MITSUBISHI ELECTRIC | MITSUBISHI ELECTRIC HYDRONICS & IT COOLING SYSTEMS S.p.A.

Manual code:

IUM_CP-500CM_00_09_25_EN

CP-500CM

INSTALLATION, USE AND MAINTENANCE MANUAL

EN

Italian is the original language.
The versions in other languages are translations of the original manual.

To ensure safe and correct use, carefully read this manual and make sure you understand all the information and instructions.

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1.1 Marking

CE UKCA

1.2 General information and safety

1.2.1 Scope of the manual

This manual, which is an integral part of the machine (1), was prepared by the Manufacturer to provide the necessary information to all those who are authorised to interact with it during its life span: Buyers, Plant Designers, Carriers, Handling Operators, Installers, Expert Operators, Specialist Technicians and Users.

As well as adopting a code of good practice, the recipients of the manual must read the information with care and apply it scrupulously. Taking a little time to read this information can help avoid risks to the health and safety of people as well as prevent financial losses.

The information was written by the Manufacturer in the manufacturer's native language (Italian) and is referred to as the "ORIGINAL INSTRUCTIONS".
This information is also available into other languages as "TRANSLATION OF THE ORIGINAL INSTRUCTIONS" to meet legislative and/or commercial requirements. The information is valid even if the machine in your possession is not exactly the same as the one referred to.

Keep this manual in a known and easily accessible place to refer to as necessary.

The Manufacturer reserves the right to modify the product without prior notice.
Some symbols were used to highlight particularly important parts of the text, which will be explained below.

(1) in the interest of clarity, this term is used as defined in the Machinery Directive.

2 GLOSSARY AND TERMINOLOGY

2.1 About the manual

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

WARNINGS

Specific warnings are given in each chapter of the document and should be read before starting operations.

WARNINGS

The manufacturer accepts no liability for harm to people or damage to property resulting from failure to observe the rules in this booklet.

WARNINGS

This document is confidential under the terms of the law and may not be reproduced or passed on to third parties without the express authorisation of the manufacturer.

2.2 Pictograms

The pictograms in the following chapter provide quick and unambiguous information necessary for the correct and safe use of the machine.

Related to safety:

WARNINGS

- The operation described above presents a risk of serious physical injury, fatality and major damage to the appliance and/or to the environment if not carried out in compliance with the safety regulations.
- The operation described above presents a risk of minor physical injury or minor damage to the appliance and/or to the environment if not carried out in compliance with the safety regulations.

WARNINGS

The operation described above presents a risk of minor physical injury or minor damage to the appliance and/or to the environment if not carried out in compliance with the safety regulations.

PROHIBITED

Indicates actions that are prohibited.

INFORMATION

This indicates important information that must be taken into account during the operations.

2.2.1 Pictograms on the product

Symbols are used on some parts of the appliance:

Related to safety:

READ THE INSTRUCTION MANUAL

Read the instructions carefully before performing any operation on the appliance.

INSTRUCTION MANUAL

Read the information available in the technical documentation of the appliance.

WARNING: ELECTRICAL HAZARD

Warns relevant personnel of the presence of electricity and the risk of electric shock.

2.2.2 Related to the R32 refrigerant

Symbols are used on some parts of the appliance:

CAUTION: LOW-FLAMMABILITY MATERIAL

The R32 refrigerant gas is mildly flammable and odourless. Avoid proximity to continuous ignition sources such as open flames, gas appliances, electric heaters, lit cigarettes, etc.

INSTRUCTION

Read the instructions carefully before performing any operation on the appliance.

INSTRUCTIONS FOR SERVICE

The Authorised Service Centre must read the instructions before performing any operation on the appliance.

INSTRUCTIONS FOR THE USER

Further information is available in the technical documentation of the appliance.

2.2.3 Recipients

User

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

Installer

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

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

Service

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

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

2.2.4 Organisation of the manual

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

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

Product introduction
Addressed to all recipients, contains general information on the product.

Installation
It is addressed exclusively to the installer.
It contains specific warnings and all the necessary information for the positioning, installation and connection of the appliance.

Commissioning, maintenance and troubleshooting
It is addressed exclusively to the Authorised Service Centre.
It contains specific warnings and useful information for the most common commissioning and routine maintenance.

Technical information
It addresses all recipients.
It contains detailed technical information about the appliance.

3 WARNINGS

3.1 General warning

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

GENERAL WARNINGS

- Specific warnings are given in each chapter of the document and should be read before starting operations.
- All personnel involved must be aware of the operations and dangers that may arise when beginning all unit installation operations.
- All maintenance operations that require specific technical expertise or skills must only be carried out by qualified personnel with recognised experience in the field.
- The personnel who carry out any kind of work during the entire life span of the machine must have precise technical knowledge, special skills and recognised experience in the specific sector. Non-fulfilment of these requirements could endanger the health and safety of people.
- Keep the area around the machine in a good state in order to avoid risks to the health and safety of people during normal use and maintenance of the machine. Some processes may require the assistance of one or more helpers. In which case, these helpers must be duly trained and informed of the type of work to be carried out in order to avoid risks to their health and safety.
- Installation performed without observing the warnings in this manual and use of the appliance outside the set temperature limits will invalidate the warranty.
- The installation and maintenance of air conditioning equipment can be dangerous as it contains pressurised refrigerant gas and live electrical components. The installation, initial startup, and subsequent maintenance stages must be carried out exclusively by authorised and qualified personnel (see initial startup request form enclosed with the equipment).
- Check that any means of transport to be used for transfer of the machine are suitable for the purpose, and that the machine is loaded and unloaded with care to ensure the safety of the operator and of any other people who are directly involved.
- Before transfer, make sure that the machine and its components are duly anchored to the vehicle and do not exceed the maximum permitted dimensions for transport on the vehicle. Apply any necessary signs.
- The personnel who carry out loading, unloading and handling of the equipment must have recognised skills and experience in the specific sector and must have absolute command of the lifting equipment to be used.
- Any contractual or extra-contractual liability for harm to people and animals or damage to property, due to installation, adjustment and maintenance errors or improper use is excluded. All uses not expressly indicated in this manual are not permitted.
- The installation of the appliance must be carried out by a qualified company which, on completion of the work, will issue a declaration of compliance to the person in charge of the plant in accordance with the regulations in force and the instructions provided in the instruction booklet accompanying the appliance.
- During installation, observe the clearances indicated by the Manufacturer and take into account all the work activities carried out in the vicinity. Installation must also be carried out in compliance with the laws in force on safety at work.
- Initial start-up and repair or maintenance operations must be carried out by the Authorised Service Centre or by qualified personnel following the provisions of this manual.
- Only use the machine with the safety devices properly installed and in perfect working order. Failure to observe this requirement could result in serious risks to the health and safety of the people involved. Keep the machine in perfect working order and perform the routine maintenance recommended by the Manufacturer. Good maintenance can help to ensure the best possible performance, a long useful life and constant compliance with the safety requirements.
- Before maintenance and adjustments, activate all the applicable safety devices and provide the personnel and any other people in the vicinity with all necessary information. In particular, cordon off the area and prevent access to all the devices that could, if activated, inadvertently cause danger and pose risks to health and safety.
- In the case of maintenance in areas that are awkward or dangerous to access, implement appropriate measures to ensure the safety of oneself and of other people, in compliance with the laws in force on safety at work.
- The inclusion of these machines in a system must be planned as a whole taking into accoun all the “good practice” requirements, as well as the legislative and regulatory provisions. Particular attention must be paid to all the recommendations and technological information provided by the Manufacturer. Do not tamper with, avoid, remove or bypass the safety devices installed on the machine. Failure to observe this requirement could result in serious risks to the health and safety of the people involved.

3 WARNINGS

GENERAL WARNINGS

- Use suitable personal protective clothing and equipment during installation and/or maintenance operations. The Manufacturer is not liable for the non-observance of the current safety and accident prevention regulations.
- In case of liquid or oil leaks, isolate the main power supply of the system and close any water valves. Promptly contact the Authorised Service Centre or professionally qualified personnel, and refrain from personally intervening on the equipment.
- When replacing components, use only original spare parts.
- The Manufacturer reserves the right to make changes to its models at any time to improve its product, without prejudice to the essential characteristics described in this manual. The Manufacturer is not obliged to add such modifications to machines previously manufactured, already delivered, or under construction.
- The appliance can be used by children aged 8 years and above and by persons with reduced physical, sensory, or mental capabilities, or those lacking experience or necessary knowledge, provided they are under supervision or have been given instructions concerning the safe use of the appliance and understand the hazards involved. Children should not play with the appliance. Cleaning and maintenance intended to be carried out by the user should not be done by children without supervision.
- When moving the machine, refer to the instructions for use provided by the manufacturer.

WARNING

- During the periodic maintenance activities, or in the event of a fault, replace faulty parts with original spare parts. Use the components recommended by the manufacturer, so as to ensure the good working order of the machine and expected level of safety.

PROHIBITED

The user is strictly prohibited to perform activities such as commissioning, regular/extraordinary maintenance, modifications or anything else not covered in this Manual.

3.2 Specific warnings for R32

The document only contains some of the safety rules regarding R32 refrigerant. For more comprehensive information, please read the safety data sheet available from the retailer.

GENERAL WARNINGS

- In each chapter, specific warnings are included for the operations described within.
  These warnings should be read before starting any activities.
- All precautions regarding the handling of refrigerant must be followed in accordance with current regulations.
- The unit uses R32 refrigerant with a Global Warming Potential (GWP) of 675.
  Do not release R32 gas into the atmosphere.
- The R32 refrigerant gas is mildly flammable and odourless.
- Do not place flammable objects (spray cans) within 1 metre of the air discharge.
- Avoid proximity to continuously operating ignition sources (open flames, gas appliances, electric stoves, lit cigarettes, etc.).

3.3 Basic safety rules

The following basic safety precautions must be adopted when using products that involve water and electricity:

PROHIBITED

- It is forbidden to touch the appliance with wet or damp body parts.
- It is forbidden to carry out any operation before disconnecting the appliance from the power supply by setting the master switch of the plant to "OFF".
- It is forbidden to modify the safety or adjustment devices without the authorisation and instructions of the manufacturer of the appliance.
- It is forbidden to pull, unplug or twist the electrical cables coming out of the appliance, even if it is disconnected from the mains supply.
- It is forbidden to introduce objects and substances through the openings provided for the intake and delivery of air.
- It is forbidden to open the access doors to the internal parts of the appliance without first setting the master switch of the plant to “OFF”.
- It is forbidden to dispose of packaging material and leave it within reach of children as it can be a potential hazard.

3.4 Specific safety rules for R32

The document only contains some of the safety rules regarding R32 refrigerant. For more comprehensive information, please read the safety data sheet available from the retailer.

PROHIBITED

- Smoking is prohibited near the appliance.
- The use of mobile phones is prohibited near the appliance.
- The use of leak detectors with halogen lamps is prohibited.

3.5 Disposal

This symbol on the product or packaging indicates that the product should not be treated as normal household waste. Instead, it should be taken to an appropriate collection point for recycling of electrical, electronic and battery-operated equipment.

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

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

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

This provision is only valid in the EU Member States.

WARNINGS

- Avoid disassembling the appliance yourself.
- This unit contains fluorinated greenhouse gases covered by the Kyoto Protocol.
  Maintenance and disposal operations must be carried out by qualified personnel only.
- Contact an Authorised Service Centre to disassemble the appliance.
  This instruction manual is an integral part of the booklet of the appliance on which the kit is installed.
  Refer to that booklet for general warnings and fundamental safety rules.

3.6 Decommissioning

Related to safety:

WARNINGS

- Before carrying out this procedure, it is essential that the technician has a complete understanding of the equipment and all its details.
- It is recommended to safely recover all refrigerants.
- Before performing the activity, an oil and refrigerant sample must be taken in case an analysis is required before reusing the recovered refrigerant.
- It is essential that the power supply is available before starting the activity.
- Become familiar with the equipment and its operation.
- Electrically isolate the system.
- Before attempting the procedure, make sure that:
  - Mechanical handling equipment should beis available, if necessary, for the handling of refrigerant cylinders;
  - All personal protective equipment is available and used properly;
  - The recovery process should beis supervised at all times by a competent person;
  - The recovery equipment and cylinders comply with the appropriate standards.
- If possible, drain the refrigeration system.
- If it is not possible to achieve a vacuum, create a manifold so that the refrigerant can be removed from various parts of the system.
- Make sure the cylinder is weighed on the scale before the recovery takes place.
- Start the recovery machine and operate it according to the manufacturer’s instructions.
- Do not overfill the cylinders. No more than 80% of the liquid charge volume.
- Do not exceed the maximum working pressure of the cylinder, even temporarily.
- When the cylinders have been filled correctly and the process is complete, ensure that the cylinders and equipment are removed from the site in a timely manner and that all isolation valves on the equipment have been closed.
- The recovered refrigerant must not be charged into another refrigeration system unless it has been cleaned and checked.

