

The logo for VELLAIR features the brand name in a bold, black, serif font. A vibrant blue, wavy line, resembling a stylized wave or a ribbon, is superimposed over the letters, starting from the left and ending on the right, passing through the middle of the text.

**Nautical fancoils**  
**V5 - V12 - V20**

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*First of all, we would like to thank you for deciding to give your preference to a unit of our production.*

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

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

UFLEX S.r.l.

## Conformity

This unit complies with the European directives:

- EN 60335-2-40 Safety of household and similar electrical appliances - Part 2: Particular rules for electric heat pumps, air conditioners and dehumidifiers
- Low Voltage Directive 2014/35 / EU
- EMC Directive 2014/30 / EU relating to electromagnetic compatibility
- RoHS2 Directive 2011/65 / EU2 relating to the restriction of the use of hazardous substances in electrical and electronic equipment
- Directive 2012/96 / EC (WEEE) relating to waste electrical and electronic equipment
- Directive 2010/30 / EU on energy labeling
- ErP Directive 2009/125 / EC and Regulation 2012/206 / EC
- Directive 2014/68 / EU PED relating to pressure equipment And subsequent amendments..

## Markings



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## GENERAL

### 1.1 Symbols

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

#### Editorial pictograms



##### User

- Marks the pages containing instructions or information intended for the User.



##### Installer

- Marks the pages containing instructions or information intended for the installer.



##### Service

- Marks the pages containing instructions or information intended for the Technical Assistance Center.

#### Safety pictograms



##### Warning

- Indicates that the operation described presents, if not carried out in compliance with safety regulations, the risk of suffering physical damage.



##### Dangerous electrical voltage

- It signals to the personnel concerned that the described operation presents, if not carried out in compliance with the safety regulations, the risk of suffering an electric shock.



##### Danger of strong heat

- Informs the personnel concerned that the operation described presents, if not carried out in compliance with safety regulations, the risk of being burned by contact with high temperature components.



##### Prohibition

- Refers to prohibited actions.

### 1.2 General information

This manual has been conceived with the aim of providing all the explanations for the correct management of the appliance. Read this manual carefully before using the product and keep the instructions so that they are always available in case of need. The manual is divided into sections:

#### General

It is aimed at all recipients.

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

#### Installation

It is aimed exclusively at the installer.

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

#### Commissioning and Maintenance

They only and exclusively turn to the Technical Assistance Center.

It contains useful information for commissioning and the most common maintenance interventions.

#### Technical information

It is aimed at all recipients.

It contains the detailed technical information of the appliance.

## 1.3 Recipients

### U User

Non-expert person able to operate the product in safe conditions for people, for the product itself and for the environment, to interpret an elementary diagnostic of faults and anomalous operating conditions, to carry out simple adjustment, verification and maintenance.

### I Installer

Person skilled and qualified to position and connect hydraulically, electrically, etc. the unit to the plant: is responsible for han-

dling and correct installation as indicated in this manual and in current national legislation. If the units have refrigeration connections, the F-gas license is required..

### S Service

Expert person, qualified and authorized directly by the factory to carry out all ordinary and extraordinary maintenance operations, as well as any adjustment, control, repair and replacement of parts that may become necessary during the life of the unit itself.

## 1.4 General warnings

- ⚠ 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 scrupulously follow what is described in the individual chapters.
- ⚠ All the personnel in charge must be aware of the operations and the dangers that may arise when starting all the installation operations of the unit.
- ⚠ Installations performed outside the warnings provided in this manual and use of the appliance outside the prescribed temperature limits will void the warranty.
- ⚠ These appliances have been designed for air conditioning / heating and must be destined for this use compatibly with their performance characteristics.
- ⚠ Any contractual and extra-contractual liability for damage caused to people, animals or things, 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.
- ⚠ Initial start-up and repair or maintenance operations must be carried out by the Technical Assistance Center or by qualified personnel according to the provisions of this booklet.
- ⚠ Do not modify or tamper with the appliance as this may create dangerous situations.
- ⚠ It is always necessary to wear protective gloves and goggles to perform interventions on the refrigerant side of the appliances..
- ⚠ During installation and/or maintenance operations, use suitable accident-prevention clothing and tools. The manufacturer declines all responsibility for failure to comply with current safety and accident prevention and accident prevention regulations in force.
- ⚠ Avoid contact: danger of burns.
- ⚠ To prevent any risk of electric shock, disconnect the main switch before making electrical connections and any maintenance work on the equipment
- ⚠ In the event of liquid or oil spillage, set the system's main switch to "off" and stop the flow in the reference circuit. In the reference circuit. Call the authorised Technical Assistance Centre or professionally qualified personnel as soon as possible and not intervene personally on the appliance.
- ⚠ If the appliance is not used for a long period of time, the following operations must be carried out:
  - set the main system switch to "Off"
  - close the water taps
  - if there is a danger of frost, ensure that the system has been filled with antifreeze liquid, otherwise drain the system
- ⚠ In case of replacement of parts, use only original parts.
- ⚠ The manufacturer is not responsible for damages to persons or property caused by failure to follow the instructions in this manual.
- ⚠ The manufacturer reserves the right to make changes to its models at any time in order to improve its products, without prejudice to the essential characteristics described in this manual. The company is not obliged to add these modifications to machines previously manufactured, already delivered or under construction.
- ⚠ 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.

## 1.5 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:

- ⊖ It is forbidden to children and unassisted disabled persons to use the device. 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.

- ⊖ It is forbidden to touch the device with wet or damp body parts.
- ⊖ It is forbidden to clean the device before having disconnected it from the mains by setting the main switch of the system 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.

## 1.6 Disposal



The symbol on the product or on the packaging indicates that the product must not be considered 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 damage to humans and the environment and favors the reuse of precious raw materials.

For more detailed information on recycling this product, contact the municipal office, the local waste disposal service or the shop where the product was purchased.

Illegal disposal of the product by the user involves the application of administrative sanctions provided for by current legislation.

This provision is only valid in EU Member States.

## 1.7 Identification

The appliance can be identified by means of the technical plate located on the upper part of the machine.

### Technical plate

It shows the technical and performance data of the appliance.

⚠ Tampering, removal and lack of identification plates does not allow the safe identification of the product through its serial number.

## 1.8 Description of the appliance

The nautical fancoils are designed for installation with ducting. The devices are made in 3 sizes of different performances and dimensions for ducting for several environments.

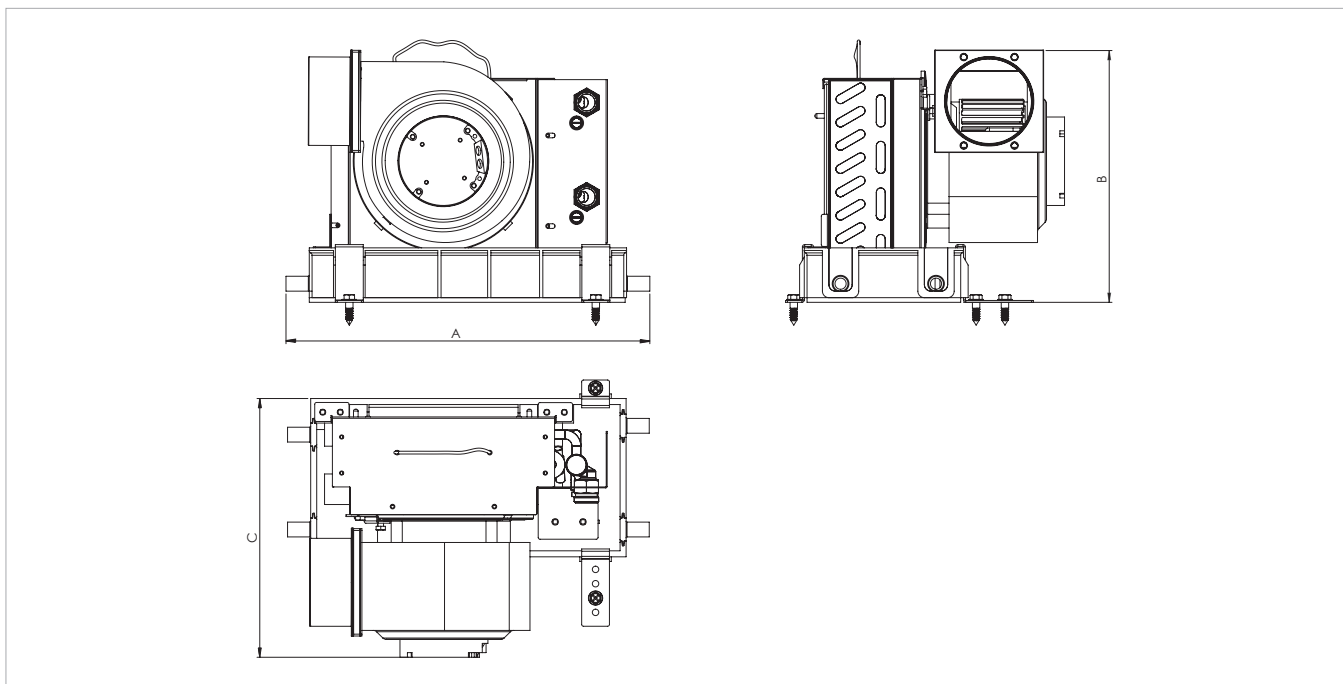
## 1.9 Rated technical specifications

Models	u.m.	V5	V12	V20
Coil water content	L	0.24	0.4	0.9
Maximum operating pressure	bar	10	10	10
Maximum water inlet temperature	°C	80	80	80
Minimum water inlet temperature	°C	4	4	4
Hydraulic connections	"	Eurokonus 3/4	Eurokonus 3/4	Eurokonus 3/4
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50
Maximum absorbed current	A	0.6	1.4	2.8
Maximum absorbed power	W	90	170	340
Weight	kg	5.5	9	13.5
Maximum duct length *	mt	7	6,5	6,5
Maximum permissible air leakage	Pa	200	250	250
Nominal capacity	Btu/h	5000	12000	20000
Maximum air flow	m <sup>3</sup> /h	250	500	1100
Air pipe diameter	mm	100	120	120
Number of fans		1	1	2
Number of condensate drains		4	4	2
Condensate drain pipes diameter	mm	16	16	14
Pipeline diameter	mm	18	18	18

