

- ☐ *EPJ - 3,5*
- ☐ *EPJ - 4,4*
- ☐ *EPJ - 5,5*

Electric Instantaneous Water Heater

Optimus

Operating And Installation Instructions



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 if necessary, in the appliance, that will not be shown 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 places in which the temperature may go down below 0°C.

Technical data

This appliance will work with the attached tap set only.

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.

The EPJ Instantaneous Water Heater provides hot water in the domestic household, a public facility, a laboratory, a workshop, or virtually anywhere where there is a demand for instant hot water. Turning the hot water tap on, automatically starts up the heater (a red light on the heater's outer case comes on). Water is heated instantly as a result. The temperature of heated water depends on the rate of flow: the greater the flow, the lower the temperature. Turning the hot water off, shuts the appliance.

The heater features:

- tubular heating coils that assure maximum safety
- materials resistant to corrosion and chemically inactive with water (copper, brass, stainless steel, plastic)

EPJ electric instantaneous water heater		3,5	4,4	5,5
Rated power	kW	3,5	4,4	5,5
Rated voltage		230V~		
Rated current	A	15,8	19,1	23,9
Min supply water pressure	MPa	0,12		
Operating point	l/min	1,2	1,8	2,2
Efficiency (at $\Delta t = 30^{\circ}\text{C}$)	l/min	1,6	1,9	2,4
Overall dimension	mm	214 x 218 x 95		
Weight	kg	~2,8	~3,0	
Fuse rated current	A	16	20	25
The maximum allowed network impedance	Ω		0,34	0,31
Water supply pipe section		G 1/2"		
Safety class		IP 24		

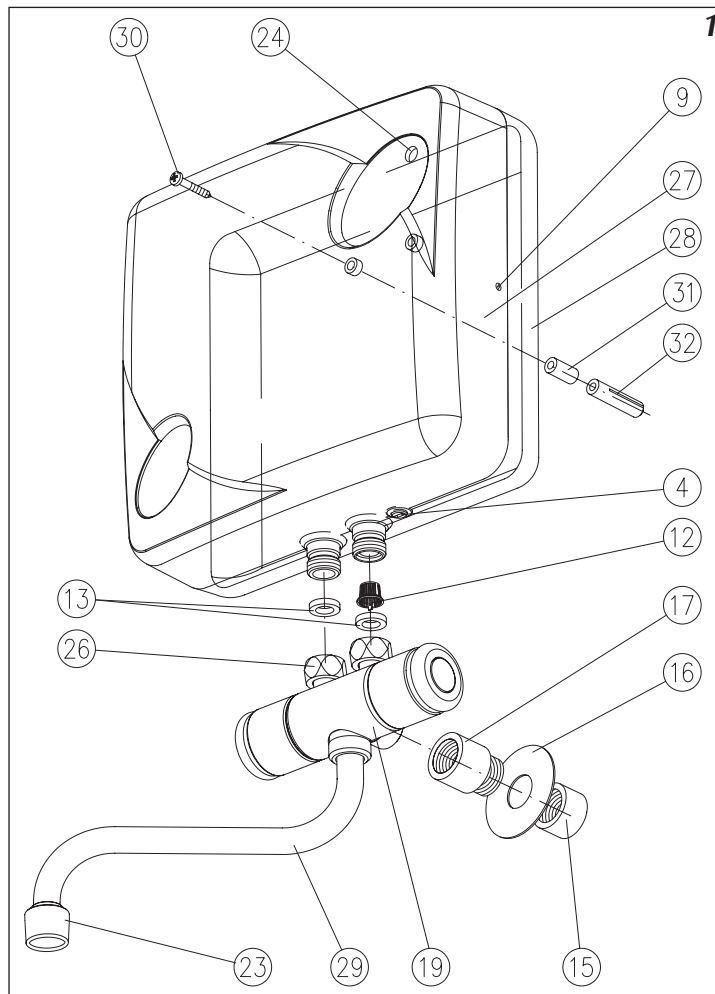
Installation

All installation must be carried out with the electricity and water supplies cut off.

Picture 1 View

- [4] - flow regulating valve
- [9] - screws for fixing the case
- [12] - filter
- [13] - gasket
- [15] - water supply
- [16] - rosette
- [17] - extension
- [19] - tap body
- [23] - spray-head
- [24] - heating on indicator
- [26] - nuts
- [27] - front case
- [28] - back case
- [29] - tap
- [30] - fixing screw
- [31] - sleeve
- [32] - pin

If there is no filter [12] the appliance can be damaged.



1 Recommendation

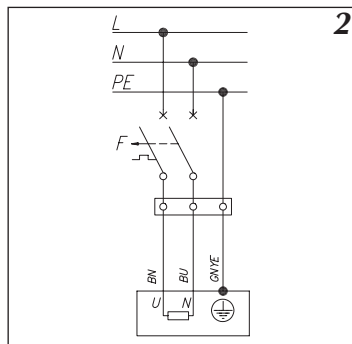
- connect the appliance to cold water supplies only.

