

INSTALLATION MANUAL FOR HOTJET MINI HEAT PUMP

Monobloc Heat Pumps
Air/Water System for Heating and Cooling
Indoor unit



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1. Security

Thank you for purchasing the Hotjet heat pump. To ensure optimal usage and longevity of your device, please read the following instructions.

The Hotjet heat pump is a compact unit designed for heating hot water and providing heating. It is equipped with a frequency converter that dynamically adjusts the heating or cooling output according to immediate needs. The heat pump utilizes air as a heat source, which is then transferred to water via a heat exchanger.

It is important to emphasize that the Hotjet heat pump is a highly reliable product with a long lifespan and a high level of safety. We wish you smooth operation and maximum thermal comfort.

1.1 Attention



DANGER: Upon receipt of the heat pump from the shipping service, promptly inspect the condition and contents of the delivery. Claims for transportation damage are typically accepted within a maximum of 3 days.



DANGER: During assembly, operation, and maintenance, adhere to the relevant legal regulations applicable in the country of installation.



DANGER: Before connecting the device or removing any panel, always switch off the electrical power supply and exercise maximum caution.



DANGER: The heat pump may be tilted during transport and installation at a maximum angle of 45°!



DANGER: Never switch on the heat pump if it is not connected to a water-filled heating circuit.



DANGER: The heat pump must never be switched on when the casing is removed or when safety features are disabled.



DANGER: Arbitrary manipulation of the connection to the heating circuit, the heat pump, and electrical connections is dangerous and can lead to serious injuries.



DANGER: Only qualified service technicians may perform equipment servicing.



DANGER: Do not modify the equipment or interfere with its assembly. Do not use the equipment if it is mechanically damaged, dropped, or otherwise compromised.



DANGER: Never cover the heat pump; it must have unobstructed air inlet and outlet.



DANGER: Do not place the heat pump in areas that may be flooded with water.



DANGER: The equipment should not be installed near the occurrence of flammable liquids and vapors.



DANGER: Pipes and compressor contain a cooling mixture under high pressure, therefore, they should not be exposed to high temperatures and puncture risks, which can lead to burns or suffocation.



DANGER: Water at temperatures above 52°C can cause severe burns or even death from scalding.



DANGER: All markings, labels, and warnings placed on the heat pump must never be removed or covered and should always be visible. Replace damaged ones with new ones!

1.2 What is the heat pump intended for?

Use the heat pump in accordance with its intended purpose as specified by the manufacturer. It is essential to strictly adhere to the technical and operational conditions specified in the technical data sheets. This includes compliance with the appropriate project documentation, including the use of prescribed equipment.

It is important to avoid any modifications to the equipment without prior consultation with the project author. Any technical changes to the equipment are permitted only after obtaining written consent from HOTJET CZ s.r.o.

The heat pump is accompanied by a declaration of conformity, which states the standards that the equipment complies with. It is important to adhere to these standards to ensure the safety and optimal operation of the heat pump.

1.3 Legal regulations and directives

The heat pump is intended for heating residential and apartment buildings, hotels, and other accommodation facilities, offices, shops, and similar workspaces. Operation of the heat pump should only be performed by trained person, experienced, and professionally knowledgeable individuals. It is important to emphasize that children and individuals with reduced physical, sensory, or mental abilities, as well as those without adequate knowledge and experience, should only use the heat pump under direct supervision or according to the instructions of a responsible person. Under no circumstances should children be allowed to play with the heat pump.



ATTENTION: Indicates a potentially hazardous situation that could lead to injury to persons, damage to property, or the environment if not avoided.



COMMENT: Indicates important information.



FOOTGEAR: Maintenance technicians and operators must wear protective attire that complies with basic applicable safety requirements.



GLOVES: Suitable protective gloves must be worn during maintenance or cleaning.



MASK AND GOGGLES: Respiratory protection (mask) and eye protection should be worn during cleaning.

2. Operating Principle

The heat pump is designed to heat the heating water in existing or newly installed heating systems. This heated water is not only intended for heating but also for heating domestic hot water.



COMMENT: The MINI heat pump is primarily intended for use in households.



ATTENTION: For air-to-water heat pumps, it is important to ensure a minimum heating water temperature of 18°C for the defrosting mode. Starting the heat pump with excessively cold water in the heating circuit can lead to faulty operation or deviations from normal operation.



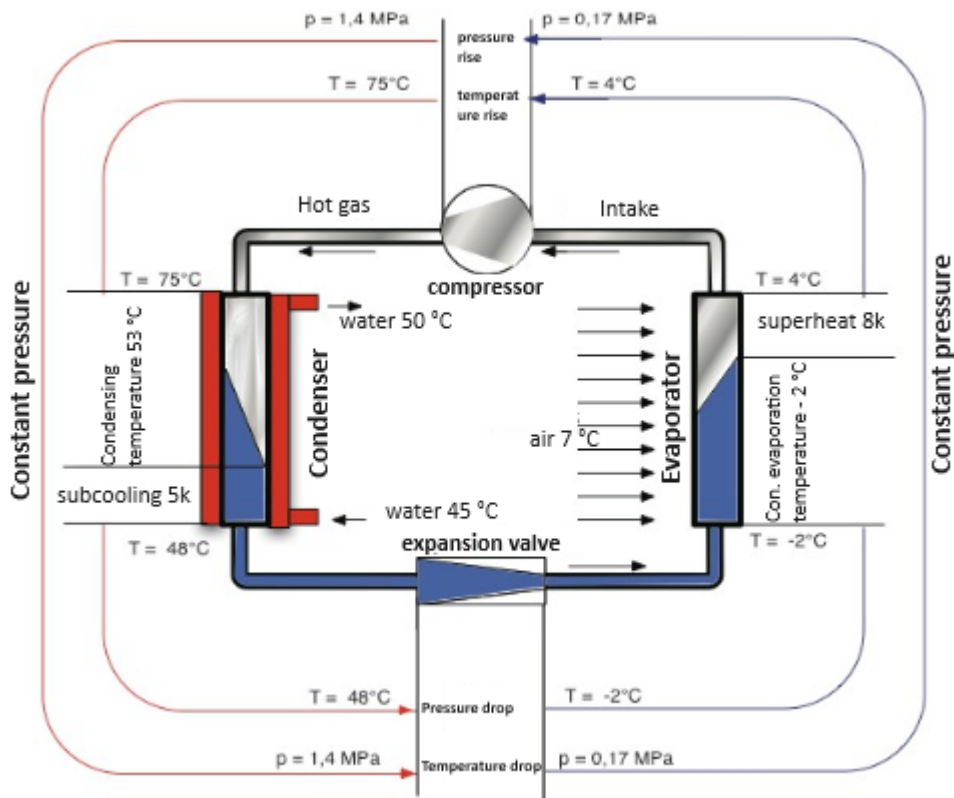
COMMENT: A new or renovated building may have up to 50% higher heat demand during the first two heating seasons. This excessive demand may result in increased heat pump power consumption, leading to longer operation and, in some cases, activation of the backup heat source.

2.1 Operating principle

The heat pump consists of a hermetically sealed circuit, which includes a scroll-type spiral compressor, plate heat exchanger (condenser), tube heat exchanger (evaporator), and electronic expansion valve. The compressor, driven by electricity, compresses the refrigerant, increasing its pressure and temperature. Heat is transferred to the condenser, where it is delivered to the heating water and the refrigerant condenses. It then passes through the expansion valve, where the temperature and pressure decrease. The refrigerant then enters the evaporator, where it evaporates and cools the heat source - air or water. The cycle repeats when the refrigerant returns to the compressor.