\* Calculation carried out with 120 mm diameter pipe (V12, V20) and 100 mm diameter pipe (V5), 2 90° bends with radius 180

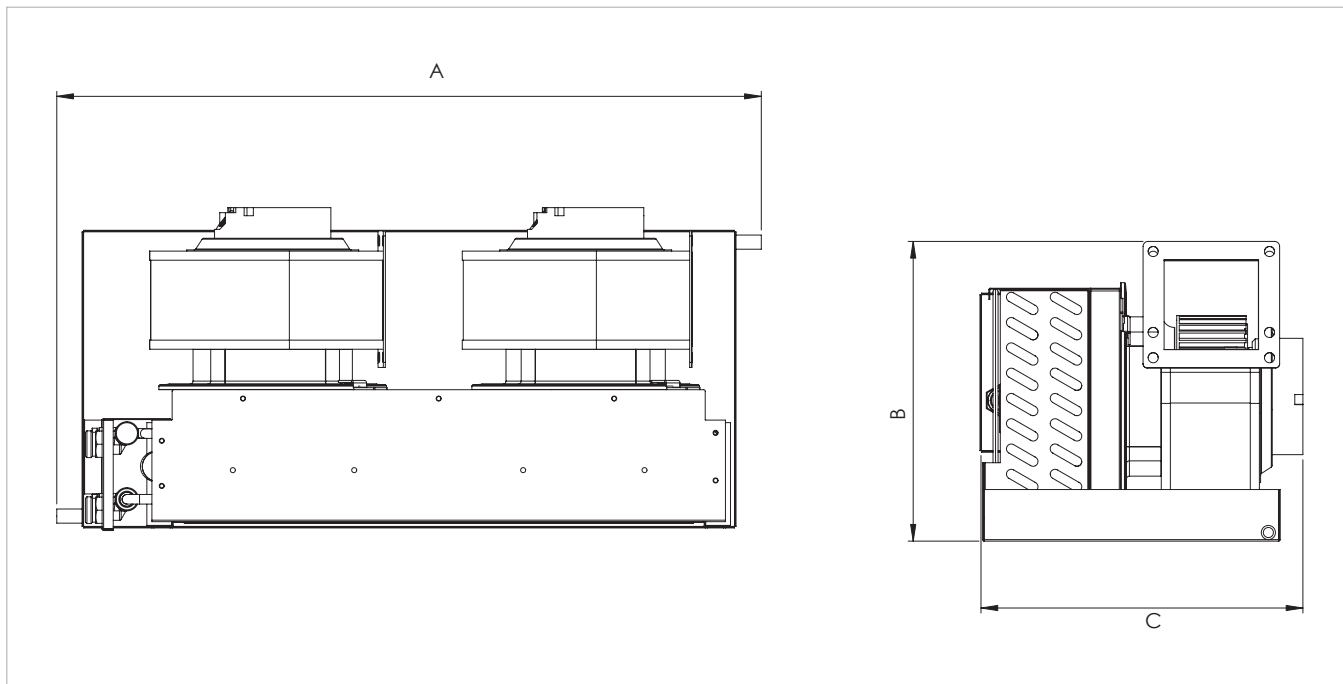
mm (V12, V20) and radius 150 mm (V5) at nominal air flow of the machine.

### 5 - 12



Models	u.m.	Nautical fancoils	
		V5	V12
<b>Dimensions</b>			
A	mm	390	538
B	mm	265	300
C	mm	275	325

**20**



		Nautical fancoils
<b>Models</b>	<b>u.m.</b>	<b>V20</b>
<b>Dimensions</b>		
A	mm	697
B	mm	295
C	mm	318



# INSTALLATION

## 2.1 Preliminary warnings

- ⚠ Installation must be carried out by the installer.  
If the installation is not carried out correctly, there is a risk of water leakage, electric shock or fire.
- ⚠ During installation, it is necessary to observe the precautions mentioned in this manual, and on the labels attached to the inside of the equipment, as well as to take all precautions suggested by common sense and the Safety Regulations in force at 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 comply with these instructions may lead to equipment malfunctions and releases the company from any form of guarantee and from any damage caused to persons, animals or property.

## 2.2 Receiving

### Preliminary warnings

- ⚠ Upon receipt of the packaging, check that the packaging is not damaged, otherwise collect the goods with reserve, producing photographic evidence of any damage.
- ⚠ The packaging must be transported in an upright position, otherwise notify the carrier immediately.
- ⚠ In case of damage, notify the shipper of any damage within 3 days of receipt by registered letter with return receipt, presenting photographic documentation, similar information, send it by fax or by e-mail to the manufacturer as well (the Genoa court will be competent for any dispute).

- ⚠ No information on damage can be taken into account after 3 days after delivery.

### Package description

The packaging is made of suitable material and carried out by experienced personnel.  
The device is delivered in standard packaging consisting of a cardboard box and a set of polystyrene foam protectors.  
A pallet is provided underneath the unit's packaging to facilitate transport and moving operations.  
The units are delivered complete and in perfect condition.

## 2.3 Storage

### Preliminary warnings

- ⚠ Storage must be carried out in accordance with the national regulations in force.
- ⚠ Do not turn the packaging upside down.
- ⚠ Do not overlap the devices.
- ⚠ Only place the appliance in a vertical position.

### Device with packaging

Store the package:

- in a dry and clean place

- in a closed environment protected from the weather
- insulated from the ground by sleepers or pallets

### Device without packaging

In case of medium to long term storage, the following procedures are recommended:

- check that no water is present in the hydraulic systems
- do not remove the heat exchanger protection
- do not remove plastic protective films
- check that the electrical panels are closed

## 2.4 Place of installation

The location of the equipment must be determined by the system designer or a competent person and must take into account both purely technical requirements and any applicable national/local legislation.

## 2.5 Minimum installation distances

Leave sufficient distance between the intake grille and any obstacles to ensure proper air flow.

⚠ Ensure that there is sufficient space to allow the panels to be removed for routine and extraordinary maintenance.

## 2.6 Installation

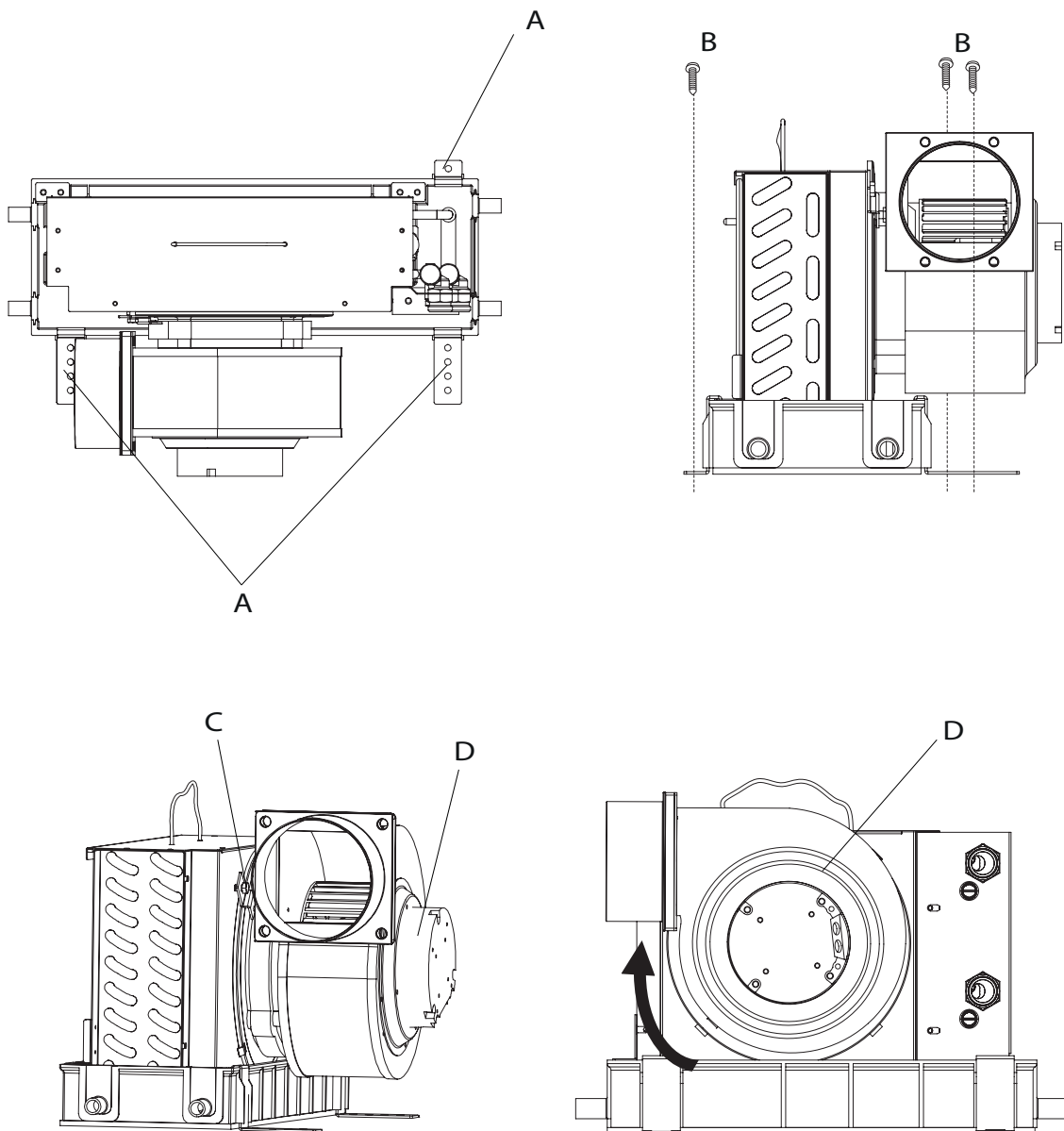
### Unit installation

⚠ Use the handle provided to lift the appliance.  
To install the unit:

