

□ *EPP - 36*

Electric Instantaneous Water Heater

Maximus

Operating And Installation Instructions



The product must be treated as a communal waste but it ought to be given to an appropriate recycling point.
Please, read and follow the installation and operating instructions carefully, to ensure the long life and reliable operation of this appliance.
The manufacturer may make minor changes in the appliance if necessary. They will not be exposed in the operating instruction, so long as the main features of the heater remain the same.

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Description

This appliance must not be installed in a place exposed to the danger of frost or explosion.

EPP maximus water heater is designed to heat water instantly in places where considerable amount of hot water is needed, e.g. assembly lines, restaurants, laboratories etc. It is a multi-point heater – it can supply hot water to a number of taps.

The temperature of water is set by the use of the knob on the front casing. By turning on the hot water tap, the heater is switched on, which in effect provides heated water according to the following technical specifications.

The heater features:

- insulated heating coils that assure maximum safety,
- materials resistant to corrosion and chemically inactive (copper, brass, and stainless steel).

The instantaneous water heater **EPP maximus** can heat up pre-heated water (e.g. in co-operation with a domestic hot water cylinder or solar system). The maximum water temperature on the inlet cannot exceed 70°C.

Technical data

EPP-36 maximus water heater		
Rated power	kW	36
Rated voltage		400V 3~
Rated current	A	3 x 52
Supply water pressure	MPa	0,1 ÷ 0,6
Minimal operating point	l/min	2,5
Efficiency (at $\Delta t = 30^{\circ}\text{C}$)	l/min	17,3
Maximum water flow	l/min	25
Temp. range set by the knob	°C	30 ÷ 60
Overall dimensions (height/width/depth)	mm	570 x 300 x 160
Weight	kg	~10,6
Fuse rated current	A	63
Connecting wires section	mm ²	4 x (10 ÷ 25)
The maximum allowed network impedance	Ω	0,09
Safety class		IP 24
Water inlet and outlet section		G1/2"

Installation

Installation and initial start-up of the appliance should be carried out by a professional.

Cut off power supply before any installation work.

Fig.1 Electric connection
F - tri-polar circuit breaker

Electric installation should be equipped with safety (power-differential) circuit breaker and other devices which will ensure disconnecting the heater from the source of power (intervals between all their poles should not be less than 3mm).

Fig.2 Water connection

Recommendations

- a non-return valve should not be installed on a supply pipe,
- for economic reasons the heater should be installed in the vicinity of the most frequently used tap,
- inlet and outlet pipes should not be made of plastic,
- install an extra valve and a filter on the inlet pipe.

Assembly

1. Bring to the place where the heater is to be situated, three-phase installation, in accordance with proper standards.
2. Bring water pipes to the marked places, keeping in mind that the cold water inlet is on the right-hand side (G1/2"), the hot water outlet is on the left hand side (G1/2"). Figure 2 shows where the heater should be incorporated in the water system.
3. Remove the case (fig.3): undo the fixing screws [15], take off the case [23] and disconnect the plug-in connector [NAST].
4. Fix the heater on the fixing hooks after inserting the supply wire through the hole [5] (fig.6).
5. Connect electric supply wires according to fig.1.