The heat pump operates on the principle of transferring heat from a “cold” to a “warm” environment, where it is “transformed” to a higher temperature. This energy is obtained for free. Operating costs arise from the consumption of the compressor and other electrical components, such as controllers, circulation pumps, and fans. The ratio between the extracted and consumed electrical energy is variable and is called the Coefficient of Performance (COP), which ranges between 1.5 and 6 depending on the conditions.

In heating mode, the heat pump extracts energy from the external environment and transfers it to the heating water. In cooling mode, the process is reversed, where heat is extracted from the heating water and expelled outside or recovered where needed.



3. Delivery contents

- Heat pump in cardboard box
- Heat pump bracket
- Mounting template

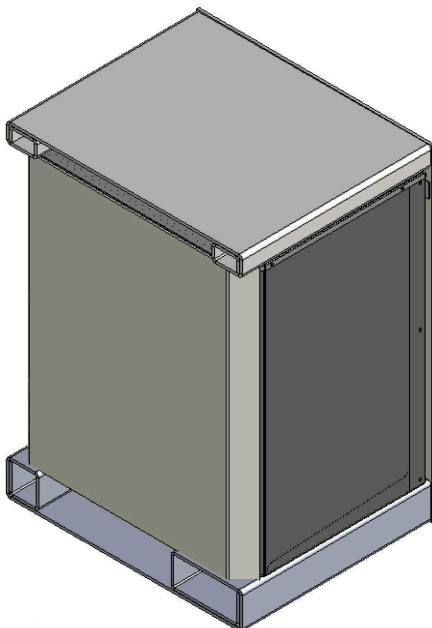
3.1 Heat pump

The heat pump is supplied with a full refrigerant and oil charge. The cooling circuit of the compact heat pump is hermetically sealed and contains the fluorinated refrigerant R410A, registered under the Kyoto Protocol. The GWP of the refrigerant is: 2088. The refrigerant does not contain CFCs and is non-flammable. Handling of the refrigerant should only be performed by qualified personnel.

4. Assembly

4.1 Packaging

The heat pump is supplied in a cardboard box and on a pallet. Optional accessories may be supplied separately packaged.





4.2 Transportation

Heat pumps are typically shipped to the installation address by freight services. The delivery truck bringing the heat pump shipment should be equipped with a hydraulic front end for easy unloading and a pallet jack for maneuvering on flat surfaces, such as into a garage. Recycle or return the cardboard box and wooden pallet to the manufacturer. The heat pump should never be stored or installed on its side. The maximum tilt angle in any

direction is 45°. Transporting in an upright position is recommended. Failure to follow these instructions may result in damage to the heat pump. Upon receiving the heat pump, unpack the unit, remove the cover panels, and inspect for any damages incurred during transport. Report any damages found to the transport company and request their review; send a copy of the report to HOTJET CZ, s. r. o. When moving the heat pump to its final location, use a pallet jack if possible.

4.3 Storage

 **ATTENTION:** After 2 months of storage, the liability period for defects begins to run
 - When storing for more than 6 months, it is necessary to conduct an inspection of the refrigeration circuit by the manufacturer or an authorized technician before commissioning.

 **DANGER:** If you disconnect the heat pump from the heating system or electrical power supply, it must be stored at temperatures > 0°C to prevent freezing of residual water in the hydraulic circuit of the heat pump.

4.4 Removal of packaging

Remove the packaging and padding carefully, without damaging the product components.

4.5 Check of delivery scope

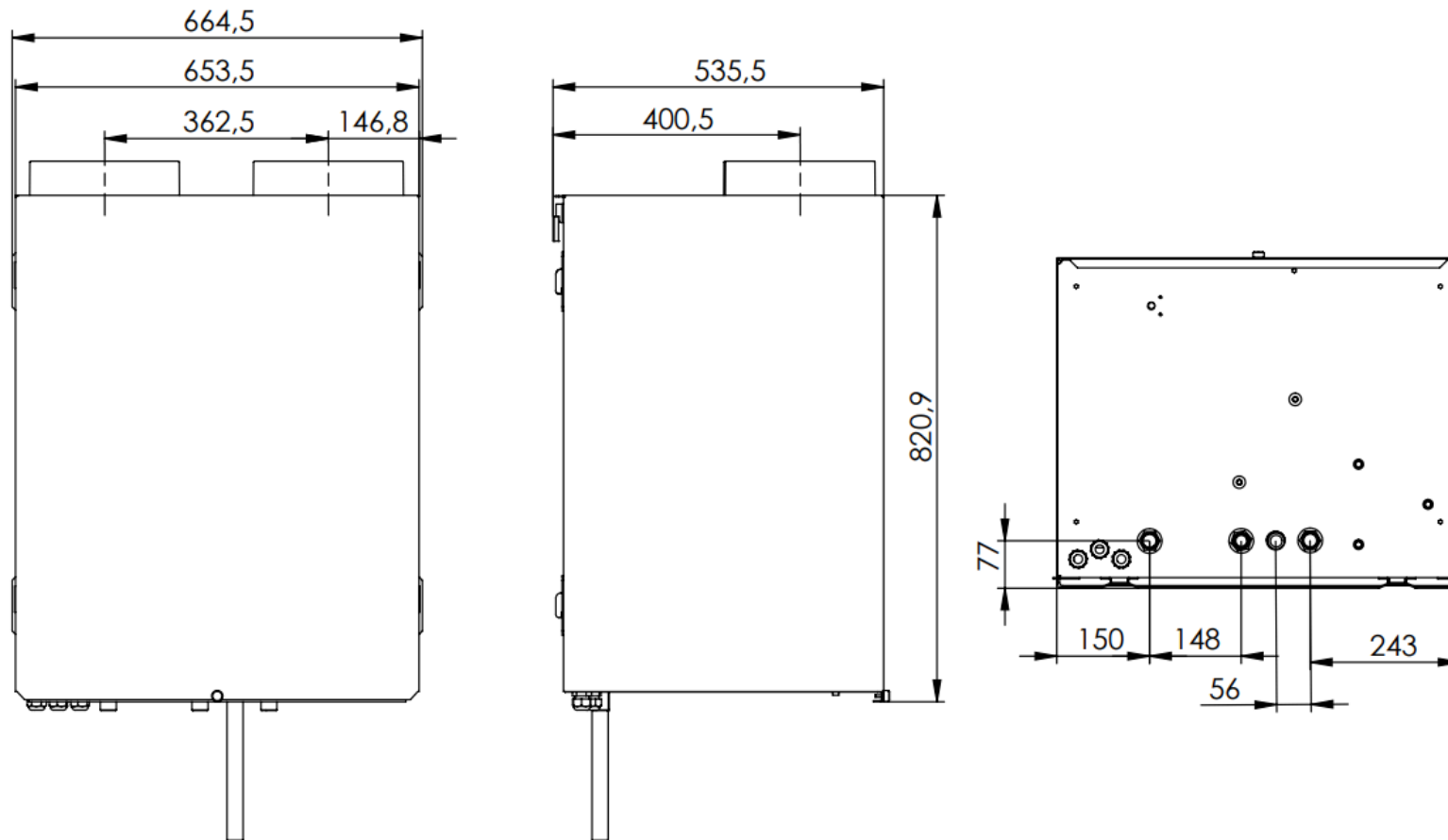
To verify the completeness of the delivery:

Quantity	Item name
1	Heat pump in cardboard box
1	Heat pump bracket
1	Mounting template

4.6 Installation Location

The air-to-water heat pump is installed in the interior space of the building - basement, garage, utility room, hallway, or apartment. The installation space must maintain a temperature >0°C throughout the year. It is mounted on a vertical, dry wall, where it cannot be exposed to splashing or dripping water. Verify the load-bearing capacity of the building structure. Do not install the heat pump in areas prone to flammable substances, sources of pollution, dirt, or fallen leaves. The heat pump should be installed in a location with sufficient space and good ventilation. Plan for additional space for connecting the heating circuit and electrical power supply.