- fix the appliance to the base

- loosen the fan lock
- turn the fan to the desired position
- fix the fan block

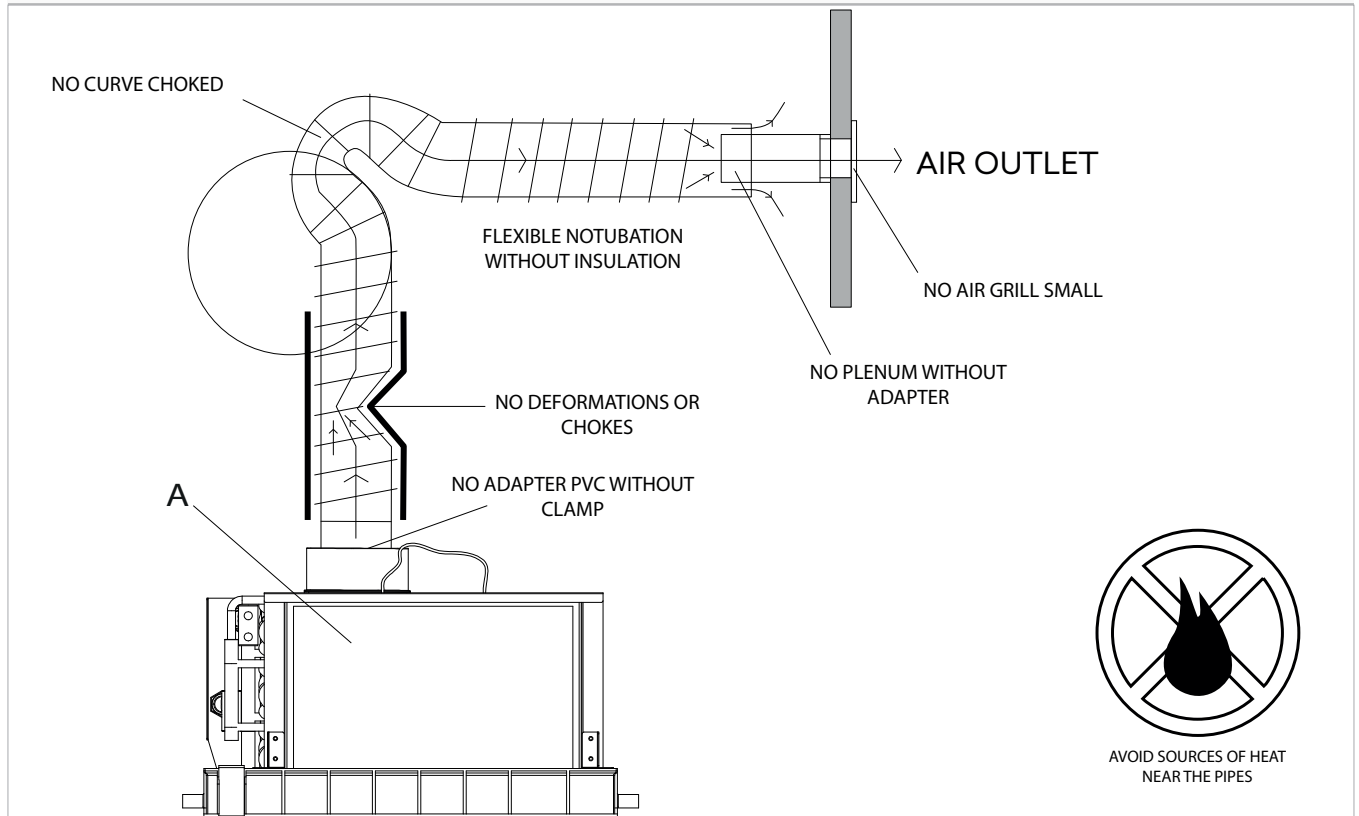
- A** Floor bracket
- B** Screws
- C** Fan lock
- D** Fan



