Centrometal

HEATING TECHNIQUE

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Technical manual

R32

ENG

CE

for installation, use and
maintenance of Tower-M/200

This manual is an addition to the Technical manual for Centrometal Mono heat pumps.

THE FIRST START-UP MUST BE DONE BY AUTHORIZED PERSON OTHERWISE PRODUCT WARRANTY IS NOT VALID

Tower-M/200

TU-TM-12-2024-ENG

1. Design

Table 1.1: Indor unit

Model	Tower-M/200
Power supply (V/Ph/Hz)	220-240/1/50
Appearance	

2. Specifications

Table 2.1: Tower-M/200 specifications

Model name			Tower-M/200
Power supply		V/Ph/Hz	220-240/1/50
Sound power level		dB	37
Dimensions (W×H×D)		mm	600×1885×600
Net weight		kg	185
Water circuit	Piping connections	R	1"
	Safety valve	bar	3
	Drainage pipe connection	mm	Φ25
	Buffer tank volume	L	30
DHW	DHW tank volume	L	200
	DHW expansion tank	L	11
	Connections	R	3/4"
	Safety valve	bar	6
	Optional electric heater	kW	2.0 / 3.3

3. Dimensions

Figure 3.1: Tower-M/200 dimensions (unit: mm)

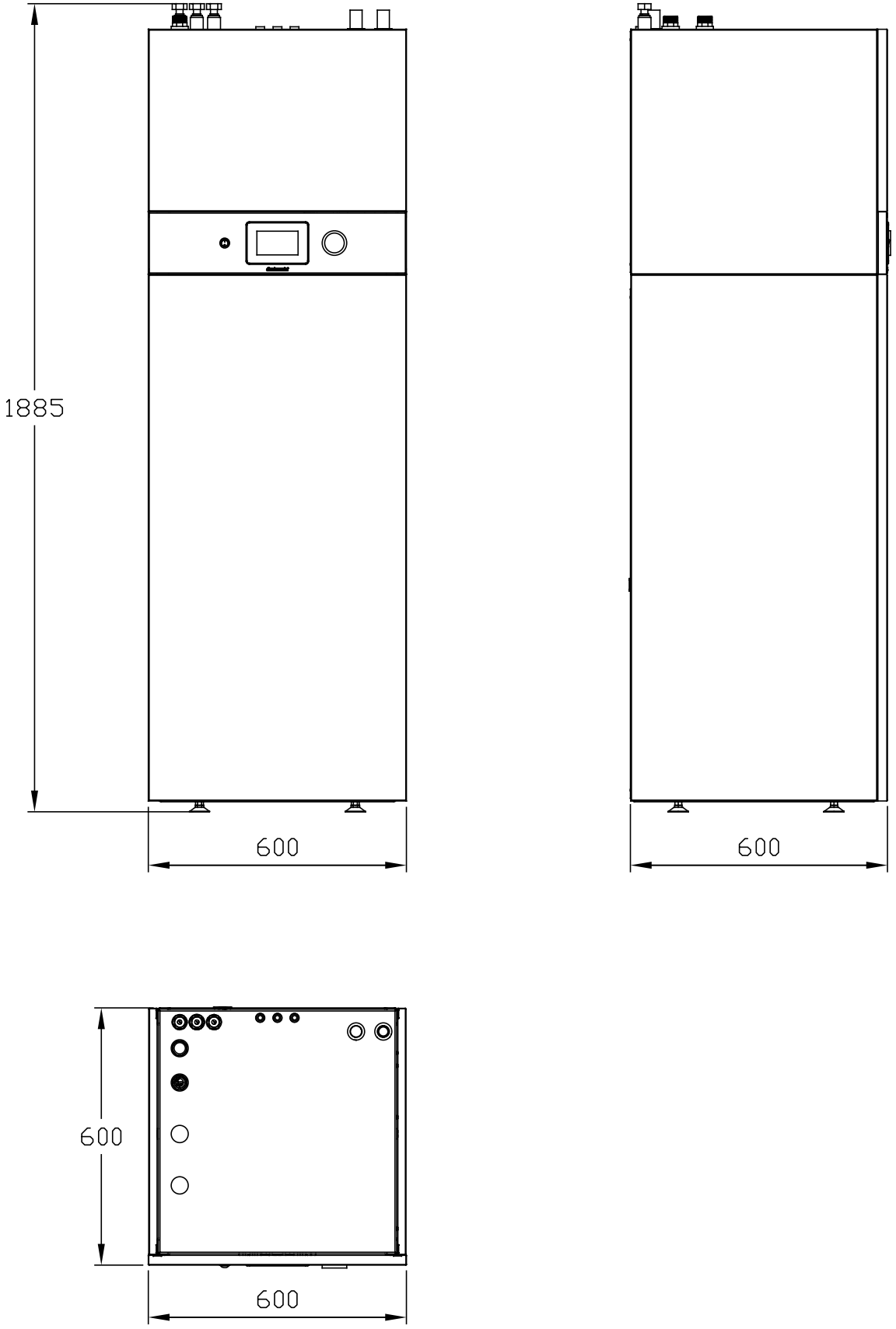
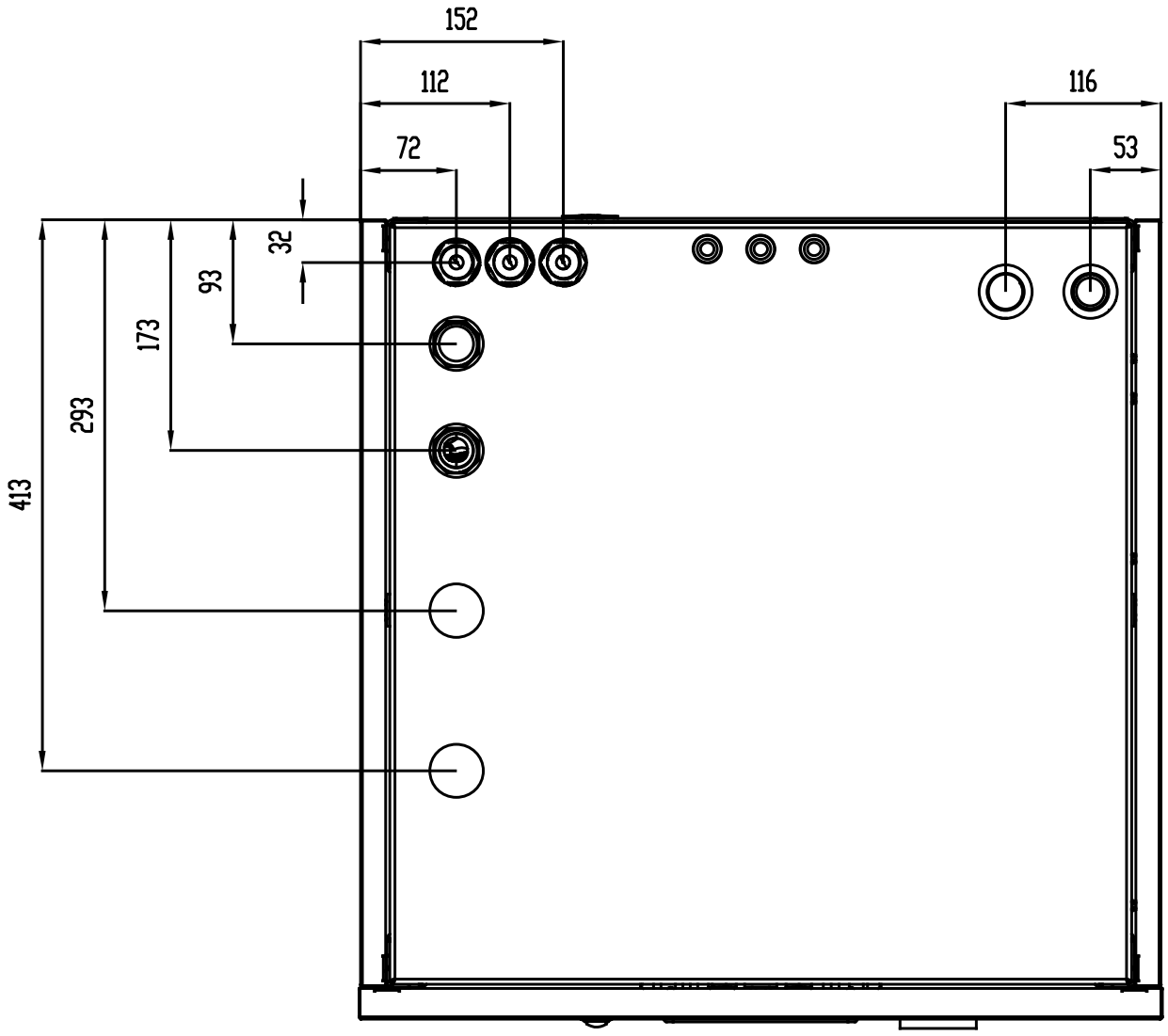