4.7 Dimensions



4.8 Wall Installation

- When preparing for wall installation, use the supplied template and drill 3 holes.
- Choose the depth, screws, and anchors according to the type of wall.
- Ensure that the drilled holes are aligned horizontally.
- Drill two holes in the wall for air ducts with a diameter of 300 mm.



PROTECTION: When preparing installation holes, prioritize your safety by using safety equipment.



ATTENTION: First, prepare all openings and passages, including those intended for air ducts, and install air duct penetrations. This will prevent dirt and debris from entering the ventilation system of the heat pump during drilling.

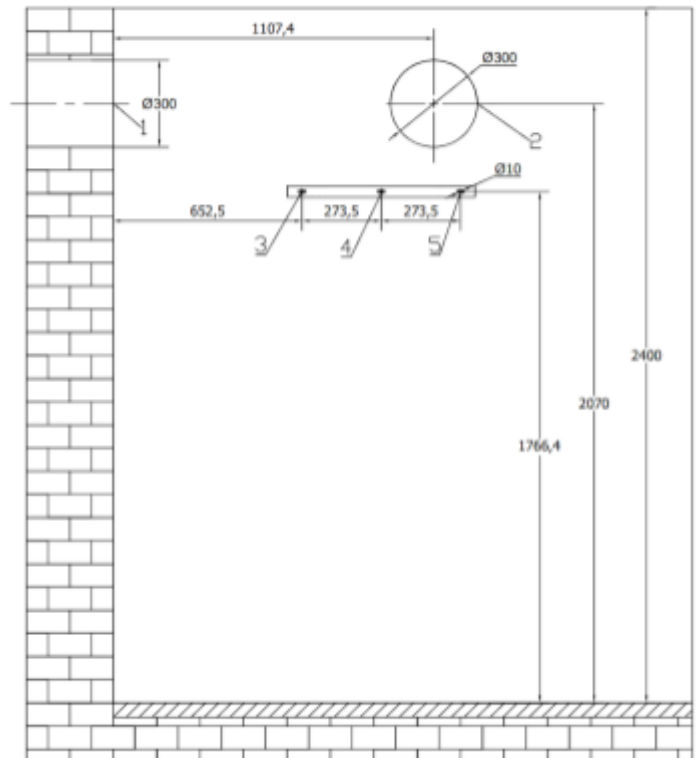
Variant 1



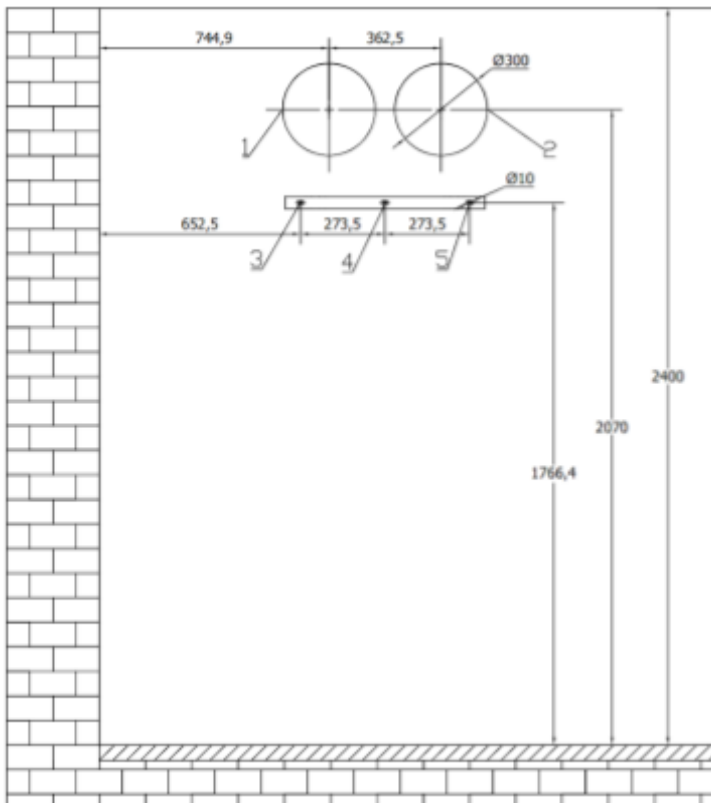
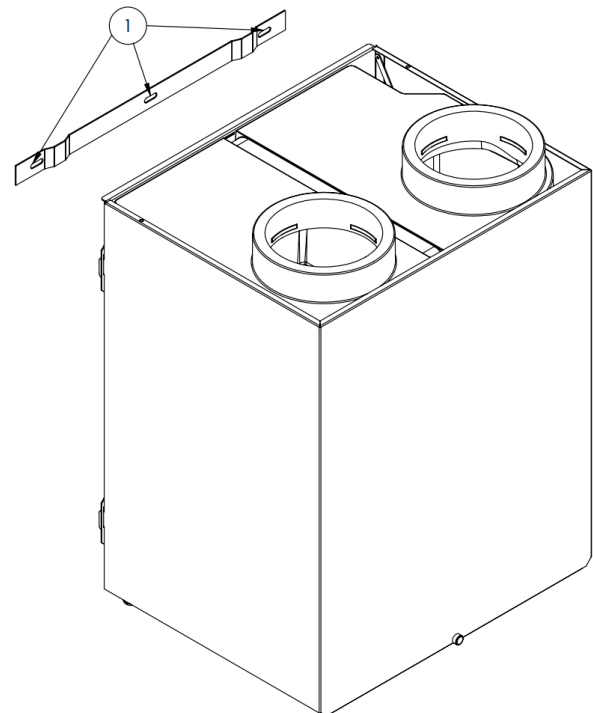
ATTENTION: Air duct holes are parallel. In this configuration, there is a risk of recirculating exhaust cold air, leading to a decrease in the efficiency of the heat pump

Variant 2

The air duct holes are perpendicular.



- Attach the heat pump bracket to the wall (concrete) using three screws M8 (position 1).
- Hang the heat pump on the bracket.



4.9 Air Supply and Exhaust

The heat pump primarily utilizes air from the outdoor environment as its source. Installing the heat pump in enclosed spaces without air exchange is possible only after careful calculations considering air volume, temperatures, and other factors. It is important to note that during heating operation, these spaces will be cooled and dehumidified, whereas during cooling, they will be heated.

In the case of installing the indoor unit in spaces with humidity above 50% at temperatures around 20°C, localized condensation may occur on the outer side of the pump cover or air ducts due to their cooling. In such situations, it is advisable to consider additional external or internal insulation of the cover in areas where condensation occurs.

It should be noted that due to pressure build-up in parts of the air exhaust behind the fan, 100% airtightness cannot be guaranteed.

It is important to ensure that waste air from buildings where livestock is kept or from sewage does not enter the heat pump's evaporator, as aggressive substances such as ammonia could damage the equipment.



DANGER: When located in spaces with combustion devices drawing air from the surroundings, an outdoor air intake must be provided with sufficient cross-section. In the suction side, unavoidable leaks may exist, which can lead to dangerous negative pressure! Consult the design with the designer.