## Ventilation pipe connection

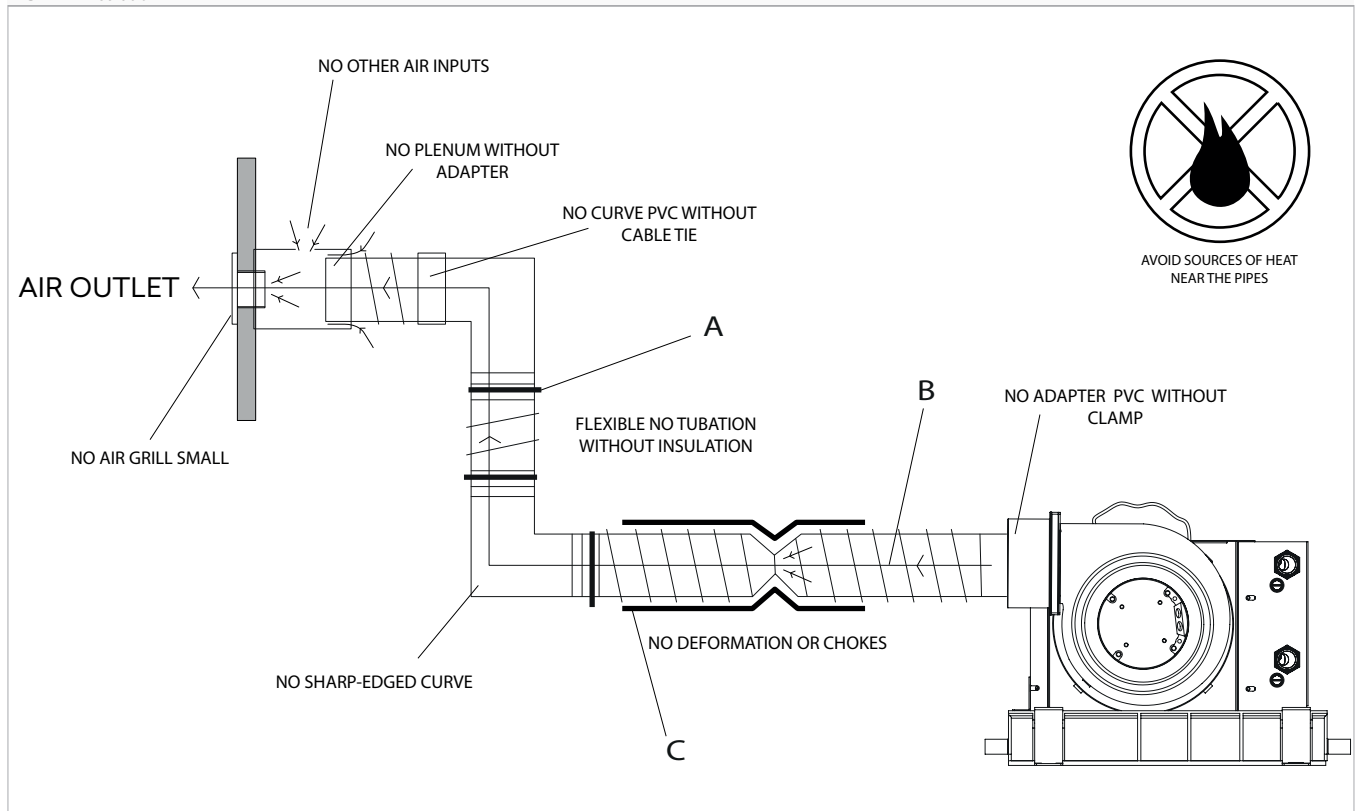
### Vertical installation

**A** Suction filter



### Horizontal installation

**A** Cable tie  
**B** Flexible air hose  
**C** Insulation



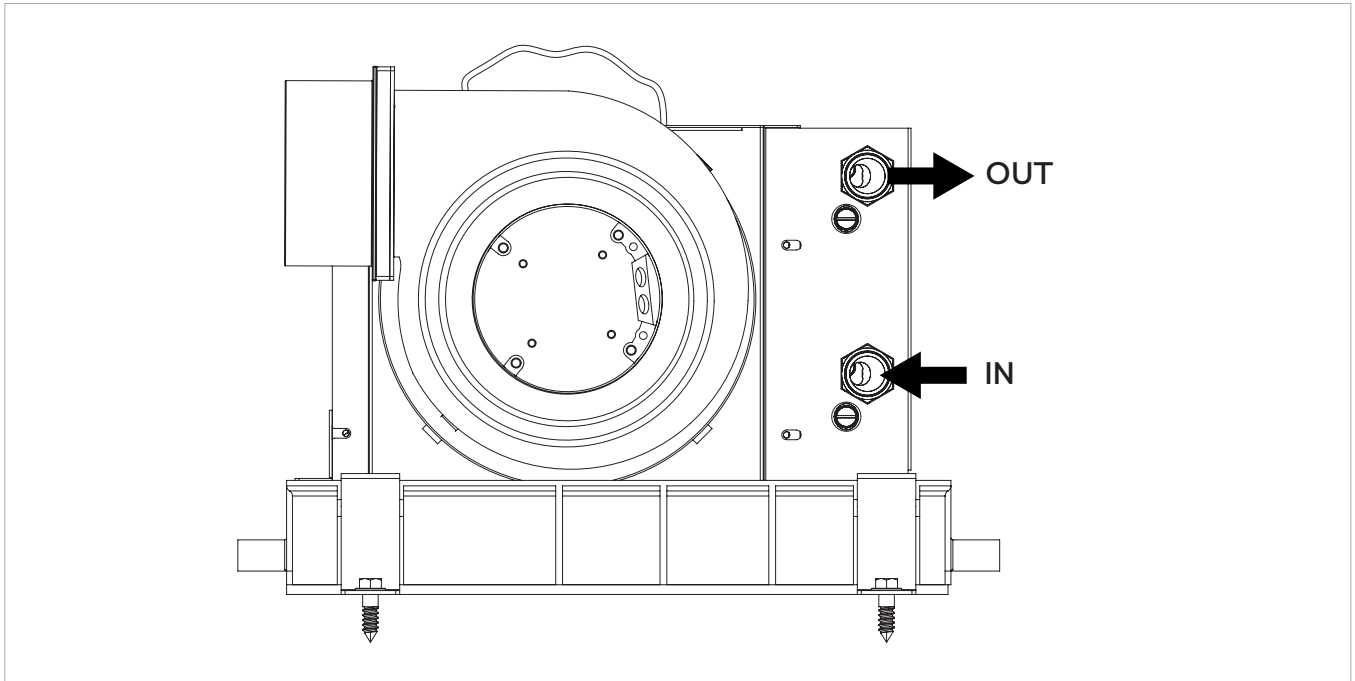
## 2.7 Hydraulic connections

### Preliminary warnings

⚠ The choice and sizing of the hydraulic lines is the responsibility of the designer, who must work according to the rules of good practice and current regulations.

⚠ The hydraulic pipes connecting the appliance must be suitably sized for the actual water flow rate required by the system in operation.

### Location and dimensions



### Connection to the system

#### Preliminary warnings

- ⚠ Hydraulic lines and joints must be thermally insulated.
- ⚠ Avoid partial insulation of pipes.
- ⚠ Do not over-tighten connections to avoid damaging the insulation.
- ⚠ Carefully check the tightness of the insulation to prevent the formation and fall of condensation.

#### Connection

To make connections:

- positioning the hydraulic lines
- use the "key against key" method
- tighten connections
- check for leaks
- cover connections with insulating material

The hydraulic connections must be completed by installing:

- air release valves at the highest points of the pipes
- flexible elastic joints

- shut-off valves
- drain cock
- loading tap
- an appropriately sized technical water storage tank
- a domestic hot water storage tank chosen in such a way that the combined exchanger has sufficient surface area to exchange the full power of the heat pump under all conditions.
- a mains water filter at the appliance inlet

### Hydraulic accessories

The unit is supplied as standard without any shut-off valves.

### Condensate drain

The appliance is complete with a tray for collecting the condensate that occurs during cooling operation and which must be conveyed to a suitable place for drainage.

To connect:

- insert a drainage pipe
- direct it to a suitable place for unloading
- maintain a minimum slope of 3%.

⚠ Ensure that all joints are sealed to prevent water leakage.

## Verification

When installation is complete:

- pour water very slowly into the condensation tray

- check for proper outflow

## 2.8 Plant loading

Once the hydraulic connections have been completed, the system must be filled.

### Preliminary warnings

- ⚠ A loading system external to the unit is required.
- ⚠ All operations must be carried out with the machine stationary and disconnected from the power supply.
- ⚠ If an external auxiliary pump is used, it must be switched off.
- ⚠ The operating pressure of the system must not exceed 1.5 bar with the pump switched off. To check for leaks in the system during testing, it is advisable to raise the test pressure and then discharge it later to reach the correct operating pressure. If the pressure exceeds 3 bar, the safety valve opens and discharges the excess water to the outside.

### Loading

Before starting the upload:

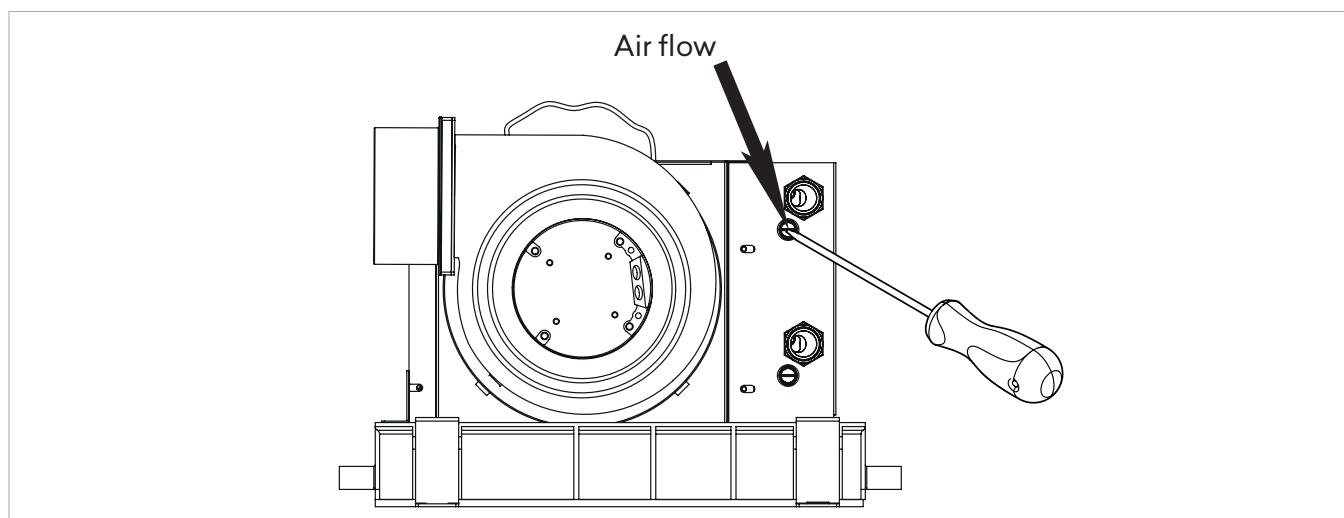
- set the main system switch to OFF
- check that the system drain cock is closed
- open all system and terminal vent valves
- open all shut-off devices on the system

To load the system:

- start filling by slowly opening the system water filling tap on the outside of the appliance

When water starts coming out of the terminal vent valves:

- close vent valves
- continue loading up to the pressure value required by the system
- check that the expected nominal pressure has been reached
- close the loading tap
- check the hydraulic tightness of the joints
- ⚠ It is recommended to repeat the operation after the appliance has operated for a few hours.
- ⚠ Check the system pressure periodically.
- ⚠ Keep the system vented during operation, otherwise loss of performance and energy consumption.



## 2.9 Electrical connections

The unit leaves the factory with the electrical panel disconnected but wired and ready for connection.

### Preliminary warnings

- ⚠ All electrical work must be carried out by qualified personnel who are legally qualified, trained and informed about the risks involved.
- ⚠ Make sure that the power supply is switched off before carrying out any work.
- ⚠ The unit should only be powered on once the plumbing and electrical work has been completed.
- ⚠ References:
  - for electrical connections, refer to the wiring diagrams in this manual, especially the part concerning the power supply terminal block
  - for the supply voltage, refer to the nameplate on the appliance.
- ⚠ Check that:
  - the characteristics of the mains supply are adequate for the absorption of the appliance, also taking into account any other machinery in parallel operation
  - the power supply voltage and frequency correspond to the specifications on the appliance's rating plate
  - the cables are suitable for the type of installation in accordance with the applicable IEC standards
  - the cable terminals are provided with ferrule terminals of a cross-section proportionate to the connecting cables before inserting them into the terminal block
  - the power supply is adequately protected against overloads and/or short circuits
- ⚠ It is mandatory:
  - refer to the wiring diagrams in this booklet for any electrical work.
  - connect the appliance to an effective earthing system (the manufacturer cannot be held responsible for any damage caused by the appliance not being earthed properly)
  - install a dedicated switch-disconnector with delayed fuses or an omnipolar magneto-thermal circuit breaker conforming to CEI-EN standards, suitable for the absorption of the equipment, with a differential relay with a maximum setting equal to that prescribed by the individual electrical standards
- ⚠ Ensure that an earth connection is made. Do not earth the appliance to distribution pipes. Improper earthing can result in an electric shock. Momentary high voltage surges caused by lightning or other causes could damage the heat pump.
- ⚠ Electrical connections must be made in accordance with the instructions in the manual and with the national standards or practices governing the connection of electrical equipment. Insufficient capacity or incomplete electrical connections could result in electric shock or fire.
- ⚠ The power supply line must be adequately dimensioned to avoid voltage drops or overheating of cables or other devices placed on the line.

