilling Ø 110 model 02, Ø 162 model 05 |
|----|--|



**To make the hole:**

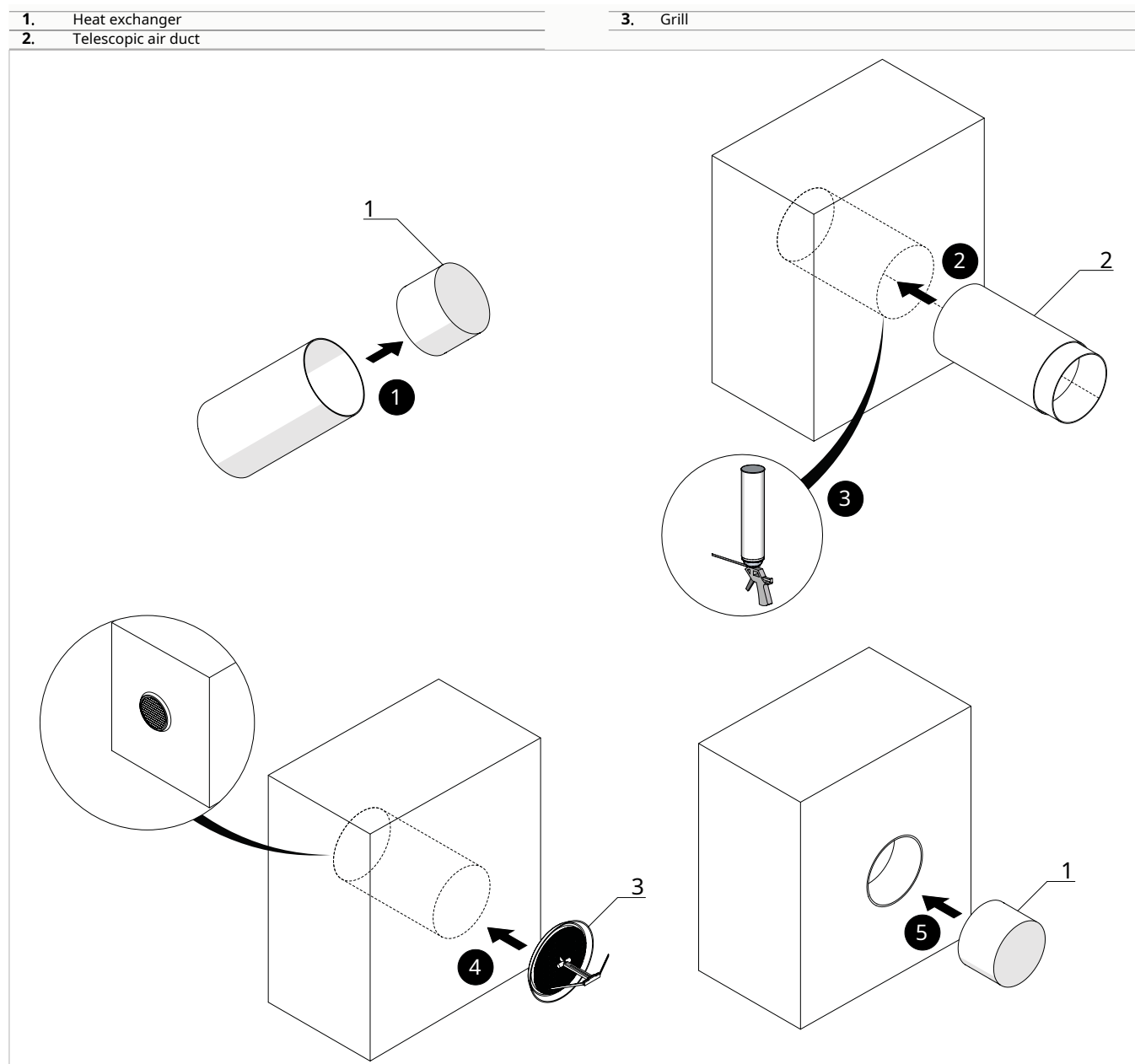
- mark the position of the hole
- use a drill
- drill a guide hole
- use a core drill
- drill the through hole in the wall

- maintain a downward tilt towards the outer side

To avoid the spread of large quantities of dust and debris into the environment, it is recommended to couple the core drill with suction systems.

Proceed with caution near the outside wall to avoid breaking the plaster around the hole.

Take precautions so that the removed material does not hit people or objects below.

**Inserting the telescopic air duct****To remove the heat exchanger:**

- use the handle provided on the heat exchanger

- remove the heat exchanger

**To insert the telescopic air duct:**

Make sure the telescopic air duct is inserted with the smaller diameter tube facing inwards.