4.10 Air Ducts

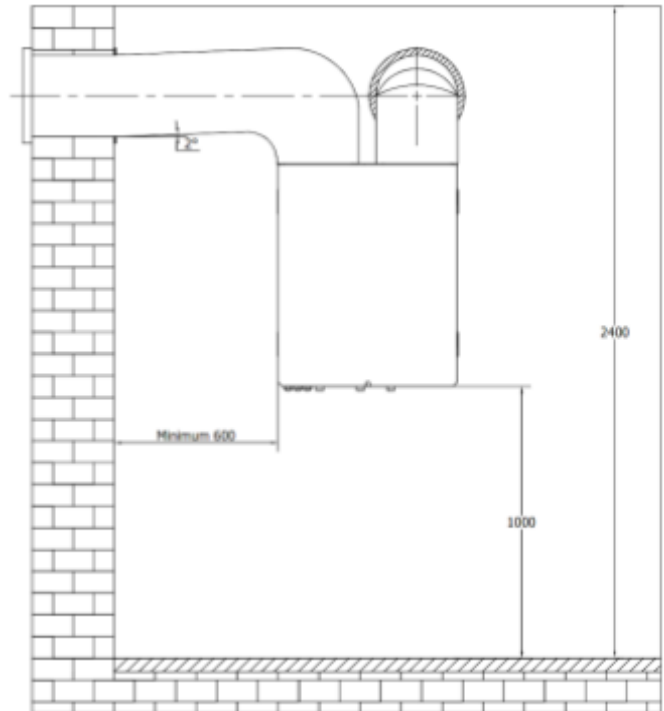
Special air duct hoses are used for air conduction, which are insulated to minimize condensation of air moisture on their surface. If air ducts made of rigid materials (e.g., metal) are used, it is necessary to ensure the transfer of vibrations into the structure of the house using flexible collars, etc. Furthermore, adequate thermal and vapor-tight insulation of the pipe surface must be ensured.



ATTENTION: When using a different material, it is necessary to provide a cross-section equivalent to a circular pipe with a diameter of at least 0.25 m (0.049 m²).

The wall penetration can have any shape but must meet the minimum cross-section. Rectangular penetrations are fitted with reducers to a circular or oval shape, onto which a standard connecting hose with a minimum diameter of 250 mm is attached. The wall penetration must be insulated to prevent freezing of the walls and water condensation. Insulation using EPDM rubber with a minimum thickness of 20 mm is recommended.

Air technology intended for suction into the heat pump must be equipped with a filter grille to prevent clogging of the condensate drain and fouling of the evaporator. It is important to regularly clean the filter.



4.11 Noise and Vibrations

Do not install the heat pump on a bedroom wall. Connect the heat pump to the heating system using flexible hoses or conduits. As the compressor and fan speeds increase, noise levels rise. Resonance may occur at certain operating frequencies.

4.12 Load-bearing Capacity of the Structure

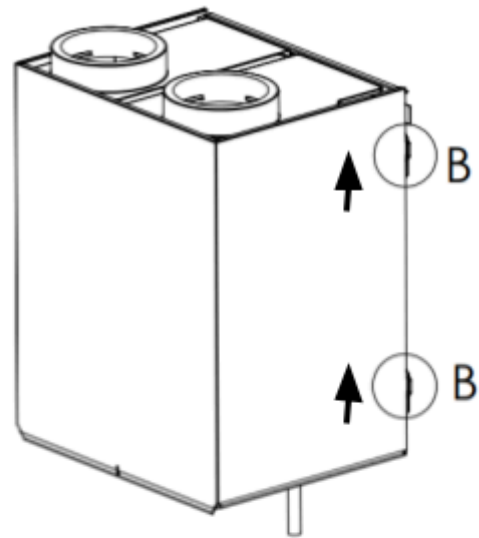
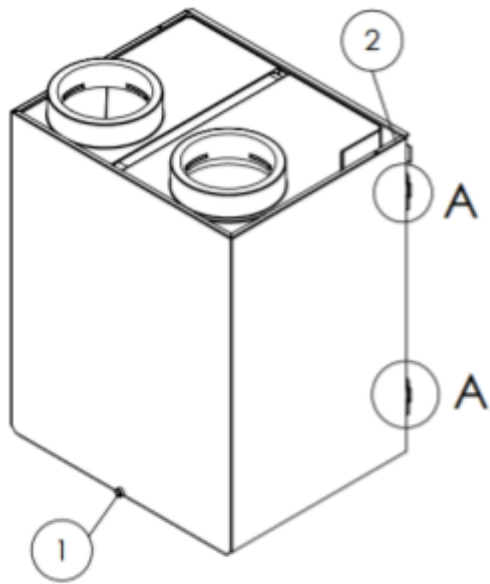
When installing on floors, in attics, or on roofs, verify the load-bearing capacity of the building structure. Installation on wooden structures needs to be carefully considered as there may be vibration transfer.

4.13 Disassembly of the Front Cover

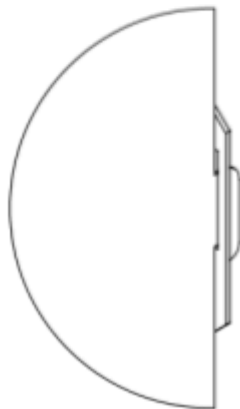
- Unscrew the securing bolt (position 1)
- Disconnect the grounding cable from the machine casing (position 2).
- Unhook the cover from the locks (details A and B) and carefully start sliding the cover away from the wall.
- Place the cover in a safe location afterward.



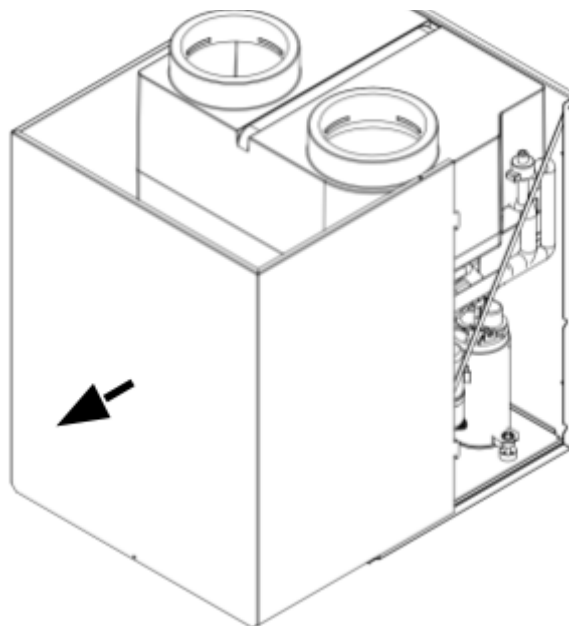
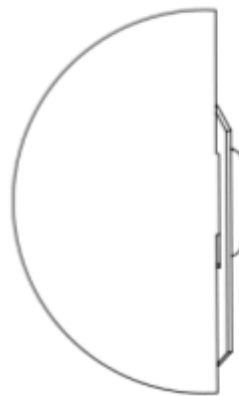
DANGER: During the process of sliding the cover, exercise caution. There is a possibility of snagging, which could result in wire detachment in some cases. The cover material is aluminum, and careless handling could lead to irreversible deformation.