- ⚠ The power supply line must be disconnectable from the rest of the vessel's electrical supply by means of an omnipolar circuit breaker, suitable for the absorption of the appliance, with a differential relay.
- ⚠ Use a dedicated power supply circuit. Never use a power supply to which another appliance is also connected because of the risk of overheating, electric shock or fire.
- ⚠ For the electrical connection, use a cable of sufficient length to cover the entire distance without any connection. Do not use extension cords. Do not apply other loads to the power supply.
- ⚠ After connecting the interconnection and power cables, make sure that the cables are arranged so that they do not exert excessive forces on the covers or electrical panels. Fit the covers over the cables. Incomplete connection of the covers may result in overheating of the terminals, electric shock, or fire.
- ⚠ Any replacement of the power cable must only be carried out by qualified personnel and in accordance with current national regulations.
- ⚠ The manufacturer is not liable for any damage caused by a lack of earthing or failure to observe the relevant diagrams.
- ⊖ The use of gas and water pipes to earth the appliance is prohibited.

### Connection

- ⚠ Use appropriately sized cables to avoid voltage drops or overheating.
  - ⚠ Read this manual carefully before connecting to the terminals.
- To connect the power supply:
- bring the connection cable of the fan coil unit closer together
  - make the connections
  - bring the power supply cable closer
  - make the connections
  - connect the command
- ⚠ Follow the wiring diagram of the unit you are installing.
  - ⚠ To ensure that the switchboard retains its insulation characteristics, maintain its integrity.

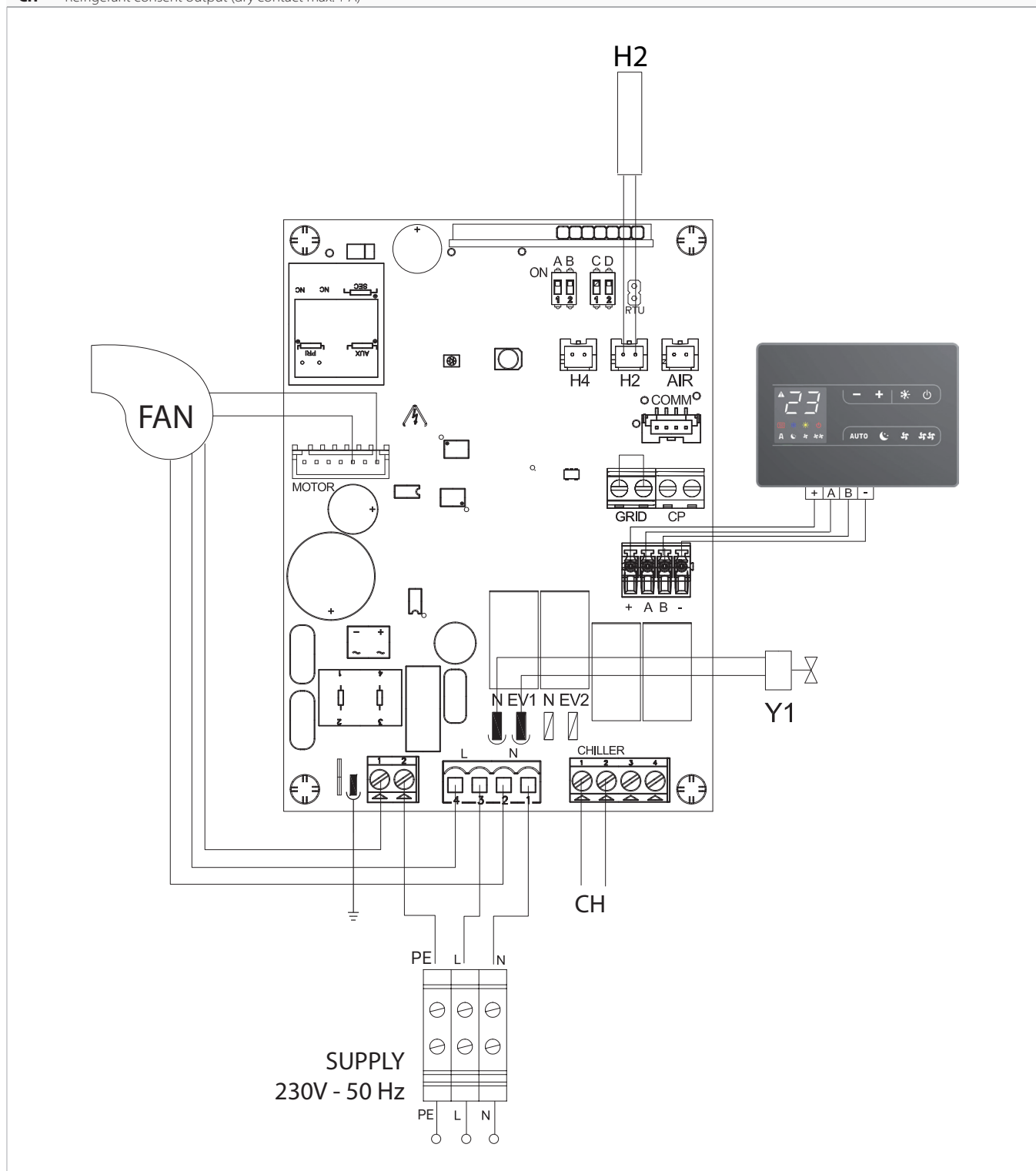
## 2.10 Electrical control diagrams and configurations

### Remote control

#### Electronic board

The circuit board is included in the delivery.

<b>-AB+</b>	Serial connection for wall-mounted remote control (observe AB polarisation)
<b>H2</b>	Water temperature sensor 10 kΩ
<b>FAN</b>	EC motor
<b>Y1</b>	Water solenoid valve (voltage output 230 V/50 Hz 1 A)
<b>L-N</b>	Power supply connection 230 V/50 Hz
<b>CH</b>	Refrigerant consent output (dry contact max. 1 A)



## Error reporting

The on-board board is equipped with a LED to indicate the operating status.

### LED signals

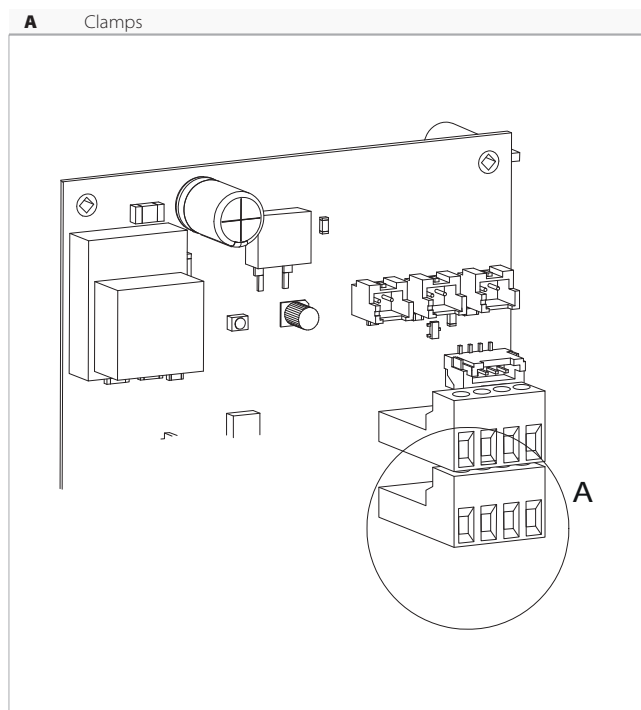
- LED off  
*Appliance switched off or without power supply*
- LED on  
*Normal operation of the appliance*
- LED 1 flash / pause  
*Water temperature alarm H2 probe not suitable, temporary stop of ventilation until the appropriate value is reached \**
- LED 2 flashes / pause  
*Motor alarm (e.g. jamming due to foreign bodies or rotation sensor failure)*
- LED 3 flashes / pause  
*Water probe disconnected or faulty alarm*
- LED 6 flashes / pause  
*Communication error with the wall control. If there is no communication for more than 5 minutes, the device is switched off.*

1. \* In case of operation without H2 water probe the fan stop thresholds are ignored.



## Control panel VFC-DSP

⚠ Control panel to be ordered separately.

