

- EPA - 6,8* *P* *B*
- EPA - 8,4* *U*
- EPA - 7,0C* *PU*
- EPA - 8,6C*

Electric Instantaneous Water Heater

Opus

Operating And Installation Instructions

Attention!

Starting up the appliance without venting its installation first, may cause serious damage to the heater and loss of guarantee.

see "Venting", page 6



Please, read and follow the installation and operating instructions carefully, to ensure the long life and reliable operation of this appliance.

Kospel S.A. 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.

KOSPEL S.A. 75-136 KOSZALIN UL. OLCHOWA 1

Description

You must not install this appliance in places exposed to the danger of explosion and place in which the temperature may go down below 0°C.

Technical data

You must not install it in the direct spray range vicinity of a spray-head.

The tap set works as an air vent and therefore, cannot be connected to any valve or a connector that is not recommended by the manufacturer.

EPA Opus water heater is designed to be assembled both in a bathroom near the bathtub and in the shower cabin. It can be also installed over wash-basins and sinks. As for the shower-sink version of the heater, both operational uses are possible.

The heater is equipped with two regulation hand-knobs. The lower/bottom knob is for opening the water flow and regulating the amount of water flowing through the heater. The upper knob serves as an electronic water temperature regulator.

The amount of water flowing through the heater switches on an adequate power rate.

| EPA Opus water heater | | 5,4y | 6,8y | 8,4y | 7,0Cy | 8,6Cy |
|--|-----------------|-----------------|-------|-------|---------|-------|
| Rated power | kW | 5,4 | 6,8 | 8,4 | 7,0 | 8,6 |
| Rated voltage | | 230V | | | 400V 2~ | |
| Rated current | A | 23,5 | 29,6 | 36,5 | 17,5 | 21,5 |
| Rated pressure | MPa | 0 | | | | |
| Supply water pressure | MPa | 0,1 ÷ 0,6 | | | | |
| Safety class | | IP25 | | | | |
| Efficiency $\Delta t=30^{\circ}\text{C}$ | l/min | 2,6 | 3,3 | 4,0 | 3,4 | 4,1 |
| Dimensions (width x thickness x height) | mm | 200 x 100 x 295 | | | | |
| Weight | kg | ~2,3 | | | | |
| Fuse rated current | A | 25 | 32 | 40 | 20 | 25 |
| Connecting wires section - min. | mm ² | 3 x 2,5 | 3 x 4 | 3 x 6 | 3 x 2,5 | |
| Connecting wires section - max. | mm ² | 3 x 16 | | | | |
| The maximum allowed network impedance | Ω | 0,33 | 0,31 | | | |
| Inlet pipe section | | G1/2" | | | | |

y:

P - shower version

U - sink version

PU - shower-sink version

Installation

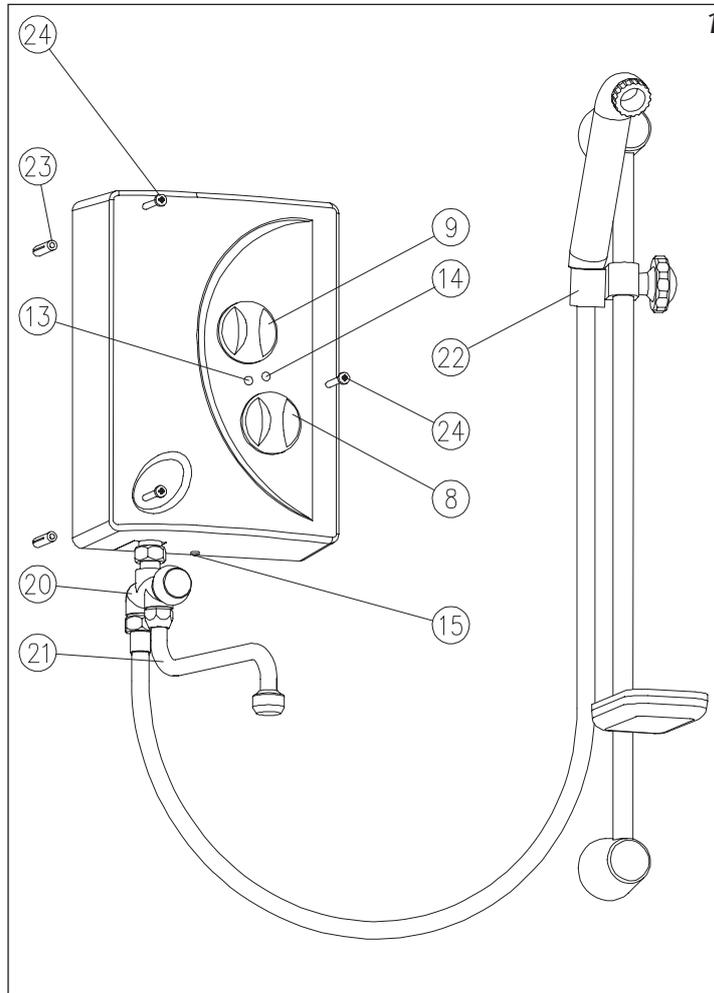
All installation work has to be carried out with the electricity and water supplies cut off.