Figure 3.2: Positions of connections

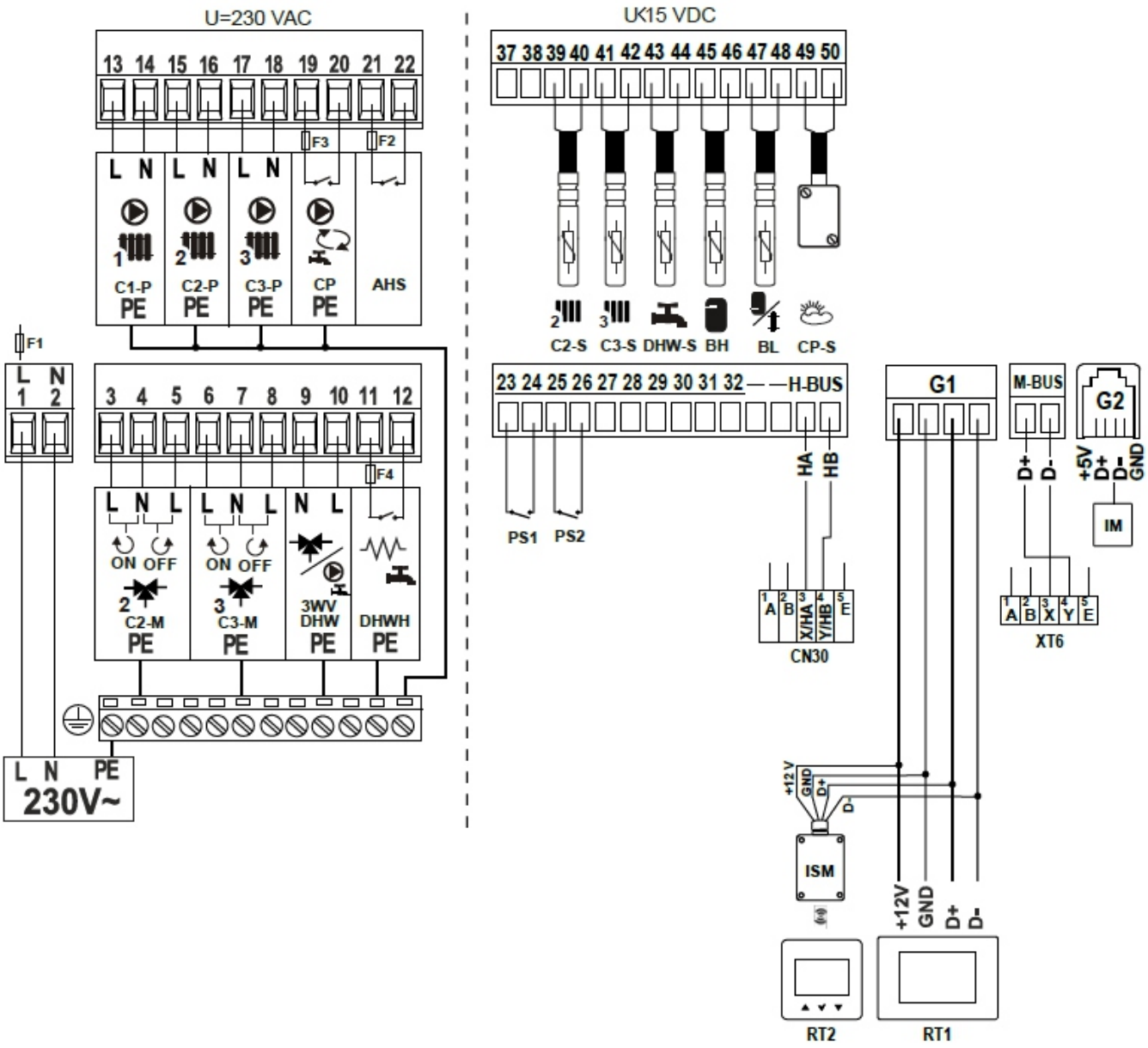


Connections are labeled on Figure 5.2 in chapter "Indoor unit installation".