3.7 Proper and improper use

Follow the sequences outlined in the various sections for quick and proper assembly of the components.

- Installation must be carried out by the installer. There is a risk of water leakage, electric shock or fire if the installation is not performed correctly.
- During installation, it is necessary to observe the precautions mentioned in this manual, and on the labels affixed to the inside of the appliances, as well as to take every precaution dictated by common sense and the safety regulations in force at the place of installation.
- It is recommended to use only the specific components supplied for installation. Use of alternative components could lead to water leakage, electric shock or fire.
- Failure to apply the indicated rules may cause malfunctions of the appliance and invalidation of the warranty, and the Manufacturer will not accept any liability for harm to people and animals or damage to property.

Use the unit only for the intended purposes for which it was designed; any other use relieves MEHITS of all liability arising from improper use of the unit.
CP-500CM units are designed for civil and industrial air handling.
In case of corrosive and/or explosive operating environments it is essential during the design stage to make the machine suitable for handling particular flows.
The use of the unit must always and in all cases comply with the design parameters set during the contract negotiations in agreement with the customer.Any other use must be considered improper and dangerous.
MEHITS shall not be liable for damage caused by different and unintended uses of the materials provided.

PROHIBITED

It is strictly forbidden to connect the unit to rooms with naked flames (e.g. smoking rooms or kitchens).

The unit must not be used:

- In an explosive atmosphere;
- In a flammable atmosphere;
- In a corrosive atmosphere;
- In excessively dusty environments;
- By untrained personnel;
- In a manner not in accordance with current legislation;
- If incorrectly installed;
- With supply defects;
- Without fully or partially following the instructions;
- If it is not properly maintained and/or if non-original spare parts are installed;
- With inefficient safety components.

3.7.1 Precautions against residual risks

Prevention of residual mechanical risks

- Install the unit according to the instructions set out in this manual;
- Carry out the routine maintenance operations stated in this manual;
- Wear protective equipment (gloves, eye protection, hard hat, etc.) appropriate for the work being carried out.
- Do not wear clothing or accessories that can get entangled or sucked in by the air flow. Gather up and tie back long hair before entering the unit.
- Before opening the machine panelling make sure that it is firmly hinged to the machine;
- The fins on heat exchangers and the edges of metal components and panels can cause cuts;
- Do not remove the guards from mobile components while the unit is operating;
- Make sure that the guards of mobile components are fitted correctly before restarting the unit;
- Fans, motors and belt drives might be running: before accessing these, always wait for them to stop and take appropriate measures to prevent them from starting up;
- Fans, motors and transmissions may be running: before starting the machine make sure to install the appropriate protections to prevent contact with the components during operation;
- The surfaces of the machine and pipes can get very hot or cold and cause the risk of scalding;
- Never exceed the maximum pressure limit (PS) of the water circuit of the unit indicated;
- Before removing parts on the pressurised water circuits, close the section of the piping concerned and drain the fluid gradually to stabilise the pressure at the atmospheric level;
- Do not use your hands to check for leaking refrigerant.

3.7.2 Prevention of residual electrical risks

- The unit contains live parts that could cause serious injury or death. Only personnel trained in electrical hazards should work on electrical and electronic components, such as electrical panels, motors and wiring. Personnel must wear the appropriate personal protective equipment for the activities at all times, including, for example, gloves, dielectric shoes and face shield, and use dielectric tools;
- Before opening the electrical panel and any other electrical and electronic components, disconnect the unit from the mains using the external switch on the machine;
- Check that the unit has been grounded correctly before starting it;
- Install the machine in a suitable area; in particular, do not install it outdoors if it is intended for use indoors;
- Do not use cables of inadequate cross-section or loose connections. Not even in an emergency, or for limited periods;
- For units with power correction capacitors, wait 3 minutes after removing the electric power supply before accessing the inside of the electrical panel;
- If the unit is equipped with frequency converters (inverters), disconnect it from the mains and wait a minimum of 15 minutes before accessing it to carry out maintenance: the internal components remain live during this period and therefore pose the risk of electric shock.

3.7.3 Prevention of environmental risks

- The machine contains substances and components that are dangerous for the environment, such as refrigerant gases and lubricant.
- The units may only be serviced and disposed of by qualified technicians.

Refrigerant gas:
The cooling circuit of the CP-500CM units contains fluorinated greenhouse gases covered by the Kyoto Protocol.
The units may only be serviced and disposed of by qualified technicians.
The fluorinated greenhouse gases contained in the cooling circuit must not be disposed of in the atmosphere.
Refrigerant gases must be recovered in accordance with current laws.

Refrigerant	R32
GWP100	675

Lubricant oil:
The cooling compressors and the cooling circuit contain lubricant oil.
The oil must be recovered in accordance with current laws.
Do not disperse the oil in the environment.

For the level of machine noise emissions refer to the Technical Data Sheet of the unit.

For the PPE required and any operations/components for the reduction of noise see the table.

3.7.4 Prevention of other residual risks

- Considering the use of R32 refrigerant, it will be necessary to take into account its LFL (Low Flammable Level), equal to 0.307 kg/m3. To reduce the risk of flames, avoid areas with a gas concentration greater than 0.077 kg/m3 (25% LFL).
- To ensure safety with units charged with R32 refrigerant, make sure to observe the minimum clearances for area constraints for installation.
- Ensure adequate ventilation to units with R32 charge.
- The unit contains pressurised refrigerant gas: the pressurised equipment must not be touched except during maintenance, which must be entrusted to qualified and authorised personnel;
- Connect up the utilities to the unit following the indications set out in this manual and in the pictograms on the panelling of the unit itself;
- The water circuit contains harmful and bio-hazardous substances (e.g. legionella). Do not drink from the hydraulic circuit and make sure the material contained in it does not touch your skin, eyes or clothing.
- In order to avoid an environmental risk, make sure that any leaking fluid is collected in suitable devices in accordance with local regulations;
- If a part needs to be dismantled, make sure it is correctly re-assembled before starting the unit;
- When the rules in force require the installation of fire-fighting systems near the machine, check that these are suitable for extinguishing fires on electrical equipment and on the lubricating oil of the compressor and the refrigerant, as specified on the safety data sheets of these fluids (for example, a CO2 extinguisher);
- For units equipped with pressure relief valves (safety valves): when these valves are triggered, the refrigerant gas is released at a high temperature/speed; prevent the release of gas from harming people or damaging objects; if necessary, discharge the gas according to the provisions of EN 378-3 and the local regulations in force, making sure in particular to making sure to discharge fluids that belong to a safety class other than A1 into safe, open areas.
- Keep all the safety devices in good working order and check them periodically according to the regulations in force;
- Keep all lubricants in suitably marked containers;
- Do not store inflammable liquids near the unit;
- Solder or braze only empty pipes after removing all traces of lubricant oil; do not use flames or other heat sources in the vicinity of pipes containing cooling fluid;
- Do not use naked flames near the unit;
- The machinery must be installed in structures protected against atmospheric discharge according to the applicable laws and technical standards;
- Do not bend or hit pipes containing pressurised fluids;
- It is not permitted to walk on or place objects on the machines;
- The user is responsible for overall evaluation of the risk of fire in the place of installation (for example, calculation of the fire load);
- During transport, always secure the unit to the bed of the vehicle to prevent it from moving about and overturning;

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- The machine must be transported according to the regulations in force taking into account the characteristics of the fluids in the machine and the description of these on the safety data sheet;
- Inappropriate transport can cause damage to the machine and leaking of the cooling fluid. Before start-up, the machine must be checked for leaks and repaired accordingly;
- The accidental discharge of refrigerant in a closed area can cause a lack of oxygen and, therefore, the risk of asphyxiation: install the machinery in a well ventilated environment according to EN 378-3 and the local regulations in force;
- The installation must comply with the requirements of EN 378-3 and the local regulations in force; in the case of installations indoors, good ventilation must be guaranteed and refrigerant detectors must be fitted when necessary;
- Unless arranged otherwise with MEHITS, the machine be installed in environments where there is no risk of explosion (SAFE AREA).
- The structure of the unit is not designed to withstand the stresses (accelerations) caused by an earthquake.

Residual risks	Mandatory personal protective equipment						
Residual mechanical risks							
Residual electrical risks							
Other residual risks							
Residual risks for maintenance							

Table 1: residual risks and the PPE to be used for each one

Refer to Italian Legislative Decree. 81/08 and IEC 82078-1:2012 for use of the required PPE.

3.7.5 Precautions against residual risks

GENERAL

This chapter contains information on the correct handling of units containing flammable R32 fluid, with reference to European regulations and directives. National laws and local building codes of each country must in any case always be respected and applied with priority.

The following information helps the installer to operate in a proper and safe way but cannot replace a comprehensive risk assessment for the installation of the unit. Risk assessment is necessary to determine if there is a direct risk of injury or damage to property in relation to hazards identified at the installation site.

Commissioning, start-up, service, decommissioning and other operations on the unit must be undertaken by trained and fully qualified personnel, in accordance with applicable local standards and codes of practice.

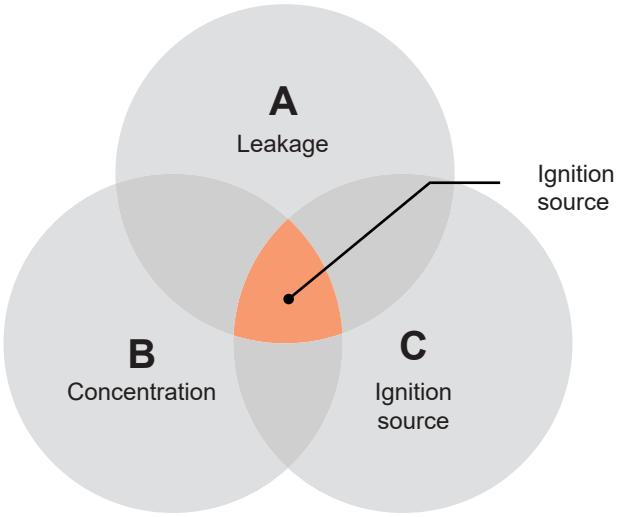
Cylinders and equipment containing R32 refrigerant require compliance with proper storage and handling procedures in accordance with EN 378-3:2021. Any person operating on the refrigeration circuit must have complete knowledge of the flammable refrigerants and the related risks.

PROPERTIES OF THE REFRIGERANT

The R32 refrigerant is classified as mildly flammable and non-toxic (A2L according to ISO/ASHRAE). Mildly flammable means that, under the three conditions shown below, there is a possibility the refrigerant could slowly burn. Removing one of the three conditions does not pose the danger of fire, and can therefore be considered safe.

In any case, most refrigerants emit a toxic gas when a naked flame comes into contact with them.

All flammable refrigerants (class A2L and above) will not ignite if the concentration level stays below the lower flammability limit (LFL).



The flammability risk of MEHITS units with R32 refrigerant is minimal. However, a site risk analysis may need to be carried out depending on the local regulations.

Some of the properties of R32 are listed below:

ASHRAE/ ISO817 Name	R32
PED Group	1
ASHRAE Safety Classification	A2L
ODP (Ozone Depletion Potential) (R11 = 1)	0
GWP (Global Warming Potential) AR5 (AR4) (CO2 = 1)	677 (675)
Saturated Liquid Temperature(1) @ 1 atm	-51.65
Practical Limit (kg/m3)	0.061
Lower between the acute toxicity exposure limit (ATEL) and the oxygen deprivation limit (ODL) (kg/m3)	0.30
LFL (Lower Flammability Limit) @ 23 °C, 50% RH (% v/v)	14.4
LFL (kg/m3)	0.307
UFL (Upper Flammability Limit) @ 23 °C, 50% RH (% v/v)	29.3
UFL (kg/m3)	0.559
Density (1) @ 21 °C, 1atm (kg/m3)	2.13
Burning rate (cm/s)	6.7
Minimum ignition energy (mJ) (ASTM E582-13)	30-100
Molecular mass	52
Auto-ignition temperature (°C) (ASTM E659-15)	648
Surface switching on temperature (°C) (ASTM E659-18)	>800

OPERATING LIMITS

OPERATING LIMITS			
Indoor side	min - max	°C	16 to 35
Outdoor side	min-max	°C	16 to 40

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INSTALLATION

WARNING

The units can only be installed inside machine rooms. The units cannot be installed outdoors.