The heater must be installed with the outlet and inlet pipes to the bottom.

Figure 1 View

- [8] - water flow regulation hand-knob
- [9] - electronic water temperature regulation hand-knob
- [13] - power indicator
- [14] - heating on indicator
- [15] - screws for fixing the case
- [20] - divider/extension
- [21] - tap
- [22] - shower set
- [23] - pin
- [24] - fixing screw

The heater should be mounted on the wall or other flat vertical surface in order to maintain hose-proofness (IP X5).



1 Recommendations

- connect the appliance to a cold water supply pipe only
- install the spray-head holder on the same wall as the appliance
- it is advisable to install an extra cut-off valve and a water filter (before the appliance)

Assembly

1. Bring electricity mains to the assembly area, observing normal safety standards.
2. Bring the domestic water mains to the assembly area. The water installation end (inlet piece) [30] (fig.3) with the external thread G1/2" should protrude ~20mm from the wall.
3. Undo the three screws [15] and take the front case [5] off (fig.3).
4. Drill holes at marked places, insert screws [23] inside.
5. Insert electric wire mains into the appliance through the hole [16] in the back base [4].
6. Connect electric mains to terminals of the appliance [11].
7. Connect the appliance to water mains - make use of the inlet part [6] (fig.3) and the filter [12].
8. Install one of the following accessories depending on the heater version,;
 - manifold [20], tap[21], shower set [22].

Fig.2 Electric connection:

a) single phase installation

b) three phase installation

L - live wire

L1 - live wire 1

L2 - live wire 2

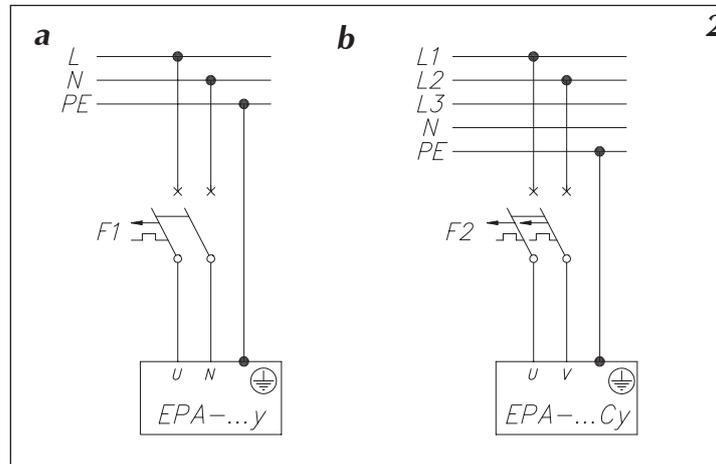
L3 - live wire 3

N - neutral wire

PE - earth wire

F1 - unipolar circuit breaker

F2 - dipolar circuit breaker



9. Turn on the water supply and check connections for leaks.

10. Fix the front case [5] and screw it up (pay attention to the hand-knobs [8], [9] position).

11. Vent the water installation (see "Venting", page 6).

12. Put electricity on.

Electric connection and anti-electric shock protection test has to be carried out by a qualified electrician.

