

INSTALLATION

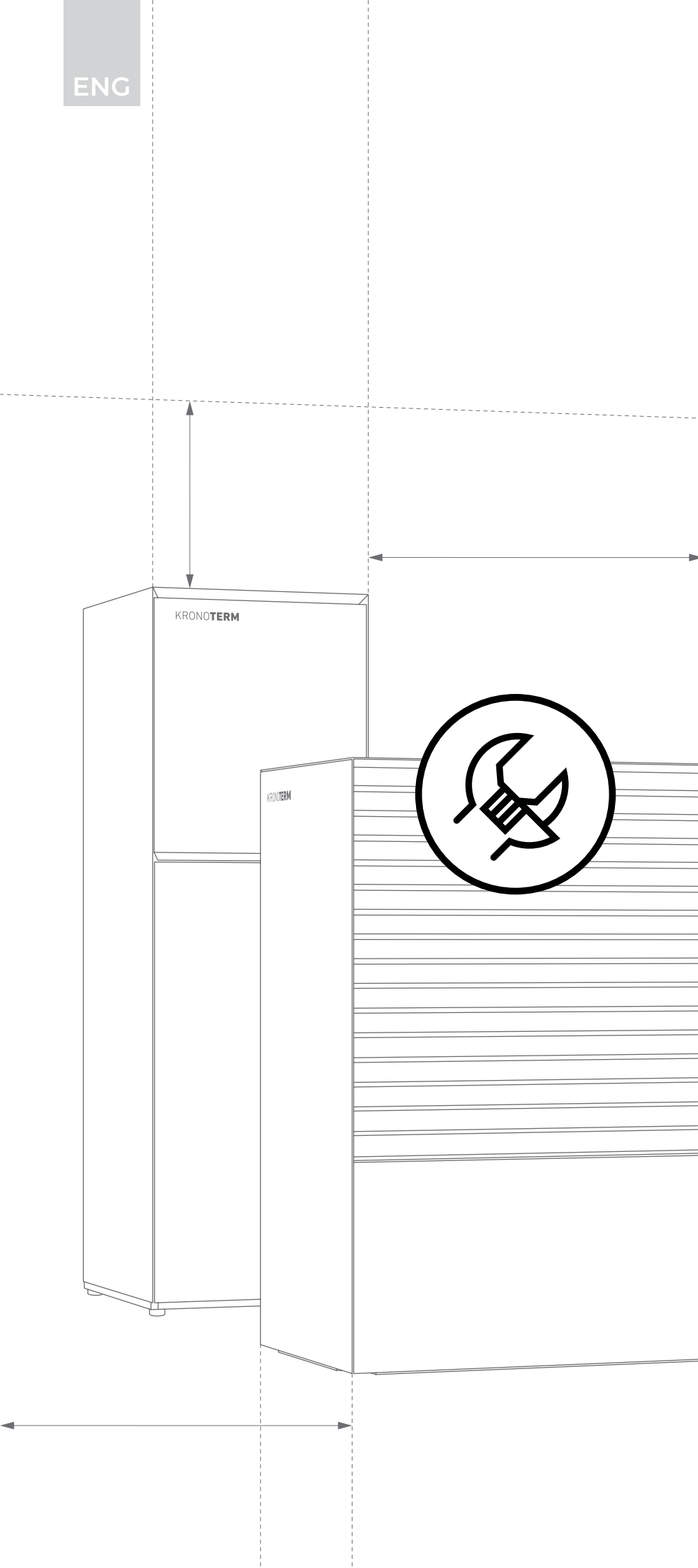
—
**INSTALLATION
INSTRUCTIONS**

Instalater

—
ADAPT

Heat pump

System ADAPT





KRONOTERM INSTRUCTION SYSTEM

Document is a part of the KRONOTERM instruction system, which follows the project's lifecycle from design phase to service support.

Installation instructions are the basis for a professional approach to implementing the KRONOTERM heat pump system.

Installation instructions_ADAPT System_17-19-45-6699-07_EN

This work is protected by copyright.

Any use of this document outside of the Copyright and Related Rights Act and without the express consent of KRONOTERM d.o.o. is illegal and punishable by fine.

Despite taking extensive care to ensure the accuracy of all figures and descriptions, KRONOTERM d.o.o. reserves the right to make corrections, changes to technical details, and changes to figures with no prior notice. Information herein is given based on the latest available product information at the time of drafting and printing this document. All data are preliminary. We also reserve the right to suspend the sales of an individual product or even the entire sales program.

All updates are available in digital format. Please contact your chosen system administrator for access.

Figures are symbolic and are only intended as a reference. Despite our efforts we cannot ensure that the products' true colors, proportions, or other graphical elements will be faithfully represented in print and on electronic screens. Products may differ from their visual representations.

Printed in Slovenia.

The original documentation is written in Slovenian. All other languages are translations.

Write to info@kronoterm.com for any additional questions.

TABLE OF CONTENT

1	IMPORTANT INFORMATION	4
1.1	SYMBOLS.....	4
1.2	GENERAL WARNINGS.....	4
1.3	SAFETY WARNINGS AND INSTRUCTIONS.....	5
1.4	DISPOSING OF PACKAGING AND THE APPLI- ANCE ITSELF	6
1.5	EXTENT OF DELIVERY	6
1.6	TRANSPORT AND STORAGE.....	7
2	INSTALLATION	7
2.1	INSTALLING THE APPLIANCE.....	8
2.2	ATTACHING THE CONDENSATE DRAIN	9
2.3	CONNECTING THE PIPE.....	10
2.4	TURNING ON THE ELECTRICITY	11
3	PLACEMENT OF SIDE PANELS	13
3.1	ATTACHMENT OF SIDES	13
4	MAINTENANCE.....	14

1 IMPORTANT INFORMATION

These instructions describe the device installation and maintenance process. Only properly qualified individuals may install or maintain Kronoterm appliances. Read the instructions thoroughly before installation, as the instructions contain extensive information on the device's purpose and functionalities, as well as on how it is to be handled.