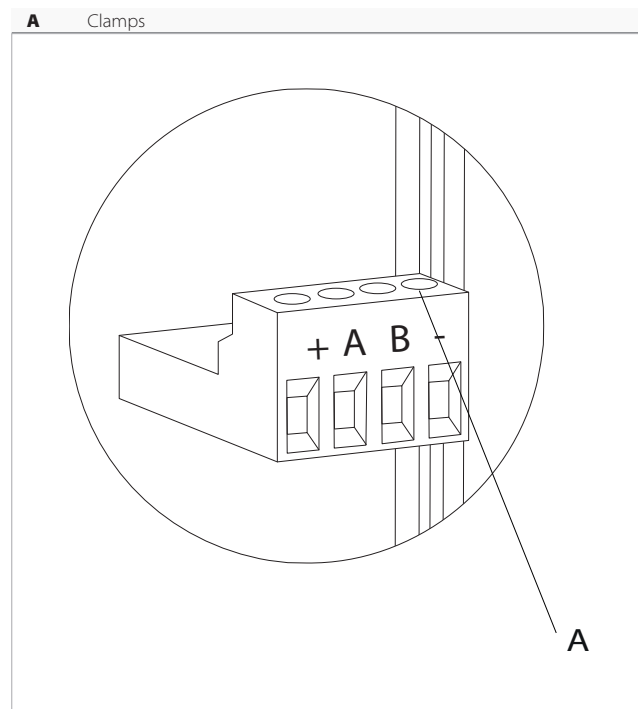


The 4 terminals for connecting the wall control and several fan-coils in series accept:

- Rigid or flexible cables with a cross-section of 0.2 to 1 mm<sup>2</sup>
- rigid or flexible cables with a cross-section of 0.5 mm<sup>2</sup> when connecting two conductors in the same terminal
- rigid or flexible cables with a maximum cross-section of 0.75 mm<sup>2</sup> if fitted with a cable lug with plastic collar

To connect cables:

- 8 mm stripping
- in the case of a rigid cable, easily insert
- in the case of a flexible cable, use a pair of pliers with noses
- push the cables all the way in
- check the correct fixing by pulling them slightly



To disconnect cables:

- unscrew the corresponding screw with a screwdriver
- extract the content

When the CP contact, connected to a voltage-free contact, is opened, the device goes into stand-by mode. The display shows CP.

## WALL MOUNTED REMOTE CONTROL

### 3.1 Installation

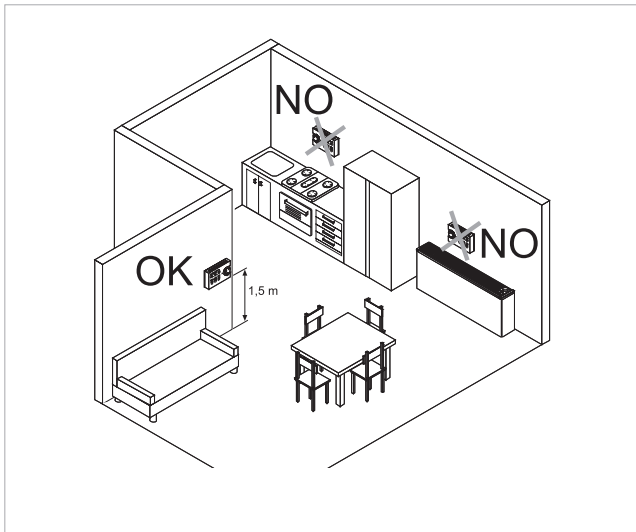
#### Description

The wall-mounted control panel is a thermostat with possibility of control on several device equipped with electronic

control for remotization.

⚠ The control can control up to a maximum of 10 units.

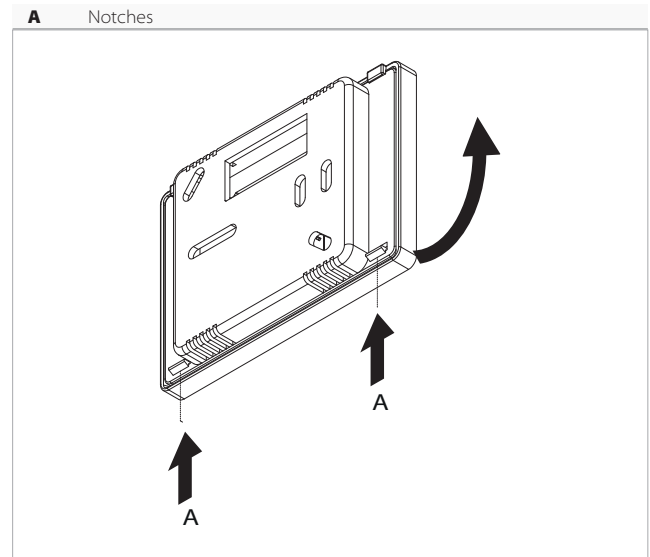
#### Mounting



The wall-mounted remote control must be installed:

- on internal walls
- at a height of about 1,5 m from the floor
- away from doors or windows
- away from heat sources (heaters, convectors, stoves, direct sunlight)

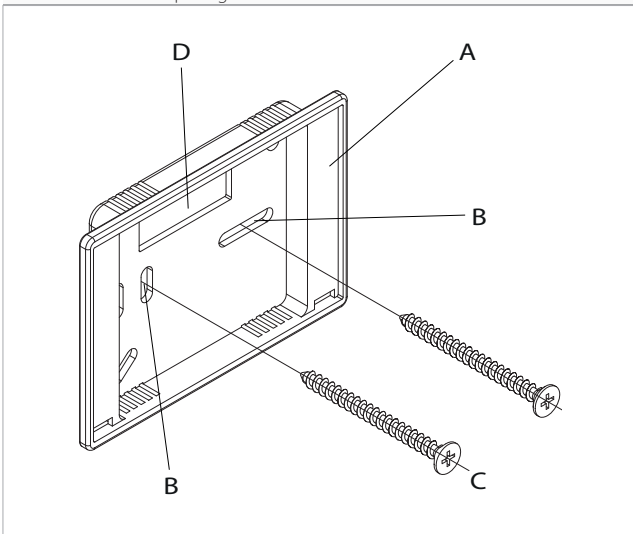
⚠ The wall-mounted remote control is provided inside its package already assembled.



Before wall installation:

- Unhook the protruding notches on the back side of the control
- separate the base from the control
- use the base of the control to trace the fixing point on the wall

<b>A</b>	Base of the control
<b>B</b>	Hole for the wall mounting
<b>C</b>	Screws
<b>D</b>	Hole for the passage of the electrical connections



For the remote control wall mounting:

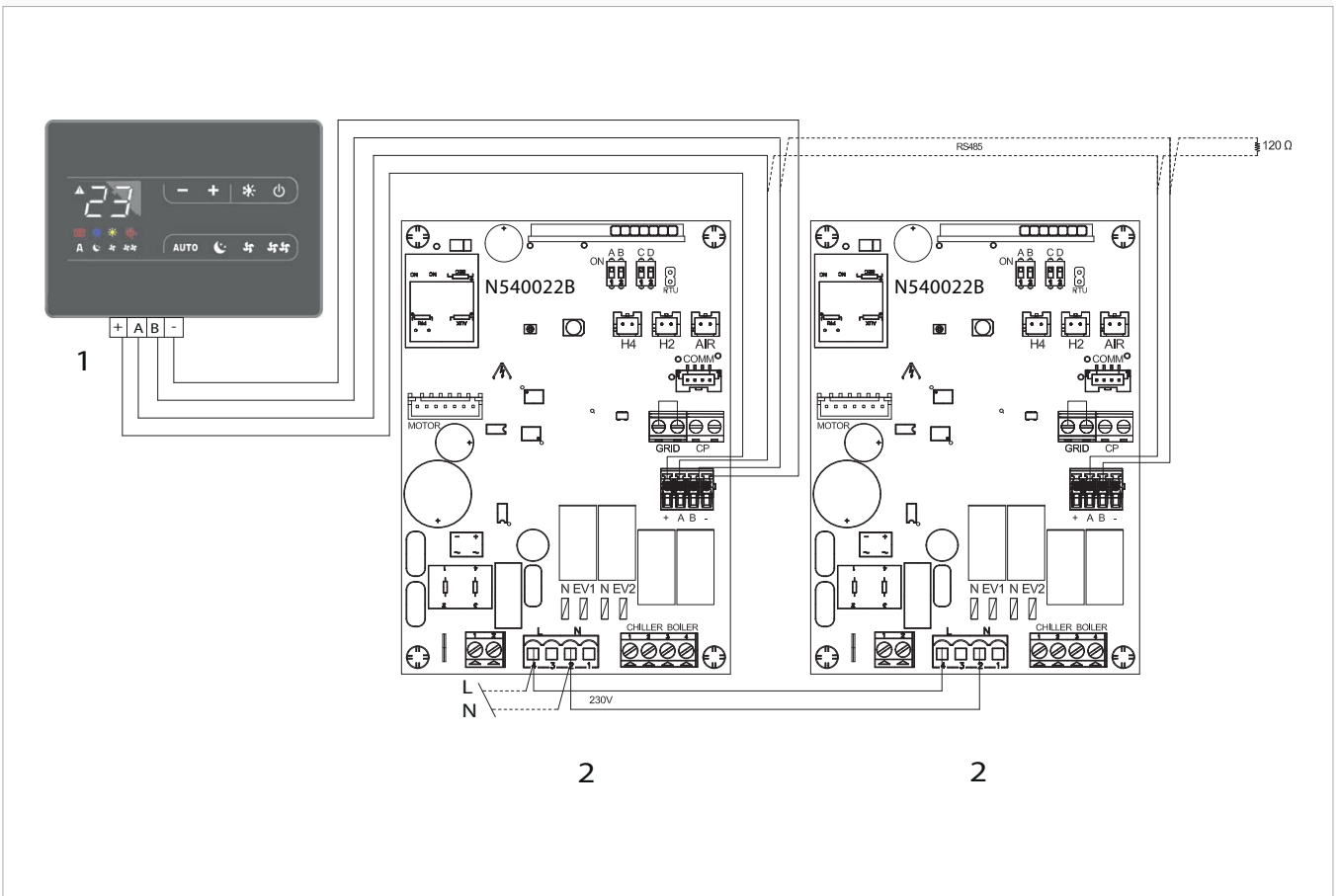
- drill holes in the wall
- pull the electric wires through the hole provided
- fix the base of the control to the wall using suitable screw and plugs
- perform the electrical connection
- close the control

⚠ Pay attention not to crush the conductors when you close the control.