A (1:2)








B (1:2)



5. Hydraulic Installation


5.1 Requirements for the Heating Circuit

-  **DANGER:** At the water inlet to the heat pump, install a heating system filter. Regularly inspect and clean it.
-  **DANGER:** The heat pump does not have a built-in safety valve or expansion tank. Therefore, ensure that these components are present in your heating circuit.
-  **DANGER:** The heating system must have built-in filling and draining valves.
-  **DANGER:** In heating systems equipped with shut-off devices such as thermostatic radiator valves, a minimum water flow rate specified in the technical datasheet must be ensured by the heat pump.
-  **DANGER:** Ensure sufficient water quality in the heating circuit.

5.2 Water treatment

Depending on the materials used, it is essential to fill the heating system with demineralized soft water or fully deionized water. It is important to regularly monitor the pH value within intervals of 8 to 12 weeks. For these types of systems, standard VDI 2035 applies. If the recommended values for filling, topping up, and circulating water are exceeded, it is necessary to pre-stabilize the water beforehand.

5.3 Connection to the Heating System

-  **DANGER:** The Hotjet MINI heat pump is equipped as standard with an internal circulation pump, the Grundfos UPM3 15-75, or another circulation pump with similar parameters

The heating connections are equipped with an external G 3/4 " thread. Connect using hoses or flexible conduits to reduce vibration transfer and noise.

To ensure the joint's tightness, use flat sealing and tighten the compression nut onto the hose using a wrench.

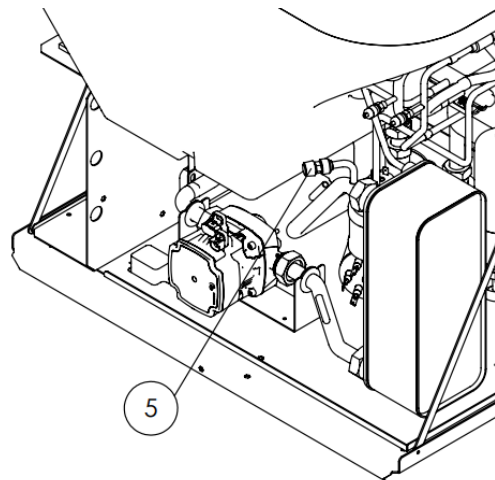
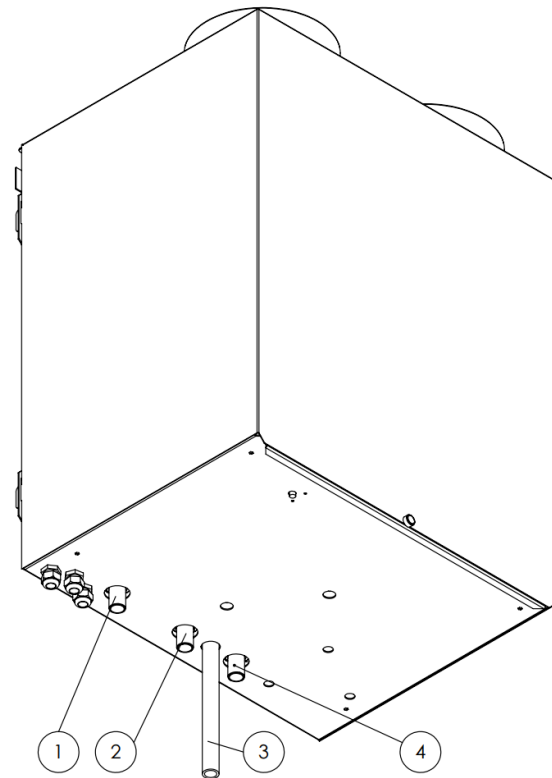
Before connecting the heat pump to the heating system, flush the system to remove any dirt, remnants of sealants, etc. Any impurities in the plate heat exchanger can cause malfunctions.

In heating systems with steel pipes, static heating surfaces, and/or trivalent accumulator tanks, magnetite formation may occur with larger water volumes.

- To protect the internal pump, install a magnetic filter.
- Place the filter unconditionally directly in the space of the heat pump's inlet pipe.

Carefully insulate pipe bends and fittings. When using cooling, the pipe insulation must be vapor-tight. For systems with radiators, dismantle some thermostatic radiator valves. The minimum circulating water volume in the heating system must be 15-20 liters of water per 1 kW of heat pump capacity. This rule does not apply to panel systems; it can be less. A stable flow rate through the heat pump and compliance with the minimum circulating water volume rule can also be achieved by installing a balancing tank connected as an anuloid. Lower or no flow through the heat pump can lead to malfunctions, in extreme

cases, even to the condenser freezing and the destruction of the heat pump.



Position	Item name
1	Input from the heating system and return from the DHW heater.
2	Output of water from the heat pump to the heating system.
3	Condensate drain hose.
4	Output of heating water to the DHW heater.
5	Air release valve.

5.4 Filling the Heating System

- Begin by opening all thermostatic valves of the heating system and, if applicable, all other shut-off valves.
- Subsequently, check the tightness of all connections and the entire heating system.
- To remove air pockets from the heating system, it is necessary to flush the system using the filling pump. Fill the heat pump through the inlet pipe and let the water drain out through the outlet pipe.

5.5 Condensate drainage

To ensure proper condensate drainage, it is essential to mount the heat pump in a vertical position. During operation, up to 50 liters of condensate can be produced daily, and inadequate drainage may cause building moisture.

The heat pump is typically equipped with a condensate tray to capture condensate from the evaporator. The condensate is then drained through a hose at the bottom of the heat pump. It is necessary to extend the hose and connect it to the sewage system. It is recommended to use a siphon to prevent sewage odors from entering.

When extending the hose, it is important to maintain a minimum slope for horizontal runs, which should not be less than 2%. It is advisable to use a larger diameter than that of the heat pump for hose extension. Reducing the diameter of the condensate outlet pipe is not recommended!

During defrost cycles, the heat pump can discharge up to 3 liters of condensate within 3 minutes. When dimensioning additional pumps for condensate drainage and catchment tanks, this volume should be taken into account.



ATTENTION: If the condensate drain passes through outdoor environments or areas where the temperature may be $<0^{\circ}\text{C}$, then it will be necessary to heat the condensate drain in these areas with a heating cable.



ATTENTION: Even at temperatures above freezing, condensation can occur on the cover of the heat pump due to the cooling of air passing through the heat pump. This condensate can drip uncontrollably beneath the heat pump.

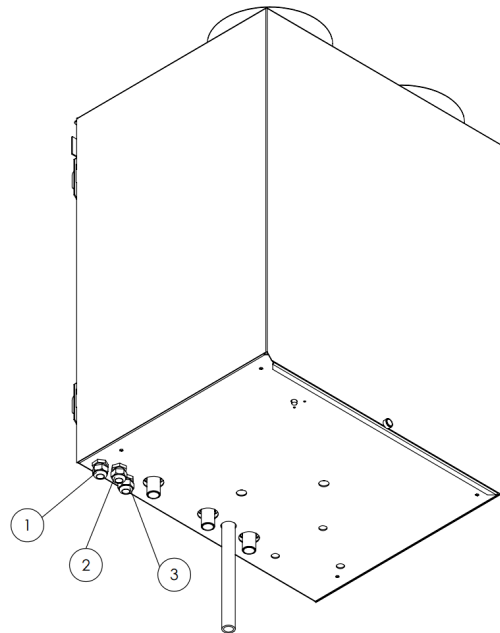
5.6 Protection against freezing

If the heat pump is fully installed and connected to power, the control system monitors the temperatures in the heat pump's condenser. If these temperatures drop to a certain level, the control system activates the circulation pump to circulate water from the heating system through the circuit into the heat pump.

protection against freezing without supervision

For properties such as cottages and cabins where power outages cannot be detected, it is advisable to recommend filling the entire system with an antifreeze mixture with a protective temperature of at least -10°C .