- **After installation these instructions must be given to the end user.**
- **If the appliance is ever given to a third party, these instructions must also be given to said third party.**

1.1. SYMBOLS



These symbols indicate risks for the user or the appliance itself.

DANGER: A risk that could lead to bodily harm.

WARNING: A risk that could lead to bodily harm.

ATTENTION: A risk that could damage or destroy the appliance.



These symbols indicate important information.

NOTE: Declaration on important information about the appliance and the manufacturer's requirements.



INSTRUCTION MANUAL:

Read the instruction manual included with your appliance before using it.



REFRIGERANT: The appliance uses the volatile refrigerant A2L.

1.2. GENERAL WARNINGS

Improper handling of the device can lead to it being damaged and can cause harm to person or property. Symbols in these instructions emphasize important information on mitigating risks.

NOTE

Before beginning installation, read these instructions thoroughly.

Any processing or replacement of the appliance's original integral parts will void the manufacturer's warranty for the device's safety and proper function. The manufacturer is not responsible for the consequences of negligent or improper appliance use. The manufacturer is not responsible for any claim for compensation in the event of appliance or other damage resulting from not adhering to the instructions herein.

The warranty is voided if the appliance is installed differently from the manner prescribed herein.

Excessive pressure in the heating system can cause water to leak from the safety valve. Ensure that the safety valve's drainage pipe is clear and installed in a place that will never freeze.

Provide for the appliance's regular maintenance on the part of a qualified service technician.

Require that the installation technician explain how the appliance works and how to use it.

Keep these instructions in a dry place in the appliance's vicinity.

The dimensions of power and communication cables are indicated below.

ATTENTION

Once per year inspect the safety valve and expansion vessel to ensure they work properly.

Connect the appliance to the electricity grid in accordance with relevant standards and regulations. Connect the appliance to the grid via the circuit breaker installed in the wiring, according to valid national regulations. Use the circuit breaker, which interrupts contacts under the conditions outlined in surge category III – with minimal contact distance of 3 mm.

1.3. SAFETY WARNINGS AND INSTRUCTIONS

DANGER

Do not clean the appliance or interfere with it while it is in operation.

Only a qualified electrician can connect the appliance's power cable and the other parts of the heating system. Unplug the appliance when connecting parts of the heating system.

Disregarding the instructions and good practice when connecting the appliance can lead to severe injury or death.

The appliance uses odorless refrigerant.

Do not puncture or set fire to the appliance.

Appliance contains more than 1,8 kg of refrigerant and it is used for outdoor installation.

Appliance should be installed in a way that in case of refrigerant leak, it will not stagnate in a way to create a fire or explosion hazard.

Disregarding the instructions and good practice when connecting the appliance can lead to severe injury or death.

ATTENTION

Do not clean the appliance or interfere with it while it is in operation.

Only a qualified electrician can connect the appliance's power cable and the other parts of the heating system. Unplug the appliance when connecting parts of the heating system.

Disregarding the instructions and good practice when connecting the appliance can lead to severe injury or death.

The appliance must be connected to a power source of appropriate quality (SIST EN 50160). The actual power supply must not fluctuate more than $\pm 10\%$ of the rated voltage. You can get information on power supply from your electric utility company.

WARNING

This appliance is not to be played with.

The appliance may only be used by people who have learned about its safe operation and who understand the potential dangers of operating such an appliance.

Children over 8 years of age and persons with reduced physical or mental capabilities and/or lacking experience and knowledge may only use this appliance under the supervision of a qualified individual.

Electrical installation must be conducted by a qualified expert, and must be conducted in accordance with current national regulations on electrical installation and in accordance with the manufacturer's instructions.

Ensure that the appliance's operation never threatens anyone's safety. Prevent children and unqualified persons from accessing the appliance.

The device contains fluorinated greenhouse gas, therefore only persons authorized to handle refrigerants as permitted by applicable national law are allowed to access the appliance.

Prevent the refrigerant from entering the atmosphere when servicing the appliance.

A damaged power cable must be replaced with a cable provided by the manufacturer or authorized representative.

Inspect the building's electrical wiring in accordance with valid legislation on the requirements of low-voltage wiring.

Unplug the appliance before any servicing.

In the event of an electrical outage longer than 8 hours at a temperature below 0 °C, discharge the water from the pipe connection between the heat pump and indoor unit. You can otherwise fill the system with anti-freeze or install a safety exhaust valve.

The appliance represents a hermetically sealed system.

1.4. DISPOSING OF PACKAGING AND THE APPLIANCE ITSELF

Separate packaging according to its material.



The appliance contains fluorinated greenhouse gas. During servicing or when uninstalling the appliance, remove this gas in accordance with valid legislation on the use of ozone depleting substances.



Remove the appliance in accordance with valid legislation on electronic waste.

1.5. EXTENT OF DELIVERY

You received the following components when your appliance was delivered:

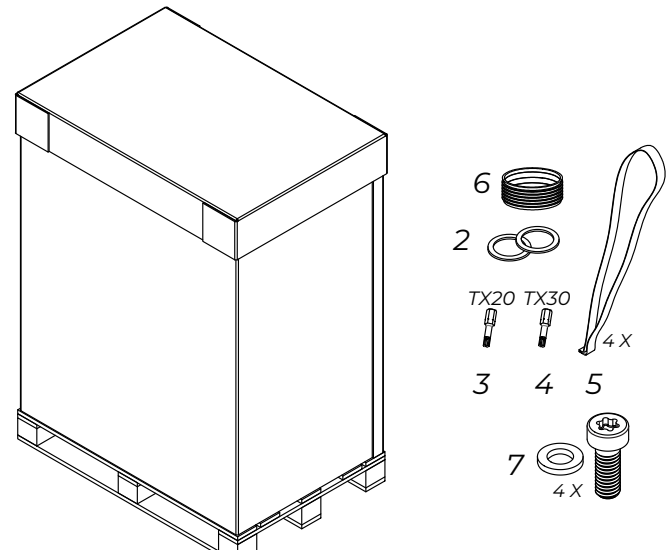


Figure 1: Extent of appliance delivery

1	Heat pump
2	Gasket 5/4 - 2x
3	Screw bit TX20
4	Screw bit TX30
5	Moving straps - 4x
6	Condensate drainage pipe gasket
7	Screw with washer - 4x