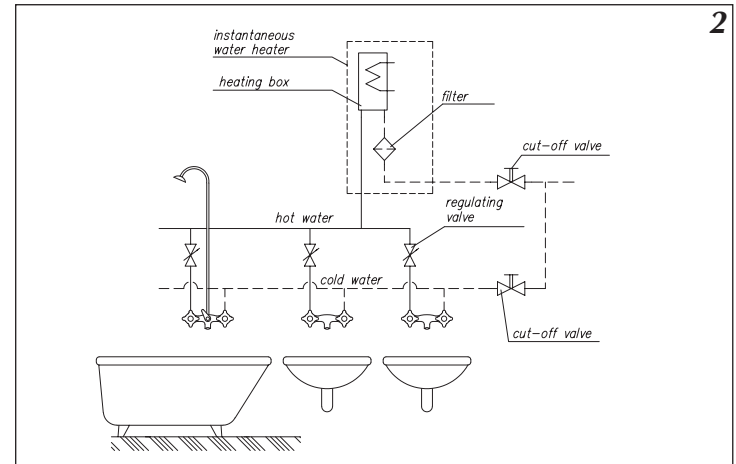
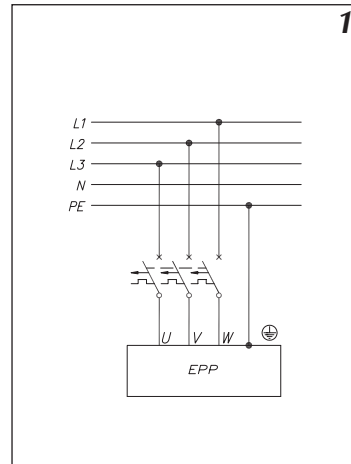
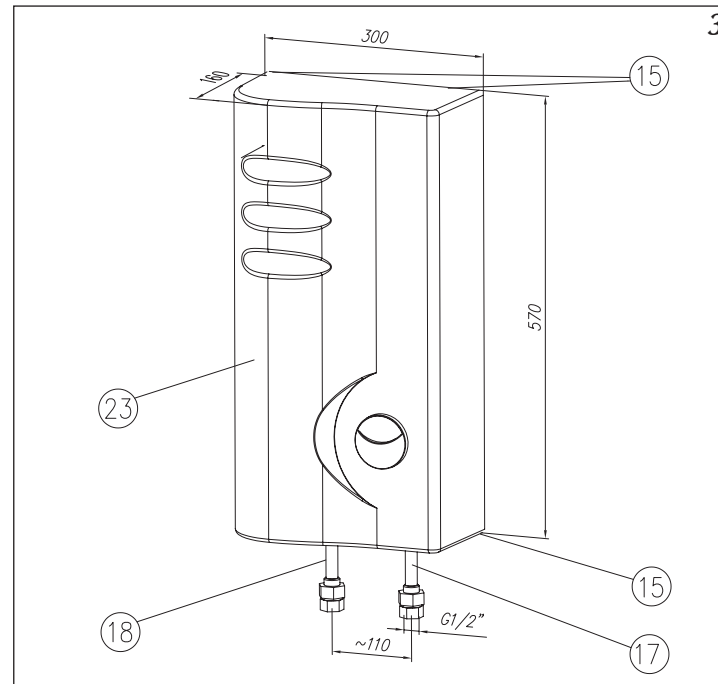


Fig.3 View

- [15] - fixing screws
- [17] - inlet fittings – cold water
- [18] - outlet fittings – hot water
- [23] - case

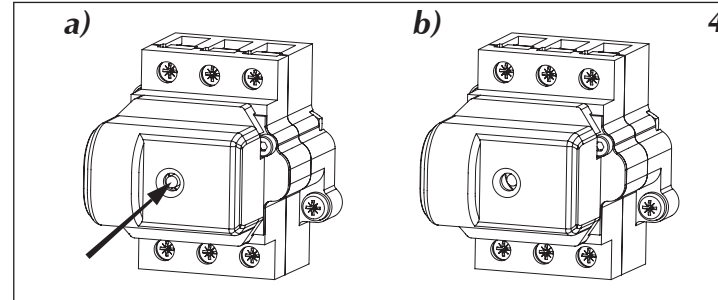


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6. Connect the heater to the water system with the fittings [17] and [18] (fig.3).
7. Flood the heater by letting cold water in (allow mains pressure gets to the appliance) and check connection for leaks.
8. Make sure that the WT-3a safety temperature limiter (fig.4) is at a working position (the knob should be pushed in).
9. Fix the case [23] (fig.3):
 - insert the plug-in connector [NAST],
 - put the case on,
 - screw up the case with the fixing screws [15].
10. Make sure that there is no access to live parts through the holes at the back plate.

Fig.4 Safety temperature limiter WT-3a

- a) - to switch it on
- b) - limiter "switched on"



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Start-up

The recommended maintenance needs to be done each time after a decay of water.

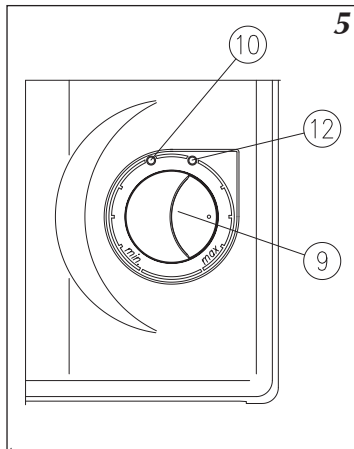
If you do not vent the water installation, the heater can be damaged.

1. Cut off electric supply.
2. Turn the hot water tap on for the period of venting the installation (about 15-30 seconds).
3. Switch power supply on.