### 3.2 Electric connections of two units with one control panel

#### Connection diagram

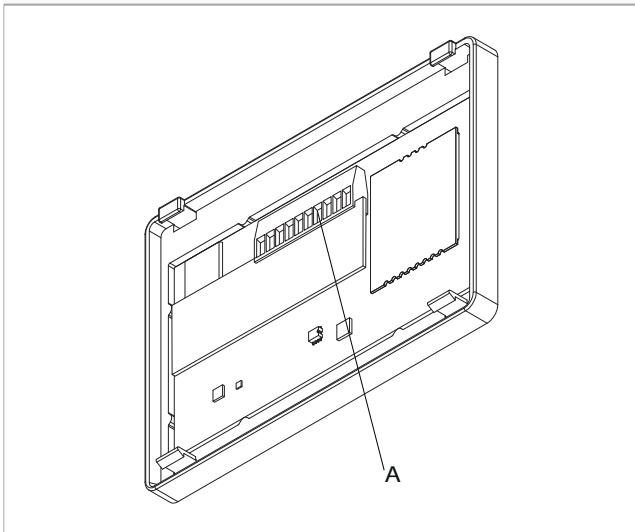
1. Device connection terminal block
2. Electronic board



⚠ The connection can be 50 m from board to board for a maximum of 500 m in total.

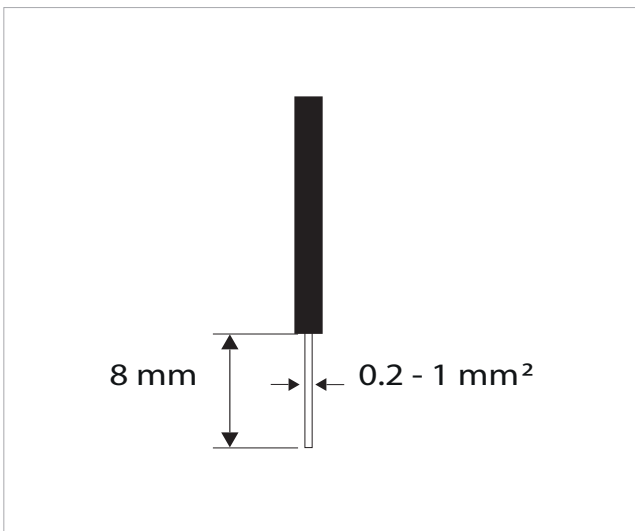
### Terminal block position

**A** Terminal block



The spring terminals allow the connection of rigid or flexible cables with sections from 0.2 to 1 mm<sup>2</sup>. For cables provided with lugs with plastic collar the maximum section is reduced to 0,75 mm<sup>2</sup>.

### Connection to the circuit board



For connection:

- remove a portion of the insulation from the end of the cable
- follow the connection diagram
- insert the cable into the terminal
- screw tight
- check the correct fixing by slightly pulling the cable

### Serial connection

The wall-mounted remote control can be connected via an RS485 line to one or more devices, up to a maximum of 10.

For connection:

- follow the connection diagram
- connect in accordance with indications "A" and "B".

- ⚠ Use a shielded two-core cable suitable for RS485 serial connection with a minimum cross-section of 0.35 mm<sup>2</sup>.
- ⚠ Keep bipolar cable separate from power supply cables.
- ⚠ Lay out a route so as to minimise the length of detours.
- ⚠ Terminate the line with the 120 Ω resistor provided.
- ⊖ Star connections are prohibited.

## 3.3 Interface

### Description

The wall-mounted remote control is an electronic thermostat with the possibility of controlling several appliances equipped with an electronic control for remote control.

It is equipped with:

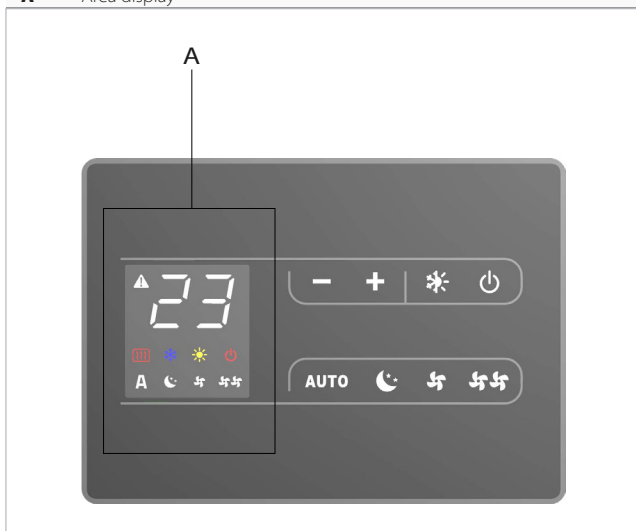
- room temperature probe

- internal memory with data storage even in case of abnormal shutdown or power failure
- ⚠ The controller can control a maximum of 10 luminaires.
- ⚠ The room temperature probe provides frost protection even when the control is in stand-by mode.

⚠ 20 seconds after the last action, the panel brightness is reduced, only the room temperature is shown on the display. Press any key to restore maximum brightness.

## Display

A Area display

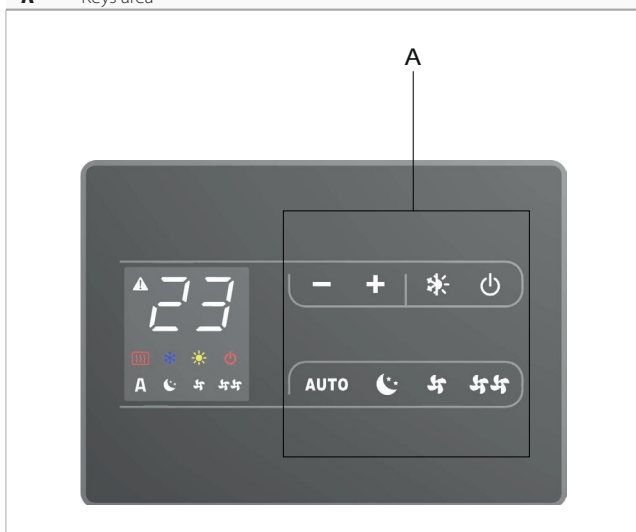


Statuses and active alarms on display.

- Supervision on  
Switched on for alarm indication
- Cooling function on
- Heating function on
- Remote control indication of
- Automatic function
- Night function
- Silent function
- Maximum ventilation speed

## Keys functions

A Keys area



Keys and functions related.

- Decreases the set temperature
- Increases the set temperature
- Allows you to change the operating mode between Cooling and Heating functions
- Enables the control to be activated or put on stand-by
- AUTO** Makes fully automatic adjustment of ventilation speed between a minimum and a maximum value
- Limits the ventilation speed to a very low value by automatically varying the set temperature
- Limits ventilation speed to a low maximum value
- Sets the maximum ventilation speed

## General start-up

Before the activation:

⚠ Make sure that the remote control is connected to the mains.

### To activate the device

- press the key the symbol lights up

⚠ In case of a master switch on the power supply line, switch on the system by inserting the switch.

## Settings menu VFC-DSP

### Settings menu

The special functions menu can be accessed via the control.

### To activate special functions

- With the display off, press and hold the for 10 seconds  
The device switches on and the temperature is displayed

- press and hold until the indication appears. **Ad**

**To move within the menu**

- using icons **← +**

**To select menu items and confirm changes**

- press the icon **↵** for 2 second  
While editing, the symbol flashes to remind you that you are in the submenu.  
Confirming the change takes you to the next item.

**To exit the menu**

- press the icon **⏻** for 10 second
- or wait 30 seconds for automatic switch-off

⚠ After a period of 30 seconds from the last action, the display switches off and the changes made are saved automatically.

**Menu items**

<b>Ad</b> Reserved	<b>rb</b> Reset modbus
<b>uu</b> Enable/Disable Wifi	<b>Fr</b> Reserved
<b>Ub</b> Adjusting the buzzer volume	<b>ot</b> Probe offset T
<b>br</b> Adjusting the brightness of the control	<b>oh</b> Reserved
<b>di</b> Reserved	<b>Sc</b> Scale
<b>rZ</b> Reserved	<b>rE</b> Reserved

**Enabling or disabling Wifi**

**To enable or disable Wifi**

- select **uu**
  - select "YS" to enable wifi
  - select "rs" to reset the settings
  - select "no" to disable wifi
- Wifi is enabled by default.*

**Adjusting the buzzer volume**

**To change the volume of the command**

- select **Ub**
  - increase or decrease the value with the icons **← +**
- The volume setting range is 00 (minimum) to 03 (maximum).*

⚠ The volume changes after confirming the change.

**Adjusting the brightness of the display**

**To adjust the brightness of the display**

- select **br**
  - increase or decrease the value with the icons **← +**
- The dimming range is from 00 to 01.*

⚠ Display brightness changes after confirming change.

⚠ it is also possible to reduce the brightness of the display using the keys on the control, With the display switched off **+** press and hold for about 20 seconds, "01" will appear.

Press **←** to decrease the brightness "00". Wait 30 seconds to check the correct setting.

**Factory reset**

**To reset the remote control to factory settings**

- select **Fr**
- select "YS" to reset the settings
- select "no" to keep the current settings

**T-probe offset adjustment (room temperature probe)**

**To adjust the T**


- select **ot**
  - increase or decrease the value with the icons **← +**
- The adjustment range is -9 to 12.*

- ⚠ Use this setting with great caution.
- ⚠ This adjustment should only be made after actual deviations from the actual room temperature have been detected with a reliable instrument.