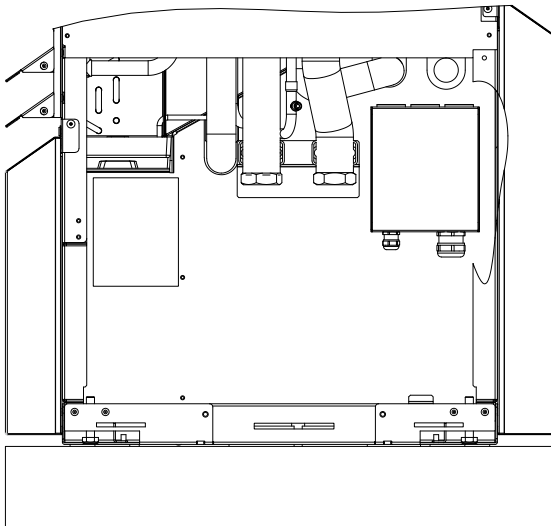


Figure 2: Location of the nameplate

1.6. TRANSPORT AND STORAGE

ATTENTION

Use the transport aids to transport the package and the appliance.

Transport and store the appliance in a dry place at a temperature from 4 to 45°C (or 50°C for up to 24 hours).

Do not tilt the appliance in any direction more than 45°.

Do not place any objects collectively weighing more than 10 kg on the appliance during transport.

The appliance must be stored in a place free from sources of sparks or flames, such as a gas or electric heater.

2 INSTALLATION

NOTE


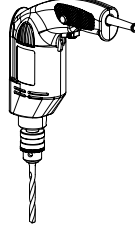

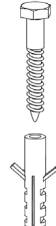

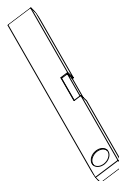
Refer to these ADAPT heat pump installation instructions for information on location, clearance, and the appliance's base.

Ensure that the installation location is always accessible to hand-held transport equipment (e.g. hand trucks, dollies) for installation, maintenance, and servicing.

The warranty does not cover costs related to renting equipment to transport or install the appliance, service it, or maintain it.

Refer to good practice and to occupational safety and health regulations when installing, maintaining, or servicing this appliance.

You will need the following tools and equipment during installation:

	TX20 screwdriver		Drill
	TX30 screwdriver		Screw Anchor insert
	17 and 46 wrench		Water scale

2.1. INSTALLING THE APPLIANCE

2.1.1. REMOVING THE GUARDS AND SIDE PANELS

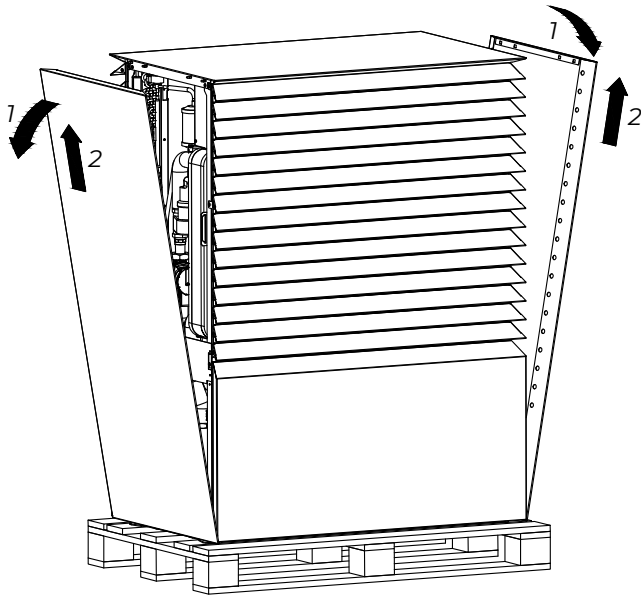


Figure 3: Removing the side panels

Remove the protective packaging. Remove the two side panels from the appliance (Figure 3) by first pulling them toward you (1) and then lifting them (2). Put the side panels down and protect them, preventing any possible damage during installation.

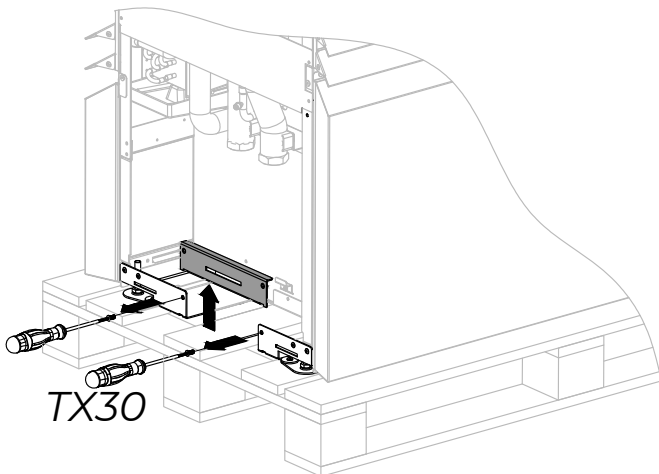


Figure 4: Removing the cross bar

Use a screwdriver (TX30) to remove the screws and remove the cross bar (Figure 4).