- sprinkle the hole made with cement mortar or polyurethane foam
- Insert the telescopic duct into the hole
- align the part of the telescopic duct with the largest diameter with the edge of the external wall
- extract the part of the tube with the smallest diameter

- align it with the internal wall thread
- wait for the cement mortar or polyurethane foam to set

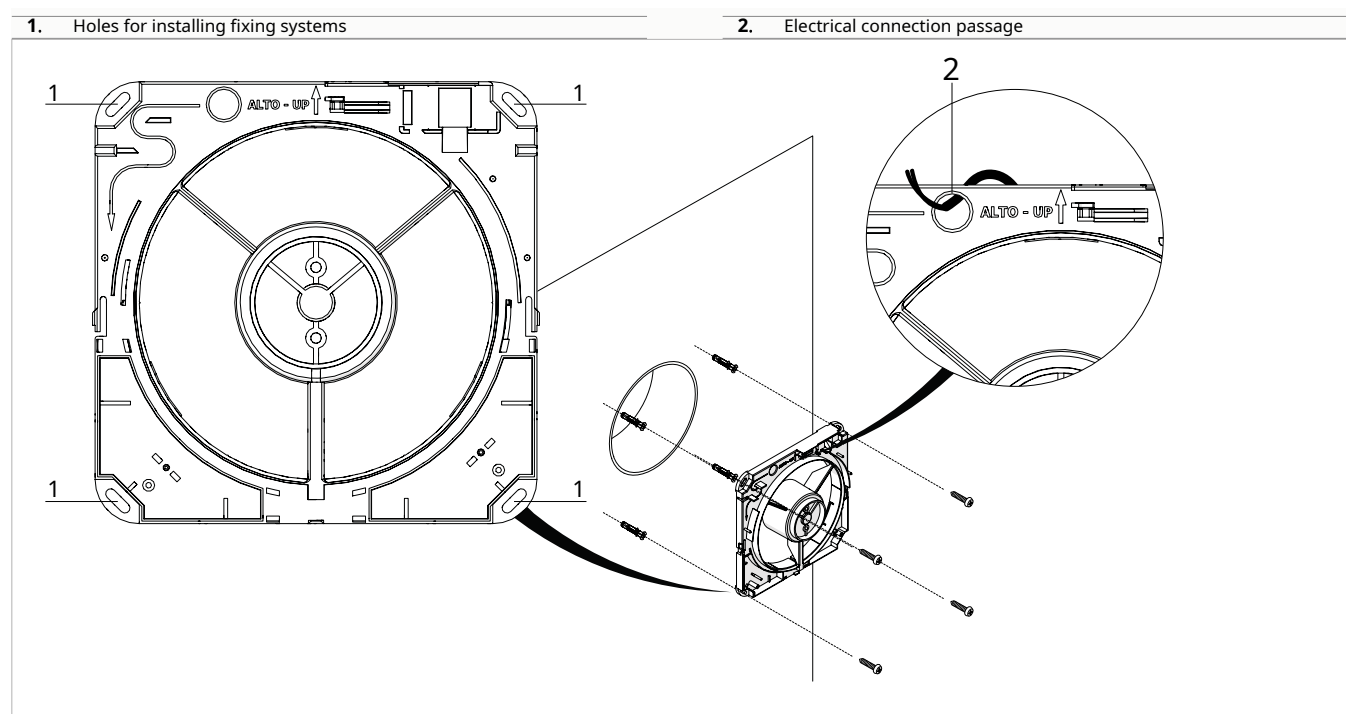
If the telescopic air duct is longer than the wall, it must be cut to the required length to ensure proper installation.

**To position the external grill:**

- Insert the grid from the inside
- push the grill until it comes out from the outside
- pull the cord to fit it into the air duct **To reposition the heat exchanger:**

- Insert the heat exchanger from the inside towards the end of the pipe with the smallest diameter

## Assembly of the appliance body



Check that the unit is oriented correctly.

In case of concealed electrical connection, it is necessary to prepare the power cable before positioning the appliance body.

- mark the position of the fixing holes
- use fastening systems suitable for the type of support surface and the weight of the unit
- fix the unit to the fixing system

To facilitate assembly, you can use the pre-installation template, available as an accessory.



### 3.7 Electrical connections

The appliance leaves the factory fully wired and only needs to be connected to the power supply.

#### Preliminary warnings

All electrical operations must be carried out by qualified personnel, in possession of the necessary legal requirements, trained and informed of the risks associated with such operations.

All connections must be made in accordance with the regulations in force in the country of installation.

Before carrying out any intervention, make sure that the electrical power is switched off.

The unit should only be powered up once the electrical work has been completed.