- For indoor installations such as in basements, underground rooms or machine rooms, they must meet with the requirements of Standard EN 378-3:2021 - para. 5 (gas detection, ventilation, alarm system, etc.).
- The refrigerant is heavier than air and can stagnate, e.g. below the ground or near the floor, and could reach a flammable concentration. To avoid ignition, maintain a safe work environment by ensuring appropriate ventilation.
- For R32 units where a release of refrigerant can stagnate e.g. below ground, installation must comply with the requirements of EN 378-3:2021 on gas detection, ventilation and alarm systems.

  In addition to arc, spark, hot surfaces, flames, etc. there are other ignition sources that must be taken into consideration:
  - Electric currents and cathodic corrosion protection: take care when the unit is installed near railways, electromagnetic induction ovens, large welding systems or other apparatus that can induce stray currents in order to avoid source of ignition.
    Stray currents can flow in electrically conductive systems or parts of systems as:
    – Return currents in power generating systems - especially in the vicinity of electric railways and large welding systems - when, for example, conductive electrical system components such as rails and cable sheathing laid underground lower the resistance of this return current path;
    – A result of a short-circuit or of a short-circuit to earth owing to faults in the electrical installations;
    – A result of magnetic induction (e.g. near electrical installations with high currents or radio frequencies).
    If parts of a system able to carry stray currents are disconnected, connected or bridged (even in the case of slight potential differences) an explosive atmosphere can be ignited as a result of electric sparks and/or arcs. Moreover, ignition can also occur due to the heating up of these current paths.
    When impressed current cathodic corrosion protection is used, the above mentioned ignition risks are also possible. However, if sacrificial anodes are used, ignition risks due to electric sparks are unlikely, unless the anodes made of aluminium or magnesium.
  - Generated sparks: due to an imbalance or damage to the bearings, the blades of a fan can crawl or impact against grids and nozzles; friction or impact or abrasion can lead to overheating or detachment of solid particles at high temperature, which could represent a potential source of ignition. Make sure that the fans do not produce abnormal vibrations or noise; if they do, stop the machine and inform the service department.
- The R32 unit is provided with some parts of the refrigerant circuit inside an enclosure: a potentially flammable zone may extend beyond the boundary of the equipment, especially when doors or panels of the unit are opened following a leak. A risk assessment shall be conducted to determine the requirements of the location of the unit to be installed.
- The installer shall provide adequately protected documentation that must be kept near the operating site of the unit and be clearly readable. It shall, at a minimum, contain details of the flammability of the flammable refrigerant (see EN 378-2, 6.4.3.3).

The unit itself cannot be intended as a safety feature for the indoor environment.
The responsibility for proper installation and safety of the environments served by the unit rests entirely with the installer.
The installation area must meet the requirements of standard EN378 and the local regulations that apply.
The minimum surface areas must be respected according to standard EN378.
The installer is fully responsible for the sizing activities and the implementation of additional safety measures according to standard EN378.

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- Avoid installing the unit in the vicinity of:
  – Obstacles or barriers that cause recirculation of the exhaust air
  – Narrow places where the sound level of the appliance can be increased by reverberations or resonances
  – Environments with the presence of flammable or explosive gases or flammable fluids
  – Very damp environments (laundries, greenhouses, bathrooms with high humidity, etc.) to prevent the formation of condensation on the external panels of the unit
  – Solar radiation and proximity to heat sources
- **Avoid installing the unit in the vicinity of the sea. Salty atmospheres cause corrosion and oxidation of the internal components, compromising the functioning of the unit.**
- **Avoid placing the unit within 1 metre of radio and video equipment.**
- **Do not install above heat sources.**
- **Ensure that:**
  – The installation site of the unit is be chosen with the utmost care to guarantee adequate protection from shocks and consequent damage
  – The supporting surface is capable of supporting the weight of the appliance
  – The supporting surface does not affect load-bearing building elements, piping, or power 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...)
  – The appliance is installed in a position where it can be easily serviced
  – The safety distances between the units and other appliances or structures are scrupulously respected so that the air entering and leaving the fans is free to circulate
- **If improperly installed or placed on an unsuitable surface, the unit, if detached from its base, may cause harm to people or damage to property.**
- **The appliance must not be in a position where the air flow is aimed directly at a person.**
- **Provide the following:**
  – A drain nearby for the outflow of condensation
  – A compliant power supply nearby

3 WARNINGS

WARNINGS

- The appliance must be installed in a well-ventilated environment that has a minimum floor area as indicated in the table "Minimum Floor Area" based on the total refrigerant charge of the circuit.
- The refrigerant charge refers to the total amount of refrigerant in the circuit, which includes the factory charge and any additional charge.
- A refrigerant leak detection sensor must be installed within the unit. For further details, contact the Manufacturer or local sales office.
- Please refer to the technical rating plate on the associated outdoor unit for the quantity of refrigerant loaded into the unit.
- If the appliance is placed in a poorly ventilated area, precautions must be taken to prevent the accumulation of leaked refrigerant, thus avoiding the risk of fire or explosion.
- The appliance should be placed in a room where there are no continuously operating open flames (such as a gas appliance in operation) or ignition sources (such as an operating electric heater).

WARNINGS

Observe these rules:

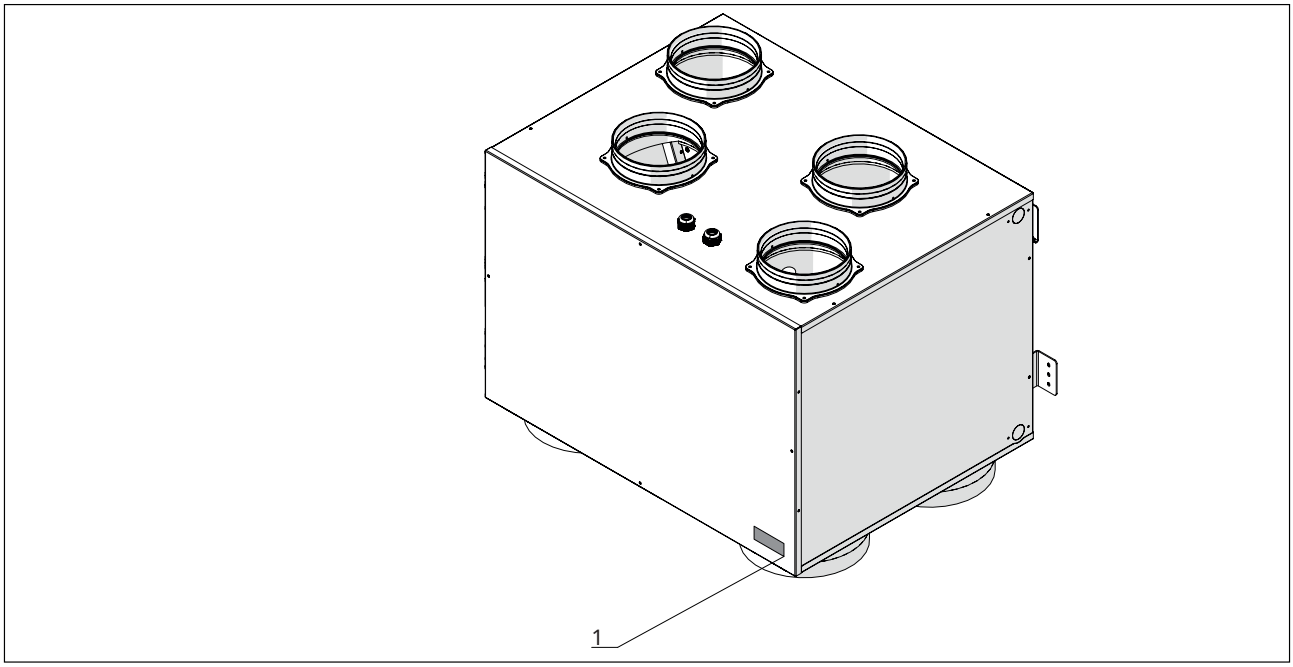
- Perform safety checks to ensure that the risk of combustion is minimised.
- Avoid working in confined spaces.
- Delimit the area around the workspace.
- Ensure safe working conditions around the area by checking for flammable materials.

4.1 Description

The CP-500CM, which can be paired with the VMC Lossnay unit, is a cooling module that, when integrated into the system, allows thermal treatment of the supply air through direct connection to the existing ventilation ducts.

The appliance can be identified by the rating plate:

1. Technical rating plate



Made in italy IP CE

Type: **CLTA CP-500CM-R MODULE**				COD XXXXXXXXXX
VOLTAGE	230 V	FREQUENCY	50 Hz	Matr (S/N) SNXXXXXXX
AIRFLOW	500 m³/h	CURRENT	5,5 A	
REFRIGERANT R32		Gas charge	0,55 Kg	MAX GAS PRESSURE 42 Bar

Technical rating plate

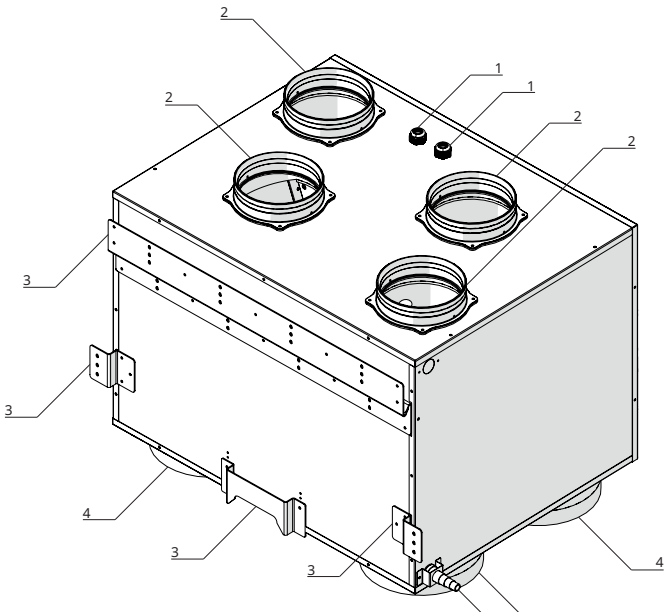
This shows the technical and performance specifications of the appliance.

WARNING

If the identification plate is tampered with, removed or eliminated, the product cannot be reliably identified by its serial number and the warranty is rendered invalid.

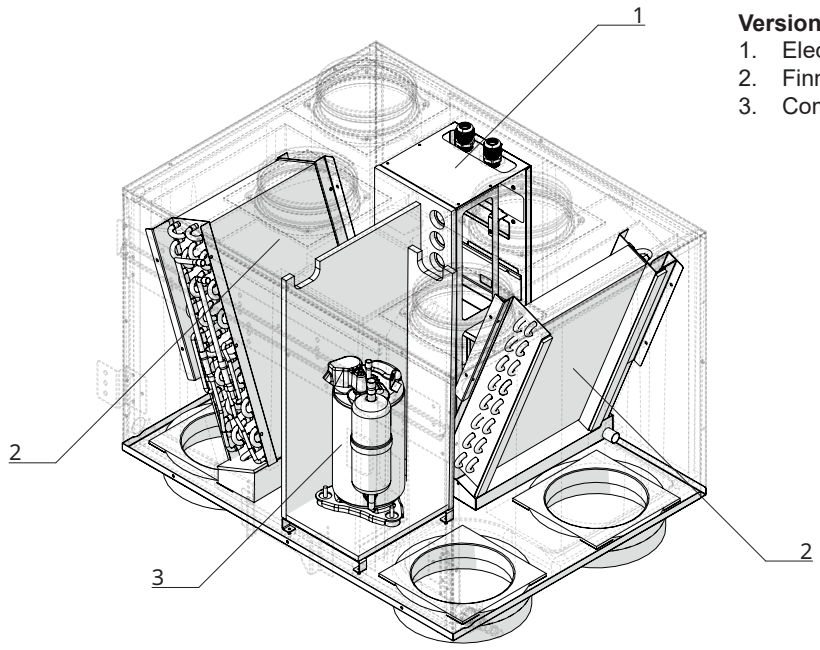
4 GENERAL DESCRIPTION

4.1.1 List of external components



1. Electrical connection passage
2. Aeraulic connections
3. Installation brackets
4. Sealing rings
5. Condensate drain

4.1.2 List of internal components



Version D

1. Electrical panel
2. Finned coils
3. Compressor

5.1 Handling with packaging

Preliminary warnings

The unit must be wall-mounted directly above the previously installed Lossnay.