4. Wiring diagram

The wiring diagram of the HPCU360iCMP control unit is shown in the figure below. It is necessary to connect the unit's power supply and connect the communication port of the heat pump with the control unit (H-BUS or M-BUS). Tower unit elements are factory wired.

Figure 4.1: Wiring diagram



After connecting the unit power supply, put the main switch in position “I”. If control unit digital display does not turn on, check the main switch of control unit HPCU360iCMP.

Figure 4.2: Placement of elements on the front side of the unit

5. Installation and connection to the heating and cooling system

5.1 Outdoor unit installation

For installation and connection of the outdoor unit follow directions given in technical manuals for Centrometal Mono heat pumps.

5.2 Indoor unit installation

Figure 5.1: Tower-M/200 parts

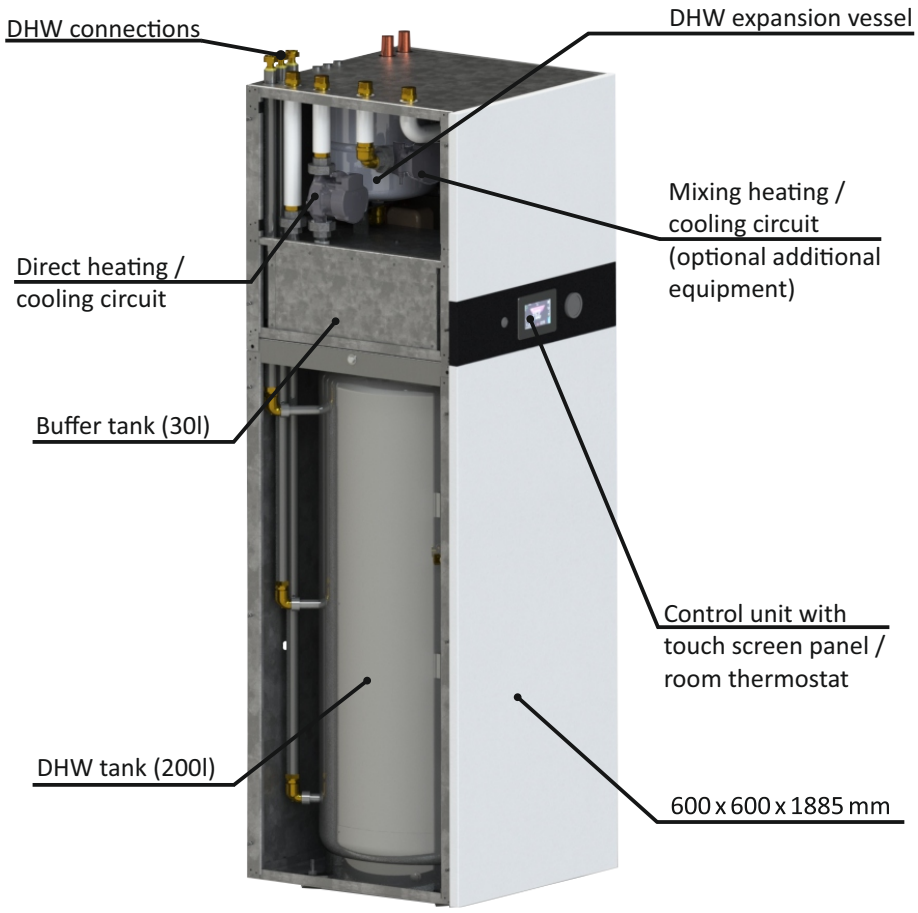
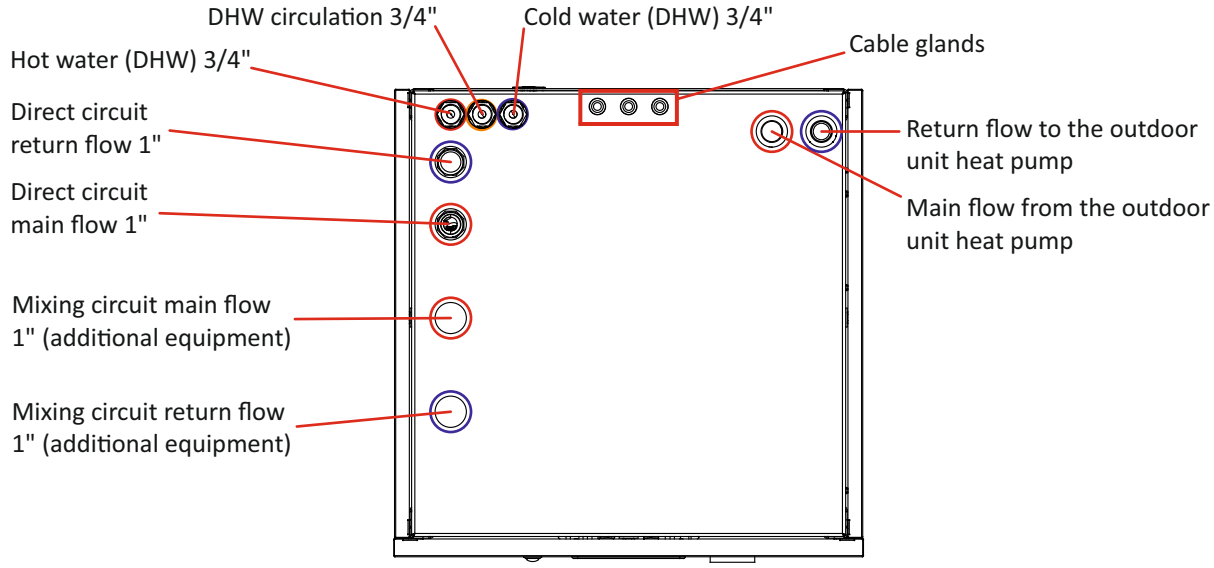