References:

- for electrical connections, refer to the electrical diagrams in this manual, especially for the part concerning the power terminal board
- for the supply voltage, refer to the technical plate located on the appliance

Please check that:

- the characteristics of the electrical network are adequate for the absorption of the appliance, also considering any other machinery operating in parallel
- the electrical supply voltage and frequency correspond to those specified on the technical plate located on the appliance
- the cables are suitable for the type of installation in accordance with the CEI standards in force
- the cable terminals are provided with pin terminals, with a section proportionate to the connection cables, before inserting them into the terminal block
- the power supply is equipped with adequate protection against overloads and/or short circuits

Electrical connections must be made in accordance with the instructions in the manual and national standards or practices governing the connection of electrical appliances. Insufficient capacity or incomplete electrical connections may cause electric shock or fire.

The power line must be adequately sized to avoid voltage drops or overheating of cables or other devices placed on the line itself.

Use a dedicated power circuit. Never use a power supply that is also connected to another appliance, as this may cause overheating, electric shock or fire.

For electrical connection, use a cable long enough to cover the entire distance without any connections. Do not use extension cords. Do not apply other loads to the power supply.

After connecting the interconnect and power cables, make sure that the cables are arranged so that they do not exert excessive force on the covers or brackets.

electrical panels. Fit covers over the cables. Incomplete connection of covers may cause overheating of terminals, electric shock or fire.

Any replacement of the power cable must be carried out exclusively by authorised personnel and in compliance with current national regulations.

The manufacturer is not responsible for any damage caused by the lack of earthing or failure to comply with the instructions given in the appropriate diagrams.

The appliance is equipped with a noise filter as required by current legislation. Use selective differential switches to compensate for the micro-dispersion to earth of this device.

#### Sizing the line of diet

To size the power supply line and the related protection device, use the tables below.

These are not average absorptions or transient peaks, but values to be considered for the correct sizing of the system and for the contractual power request (excluding loads due to the normal operation of the building).

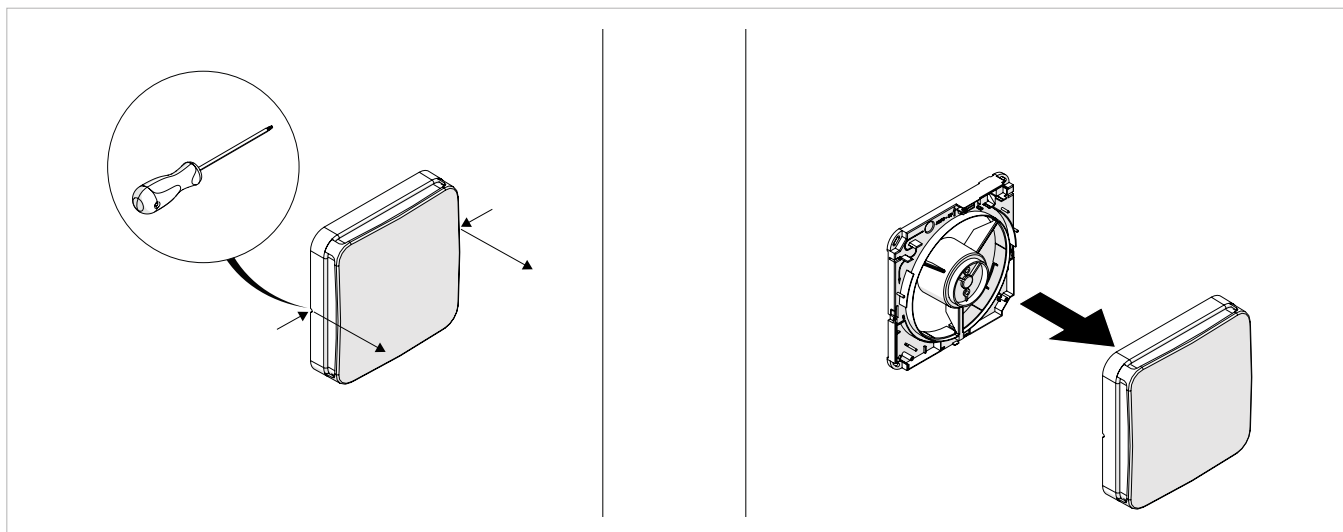
The maximum power is reached only in exceptional cases, therefore the indicated intervention current is suggested to ensure a balance between machine absorption and impact on the general system.

The minimum cable section indicated must be verified based on the actual system conditions: cable length, characteristics of the electrical supply, etc.

## Access to the electrical panel

Access to the electrical panel is permitted only to specialized persons.

Before carrying out any intervention, make sure that the electrical power is switched off.