2.1.2. REMOVING THE TRANSPORT PROTECTION

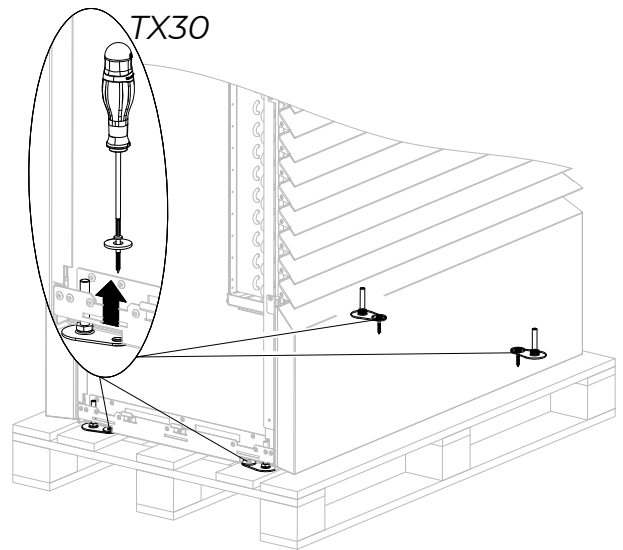


Figure 5: Removing the transport screws

Use a screwdriver (TX30) to remove the transport screws holding the heat pump onto the pallet (Figure 5).

! ATTENTION

The appliance's compressor must be affixed to the housing during transport in order to avoid breaking it.

You will need a TX20 screwdriver to remove the protective packaging.

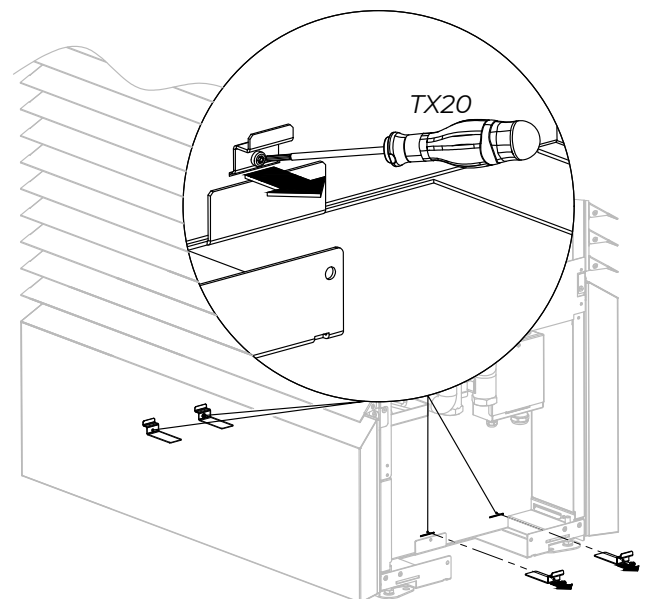


Figure 6: Removing the transport fasteners

Use a screwdriver (TX20) to remove the screws along with the transport fasteners (Figure 6).

2.1.3. PLACEMENT ON THE BASE

WARNING

This appliance is very heavy.

4 people are needed to move it and lift it.

Use the moving straps and other transport equipment to move the appliance.

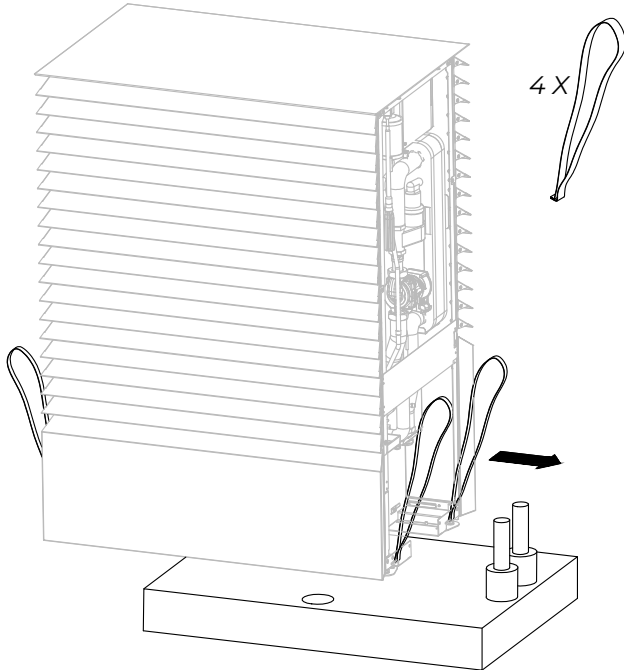


Figure 7: Placement on the foundation

Use the moving straps to lift the pallet and place it carefully on the prepared foundation.

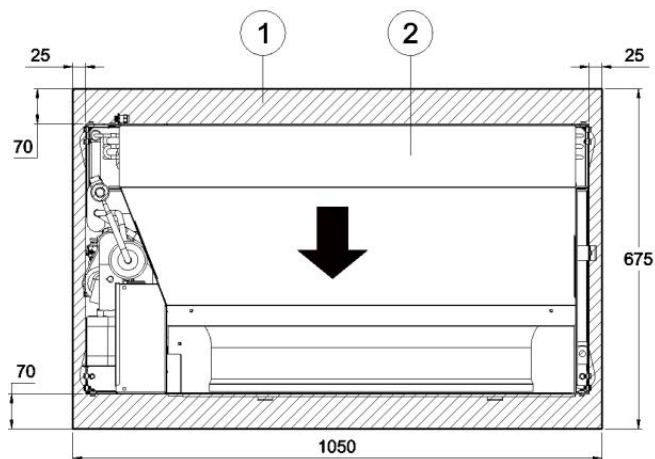


Figure 8: Aligning the heat pump on the base

- | | |
|---|------------|
| 1 | Foundation |
| 2 | Heat pump |

Straighten the heat pump on the base (Figure 8). The arrow (Figure 8) shows which way the air flows.