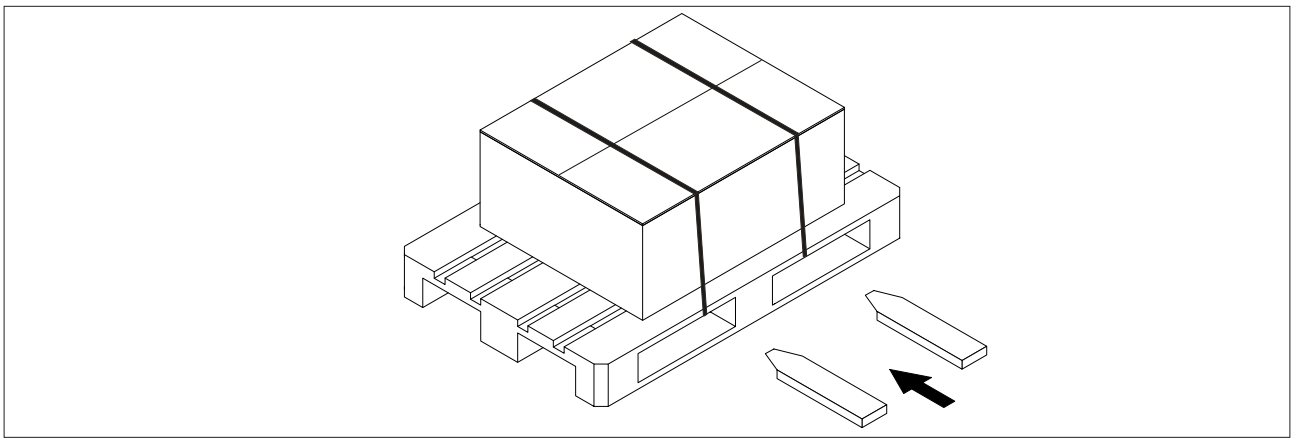
WARNINGS

- The product should only be handled by qualified personnel using the proper equipment and tools suited to the weight and dimensions of the product.
- Before each handling operation, check the lifting capacity of the machinery used in accordance with the indications on the packaging.
- When the load is lifted from the ground, stay clear of the immediate and surrounding area.
- Do not stack more than 4 units to avoid risks of instability and damage.
- During manual handling, always observe the maximum weight per person specified by the legislation in force.

Handling

With pallet:

- Use a forklift



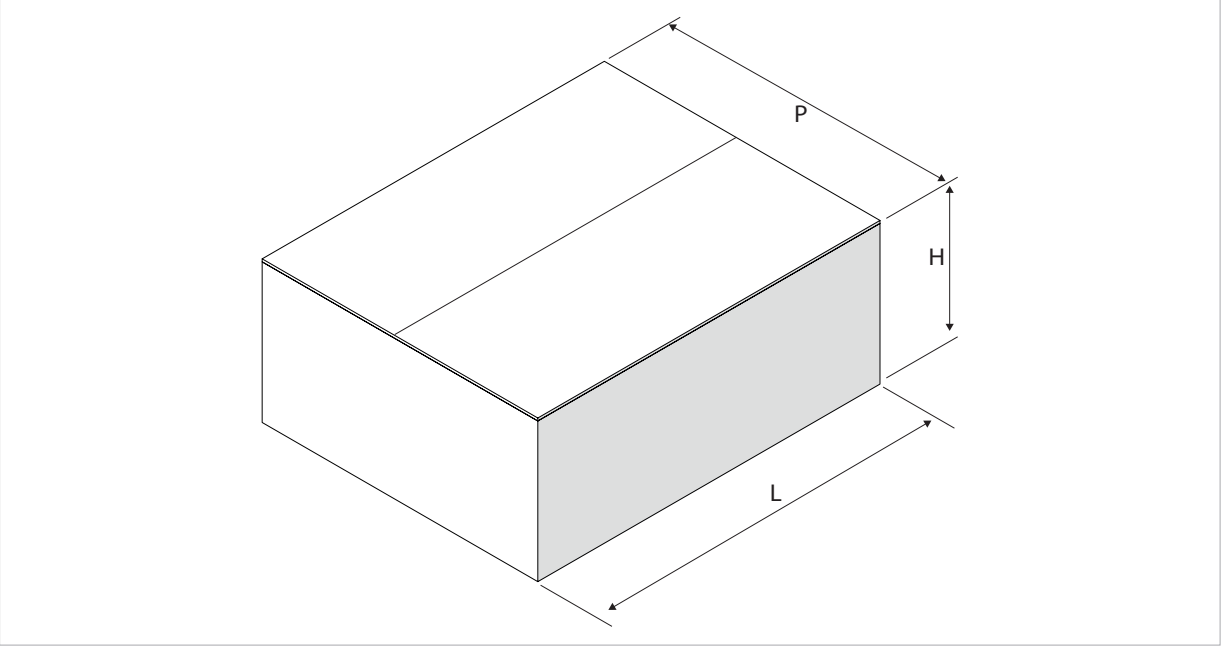
Without pallet:

- Use a forklift

WARNINGS

The unit can only be moved manually over short distances in exceptional cases. Should this be necessary, first check with care that the weight of the unit does not exceed what is stipulated by the regulations with respect to the number of persons employed.

5.2 Dimensions and weights with packaging



Models	u.m.	CP-500CM
Packaging dimensions		
Width	mm	820
Depth	mm	605
Height	mm	630
Gross weight	kg	45
Net weight	kg	38

5.3 Reception

Preliminary warnings

WARNINGS

- Upon receipt of the package check that it is not damaged, otherwise accept the goods with reservation, producing photographic evidence of any damage.
- In the event of damage, notify the shipper by registered mail with return receipt within 3 days of receipt. The same information should be emailed to the Manufacturer together with photographic documentation.
- No reports of damage will be taken into account later than 3 days after delivery.

Description of the packaging

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

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

The appliance is shipped in standard packaging consisting of a cardboard box and a set of polystyrene foam protectors, placed on a wooden pallet and secured with straps.

5.4 Storage

Preliminary warnings

WARNINGS

- Store in accordance with the applicable national regulations.
- Store on sleepers or pallets to keep it off the ground and in an indoor environment protected against the elements at a temperature no lower than 0 °C and no higher than 40 °C.

5.5 Unpacking

Preliminary warnings

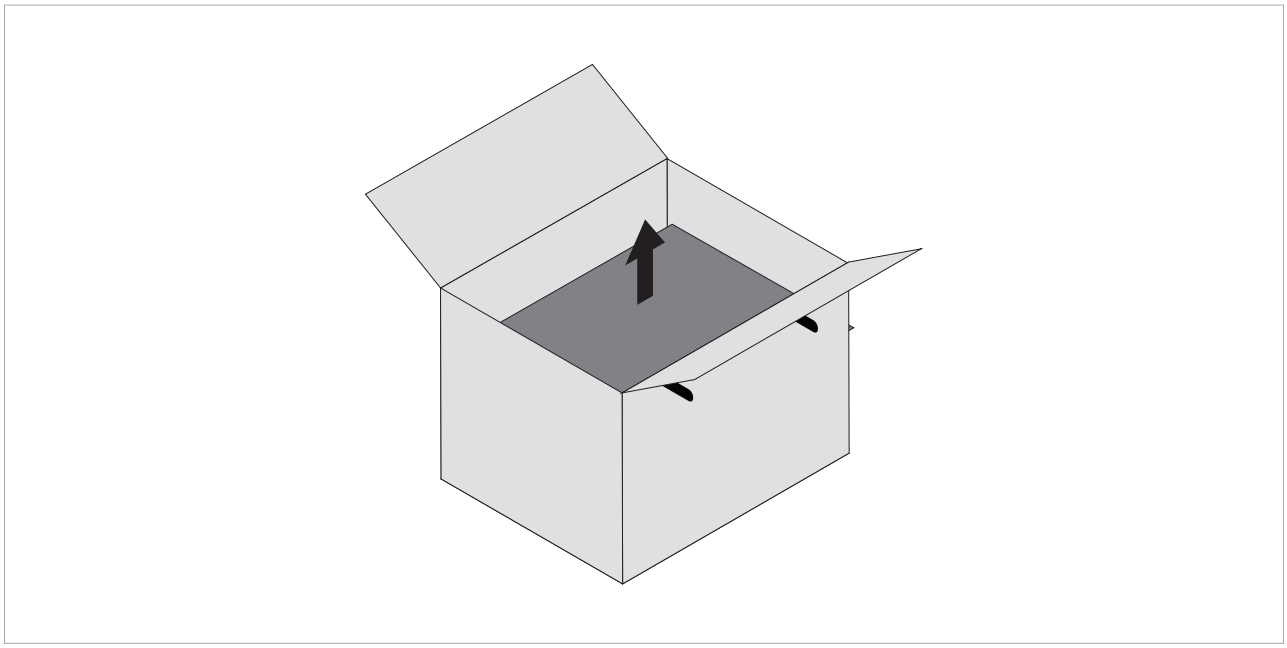
WARNINGS

- Check that the individual components are present.
- Check that no components were damaged during transport.
- Dispose of the packaging materials in accordance with the applicable waste disposal regulations. Check for disposal arrangements with your local authority.
- Handle with care.
- Always keep the device in its horizontal position when moving it.

PROHIBITED

The packaging materials (cardboard, staples, plastic bags, etc.) must not be dispersed or abandoned in the surrounding environment and must be kept out of reach of children due to the risk of danger.

Removing the packaging



To remove the packaging:
- Use a cutter
- Open the cardboard packaging

WARNINGS

To aid removal of the product, also cut the vertical edges.

- Remove the accompanying components
- Remove the polystyrene elements
- Remove the appliance from the box

Composition of supply

The following accessories are supplied:

- 1 CP-500CM
- 1 Supporting bracket
- 2 fixing brackets
- 4 sealing rings
- 1 Power plug already installed on the unit
- 1 Installation manual

5.6 Handling without packaging

Preliminary warnings

WARNINGS

- The unit must be handled wearing non-slip gloves.
- The product should only be handled by qualified personnel using the proper equipment and tools suited to the weight and dimensions of the product.
- Before each handling operation, check the lifting capacity of the machinery used in accordance with the indications on the packaging.
- When the load is lifted from the ground, stay clear of the immediate and surrounding area.
- Check the information on the packaging for the amount of stackable packages.
- During manual handling, always observe the maximum weight per person specified by the legislation in force.

Movement methods

- Use a forklift truck, scaffolding or other suitable lifting system

WARNINGS

The unit can only be moved manually over short distances in exceptional cases. Should this be necessary, first check with care that the weight of the unit does not exceed what is stipulated by the regulations with respect to the number of persons employed.

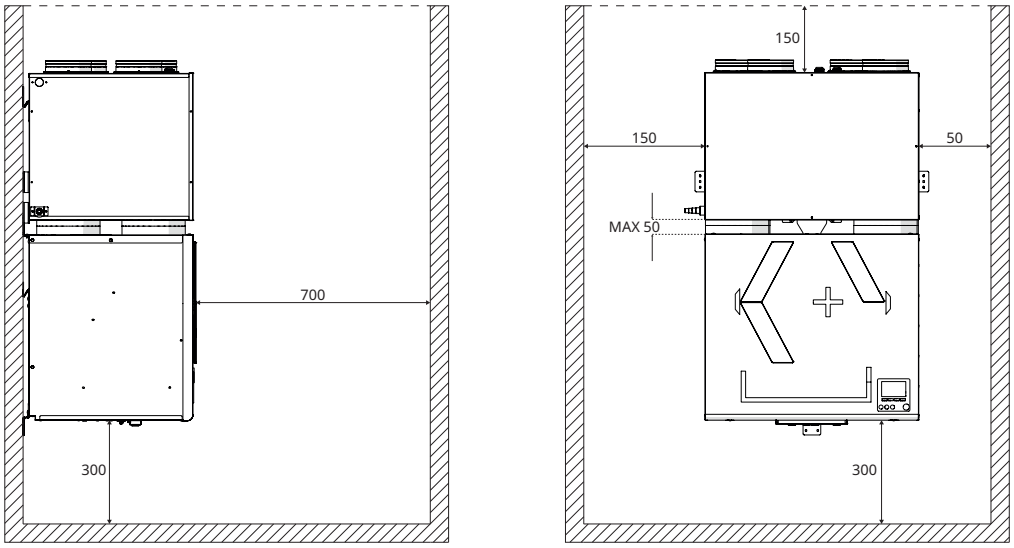
5.7 Minimum installation distances

The clearance zones for the installation and maintenance of the appliance are shown in the figure below. Established spaces are necessary to avoid barriers to airflow and allow for normal cleaning and maintenance.