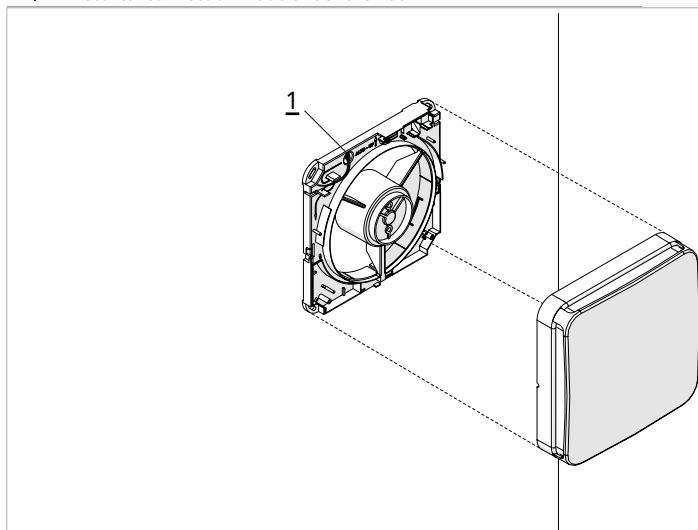


### To access connections:

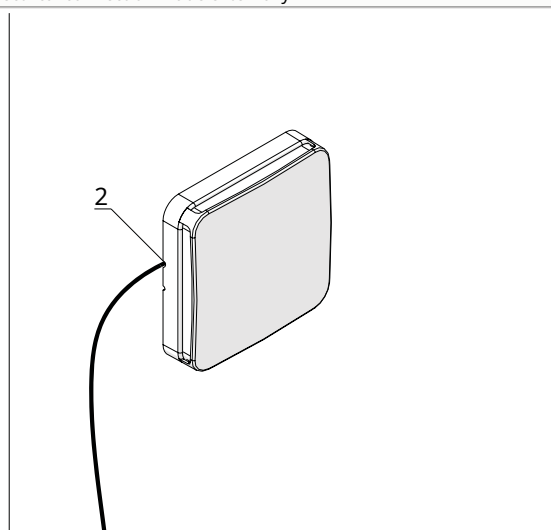
► Press the release points with a fine-bladed screwdriver

► pull the cover towards you

#### 1. Electrical connection made under the floor



#### 2. Electrical connection made externally

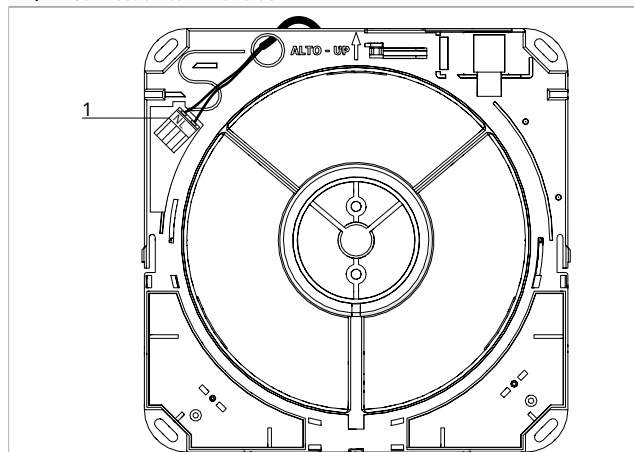


## Connection

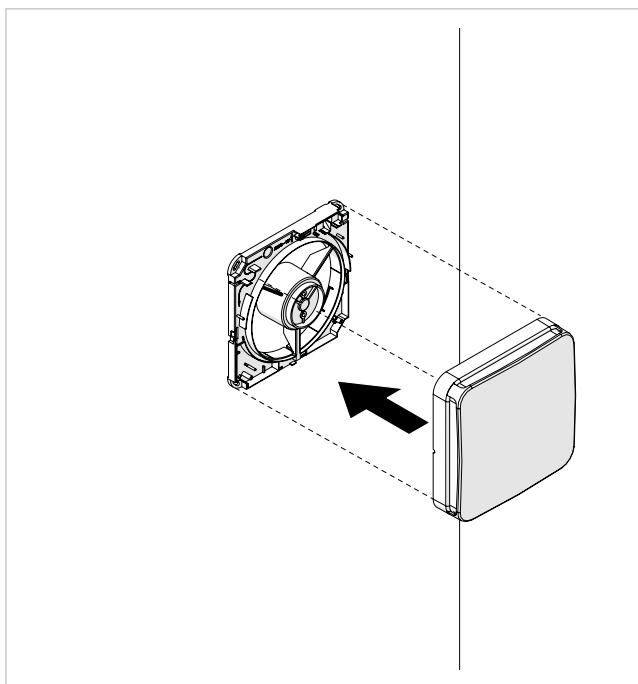
Before proceeding with the electrical connection of the unit to the power supply, make sure that the disconnecter is open. The electrical power supply of the single-phase unit must be connected to the appropriate terminals, subject to the action of the disconnecter.

Use properly sized cables to avoid voltage drops or overheating.