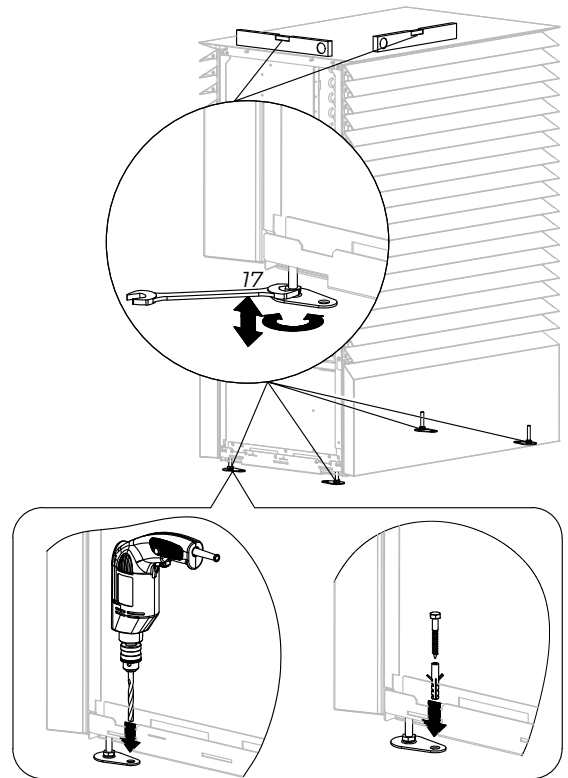


Figure 9: Straightening and affixing to the base

1. Use the height adjustment screws to make the appliance level. Lift the appliance as little as possible.
2. Affix the appliance to the prepared base (Figure 9).

2.2. ATTACHING THE CONDENSATE DRAIN

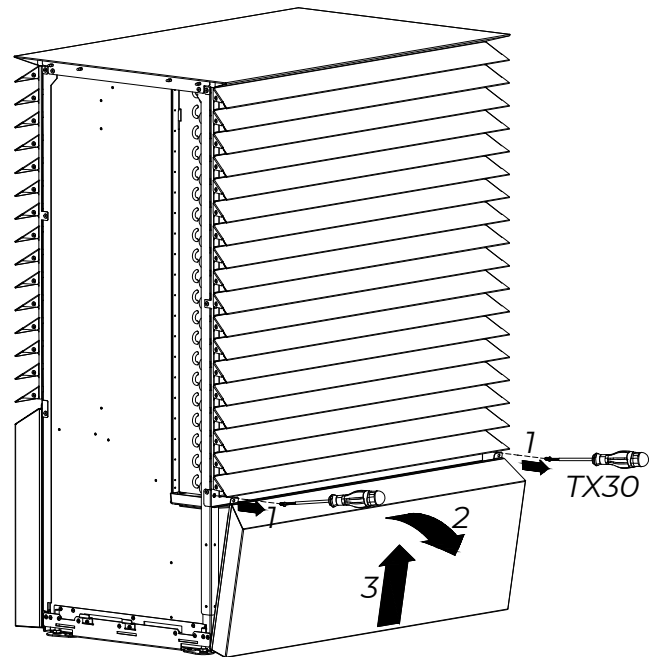


Figure 10: Removing the cover

Use a screwdriver (TX30) to remove the 2 screws on the underside of the cover's back (1) (Figure 10). Remove the cover by first bending it forward (2) and then lifting it (3) (Figure 10).

Under the evaporator pan there is the condensate drain and a heating cable.

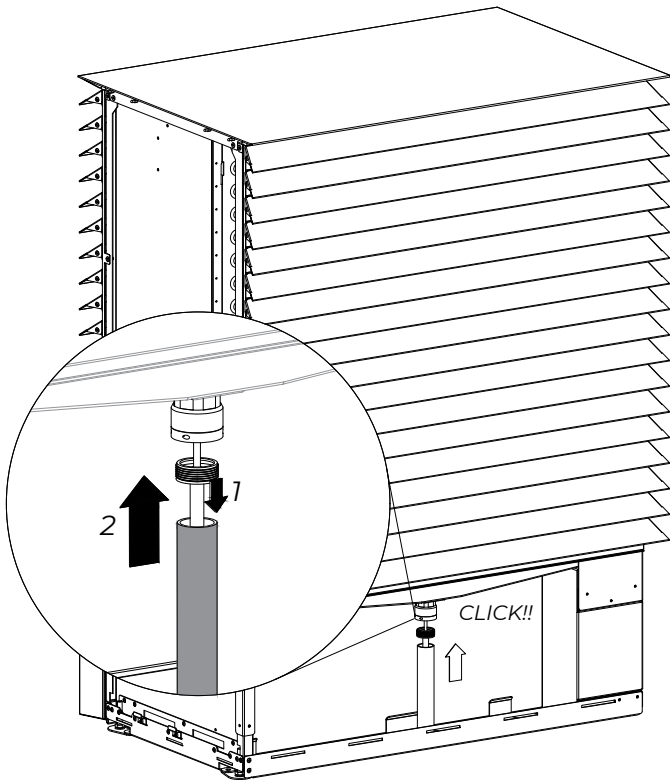


Figure 11: Attaching the condensate drain

First, thread the attached heating cable through the condensate drain.

Install the gasket (1) on the hose and insert it into the fitting on the condensate trough (2). Be sure to push the hose fully into the fitting. Then pass the pipe into the prepared drain \varnothing 50 leading to a storm water drainage (Figure 11).

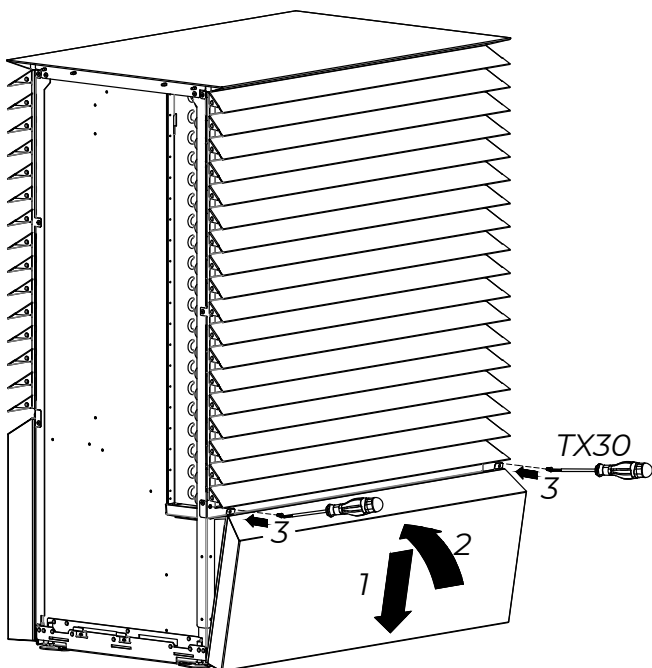


Figure 12: Placing the cover

Place the cover back on the appliance in the order as shown in Figure 12 and affix it with screws.