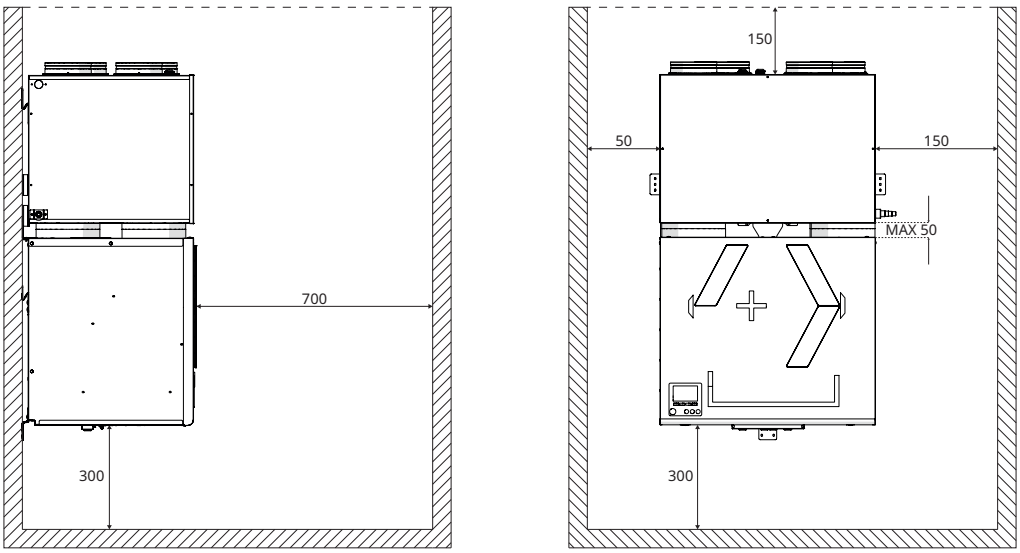
WARNINGS

Make sure that there is sufficient space to allow the panels to be removed for routine and supplementary maintenance operations.

Right configuration



Left configuration



5.8 Positioning

Preliminary warning

The unit must be wall-mounted directly above the previously installed Lossnay.

WARNINGS

Check that:
- The surface supports the weight of the appliance
- The surface does not affect piping or power lines
- The functionality of load-bearing elements is not compromised

Drilling the outside wall

The external wall must be prepared with holes for air ducting.
To drill the holes:
- **Mark the position of the hole**
- **Use a drill**
- **Drill a guide hole**
- **Use a core drill**
- **Make a hole through the wall**
- **Maintain a downward slope towards the outside**

WARNINGS

- To avoid the release of large amounts of dust and debris into the room, you are advised to couple the core drill with a vacuum system.
- 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 and objects below.

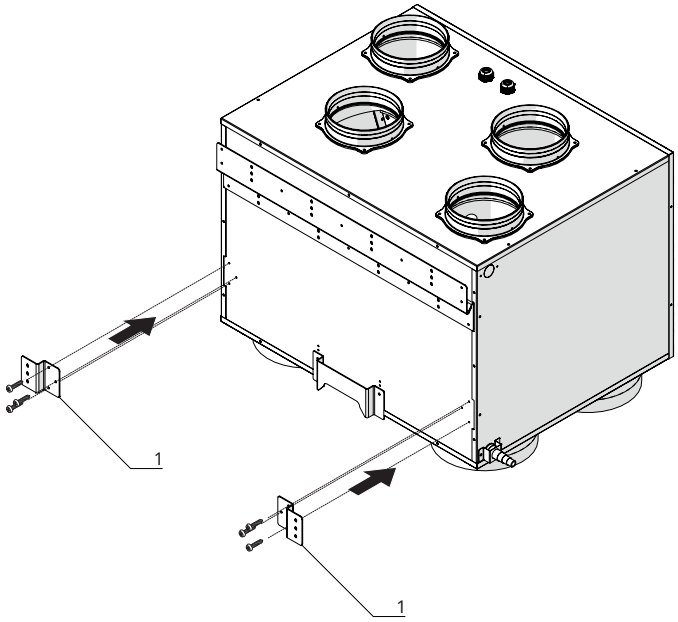
Installation brackets

To properly install the unit it is necessary to install the fixing brackets.

To install the fixing brackets:

- Align the holes in the brackets with those in the unit.
- Fix the brackets to the unit.
- Use the screws provided.

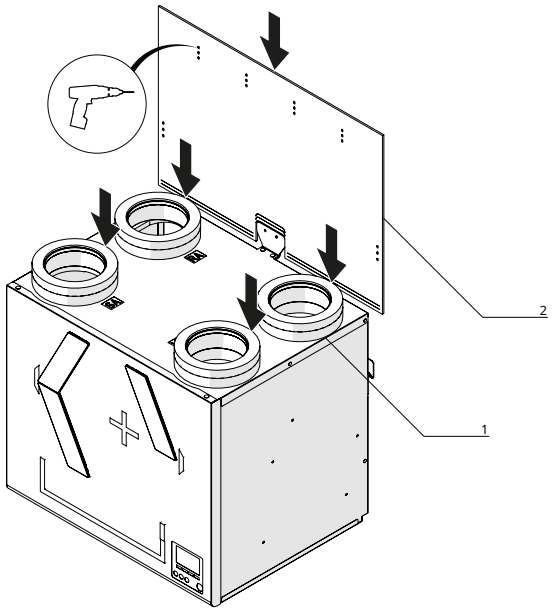
1. Fixing bracket



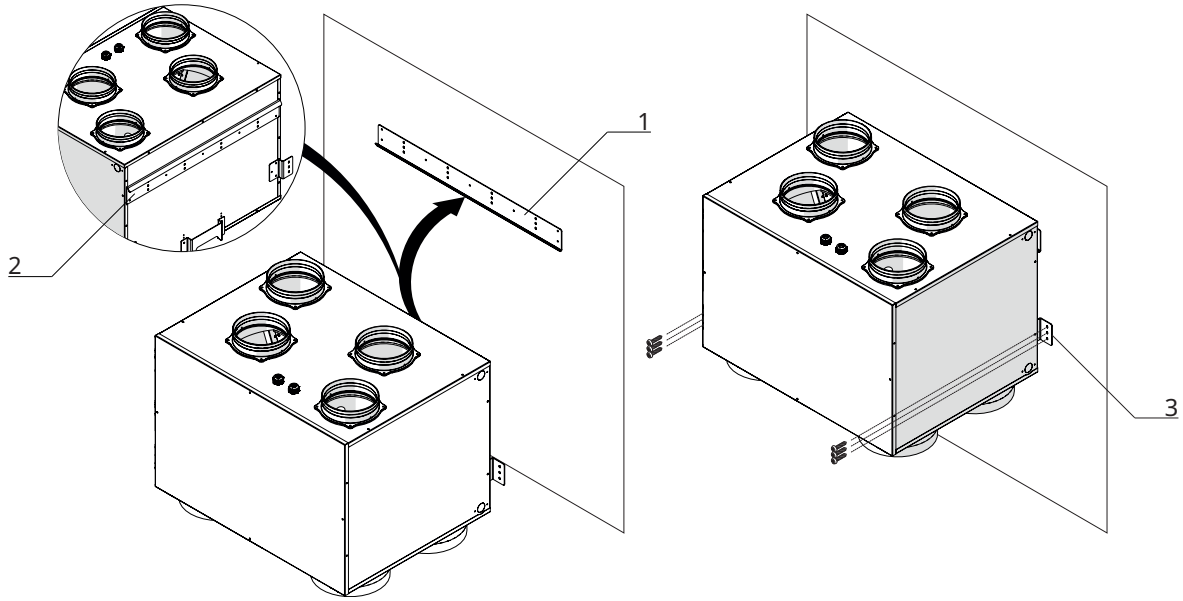
Positioning the unit

To position the unit:

1. Sealing rings
2. Installation template



1. Support bracket
2. Installation bracket
3. Fixing bracket



- Place the gaskets on the aeraulic connections of the Lossnay unit.
- Place the installation template on the bracket fitted on the Lossnay unit.
- Drills holes in the wall at the points indicated on the template
- Fix the supporting bracket to the wall
- Correctly orient the support bracket
- Use fixing systems suited to the type of supporting surface and the weight of the unit
- Hang the appliance on the supporting bracket
- Fix the fixing brackets to the wall
- Use fixing systems appropriate for the type of supporting surface and the weight of the unit

WARNINGS

- Do not place the CP-500 CM directly on the Lossnay unit. The accessory must be fully supported by its own wall brackets and must not exert any load on the underlying unit.
- It is possible to adjust the position of the positioning bracket.

5.9 Condensate drain connection

Preliminary warning

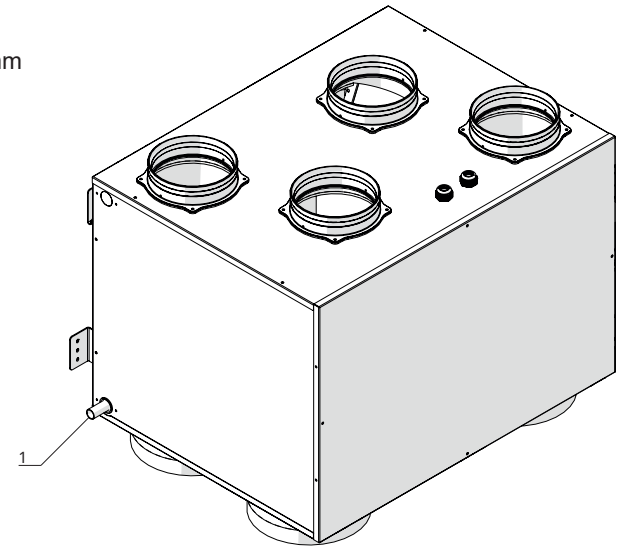
WARNINGS

- This appliance is equipped with trays for collecting the condensate that is produced during operation. Condensate must be routed to a suitable place for drainage.
- If the drainage line runs into a container (tank or other) it must be ensured that the container itself is hermetically sealed and most importantly it must be ensured that the drainage pipe is not immersed in water.
- The hole for the condensate pipe must always have a downwards slope.
- When connecting the condensate drain, take care not to crush the rubber pipe.

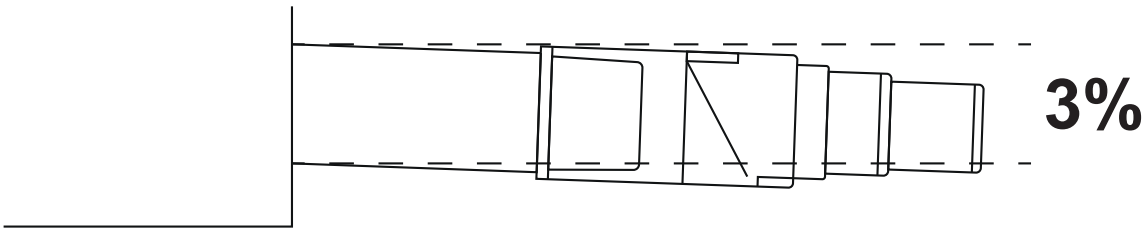
Attachment position

The position of the condensate drain connection is shown below.

1. Condensate drain connection Ø 19 mm



Connections



To connect the condensate drain:

- Connect the drainage pipe to the connection provided on the unit
- Install a siphon on the condensate drainage pipe near the unit
- Direct the condensate drain pipe to a suitable place for draining
- Maintain a minimum slope of 3% towards the drain location
- Insulate the junction points

WARNINGS

- It is mandatory to install an appropriate siphon on the condensate drain pipe to ensure the proper outflow of condensate and prevent leaks inside the premises.
- The drainage system must include a dry membrane trap to prevent unwanted ingress of air in the system under vacuum. The trap also prevents odours and the infiltration of insects.
- The siphon must be fitted with a plug at the bottom or must in any case permit quick dismantling for cleaning.
- Use plastic drainage pipes.
- Avoid metal pipes.
- Make sure all joints are sealed to prevent leakage of water.
- Condensate drain pipes must be insulated for both indoor and outdoor sections to avoid condensation on the surface and/or frosting problems. The insulation must be inserted all the way to the condensate drain pipe connection on the unit.