6. Electrical installation



Position	Item name
1	Power supply of the heat pump
2	Power supply of the bivalent source
3	Connection to the router



DANGER: Connection of the heat pump is carried out according to the electrical diagram provided by the manufacturer.



ATTENTION: The connection of the heat pump to the domestic power supply system is subject to approval from the electricity supplier.



ATTENTION: It is necessary to verify the required size of the main household circuit breaker in terms of the selected type of heat pump and other appliances (e.g., electric bivalence).



DANGER: All electrical installation work must be carried out in accordance with applicable standards and regulations.



DANGER: Electrical installation work may only be carried out by trained personnel or authorized individuals with the necessary qualifications.

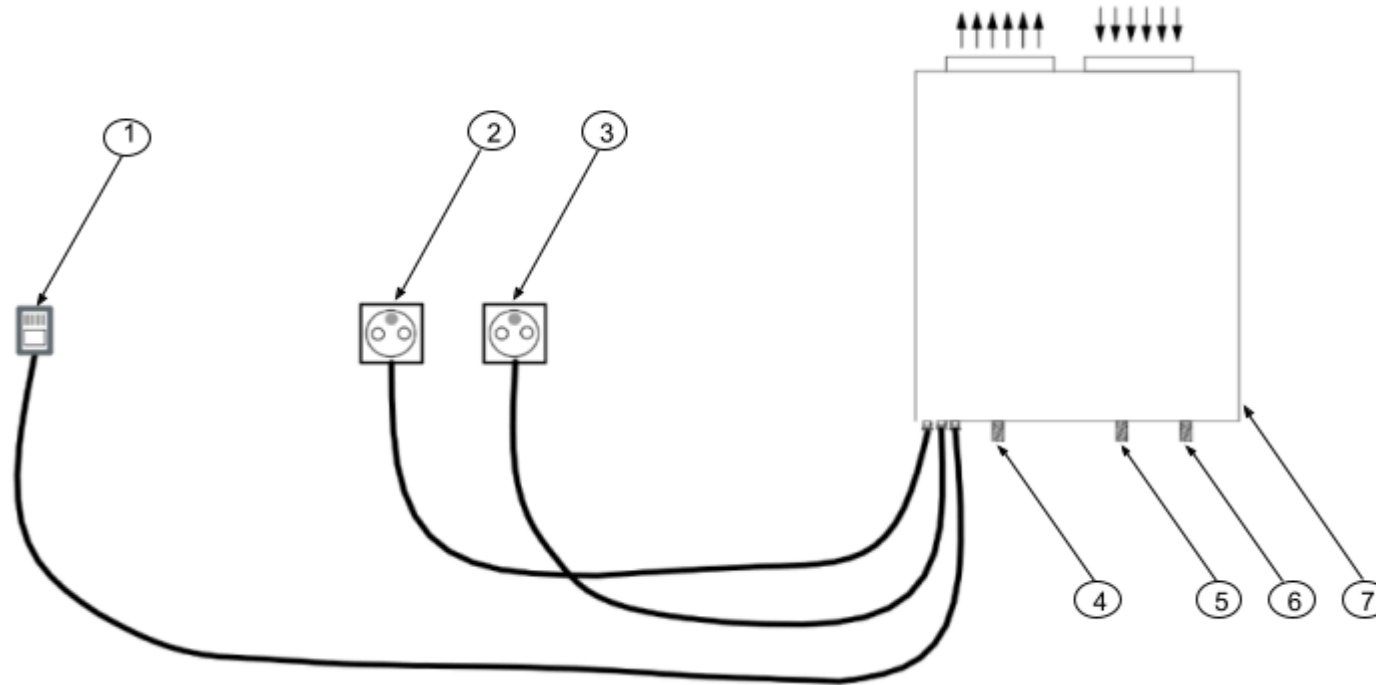


DANGER: The manufacturer is not liable for damages resulting from modifications to the electrical installation of the heat pump.

The control panel of the heat pump is not equipped with a main switch. It is assumed that this will be part of the protected power supply. To connect the heat pump, it is necessary to bring the following to the location of the control panel:

- The power supply of the heat pump and the bivalent source must be connected to separate outlets protected by separate 16A circuit breakers.
- The signals for controlling heating circuits (signals from room thermostats, temperature sensors, etc.) are transmitted via cable SYKFY 2x2x0.5, or suitable equivalent.
- The signals for the actuators (circulation pumps, 3-way valves, etc.) are transmitted via cable CYSY 3x1 or suitable equivalent.

6.1 The electrical schematic diagram of a heat pump



Position	Item name	
1	Router	
2	Independent socket 230 V 16 A for the heat pump	
3	Independent socket 230 V 16 A for bivalent source	
4	Outlet of heated water from the heat pump	G 3/4 "
5	Inlet of heated water into the heat pump	G 3/4 "
6	DHW Inlet	G 3/4 "
7	Heat pump	

7. Commissioning

- Only authorized technicians are responsible for commissioning the heat pump.
- To ensure long-term, safe, and economical operation of the heat pump, it is necessary to adhere to the manufacturer's technical specifications and to carry out the installation based on the project.
- The installation company supplying the heat pump to the customer is responsible for the installation, organization, and overall quality of work.

7.1 Preparation for commissioning

Before commissioning, the following steps need to be carried out and checked:

- The installation and assembly of the heat pump were carried out according to the project and instructions provided in this documentation.
- All prescribed tests of the heating system have been performed.
- The heating system has been flushed, filled, and purged of air.
- The quality of the heating water complies with the specifications of the standard ČSN 07 74 01, as well as VDI 2035.
- All valves that may reduce the flow of heating water in the heating system must be open.
- The intake and exhaust air vents must be clear.
- The condensate drainage must be ensured.
- A revision report has been prepared for the electrical connection of the heat pump and accessories.

7.2 Procedure

The air-to-water heat pump HOTJET Mini is likely to display errors during commissioning when the outdoor temperature is below 10°C and the heating water temperature is below 19°C due to the low water temperature in the heating system. If the water temperature at the inlet or outlet of the heat pump is lower than or equal to 12°C, the anti-freeze protection is activated, which occurs mainly during the defrosting mode.



COMMENT: If the heat pump is connected to a storage tank, it is possible to switch to heat supply from the tank during defrosting, thereby ensuring a sufficiently high temperature of the heating water.

The heat pump is typically started via:

- Web server
- Service tool OCI with ACS application

8. Routine Maintenance

Proper maintenance is key to ensuring the most efficient operation and longevity of the heat pump. The following points serve as a general guide, but always consult specific maintenance requirements with your installation company. Do not place any objects on the top cover of the unit. This will prevent any overheating and maintain safe operation of the heat pump.



COMMENT: The evaporator should be cleaned at least twice a year and whenever it is visibly dirty. A dirty evaporator reduces the efficiency of operation. The exterior surfaces of the heat pump can be cleaned with a sponge and warm soapy water. Do not use bleaches, abrasives, or solvents that could damage the device's surface. The cleaning agent should not contain acids, soda, or chlorides. Ensure that water does not enter the electrical components.



DANGER: Danger of electric shock

Before starting any maintenance or cleaning, it is necessary to disconnect the device from the power supply.

- After disconnecting the device, wait at least 5 minutes for the capacitors on the inverter to discharge.



DANGER: Risk of injury due to fan rotation.