The heater has to be earthed or neutrally grounded.

Venting

Do it before the heater activation and each time after a decay of water.

If venting is not carried out, the heater may be damaged.

1. Shut off electric supply.
2. Open the hot water tap in order to vent the water installation (for about 15-30 seconds), until the flow of water becomes constant and even.
3. Shut the flow.
4. Switch electric supply on.

Operating

This heater switches on automatically right after reaching an appropriate rate of flow. The extreme left-hand side position of the electronic water temperature regulation hand-knob [9] gives you cold water flowing from the tap. The extreme right hand side position of the knob assures the maximum water temperature. The proper power is selected automatically depending on the flow rate and the current setting of the temperature knob.

There are two indicators [13] and [14] which show the operating condition.

- green [13] - power supply (the heater ready to work).
- red knob [14] - heating; well adjusted power for the temperature chosen.

Maintenance

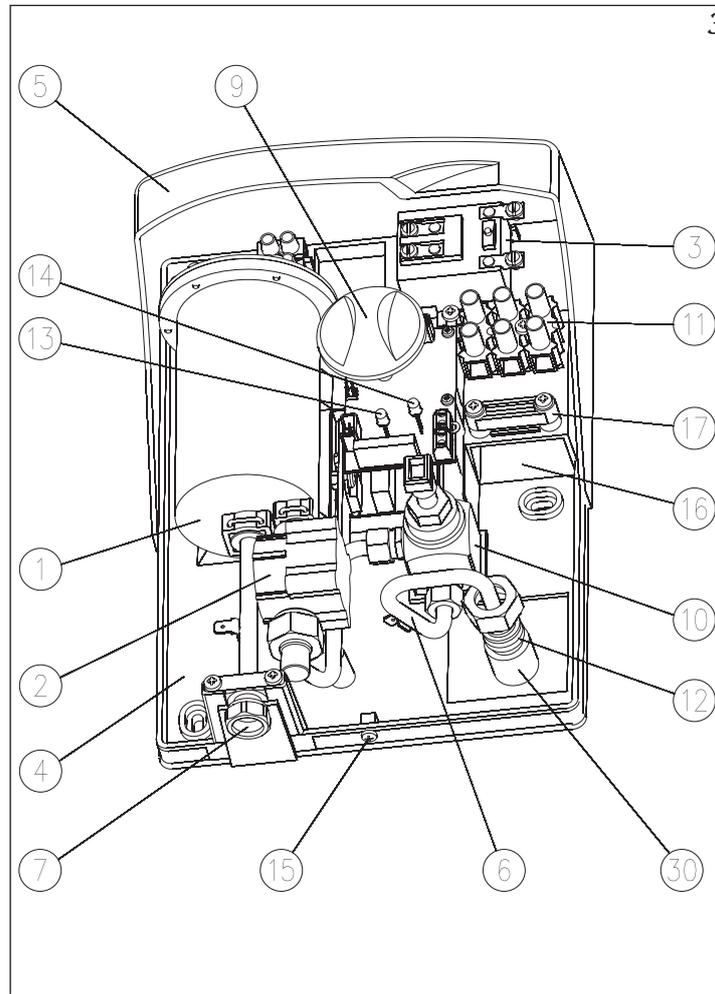
Systematic spray-head cleaning (against boiler scale) is recommended.

To assure faultless and long operation of the heater, regular cleaning of the filter (after one year of exploitation, installation repair or heavy water pollution) is essential. It should be done by the user himself/herself (this is not covered by the guarantee).

Boiler scale may appear in the holes of the shower spray-head. Undo the spray-head and clean it with a hard brush or with a use of appropriate chemicals.