Operating

Fig.5 Work indicators

- [9] - knob
- [10] - power supply (green)
- [12] - heating on (red)



The heater switches on automatically straight after reaching the flow rate over 2,5 l/min. The temperature control system selects an appropriate heating power depending on the rate of flow, temperature setting (set with the use of a knob on the front case) and the temperature of water in the mains.

There are two indicators on the case:

- green – power supply “on”,
- red – heating “on”.

If the red indicator starts to flicker when heating is being switched “on”, it means that the water flow is too high for the temperature setting (the flow or the temperature set should be reduced).

If the red indicator flickers, when there is no heating (no flow through the heater), it means that a failure of the temperature sensor has occurred.

It is recommended to clean the filter after water installation maintenance, or if there are intensive impurities in the water, or after an each year of operation.

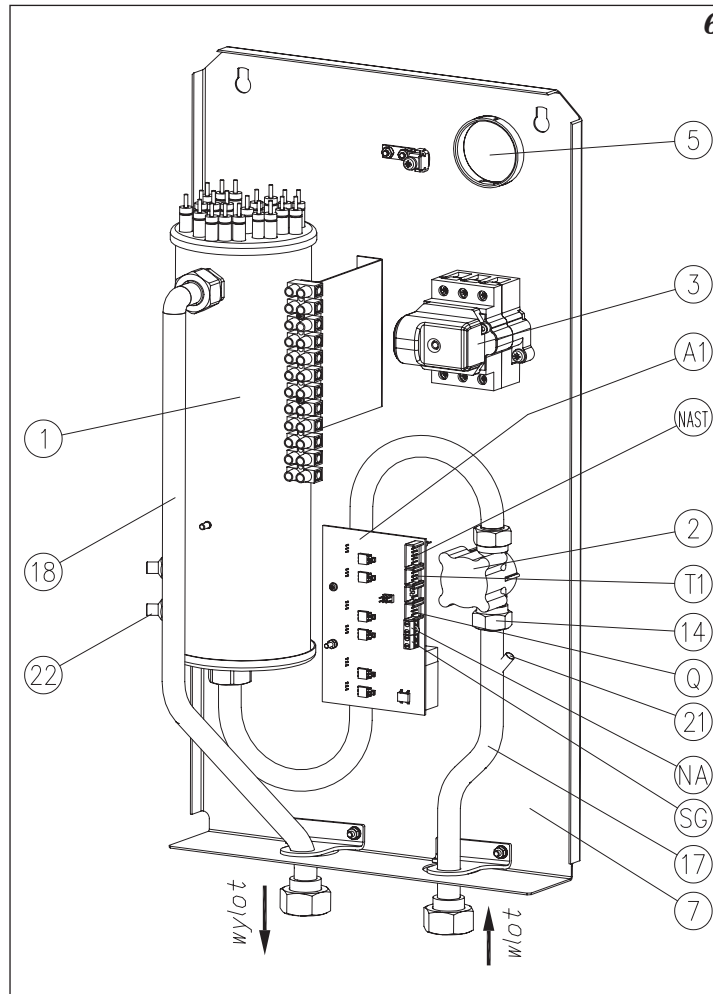
In order to ensure long and smooth running of the heater, regular cleaning of the filter [14] is essential, which should be done by the user (this is not covered by the guarantee). In order to clean a filter, follow the steps:

1. Shut off power and cold water supplies.
2. Remove the case (fig.3): undo the fixing screws [15], take off the case [23] and disconnect the plug-in connector [NAST].
3. Undo the inlet fitting [17] – on the cold water side (left).
4. Take the filter [14] off the inlet fitting.
5. Remove impurities from the filter [14].
6. Fix the filter back and do up the fittings.
7. Open the cut-off valve on a cold water supply pipe – check connections for leaks.
8. Fix the case (fig.3):
 - insert the plug-in connector [NAST],
 - put the case on,
 - screw up the case with the fixing screws [15].
9. Vent the water installation according to directions in Start-up section.

Any interference into the inside of a WT3a safety temperature limiter is strictly forbidden and threatens an irreversible damage of the heater.