#### 1. Connection terminal block



### 3.8 Finishing



**After making the electrical connections:**

- attach the unit cover to the appliance body

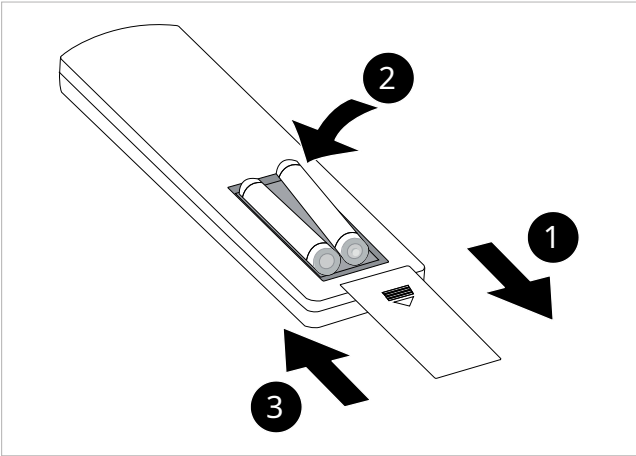
REMOTE CONTROL

4.1 Interface

Description

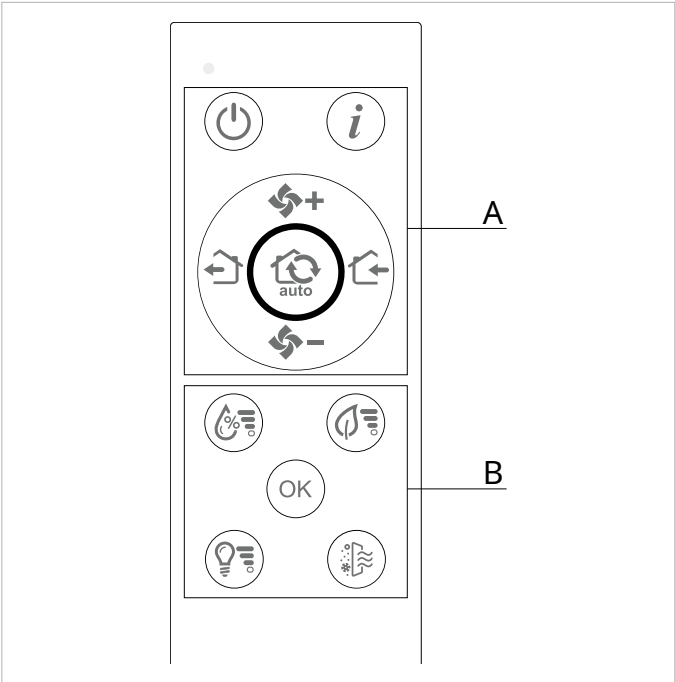
The remote control has been designed to allow easy use even without special programming. To activate it, simply insert the batteries.

Inserting the batteries



Batteries are not included. Use AAA type batteries.


Key functions




A	Basic functions
B	Advanced functions (installer-specific)
	On/Off button
	Info button
	Auto button (automatic timed cycle Eject / Insert)
	Increase fan speed button
	Decrease fan speed button
	Air expulsion button
	Air intake button
	Humidity sensor button
	Voice Sensor Button
	Confirm sensor threshold button
	Lux Sensor Button
	Reset Filters Button

## General ignition

### Activation

- ▶ press   
*the LED flashes in the color of the mode in use*  
*the unit turns on*

### Deactivation

- ▶ press   
*the led flashes 4 times in red color the*  
*unit turns off*

## COMMISSIONING

### 5.1 Preliminary warnings

The section is dedicated to the Technical Assistance Center. The features of the Technical Assistance Center are described in the chapter [p. 5](#).

The first commissioning must be carried out by the Technical Assistance Centre.

For detailed information on the accessories, please refer to the relevant instruction sheets.

See chapter 2.6 [p. 10](#)

The customer must be present at the test of the functioning of the appliance and informed about the contents of the manual and the procedures. Once the commissioning is completed, the manual and the warranty certificate must be delivered to the customer.

Before starting up, all the works (electrical, hydraulic and air conditioning connections) must have been completed.

### 5.2 First start-up

#### Preliminary checks

Before starting up, check that:

##### Functional

- all safety conditions have been respected
- the unit has been properly fixed to the support surface or wall
- the minimum technical spaces have been observed

##### Aeraulics

- the air connections have been carried out following the instructions given in the manual
- all air connections are correctly fixed
- the ducts are correctly supported
- the ducts do not have any bottlenecks
- the ducts are thermally insulated

##### Electric

- the section of the power cables is adequate for the absorption of the appliance and the length of the connection made
- the electrical connections have been made correctly
- all control wires are connected and all electrical connections are solid

#### Start-up

After carrying out all the checks, the unit can be put into operation.