5.10 Aeraulic connections

Preliminary warning

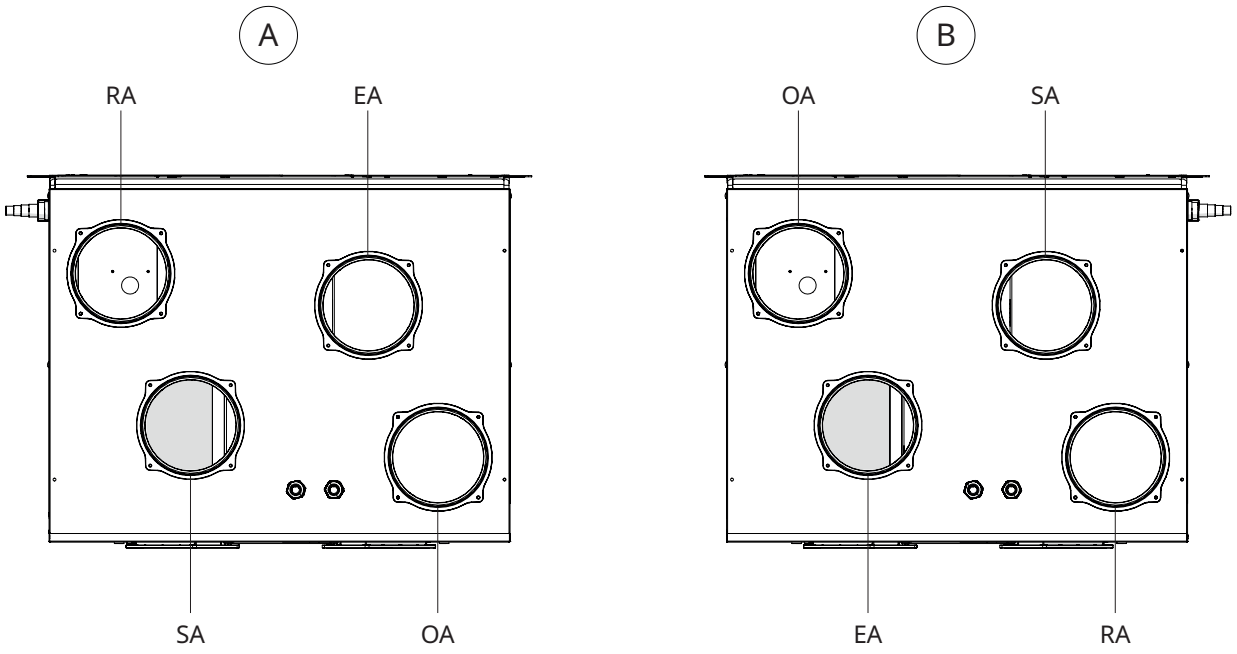
WARNINGS

- Sizing of the ducts must be performed by a professionally qualified person.
- To prevent the transmission of any vibrations of the machine into the room, an anti-vibration joint should be placed between the fan outlets and the ducts.
- The connecting pipes must be of a suitable diameter and supported so that their weight does not put strain on the appliance.

Airflow configurations

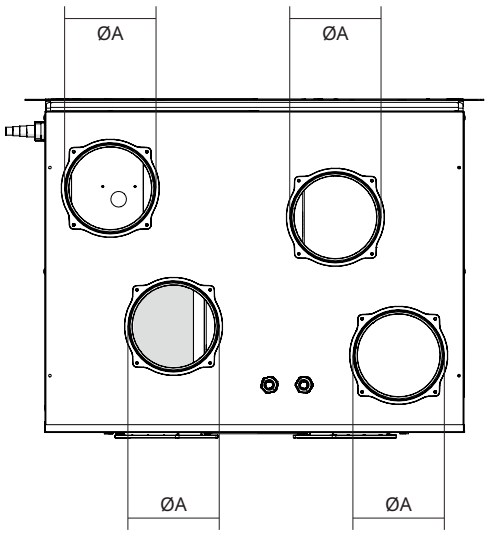
- Right configuration
- Left configuration

RA: Return air
SA: Indoor air supply
EA: Stale air exhaust
OA: Outside air

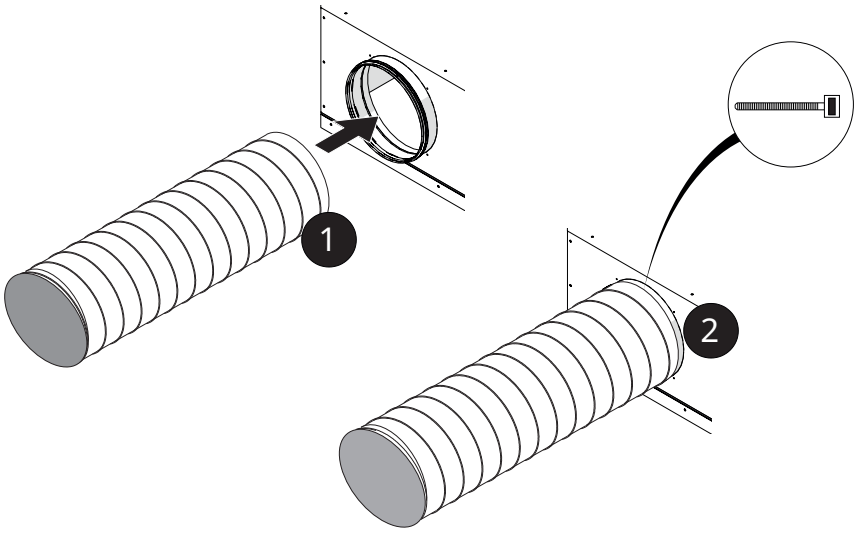


Connections

RA: Aeraulic connection
Ø 160 mm



Circular connections



- Position the ducts on the connections provided on the appliance;
- Use a metal clamp or duct fixing collar;
- Fix the ducts on the attachments.

WARNINGS

Use ducts lined with anti-condensation material of a suitable thickness.

5.11 Electrical connections

The appliance leaves the factory fully wired and only requires connection to the power supply, control and any accessories.

Preliminary warning

WARNINGS

- All operations of an electrical nature must be carried out by suitably qualified personnel who have the necessary legal knowledge and are aware of the risks related to the operations.
- All connections must be made in accordance with the relevant regulations in force in the country of installation.
- Before carrying out any work, make sure that the power supply is switched off.
- The unit should only be powered after the plumbing and electrical work has been completed.
- References:
- for electrical connections refer to the electrical diagrams provided in this manual
- Check that:
  - The main supply characteristics are compatible with the power consumption of the appliance, also taking into account any other machinery in parallel operation
  - The power supply voltage and frequency correspond to those specified on the the rating plate of the appliance
  - The cables are suitable for installation in accordance with the IEC standards in force
  - The power supply is adequately protected against overloads and/or short circuits
  - The disconnection device is positioned in an easily accessible place to enable intervention in the event of an emergency
- It is mandatory:
  - To connect the appliance to an effective grounding system
  - For units with three-phase power supply, check the correct connection of the phases
  - Provide an all-pole switch with a contact opening distance of at least 3 mm that allows complete disconnection under overvoltage category iii conditions
  - Install a ground fault circuit interrupter (GFCI). Failure to install this device could result in electric shock
- Ensure that a connection to earth is made. Do not ground the appliance to distribution pipes, surge arresters or the ground of telephony systems. If not performed correctly, grounding can cause an electric shock. Momentary high voltage surges caused by lightning or other causes could damage the heat pump.
- Use a dedicated power supply circuit. Never use a power supply to which another appliance is also connected due to 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 cables. Do not apply other loads on the power supply.
- After connecting the interconnection and power supply cables, ensure that the cables are arranged so that they do not exert excessive forces on the covers or electrical panels. Install the covers on the cables. Incomplete connections of the covers can lead to 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 the lack of earthing or failure to comply with the specifications in the respective diagrams.
- The appliance is equipped with a noise filter as required by current regulations. Use selective residual current circuit breakers to compensate for the micro leakage to earth of this device.

PROHIBITED

Using gas and water pipes to ground the appliance is prohibited.

Power line dimensioning

Refer to the tables below for the sizing of the power supply line and its protection device.
These are not average draw or transient peaks, but values to be considered for the correct sizing of the plant and the request of the contractual power (excluding loads due to the normal operation of the building).

WARNINGS

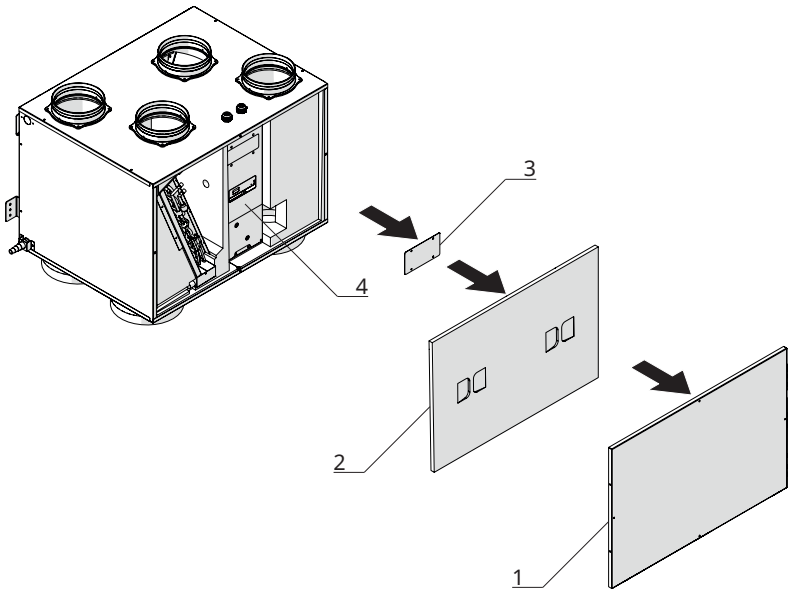
- Maximum power is reached only in exceptional cases. Therefore, the indicated trip current is suggested to guarantee a balance between machine absorption and incidence in the general system.
- The indicated minimum cable cross-section area must be verified according to the actual conditions of the installation: length of the cable, characteristics of the electrical supply, etc.
- For units equipped with electrical heating elements, the draw values of the units must be added to those of the heating elements shown in the following tables.

Access to the electrical panel

WARNINGS

- Access to the electrical panel is only permitted to qualified personnel.
- Before carrying out any work, ensure that the power supply is switched off.

1. Front panel
2. Polystyrene cover
3. Electrical panel closing panel
4. Electrical panel

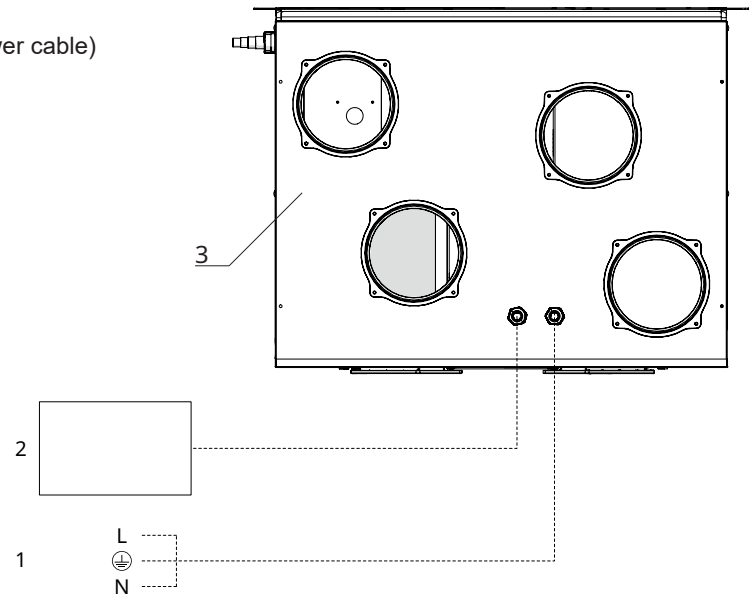


To access the connections:

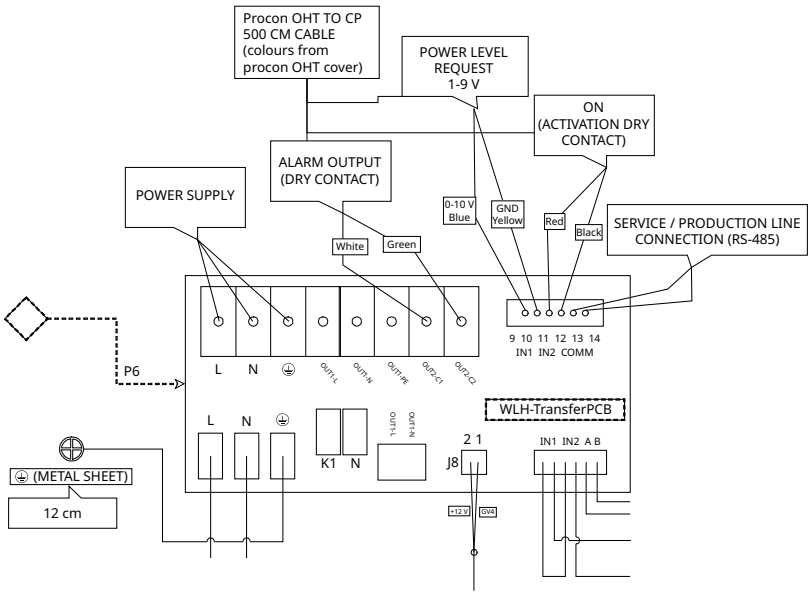
- Remove the screws from the front panel
- Remove the front panel
- Remove the polystyrene cover
- Remove the screws from the electrical panel cover
- Remove the electrical panel closing panel

Connection diagram

1. Unit power supply (provided with power cable)
2. Procon OHT
3. CP-500CM



Connection diagram



6 ON-BOARD DISPLAY

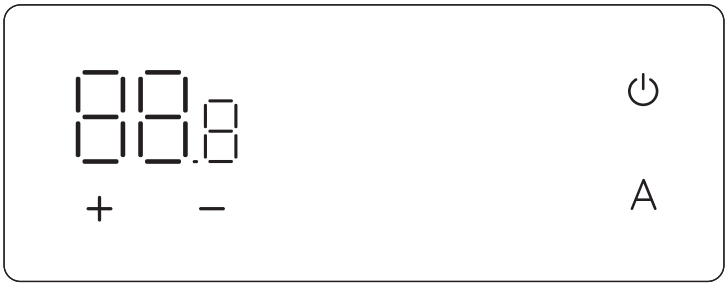
The appliance leaves the factory fully wired and only requires connection to the power supply, control unit and any accessories.

6.1 Description

The display is supplied as standard on board the appliance, requires no connections and allows the user to:

- Set the evaporation limit (enable or disable the function)
- Define the evaporation limit temperature range
- View any alarms
- Access an information menu to view various operating and system data

6.1.1 Display



6.2 Configuration menu

Order	Available	Access level	Menu item	Description	Range	Notes	Item activation
#1	MFM	User (press the ⏻ key for about 10 seconds)	EL	Supply air limit	Values: Ys, no	Ys: non-insulated ducts. No: insulated ducts.	Always active

6.2.1 Information menu

Order	Available	Access level	Menu item	Description	Range
#1	MFM	Info	UE	Firmware version	
#2	MFM	Info	ts	Indoor air supply temperature	°C
#3	MFM	Info	tr	Indoor air return temperature	°C
#4	MFM	Info	to	External air temperature	°C
#5	MFM	Info	tC	Condensing temperature	°C
#6	MFM	Info	tE	Evaporation temperature	°C
#7	MFM	Info	CO	Compressor	Hz
#8	MFM	Info	CH	Compressor operating hours	H

6.2.2 Errors displayed on the screen

Code	Description
Er01	ALARM Bit 0 (LSb): indoor supply air temperature sensor error
Er02	Bit 1: internal exchanger temperature error
Er03	Bit 2: source medium temperature sensor error
Er04	Bit 3: source exchanger temperature sensor error
Er05	Bit 4: reserved
Er06	Bit 5: reserved
Er07	Bit 6: driver communication error
Er08	Bit 7: discharge temperature probe error
Er09	Bit 8: reserved
Er10	Bit 9: high condensate water level
Er11 - CP	Bit 10: External control signal error
Er12	Bit 11: compressor driver fault
Er13	Bit 12: reserved
Er14	Bit 13: reserved
Er15	Bit 14: reserved
Er16	Bit 15: no refrigerant alarm | four-way valve alarm
Er17	ALARM_2 Bit 0 (LSb): driver error, compressor mismatch
Er18	Bit 1: reserved
Er19	Bit 2: reserved
Er20	Bit 3: indoor air return exchanger temperature probe error
Er21	Bit 4: cold supply air (non blocking)
Er22	Bit 5: wrong power supply

7.1 Annual operations

The once-a-year maintenance plan includes the following operations and checks and must be carried out by the Authorised Service Centre or by qualified personnel.

Electrical circuit
Check
- Electrical supply voltage
- The electrical absorption
- Tightening connections
- That there is no damage or excessive wear to electrical cables
- That the gaskets and sealing materials have not deteriorated to such an extent that they are no longer suitable for the purpose of preventing the development of flammable atmospheres inside
- The correct fixing of cable glands
- Safety devices

Mechanical checks
Check:
- Tightening of the screws, fans and electrical box, of the unit's external panelling
- The state of the structure

WARNINGS

- Bad fixings result in abnormal noise and vibration.
- If oxidised parts are present, treat them with suitable paints to eliminate or reduce oxidation.

Airflow controls
Check:
- The regular flow of air
- Cleaning of any intake grilles
- Cleaning of the ducting

Cleaning:
- Cleaning of the aesthetic cover
- Cleaning or replacement of the filter

Refrigerant checks:
- The amount of the refrigerant charge amount should comply with the size of the room where the components containing the refrigerant are installed (refer to the table for minimum floor area), and the leak detection device is operating correctly (refer to separate leak detector documentation)
- Ensure that the devices and ventilation outlets function properly and are not obstructed
- The marking affixed to the device must remain visible and legible. Illegible markings and graphic signs should be corrected
- The tubes and refrigerant components should be installed in a position are made of materials where exposure to substances that may corrode parts containing refrigerants is unlikely, unless the components are constructed with materials intrinsically resistant to corrosion or duly protected against corrosion
- The thermodynamic values should fall within the nominal parameters

7 MAINTENANCE

In accordance with the provisions of Directive 517/2014/EU, systems containing a quantity exceeding 5 tons equivalent of CO2 (7.41 kg of R32 gas or 2.39 kg of R410a gas) must undergo annual checks for leak detection, both through direct and indirect methods, by certified personnel according to EU Regulation 2015/2067.

It is the responsibility of the maintenance company to keep a record in which the following is documented:

- The technician who performed the maintenance or repair.
- The dates and the results of the performed checks.
- The quantity and type of fluorinated gas used.
- The quantities added and those recovered during maintenance, repair, or final disposal operations.

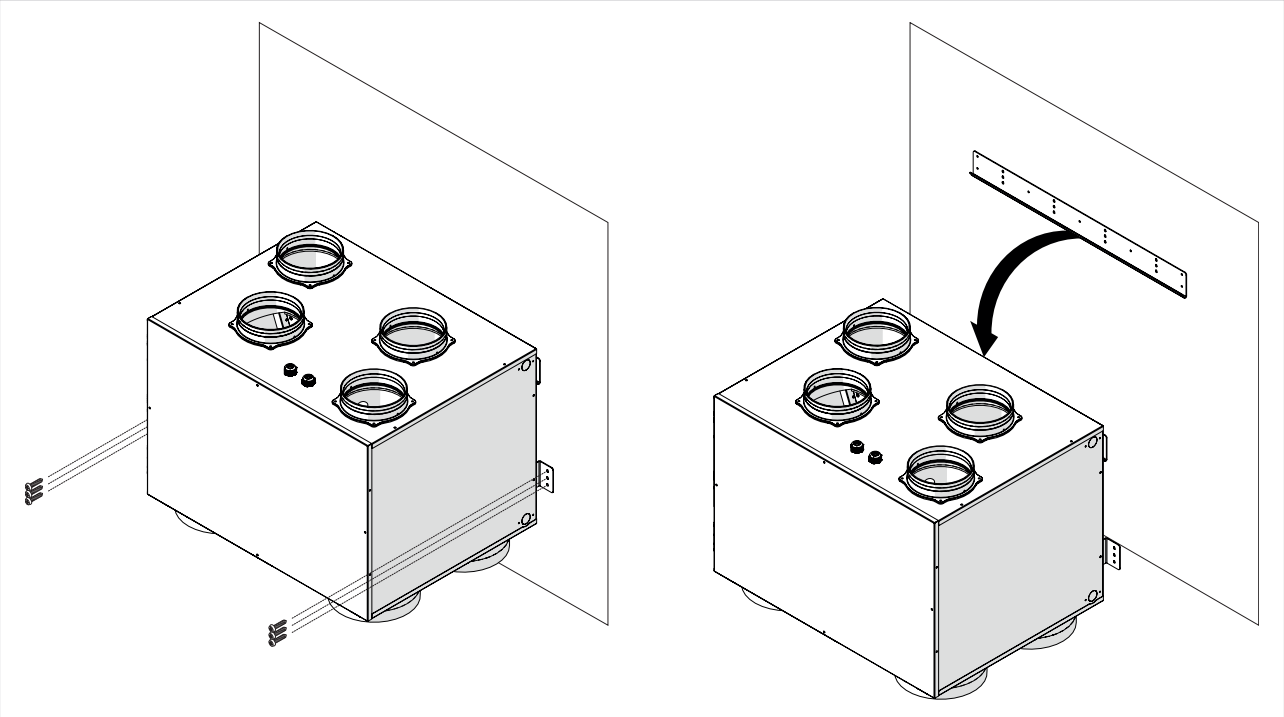
WARNINGS

Filling the refrigeration circuit with a refrigerant other than the one specified is prohibited. The use of a different refrigerant gas can cause serious damage to the unit.

7.2 Cleaning of the coils

Both cooling module coils are protected by the filters of the Lossnay unit.

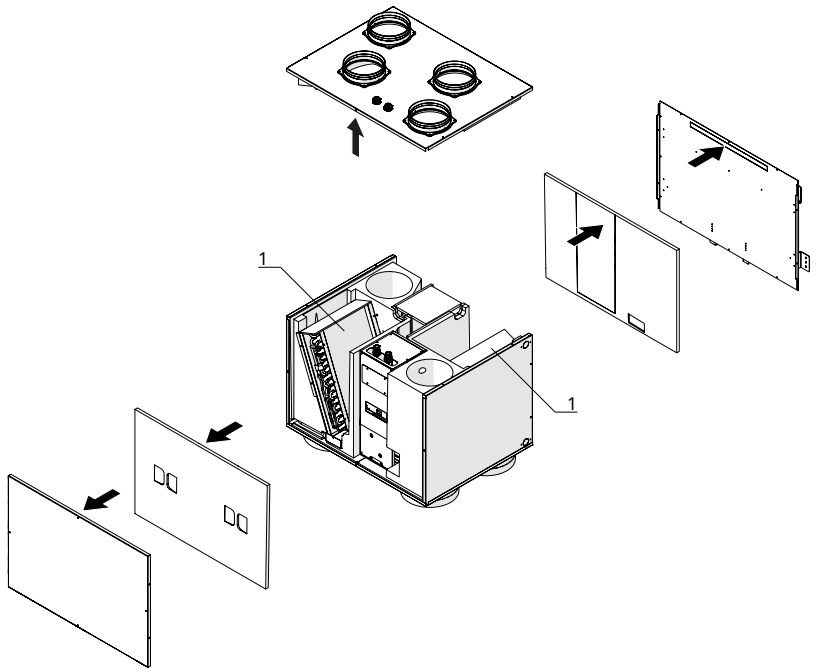
Regular maintenance of the Lossnay filters is required to ensure the performance of the cooling module coils is maintained. If the cooling module coils require additional maintenance, the following steps should be followed to clean them.



- Isolate the power supply to the unit
- Disconnect the condensate drain pipe
- Remove the CP-500CM from the wall and place it on a flat and stable surface

7 MAINTENANCE

1. Finned coils



- Remove the front panels from the unit
- Remove the top panel of the unit
- Remove the rear panels of the unit
- Gently clean the finned coils using a vacuum cleaner or a low-pressure compressor

WARNINGS

Never touch the fins of the finned coils.