2.3. CONNECTING THE PIPE

Connect the pipe to the appliance as shown in Figure 11



WARNING

Clean the pipe thoroughly and remove any pollutants from it before attaching it to the appliance.

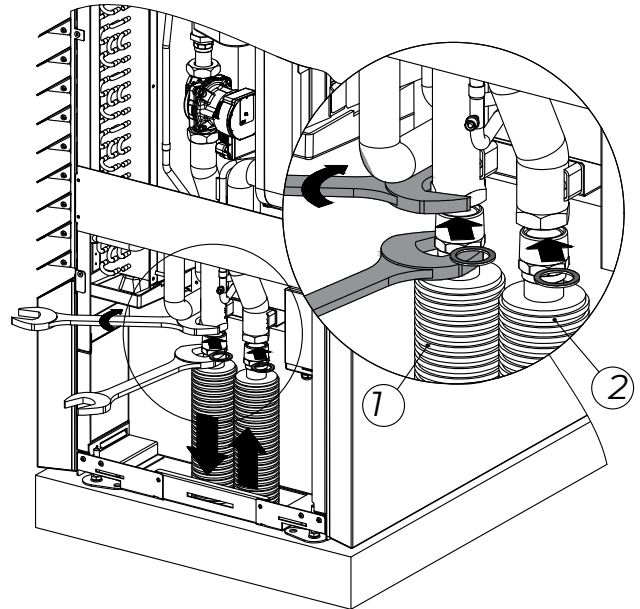


Figure 13: Attaching the connecting pipes

- | | |
|---|-----------------|
| 1 | Outlet – G 5/4" |
| 2 | Inlet – G 5/4" |

Attach the 5/4 gaskets before affixing the pipe into the screw joints (Figure 13).

Use two wrenches to affix the connecting cables (Figure 13).

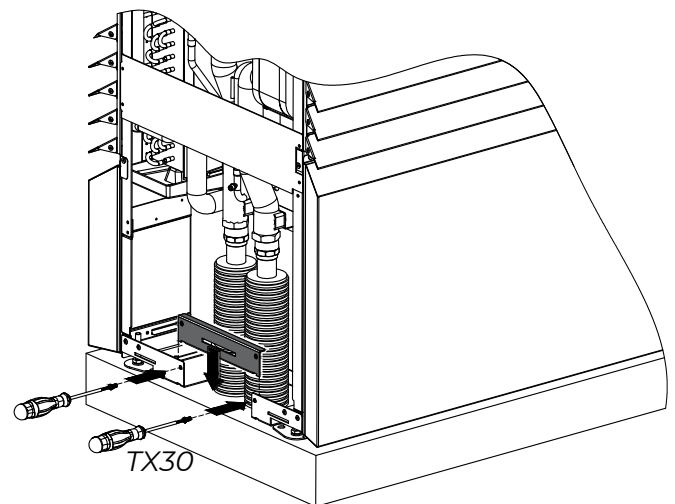


Figure 14: Placing the cross bar back

Place the cross bar back on the appliance's frame (Figure 14) and affix it with TX30 screws.

2.4. TURNING ON THE ELECTRICITY

ATTENTION

Connect the appliance to the electricity grid in accordance with relevant standards and regulations.

Connect the appliance to the grid via the circuit breaker installed in the wiring, according to valid national regulations.

Use the circuit breaker, which interrupts contacts under the conditions outlined in surge category III – with minimal contact distance of 3 mm.

Connect the appliance to the grid using a H05VV cable (or similar) with an appropriate conductor cross-section.

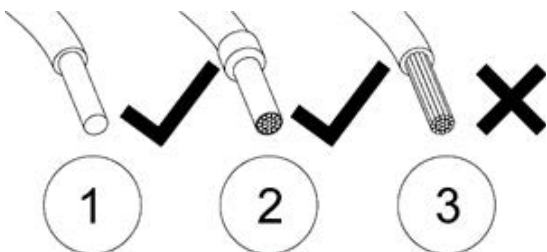
The electrical technical determines the cross-section of the conductor according to the method of installation, the device's distance from the main electrical box, and the appliance's rated power.

The total electrical output of the non-integrated components of the heating system (pumps, valves, etc.) activated by the appliance must not exceed 500 W. Otherwise, power these components with a separate electrical supply, and only connect control signals to the appliance.

Connect the communication cable between the indoor unit and the heat pump separately from the power cable.

The ends of the coaxial cable must be fitted with end sleeves.

- | | |
|---|-------------------------------|
| 1 | Solid wire |
| 2 | Stranded wire with end sleeve |
| 3 | Stranded wire |



DANGER

Before turning the appliance on, one of the manufacturer's authorized technicians must inspect the electrical connection and wiring of unintegrated elements to ensure the appliance's proper and efficient operation.

UNAUTHORIZED PERSONS ARE STRICTLY PROHIBITED FROM TAMPERING WITH THE ELECTRICAL WIRING.

DANGER

Connect the device to the power supply, which is protected by a FID type A switch.