To activate the device:

- refer to the user manual

#### 5.2.1 Settings

##### Humidity sensor


The humidity sensor allows you to evaluate the relative humidity. If the relative humidity value is higher than the set threshold, the ventilation unit switches to expulsion for 200 seconds at boost speed, and to the timed cycle for 180 seconds at the set speed.

If the value is again higher than the set threshold, the same mechanism is repeated for a maximum of 3 times in one hour.

It is possible to vary the threshold between:

- **No threshold set:** Indicated by a slow flashing of the blue LED
- **Low threshold setting 55%:** Indicated by a fast flashing of the blue LED
- **Average threshold setting 60%:** Indicated by two quick flashes of the blue LED
- **High threshold setting 65%:** Indicated by three quick flashes of the blue LED

##### To set the relative humidity threshold

- hold down the button   
the LED indicates the set threshold

##### Voice Sensor

The VOC sensor allows you to evaluate the VOC, if the VOC value is higher than the set threshold the ventilation unit switches to expulsion for 200 seconds at boost speed, to the timed cycle for 180 seconds at the set speed.


If the value is again higher than the set threshold, the same mechanism is repeated for a maximum of 3 times in one hour.

It is possible to vary the threshold between:

- **No threshold set:** Indicated by a slow flashing of the green LED

- **Low threshold setting 150 Index:** Indicated by a quick flash of the green LED
- **Average threshold setting 200 Index:** Indicated by two quick flashes of the green LED
- **High threshold setting 250 Index:** Indicated by three quick flashes of the green LED

#### To set the relative humidity threshold

- hold down the button   
*the LED indicates the set threshold*


### Brightness sensor

The brightness sensor allows you to evaluate the brightness, if the brightness value is lower than the set threshold the ventilation unit switches to night speed.

The brightness sensor overrides the humidity and Voc sensors. It is possible to vary the threshold between:

- **No threshold set:** Indicated by a slow flashing of the yellow LED
- **Low threshold setting 5 lux:** Indicated by a quick flash of the yellow LED
- **Average threshold setting 10 lux:** Indicated by two quick flashes of the yellow LED
- **High threshold setting 15 lux:** Indicated by three quick flashes of the yellow LED


#### To set the relative humidity threshold

- hold down the button   
*the LED indicates the set threshold*

### Filter Reporting

The filter cleaning signal is shown every 1000 hours of use weighted according to the speeds used with the orange LED flashing once every hour.

#### To reset

- hold down the button   
*the led flashes blue*

### Checks with the machine on

Once started, check that:

#### Functional checks:

- check the different operating modes
- check that the appliance shuts down and then restarts
- power off and on the appliance and check that it restarts correctly
- the appliance operates within the recommended operating conditions (see technical data table)

#### Electrical checks

- the absorbed current is lower than the maximum indicated in the technical data table
- the supply voltage value falls within the preset limits and does not fall below the nominal value -10% during operation

### Delivery of the plant

Once all checks and controls on the correct functioning of the system have been completed, the installer is required to explain to the user:

- the basic functional characteristics of the appliance
- instructions for use
- ordinary maintenance

### Shutdown for long periods

If the appliance is not used for a long period of time, the following operations should be carried out:

- deactivate the device
- turn off the power



## MAINTENANCE

### Routine maintenance

#### Annual operations

The annual maintenance plan includes the following operations and checks and must be carried out by the Technical Assistance Centre or by qualified personnel.

##### Electrical circuit

Check:

- the electrical supply voltage
- electrical absorption
- tightening connections
- that there is no damage or excessive wear to the electrical cables
- that the gaskets and sealing materials have not deteriorated to the point where they are no longer suitable for the purpose of preventing the development of flammable atmospheres within
- correct fixing of the cable glands
- safety devices

##### Mechanical checks

Check:

- tightening of the screws, fans and electrical box, external panelling of the unit
- the state of the structure

Poor fastenings cause abnormal noises and vibrations.

##### Air controls

Check:

- the regular flow of air
- cleaning of any intake grilles
- cleaning of the pipes

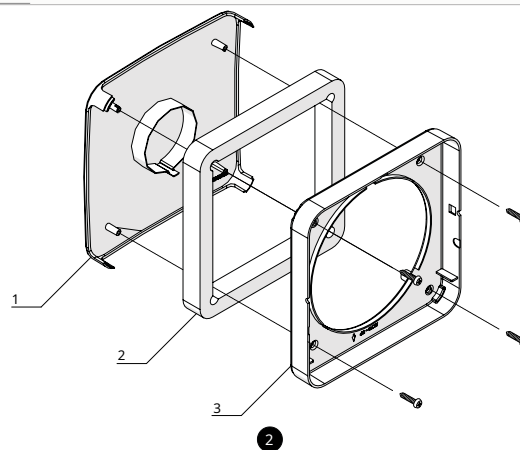
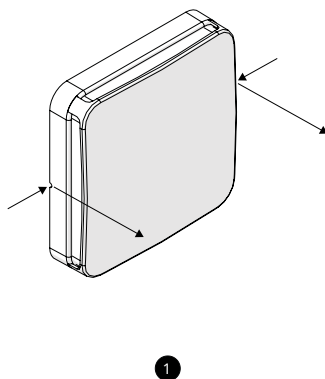
##### Cleaning