Fig.6 Inner construction

- [1] - heating box
- [2] - flow sensor
- [3] - WT3a safety temperature limiter
- [5] - hole for electric wires
- [7] - template
- [17] - inlet pipe – cold water
- [18] - outlet pipe – hot water
- [21] - inlet water temperature sensor
- [22] - safety valve (pressure relieve valve)
- A1 - control board
- NAST- indicator board connection
- T1 - inlet water temperature sensor connection
- Q - flow sensor connection
- NA - entry that blocks heating process the heater on



The water heater is equipped with two safety devices, which protect it from damage or failure:

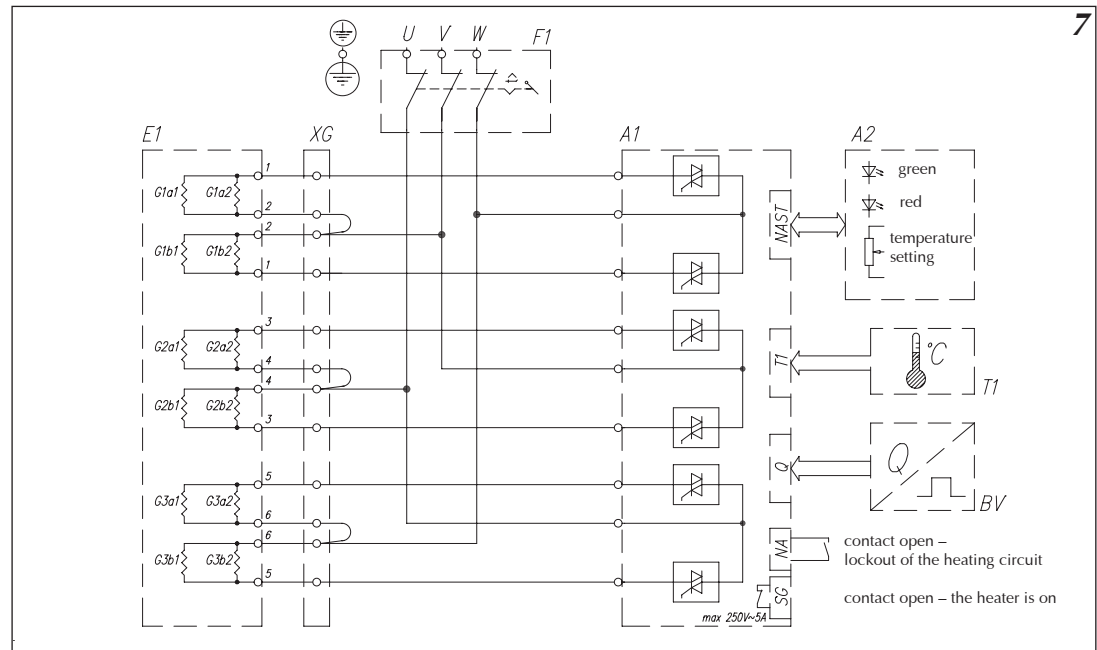
- safety temperature limiter [3] - when the temperature in the heating box [1] goes over 100°C, the limiter goes off (shuts off power supply). Once the safety temperature limiter shuts down, the operation of the appliance is not possible. The safety temperature limiter does not work as an electric protection of the heater.
- safety valve (pressure relieve valve) [22] - if a pressure level in the heat exchanger exceeds 1,1MPa, the switch cuts out power supply from the heater. Then a small leakage may follow.

In case the heater forces another electric appliance to be off due to its high power intake, the user should make use of a relay on the control board that opens the circuit to clamps SG (max 5A 250V~) when the heating starts.

The heater features an NA entry that blocks heating process. It is used for co-operation with a master appliance.

Fig.7 Electric installation

- E1 - heating box [1]
- BV - differential pressure switch [2]
- F1 - WT-3a safety temperature limiter [3]
- A1 - control board
- A2 - indicator board (on the case)
- XG - heating box terminal
- NAST - indicator board connection
- T1 - inlet water temperature sensor connection
- NA - entry that blocks switching the heater on
- SG - clamps of the relay of a heating indicator (max 5A 250V~)



Faults

If the following signals of faulty work are noticed, check for possible reasons:

- if the indicators on the case are off
 - the plug-in connector is not properly inserted [NAST],
 - there is a failure of power supplies,
- if the heating is weak or it does not heat at all
 - there is a failure of power supplies,
- if the flow rate is not sufficient
 - the filter is covered with impurities,
 - valve on mains has been incorrectly opened.

Cut off power supplies before taking the case off.

Repairing the above is not covered by the guarantee. If the heater breaks down (and it is caused by none of the above reasons) you need to contact an authorised service to have it repaired.

Set contents

Water heater EPP-36 maximus	1 piece
Gaskets	2 pieces
Fixing hooks	2 pieces
Installation and operating instruction	1 piece

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.



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electric
boilers.