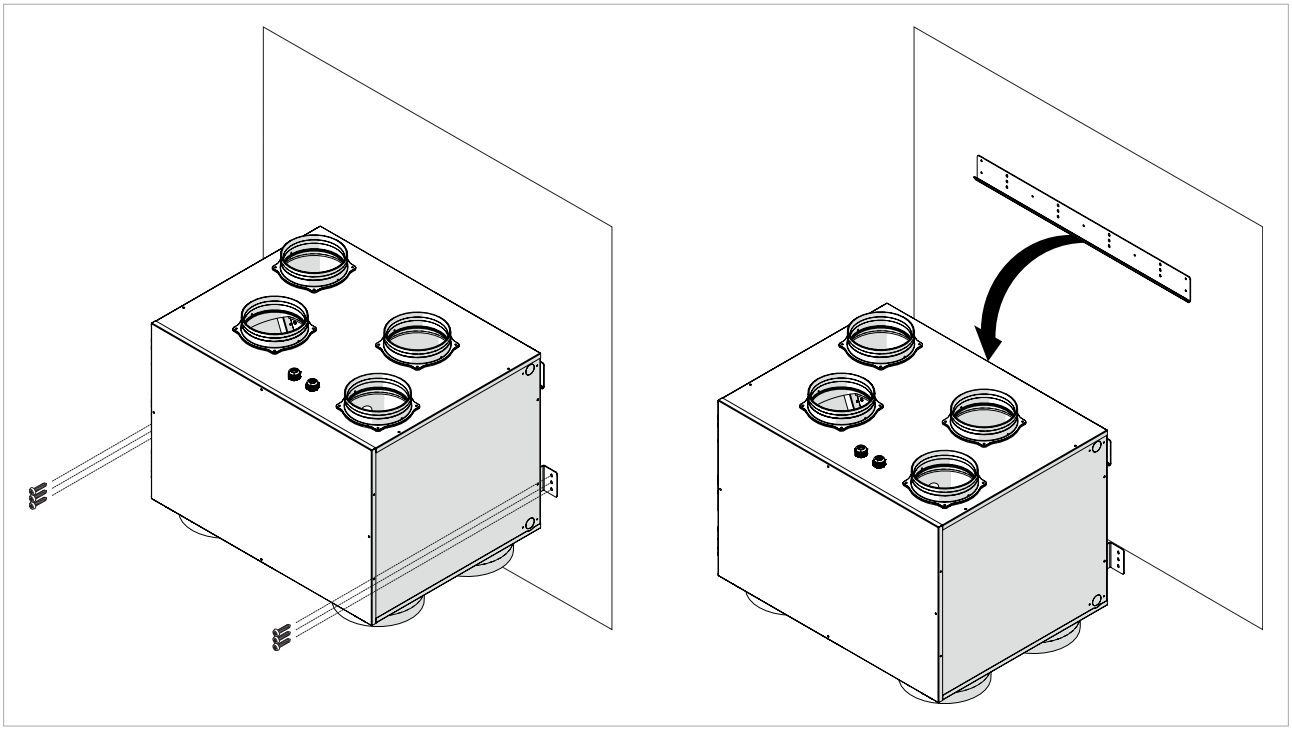
INFORMATION

To prevent dirt from entering the finned coils, clean in the opposite direction to the air flow.

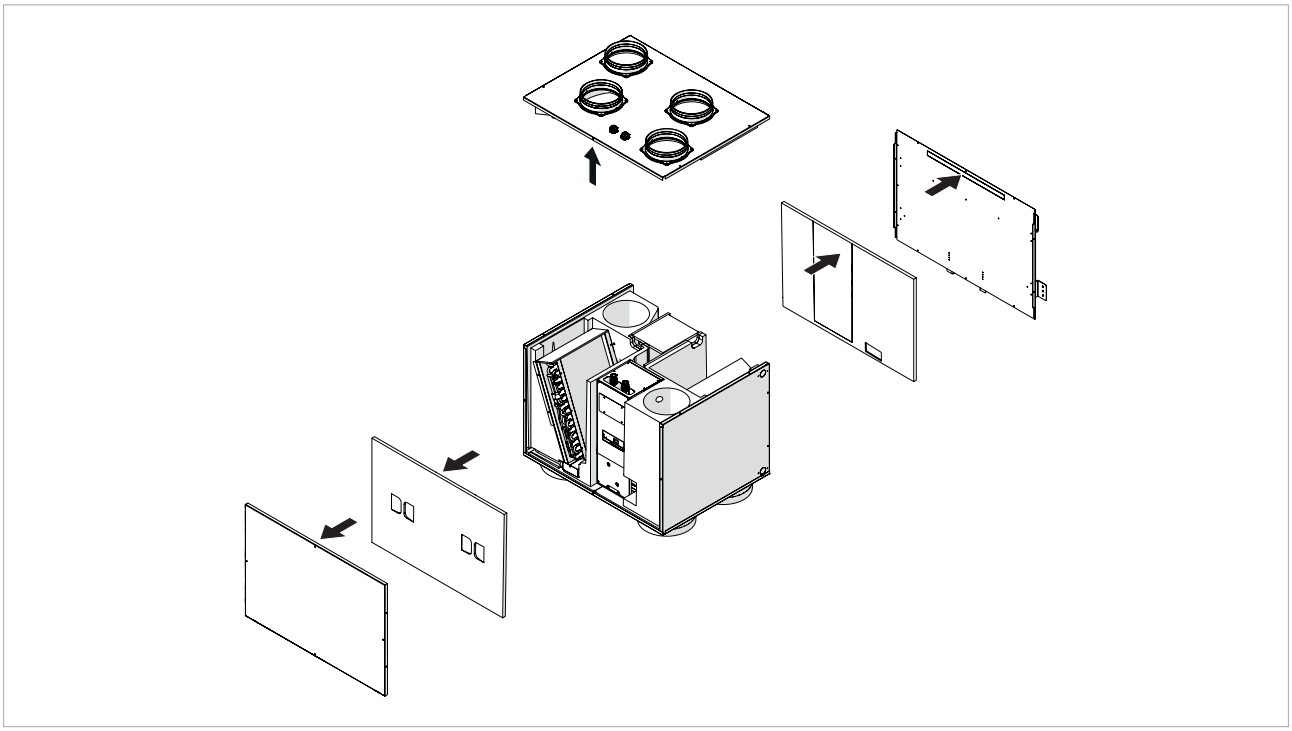
To put back in place:
- Follow the procedure above in reverse order.

7.3 Cleaning the condensate collection tray

To remove:

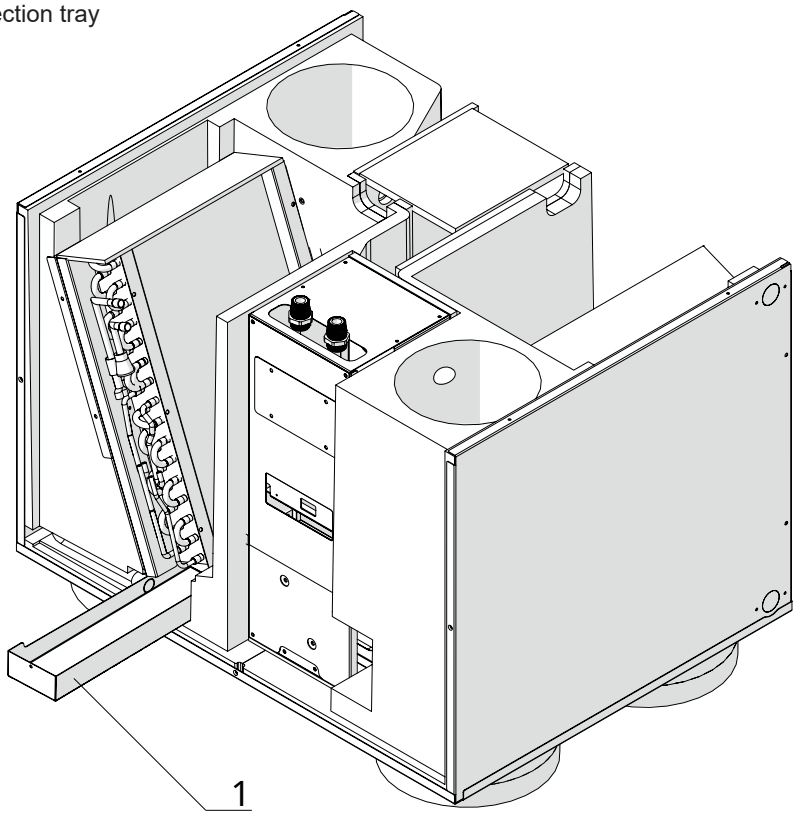


- Isolate the power supply to the unit;
- Disconnect the condensate drain pipe;
- Remove the CP-500CM from the wall and place it on a flat and stable surface.



- Remove the front panels of the unit
- Remove the top panel of the unit
- Remove the rear panels of the unit

1. Condensate collection tray



- Remove the condensate collection tray
- Gently clean the condensate collection tray using a soft cloth moistened with water.

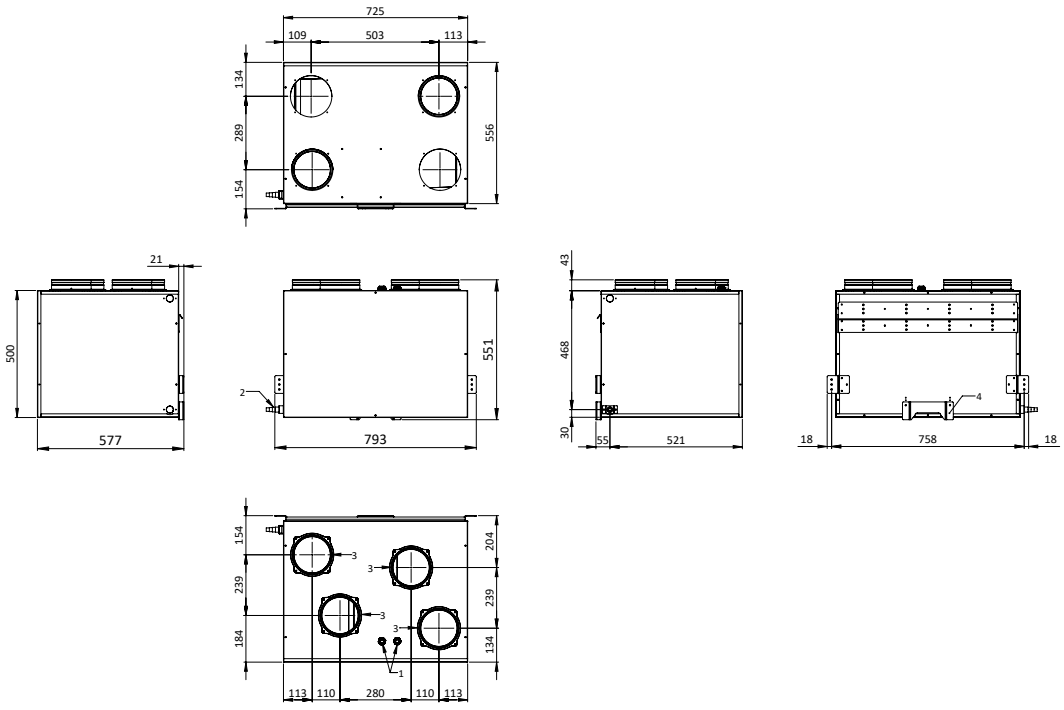
WARNINGS

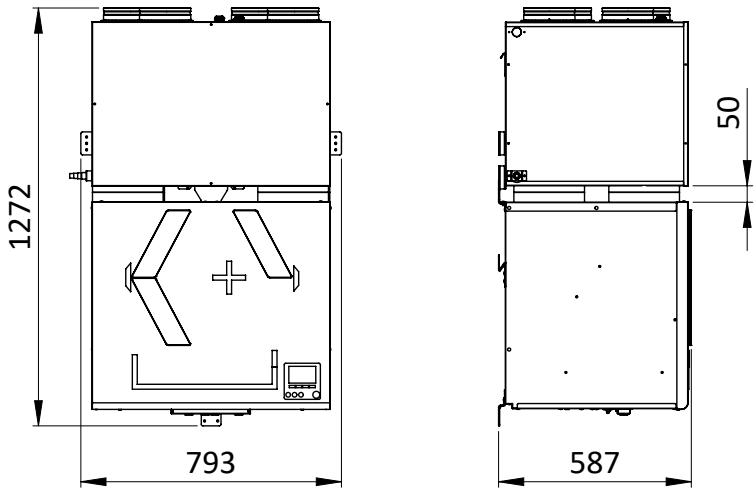
Pay attention to sharp surfaces

To put back in place:
- Follow the procedure above in reverse order.

8 DIMENSIONS

Dimensions





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