- cleaning of aesthetic covering elements
- cleaning or replacing filters
- cleaning the heat exchanger
- cleaning the external grill

### Cleaning or replacing filters

1. Aesthetic cover
2. Filter

3. Cover



#### To remove:

- remove the power supply to the unit
- Press the release points and pull the unit cover towards you
- remove the screws from the drive cover
- remove the filter

Be careful of sharp surfaces.

- If the condition of the filters is acceptable, you can clean them using a vacuum cleaner or a low-pressure compressor.
- If cleaning is not possible, the filters must be replaced.

#### To reposition:

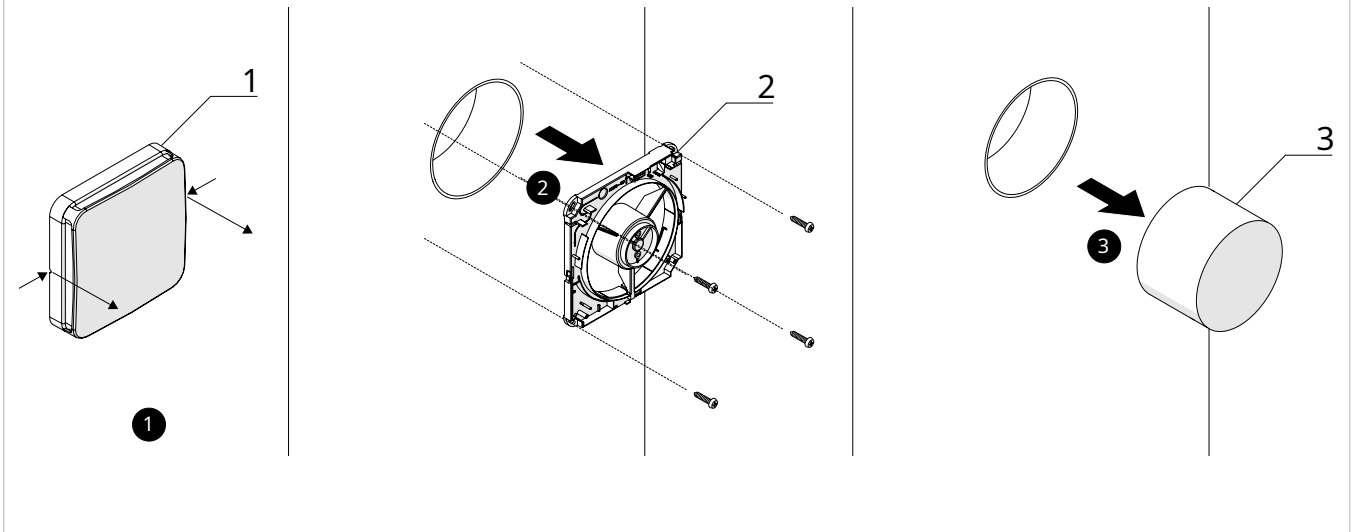
- proceed in reverse

## Cleaning the heat exchanger

1. Unit cover

2. Appliance body

3. Heat exchanger



### To remove:

- ▶ remove the power supply to the unit
- ▶ Press the release points and pull the unit cover towards you
- ▶ remove the screws from the appliance body
- ▶ remove the appliance body
- ▶ use the handle provided on the heat exchanger
- ▶ remove the heat exchanger
- **If the heat exchanger is in acceptable condition, it can be cleaned using a vacuum cleaner or low-pressure compressor.**
- **If cleaning is not possible, the heat exchanger must be replaced.**

### To reposition:

- ▶ proceed in reverse

## ANOMALIES AND REMEDIES

### Preliminary warnings

If one of the following anomalies is found:

- ventilation does not activate
- the appliance makes excessive noise

Follow the instructions below:

- Disconnect the power supply immediately

- contact an authorised Technical Assistance Centre or professionally qualified personnel

The interventions must be carried out by a qualified installer or by a specialized service center.

- It is forbidden to intervene personally.