- ⚠ Adjust the value in a range of -9 °C to +12 °C, with variations of 0.1 °C.
- ⚠ After a period of 30 seconds from the last action, the control unit switches off and the setting is stored.

## Scale




### To change the temperature unit

- select 
  - select °C or °F
- By default the unit of temperature is °C.*

## 3.4 Main functions

### Setting the operating mode

#### To switch the operating mode

- press and hold the button  for about 2 seconds
- The symbol  lit indicates that the heating function is activated*
- The symbol  on indicates that the Cooling function is activated*

- ⚠ In heating mode, the symbol is lit when the setpoint is higher than the room temperature.
- ⚠ In cooling mode the symbol is lit when the setpoint is lower than the room temperature.
- ⚠ In caso di setpoint non corretto entrambi i simboli sono spenti.

### Setting the room temperature


#### To set the room temperature

- act on the keys  to decrease or increase the desired value
- The value shown on the display changes*

- ⚠ The temperature setting range is from 16 to 28°C, with a resolution of 0.5°C.
- ⚠ Off-scale values of 5°C and 40°C are permitted, except in automatic mode. Only set these values for short periods.

### Putting the control on stand-by

#### To put the control in stand-by

- press and hold the  for about 2 seconds
- The control turns off*

### Automatic operation



#### To select Automatic operation

- press and hold the **AUTO** for about 2 seconds
- The symbol **A** lit indicates that the Automatic function is activated*

- ⚠ The ventilation speed is automatically adjusted between a minimum and a maximum value according to a PI algorithm,
- depending on the actual distance from the setpoint room temperature.

### Silent operation



#### To select Silent operation

- press and hold the  for about 2 seconds
- The symbol  lit indicates the Silent function is activated*

- ⚠ The ventilation speed is limited to a small maximum value.

### Night function

#### To select the Night function



- press the  key for about 2 seconds
- The symbol  on indicate the Night function enable*

- ⚠ The ventilation speed is limited at a very low value.
- ⚠ The set temperature changes automatically:
  - in heating function decreases by 1 °C after one hour and by another degree after 2 hours
  - in cooling function decreases by 1 °C after one hour and

- by another degree after 2 hours

### Maximum ventilation speed

#### To select the operation at the maximum ventilation speed

- press the  key for about 2 seconds  
*The symbol  on indicates the maximum speed function enable*

- ⚠ Maximum power output is immediately obtained both in heating and cooling.
- ⚠ After reaching the desired room temperature, select a different function to increase the thermal and acoustic comfort.

### Set the key lock




#### To set-up the key locking

- press both   keys for 2 seconds  
*The text  appearing on the display*

- ⚠ All settings are inhibited by the user.
- ⚠ Repeat the sequence to unlock the control.

### Brightness reduction


#### To reduce the display brightness

- press the  key for 5 seconds  
*The text  appearing on the display*
- press the  key to decrease the value, wait 20 seconds

- ⚠ After 20 seconds from the last action the panel brightness will be reduced to increase the comfort during night use.
- On the display will appear only the room temperature.

### Deactivation


#### To deactivate the display

- press the key  for about 2 seconds  
*All the light signals go of*

- ⚠ In stand-by mode the control ensure an antifreeze safety

### Room temperature probe offset adjustment

#### To adjust the room temperature probe offset

- from display off, hold the key  for about 5 seconds  
*Access to the variation menu of the AIR probe offset displayed on the display*

- ⚠ Use this adjustment carefully.
- ⚠ This adjustment must be carried out only after having found actual deviations from the room temperature using a reliable tool.
- ⚠ Adjust the measured value within a range of +/- 10 °C in steps of 0,1 °C.
- ⚠ After 20 seconds from the last action the control goes out and the settings is memorized.

## 3.5 Warnings

### Long period shut-down

⚠ **E1** For seasonal shutdowns or for long periods

⚠ **E2** Reserved: contact the Technical Assistance Centre

#### Switching off for long periods

In case of seasonal or long term shutdown:

- deactivate the appliance
- set the system's main switch to the off position



## MAINTENANCE

### 4.1 Routine maintenance

Routine maintenance is essential to keep the device always efficient, safe and reliable over time.

It can be done:

- every six months

#### 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.

⚠ After completing the maintenance work, must be restored the original condition.

⊖ It is forbidden to open the access doors and carry out any technical or cleaning work before disconnecting the appliance from the mains power supply by setting the system's main switch to "OFF".

⚠ Warnings:

- If water leaks from the unit, switch off the fan coil unit immediately and disconnect the power supply. Then call the nearest service centre.
- The appliance must never be installed in rooms where explosive gases develop or where there are humidity and temperature conditions outside the maximum limits defined in the installation manual.
- Clean the air filter regularly.

### 4.2 Half-yearly transactions

#### 4.2.1 Air intake filter cleaning

The filter must be cleaned:

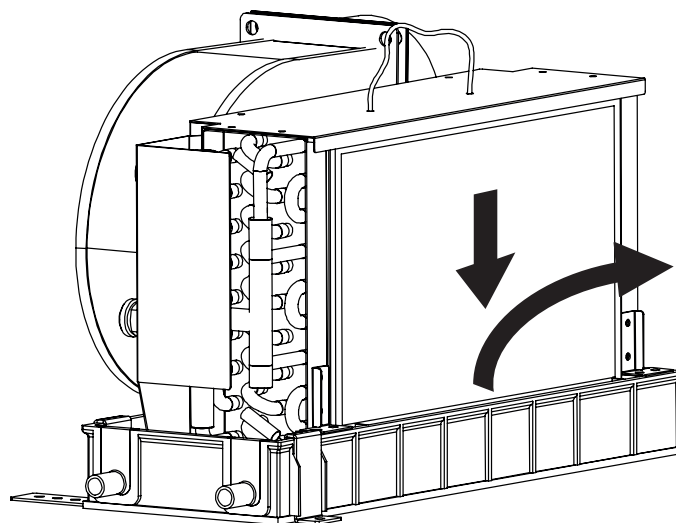
- after a period of continuous operation, taking into account the concentration of impurities in the air,

- when you want to restart the system after a period of inactivity.

#### Filter extraction

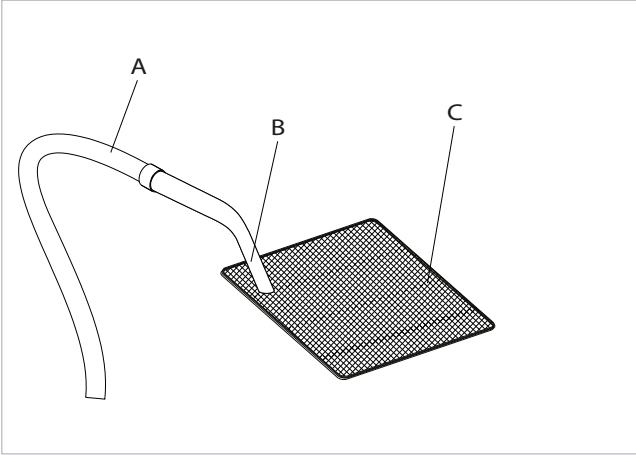
To remove the filter:

- push the filter down slightly
- take the filter out of the guide
- pull out the filter



### Cleaning

- A** Hoover
- B** Long nozzle
- C** Filter



To clean the filters:

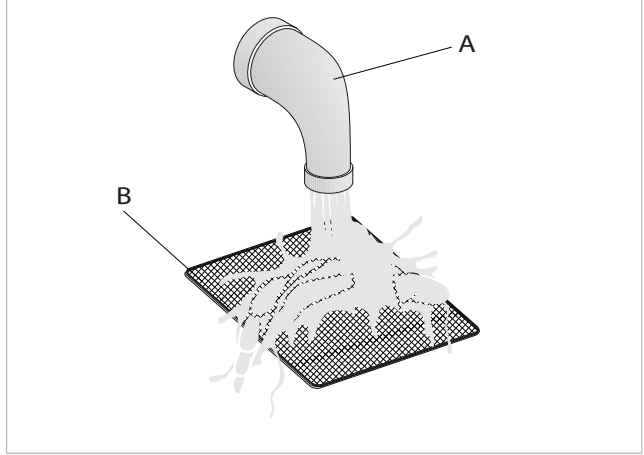
- use a Hoover
- vacuuming the dust

### Filter insertion

Refit the filter, taking care to slide the lower flap into place.

The appliance is equipped with a safety switch that prevents operation if the filter is missing or if the mobile panel is incorrectly positioned.

- D** Running water
- E** Filter



- wash the filter under running water
- let dry

⚠ Do not use detergents or solvents to clean the filter.

⚠ Do not use the appliance without the filter.

⊘ It is forbidden to use the appliance without the filter.

### 4.3 Energy saving tips

For correct operation of the appliance and increased energy savings:

- keep filters constantly clean
- keep doors and windows of rooms to be air-conditioned closed as far as possible
- in summer, limit the direct radiation of the sun's rays in the rooms to be air-conditioned by means of external screens (overhangs, blinds, shutters, etc.)



The logo for VELAIR features the word "VELAIR" in a bold, black, serif font. A vibrant blue, wavy line, resembling a stylized wave or a ribbon, cuts through the middle of the letters, starting from the left and ending on the right.

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