Figure 5.2 shows the connections of the heating/cooling circuits and DHW. The main flow and return flow of the mixing heating circuit only exist if the mixing heating circuit is selected as an additional equipment.

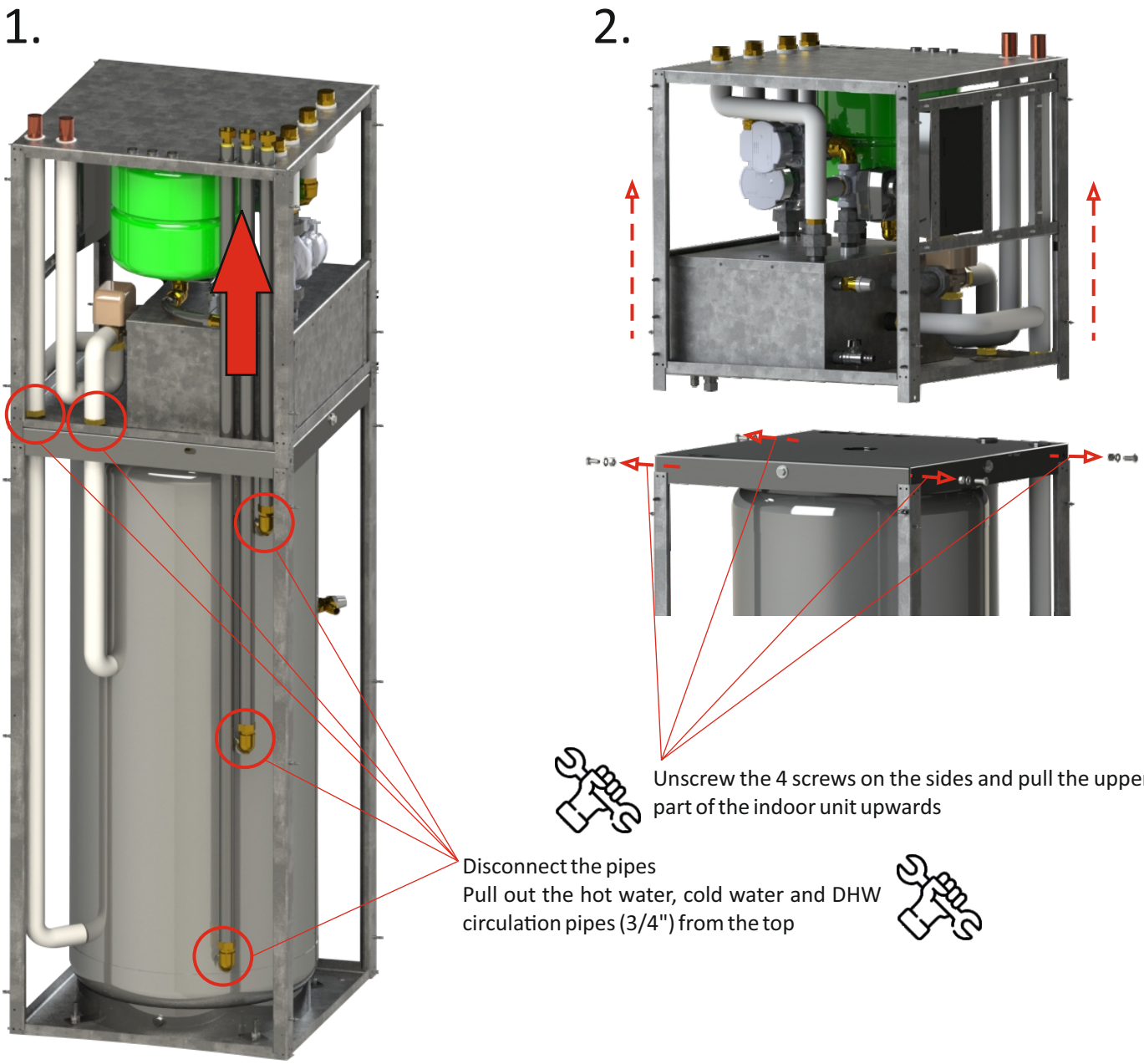
Figure 5.2: Tower-M/200 top view with labeled connections