2.4.1. TURNING ON THE ELECTRICITY

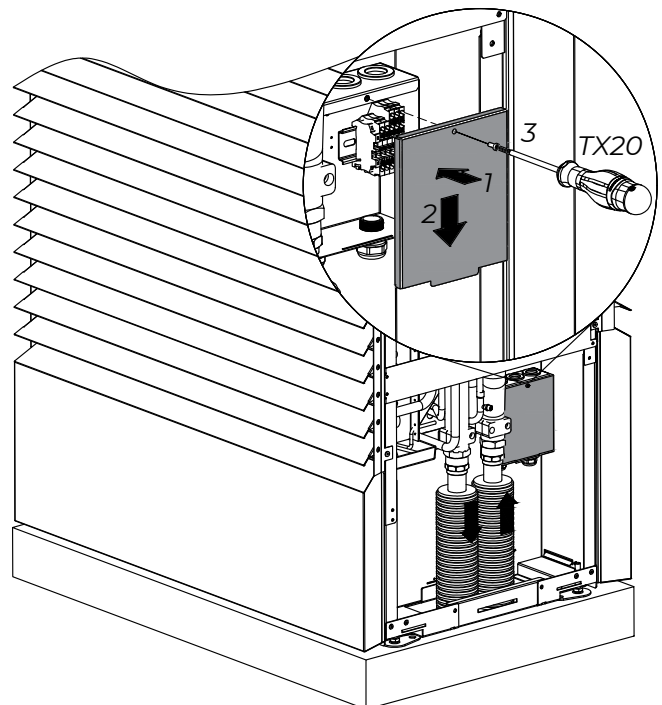



Figure 15: Opening the electrical box

Use a screwdriver (TX20) to remove the screws on the cover of the electrical box (Figure 15). Remove the cover by first bending it forward (2) and then lifting it (3).

Table 1: Dimensions of the cables and fuses

Heat pump	Cable (mm ²)	FUSES
ADAPT 0312 1F	3 x 2,5	1 x C20
ADAPT 0312 3F	5 x 2,5	3 x C10
ADAPT 0416 1F	3 x 4,0	1 x C25
ADAPT 0416 3F	5 x 2,5	3 x C10
ADAPT 0724 3F	5 x 4,0	3 x C20

2.4.1.1. THREE-PHASE CONNECTION
3N ~400 V/50 HZ



ATTENTION

The three-phase power supply must be connected in the right phase order.

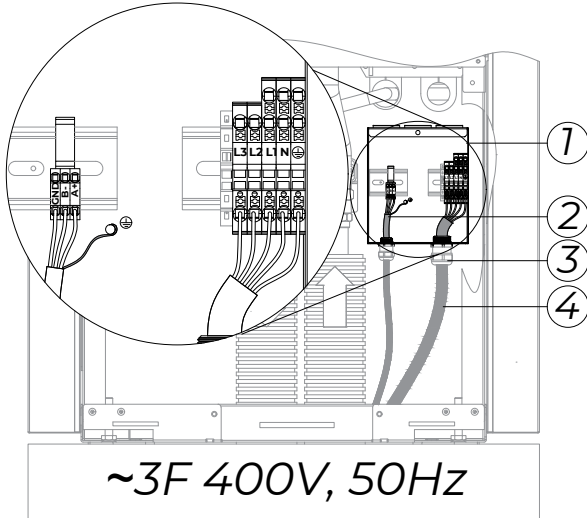


Figure 16: Three-phase ~400V electric connection

1	Electrical box
2	Communication cable
3	Cable gland
4	Power cable

Thread the power cable (4) into the electrical box (1) (Figure 16) through the cable gland (3) (see Table 1). Attach the wires to the terminals. Tighten the cable gland so that you unburden the cable.

2.4.1.2. SINGLE-PHASE CONNECTION 1N ~230 V/50 HZ

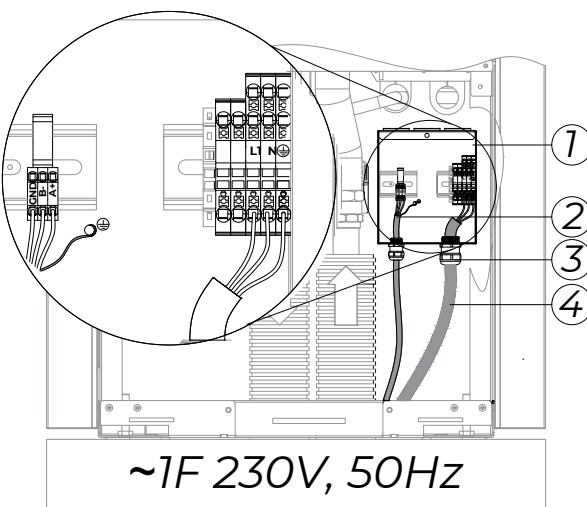


Figure 17: Single-phase ~230V electric connection

1	Fuse box
2	Communication cable
3	Cable gland
4	Power cable

Wire the power cable (4) into the electrical box (1) (Figure 17) through the cable gland (3) (see Table 1). Attach the wires to the terminals. Tighten the cable gland so that you unburden the cable.

2.4.2. CONNECTION OF COMMUNICATION CABLE TO THE INDOOR UNIT

Ready the communication cable (FTP 5e) for connection between the indoor unit and heat pump as follows:

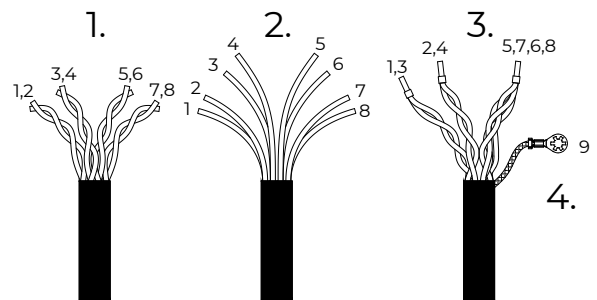


Figure 18: Ready the FTP cable

1	Remove the outer jacket from the cable.
2	Unbraid the wire.
3	Braid the wires together as shown in Figure 17, insert them into end sleeves, and crimp them.
4	Press the eye terminal onto the communication cable shield (9).



CAUTION

Do the above procedure for both ends of the cable.