- The Mini heat pump contains a fan that may rotate.

Before maintenance of the evaporator part of the heat pump, always stop the fan and disconnect the main power supply. Wait until the fan has completely stopped before proceeding with any maintenance or handling of the evaporator!

8.1 Filters

The heating circuit for the heat pump is equipped with filters that can become clogged. It is recommended to check their cleanliness at least twice a year. Before cleaning the filters, close the nearest valves before and after the filter and remove the screen. Clean the screen and then reinsert it. After installing the filters, it is important to bleed the heating system again and check the water level in the heating circuit, and refill if necessary.



ATTENTION: If the heat pump will be out of operation for an extended period or is disconnected from power, drain the water from it. This will prevent freezing issues when the power is off.



DANGER: The water discharged from the heat pump can be hot, posing a risk of scalding.



DANGER: If the heat pump does not start or heat properly, consult the status with your installation company. The cover of the heat pump should only be removed by a qualified technician.

8.2 Pre-season check

The following should be checked by a competent service technician:

Electrical installation check

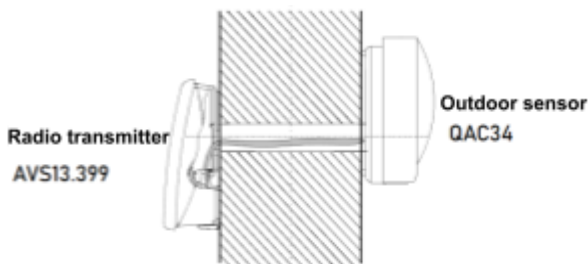
Before the heating season, verify the condition of the electrical installation.

Heating system

Before the heating season, it is necessary to check the functionality of the heating system.

9. Outdoor sensor connection

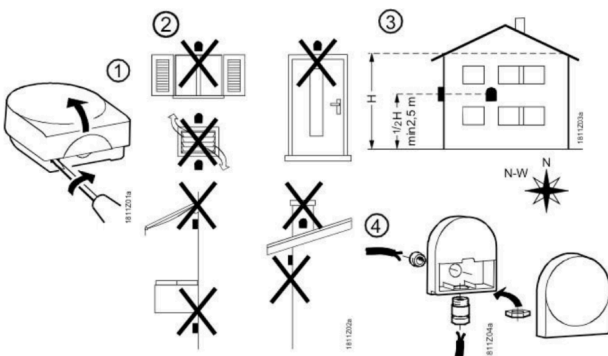
- The outdoor sensor plays a key role in the control system, as it is essential for the proper operation of the equithermal control and frost protection of the heating system. However, the outdoor sensor is not necessary for the frost protection of the heat pump.
- The outdoor sensor is connected to the BX4 input and uses the NTC1k sensor type. We recommend the QAC34 outdoor sensor, which is supplied as an accessory; its installation is not mandatory but is recommended to optimize the system.
- If a wireless solution is required, the standard QAC34 sensor can be upgraded to wireless using the AVS13.399 module. This option is suitable when it is not possible to connect the QAC34 to the RVS by wire. The prerequisite is that the RVS in the boiler room already has an AVS71.390 radio transmitter. To protect the batteries, the transmitter module is installed in the wall structure.
- The default version of the transmitter is supplied as a "white box", which is the standard packaging for this type of device.



ATTENTION: The outdoor sensor is different from the others in the RVS system, they cannot be interchanged. It is important to use the correct sensor for trouble-free operation of the control and protection system.

9.1 Outdoor sensor placement rules

- The coldest wall of the house is usually north-facing.
- The sensor must not be exposed to direct sunlight.
- The minimum recommended height is 2.5 m.
- Preferred position: in the middle of the wall.
- The sensor must not be located above windows, doors, vents or other heat sources, nor under balconies, roofs or eaves. It shall not be painted over.



- If it is necessary to extend the sensors, select the connection wire (Cu, twisted pair) according to the table:

Conductor cross-section [mm ²]	0,25	0,5	0,75	1	1,5
maximum length [m]	20	40	60	80	120

10. Faults and troubleshooting



DANGER: Only authorized and qualified service technicians are permitted to perform any work on the heat pump.

- The Mini heat pump is a quality product designed for unmanned operation.
- In the event of a malfunction, it will be displayed on the remote access web page.
- Some shutdowns and subsequent error messages are related to reaching the operational limits of the compressor envelope and their occurrence can be adjusted by setting the control.
- If a service key is displayed, it is not a malfunction but merely an informative status that does not affect the operation of the heat pump.
- The majority of faults are related to insufficient flow of heating water due to circuit closure, airlock, or malfunction of the circulation pump.
- If you cannot resolve the fault yourself, contact a service technician.

11. Disassembly and disposal

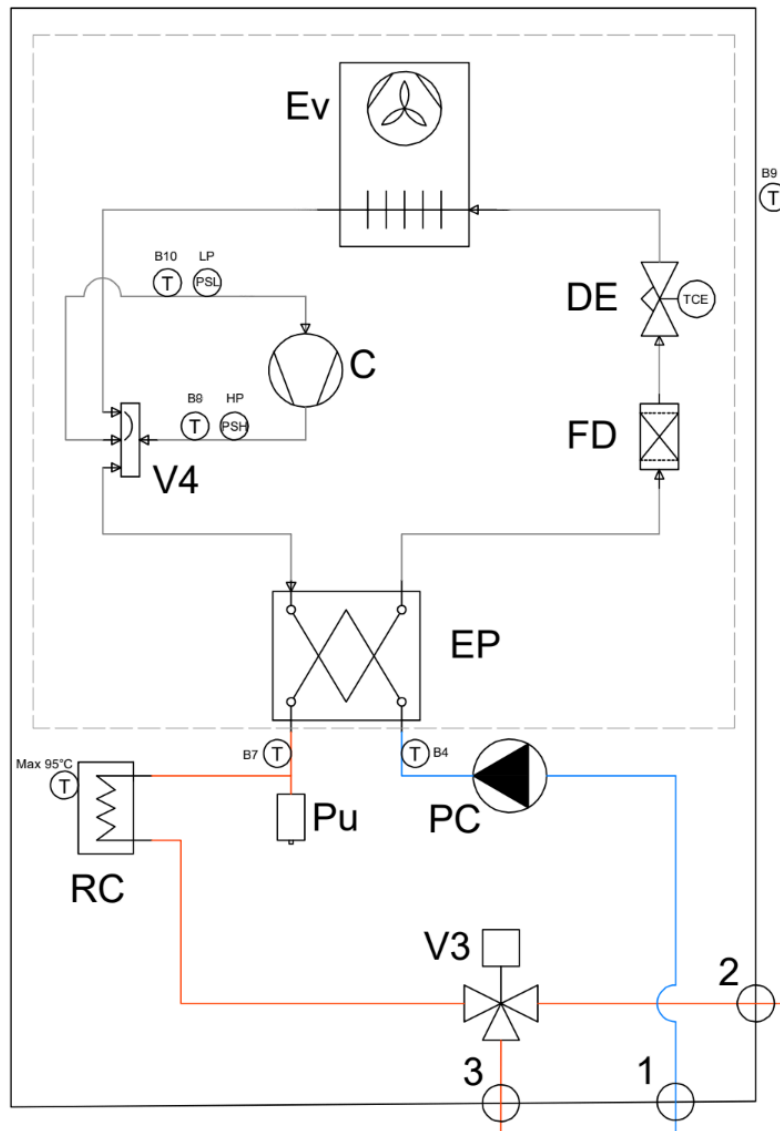
Dispose of the equipment by entrusting it to a specialized refrigeration company or by contacting the manufacturer. The product contains substances (refrigerant, oil) that need to be disposed of according to prescribed methods.