5.3 Disassembling unit for the easier carrying

The Tower-M/200 can be disassembled into two parts to facilitate entry into the room. In order to disassemble the unit, it is necessary to remove the cover from the sides, and it is recommended to remove the front cover as well, so that there is no damage when separating the parts. In addition, it is necessary to separate the DHW pipes and the pipes to the DHW tank heat exchanger. DHW pipes must be pulled out from the top. After that, on the sides of the unit, it is necessary to unscrew four screws (2 on each side - see picture 5.3). The DHW temperature sensor must be removed from the DHW tank. When all connections are separated, it is necessary to lift the upper part of the device to separate it from the lower part.
When reassembling the lower and upper parts of the indoor unit, it is necessary to place the upper part of the indoor unit on the lower part and return the DHW pipes from the upper side and reconnect the DHW pipes and the pipes to the DHW tank heat exchanger. After connecting the pipes, it is necessary to check the watertightness of the joints. Fasten the connection of the upper and lower parts of the device with screws on the sides of the tank. The DHW temperature sensor must be returned to its intended position.

Figure 5.3: Tower-M/200 disassembly



5.4 Installation and connection of mixing circuit for Tower-M/200 - additional equipment

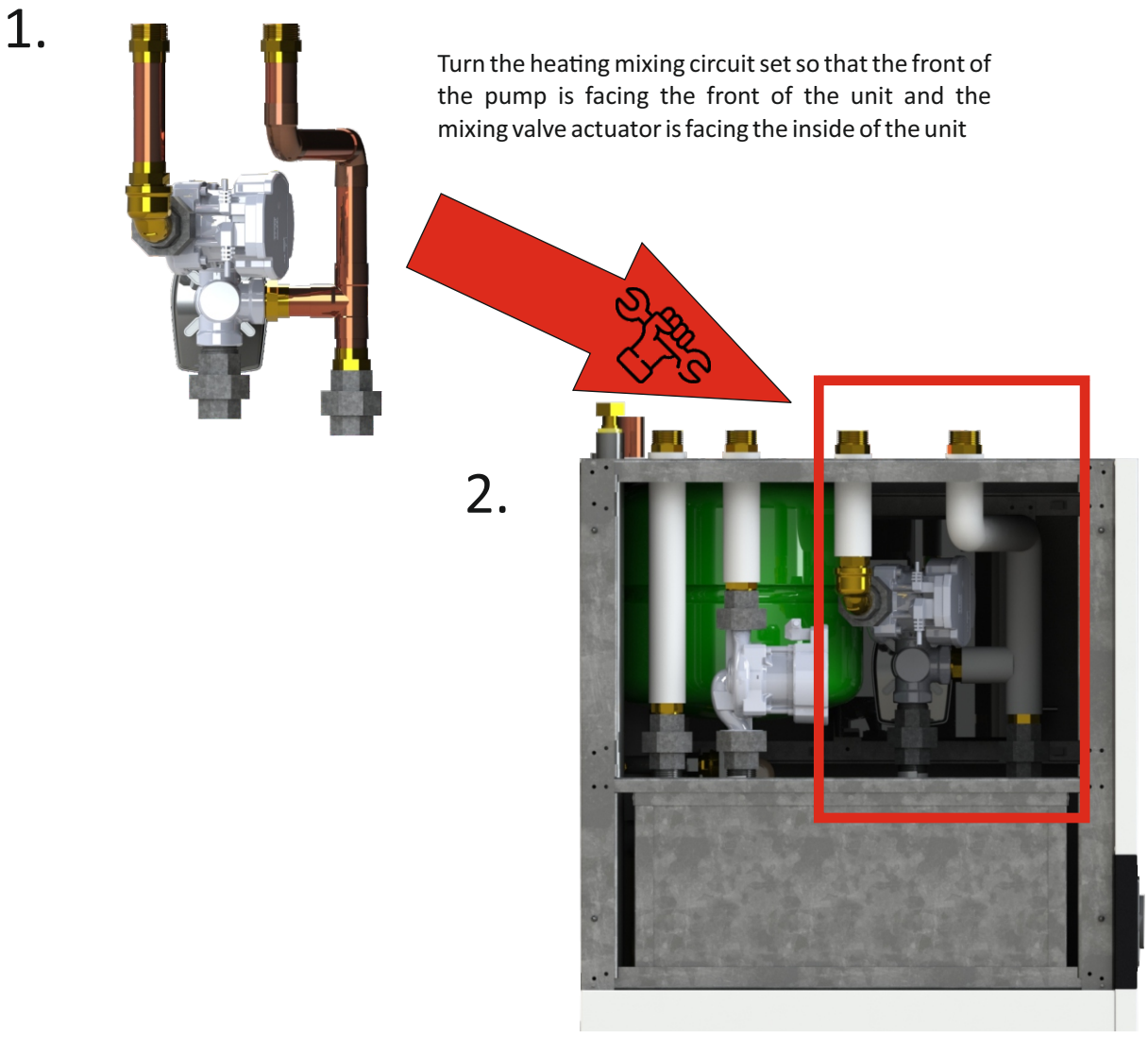
Mixing heating circuit is additional equipment and, if selected, it should be mounted in Tower-M/200 unit.

Mixing circuit set consists of:

- 3-way mixing valve
- motor actuator of 3-way mixing valve
- circulation pump for heating circuit
- insulated pipes
- heating circuit temperature sensor