### Table of anomalies and remedies

#### Problems related to the operation of the unit

PROBLEM	CAUSE	REMEDY
The fan does not turn on	Power is not on	Check the power supply to the fan
	The control unit of the unit does not work	Check the control unit and its power supply
	Incorrect electrical connections	Check the power supply is working
	Fan in thermal protection	Check that the fan impellers are not obstructed
The fan stops unexpectedly	Clogged fan blades	Check the power supply to the fan
	Incorrect motor voltage from control unit	Check the control unit and its power supply
	Incorrect electrical connections	Check the power supply is working
	Fan in thermal protection	Check that the fan impellers are not obstructed
Insufficient air flow	Clogged filter, exchanger or grids	Clean the filters
	Foreign body inside the pipe	Increase rotation speed
		Clean pipes, exchanger
	Fan blade problems	Check the fan impellers
Insufficient exchanger efficiency	Clogged exchanger	Clean the exchanger surfaces
	Cycle time set incorrectly	Set the cycle time according to the previous instructions
Excessive vibrations and noise	Improper installation of the unit	Check the unit's brackets and fixings
	Incorrect installation of pipes	Check pipe brackets and fixings
	Fan impeller imbalance	Check the condition of the fan impellers
Water leak from unit	Installing unit with incorrect inclination	Check the correct installation of the fan unit

#### Problems related to the operation of the control unit or power supply

PROBLEM	CAUSE	REMEDIES
The fan does not turn on	Control unit faulty	Check or replace the control unit
	Power supply faulty	
The fan does not change speed	Control unit faulty	Check or replace the control unit
The fan does not change operating mode	Control unit faulty	Check or replace the control unit
The fan runs at unexpected times	Control unit faulty	Check or replace the control unit
The remote control does not work	Batteries dead or remote control broken	Check or replace the batteries

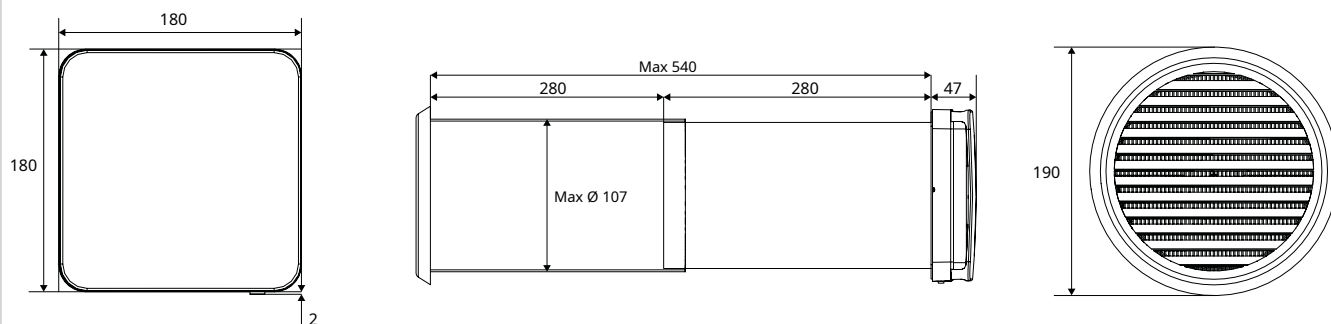
## TECHNICAL INFORMATION

## Technical data

Models	um	02	05
Fan (UNI EN 13141-8) (1)			
Type		DC Brushless Axial	
Speed number		3	3
Nominal air flow rate	m³/h	24	50
Air flow in the cycle	m³/h	18	38
Air flow maximum speed	m³/h	24	50
Air flow rate medium speed	m³/h	12	25
Air flow minimum speed	m³/h	8	15
Air flow rate maximum cycle speed	m³/h	18	38
Air flow rate average cycle speed	m³/h	9	20
Air flow rate minimum cycle speed	m³/h	6	12
Night air flow	m³/h	5	10
Heat exchanger (A 7; A 20) (2)			
Type		Regenerative	
Recovery efficiency	%	79.0	77.0
Filter			
Type		Flat filter	
Efficiency		Coarse	
Noise levels (UNI EN 3741; 3744)			
Sound power transmitted to the structure Lw maximum	dB(A)	32	44
Sound power transmitted to the structure Lw average	dB(A)	26	38
Sound power transmitted to the structure Lw minimum	dB(A)	18	29
Maximum sound pressure at 1 m Lp	dB(A)	28	39
Average sound pressure at 1 m Lp	dB(A)	26.0	37.0
Minimum sound pressure at 1 m Lp	dB(A)	23	34
Electrical characteristics			
Power supply	V / ph / Hz	230 / 1 / 50	
Power absorbed	W	6.6	6.6
Degree of protection	IP	X4	
Product dimensions			
Lid dimensions	mm	180 x 180	180 x 180
Diameter	mm	107	160
Duct depth	mm	Min 240 / Max 540	Min 240 / Max 540
1. Data referred to the UNI EN 13141-8 standard 2. External air temperature 7 °C / 72% RH; Internal air temperature 20 °C / 28 % RH			

## Dimensions

### Size 02



### Size 05