Before dismantling the heat pump, you must close all supply valves and disconnect it from the power supply.

12. Attachments

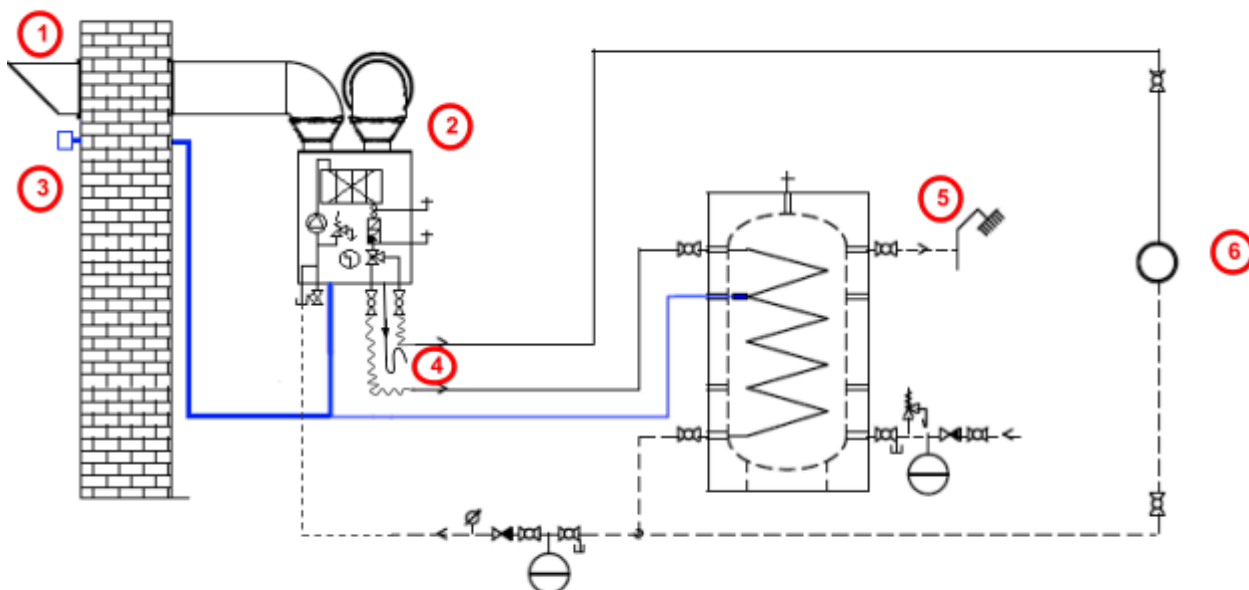
12.1 The schematic diagram of a heat pump



Ev	Evaporator with radial fan	Pu	Air vent valve
C	Compressor	LP	Low-pressure sensor
EP	Condenser	HP	High-pressure sensor
V4	Four-way valve	B4	Temperature sensor for heating input
DE	Expansion valvel	B7	Temperature sensor for heating output
FD	Filter-dryer	B8	Temperature sensor for compressor discharge
RC	Electric boiler	B9	Outdoor temperature sensor
PC	Circulation pump	B10	Compressor suction temperature sensor
V3	Three-way valve		

12.2 Hydraulic integration

Basic diagram of a heat pump connection to a direct heating circuit. Typical wiring diagram - replaces the installation project.
 Room temperature control using room temperature ON/OFF thermostat.



Position	Item name
1	Exhaust
2	Intake
3	Outdoor sensor QAC34
4	Drainage of condensate and discharge from the pressure relief valve
5	Hot water tank
6	Heating circuit

12.3 Technical specifications

Item name	Unit	Value/Status
General Information		
Rated output provided by the heat pump (A7/W35/52Hz)	kW	2,9
Delivered output by the electric boiler	kW	3
Power input of the compressor (A7/W35/52Hz)	kW	0,7
COP (A7/W35)	-	4,1
Energy efficiency class	-	A+
Rated voltage (single-phase)	V/Hz	230/50
Maximum electrical current	A	10
Compressor type	-	Rotary/Inverter
Power fuse		16B/1
Minimum operating temperature	°C	-20
Fan		
Noise level	dB(A)	42
Fan type	-	EC radial
Fan power control	-	YES
Airflow through the evaporator	m ³ /h	600
Heating circuit		
Range of output temperature	°C	25/55
Flow rate of water on the return side	m ³ /h	0,5
Pipe connection size	Inches	3/4
Circulation pump	-	YES
Three-way valve	-	YES
Safety valve	-	NO
Expansion tank	-	NO
Type of air release valve	-	Manual
Cooling circuit		
Refrigerant (R410A)	kg	0,750
Max. gas temperature	°C	115
Control	-	Electronic
Defrost	-	Automatic
Defrost method	-	Cycle inversion

Item name	Unit	Value/Status
Condensate drainage	-	YES
Pressure on pressure switch	MPa	4,45
Dimensional data		
Height	mm	821
Width	mm	654
Depth	mm	535
Wiegght	kg	65
Place	-	Inside
Construction material	-	Aluminum
Color	-	RAL 7035

12.4 Declaration of conformity



ES prohlášení o shodě

číslo: CZ-ES-097-4

Výrobce : HOTJET CZ s.r.o.
Průmyslová 966/21
747 23 Bolatice
Česká republika
IČ: 27764290

prohlašuje, že níže zmiňované produkty :

Tepelná čerpadla HOTJET vzduch-voda modifikace:

ON/OF:

8ONE, 15ONE
10ONE2, 15ONE2, 20ONE2, 25ONE2, 35ONE2, 45ONE2, 55ONE2K

Inventory:

7ZETX, 10ZETX, 15ZETX (venkovní provedení)
7ZETXi, 10ZETXi, 15ZETXi (vnitřní provedení)
7ZETXe, 10ZETXe, 15ZETXe (formát ONE2)
Mini5Ai (vnitřní provedení)

Tepelná čerpadla HOTJET voda-voda a země-voda modifikace:

Inventory:

Mini 5Wi
7WX, 10WX, 15WX

Systémové jednotky:

Hydrobox 300, Hydrobox 500

Popis a určení výrobku:

Tepelná čerpadla systému vzduch-voda, voda-voda a země voda pro vytápění, ohřev vody, bazénu a pro chlazení jsou ve shodě se základními požadavky.

evropských nařízení: Low Voltage directive 2014/35/EU , EMC directive 2014/30/EU

a národních směrnic a nařízení 2009/125/ES, 2006/42/ES, 2011/65/EU, 813/2013/EU, 641/2009/EU, 327/2011/EU je kompatibilní podle následujících předpisů a norem:

- ČSN EN 60 335-1; ČSN EN 60 335-2-34 ed.4; ČSN EN 60 335-2-40 ed.2
- ČSN EN 55014-1 ed. 4; ČSN EN 55014-2 ed.2
- ČSN EN 12102-2; ČSN EN ; EN 14825

Potvrzení výrobce:

Výrobce potvrzuje, že vlastnosti produktu splňují základní požadavky nařízení, předpisů a norem výše uvedených a výrobek je za podmínek určeného použití bezpečný a jsou přijata opatření, kterými zabezpečuje shodu s technickou dokumentací a se základními požadavky, které jsou na ně aplikovatelné.

Splnomocněnec: ing. Richard Köhler



V Bolaticích, dne: 3.1.2022