The set for the heating/cooling mixing circuit must be connected with a straight connector to the connection on the storage tank (factory fitted plug). The motor actuator of the mixing valve must be mounted according to the instructions that come with the motor actuator. The additional heating circuit is installed according to Figure 5.4. Turn the mixing valve actuator towards the inside of the device. The pump and the motor actuator of the three-way mixing valve must be connected to the HPCU360iCMP control unit at the connections according to the diagram in Figure 4.1 and Table 5.1. The heating circuit temperature sensor must be installed under the pipe insulation after the circulation pump (Figure 5.5) and connected to the HPCU360iCMP control unit. The mixing heating circuit must be enabled and adjusted in the control unit settings. After installation of the additional mixing valve, system should be filled with water and checked for any leakage.

Figure 5.4: Installation of additional mixing circuit for Tower-M/200



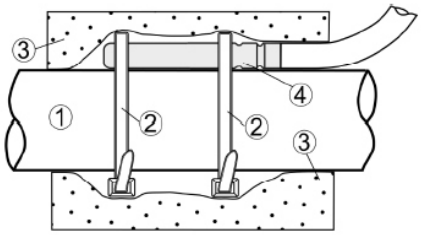
Place the additional heating mixing circuit in the intended place and tighten the straight connector firmly. After connecting, check the tightness of the joints.

The elements of the additional mixing heating circuit must be connected according to the electrical diagram in Figure 4.1. and table 5.1.

Table 5.1: Connecting the elements of the additional mixing circuit to control unit

Element	Connector
Circuit pump of additional mixing circuit	17, 18, PE
Mixing valve actuator	6, 7, 8, PE
Main flow temperature sensor of additional mixing circuit	41, 42

Figure 5.5: Additional circuit temperature sensor installation



1 - pipe
2 - clamps
3 - thermal insulation
4 - temperature sensor

Notes

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TEHNIKA GRIJANJA

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