2.4.3. CONNECTING THE COMMUNICATION CABLE

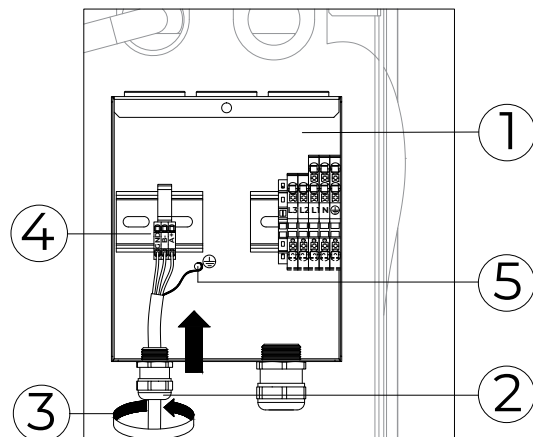


Figure 19: Connecting the communication cable

1	Fuse box
2	Gland for the communication cable
3	Communication cable (see the specifications in the technical details)
4	Terminals for the communication cable
5	Grounding the communication cable shield

Thread the communication cable (3) (Figure 19) through the cable gland (2). Affix the wire to the terminal and tighten the cable gland (2). Attach the conductors to terminals A+, B-, GND (4) in the same order as in the indoor unit. Connect the communication cable to the electrical box's housing by properly grounding it (5).

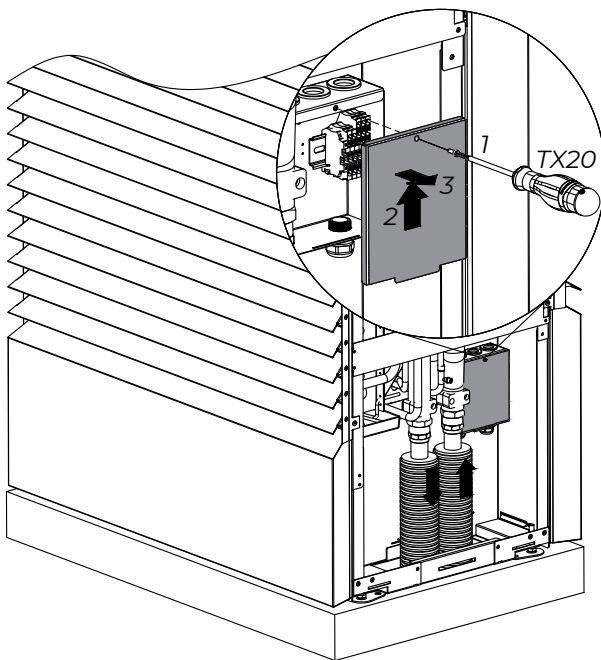


Figure 20: Fuse box cover's placement

Once again, attach the cover to the electrical box (Figure 20) and affix it with screws (TX 20).

3 PLACEMENT OF SIDE PANELS

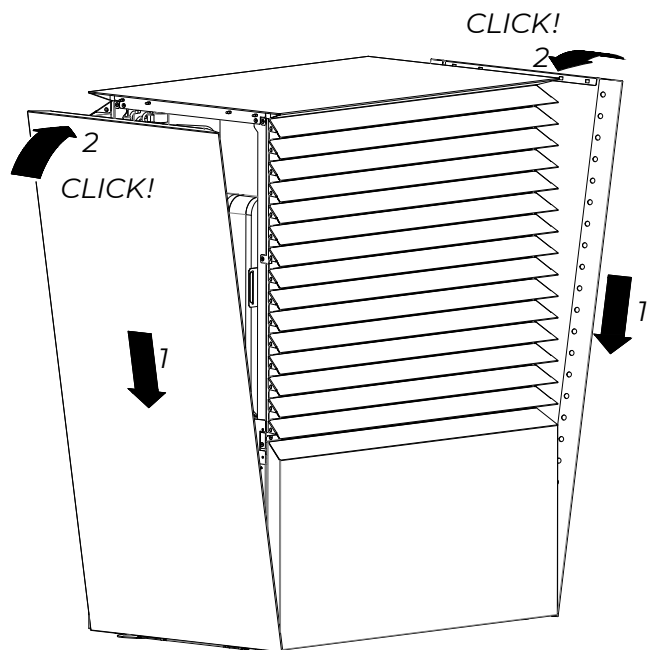


Figure 21: Placement of side panels

Put the side panels back on the appliance. Hook the bottom parts of the side panels into the frame and press them towards the appliance until it clicks.

3.1. ATTACHMENT OF SIDES

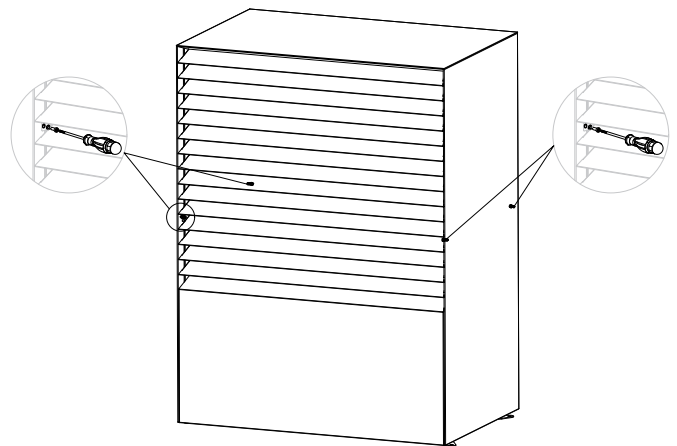


Figure 22: Attaching the sides

i NOTE

If the heat pump is installed in an area prone to strong winds, it is imperative to securely fasten the side panels.

4 MAINTENANCE



ATTENTION

Order a service inspection from an authorized technician once per year.

Use a soft rag and mild soap to clean the appliance.

KRONOTERM D.O.O.

Trnava 5e, 3303 Gomilsko, SLO

T +386 3 703 16 20

www.kronoterm.com

info@kronoterm.com