Fig.3 Construction of the appliance

- [1] - heating box
- [2] - flow sensor
- [3] - thermal switch (temperature limiter)
- [4] - back base
- [5] - case
- [6] - inlet - cold water
- [7] - outlet - hot water
- [9] - electronic water temperature regulation (hand-knob)
- [10] - valve
- [11] - terminals
- [12] - filter
- [13] - power indicator (green)
- [14] - heating indicator (red)
- [15] - fixing screws
- [16] - hole in the back base (for wires)
- [17] - stay wire
- [30] - water installation end
- BLOK - slave appliance entry



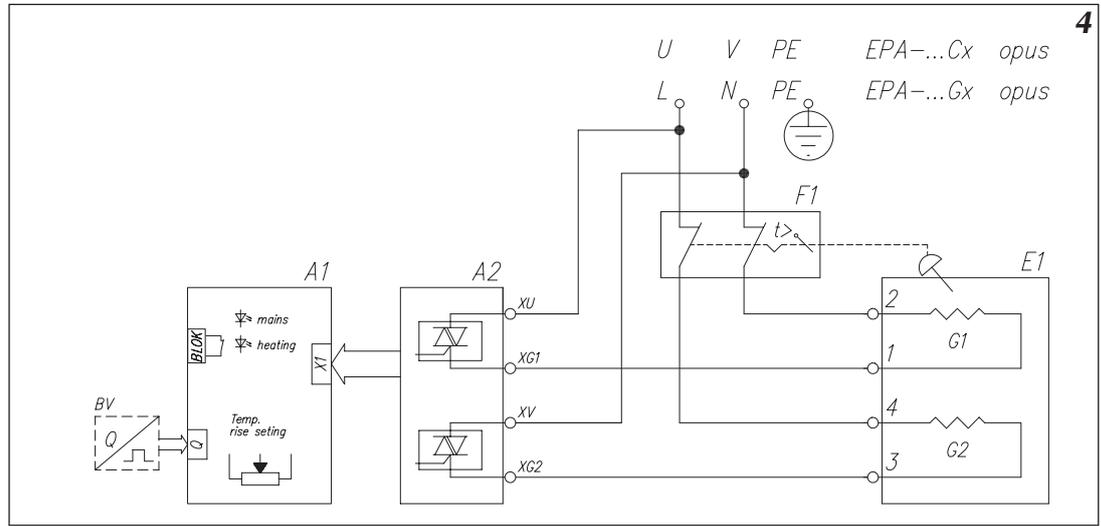
3 Safety temperature cut-out [3] protects against overheating. After the safety cut-out goes off, you can turn the hot water tap on but heating will not start.

The ZIO PCB board features SLAVE appliance function. Use it when the power mains in your house are not sufficient to operate Opus heater and another high power appliance at the same time:

BLOK - SLAVE APPLIANCE entry, use this entry to block heating of another high power appliance - in case you use the BLOK entry in conjunction with EKCO electric boiler, connect the other end of the connecting wire to NA entry on the EKCO boiler. When Opus starts heating, the heating of the boiler shuts down.

Fig.4 Wiring diagram

- A1 - indicator board
- A2 - power board
- E1 - heating box
- F1 - safety temperature cut-out
- BV - differential pressure switch
- BLOK - slave appliance entry



4

Faults

In case the appliance does not heat water, check for possible reasons:

- mains failure (e.g. fuses),
- insufficient flow through the heater (dirty filter [12])
- temperature regulation hand-knob is in the extreme left hand side position.

The guarantee does not cover the above repairs.

In case the heater does not work properly and there is some cause other than the above mentioned, please contact the nearest service branch.

Set contents

| | Shower version | Sink version | Shower-sink version |
|--|----------------|--------------|---------------------|
| | P | U | PU |
| EPA Opus water heater | 1 piece | 1 piece | 1 piece |
| Gasket | 1 piece | 1 piece | 1 piece |
| Fixing screw with a pin | 3 sets | 3 sets | 3 sets |
| Tap | - | 1 piece | 1 set |
| Shower set | 1 set | - | 1 set |
| Shower-sink manifold | - | - | 1 piece |
| Operating and installation instruction | 1 piece | 1 piece | 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.



electric
water heaters

electric
boilers.