Installation - Assembly

1. Fix the tap set [19] on water supply pipe [15].
2. Undo the two screws [9] and take the front case [27] off.
3. Drill through one of the two 1,5mm holes on the back case [28] of the appliance with a 4,5mm drill.
4. Connect the heater to the tap body [19] with nuts [26] with the gasket [13] and the filter [12].
5. Mark a point for the pin [32] for fixing the appliance through the drilled hole.
6. Disconnect the heater from the tap body.
7. Drill a hole of 35 depth and 6mm diameter at the marked point.
8. Connect the tap body [19] using nuts [26] with a gasket [13] and the filter [12] to the heater.
9. Fix the heater on the wall (fixing screw [30], sleeve [31], and pin [32]).
10. Put the front case [27] on the heater and secure with two screws [9].
11. Allow water mains pressure get to the tap.
12. Check for leaks by opening the taps. Do it without the spray-

Diagram 2 Electric connection
EPJ-4,4 end EPJ-5,5

F - dipolar circuit breaker
L - live wire
N - neutral wire
PE - earth wire
BN - brown
BU - blue
GNYE - green-yellow



This appliance should be installed and the reliability of electric shock protection should be tested by a professional person.

1. Shut off electric supplies (take the plug out of the socket).
2. Turn the flow on (turn the hot water tap on) in order to vent the water installation (for about 15-30 seconds), until the flow of water becomes constant and even.
3. Shut off the flow.
4. Switch on the electric supplies.

Venting

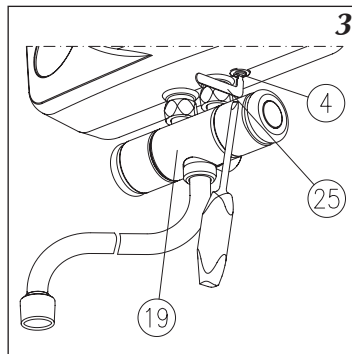
Do it each time after a decay of water.

If venting is not performed, the heater may be damaged.

Flow regulation

Picture 3 Regulation

[4] - regulating valve
[19] - tap set
[25] - regulating spanner



head on [23]. Some impurities which come from the installation may appear.

13. Vent the water installation.
14. Put the spray-head on.
15. Plug the heater (EPJ-3,5 plug to an earthed socket, EPJ-4,4 and EPJ-5,5 connect to mains through a cable box according to diagram 2).

The water heater has to be earthed or neutrally grounded

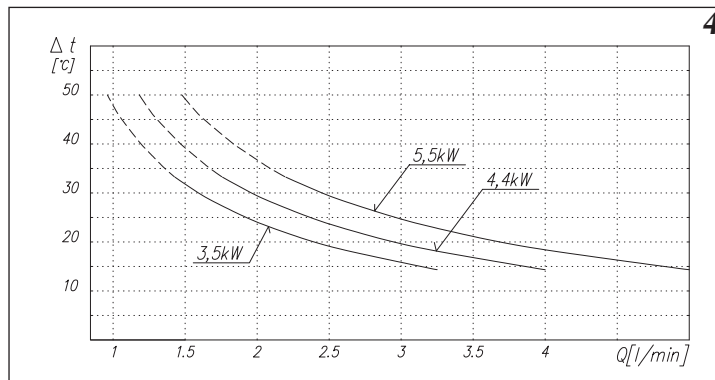
By the term "flow regulation" we mean the setting of the water temperature to a comfortable level, by means of limiting/opening the rate of flow.

For this purpose carry out the following steps:

- set the hot water tap at maximum flow,
- insert the spanner or a screw driver [25] into the regulation valve [4],
- set optimum flow(check if the temperature is comfortable for you) using the spanner [25],
- close water flow using the tap,
- take the spanner [25] out of the regulation valve [4].

Operation

Chart 4 Characteristics



This heater has a differential pressure switch that starts heating automatically when there is a proper rate of flow through the tap. There is a red indicator light on the front case that shows that heating is on.

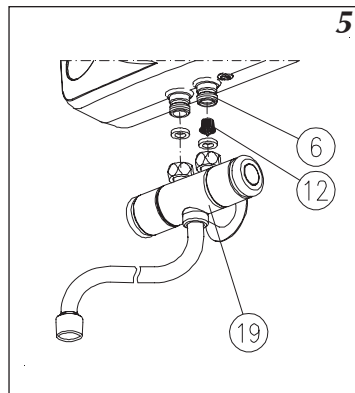
The characteristics shows the dependence between temperature rise and flow rate per minute. The greater the flow rate the lower the temperature of the water.

Maintenance

To ensure the long and faultless work of this appliance, you should clean the filter [12] from time to time. To clean it do the following (picture 5):

Picture 5 Filter cleaning

- [6] - inlet - cold water
- [12] - filter
- [19] - tap set



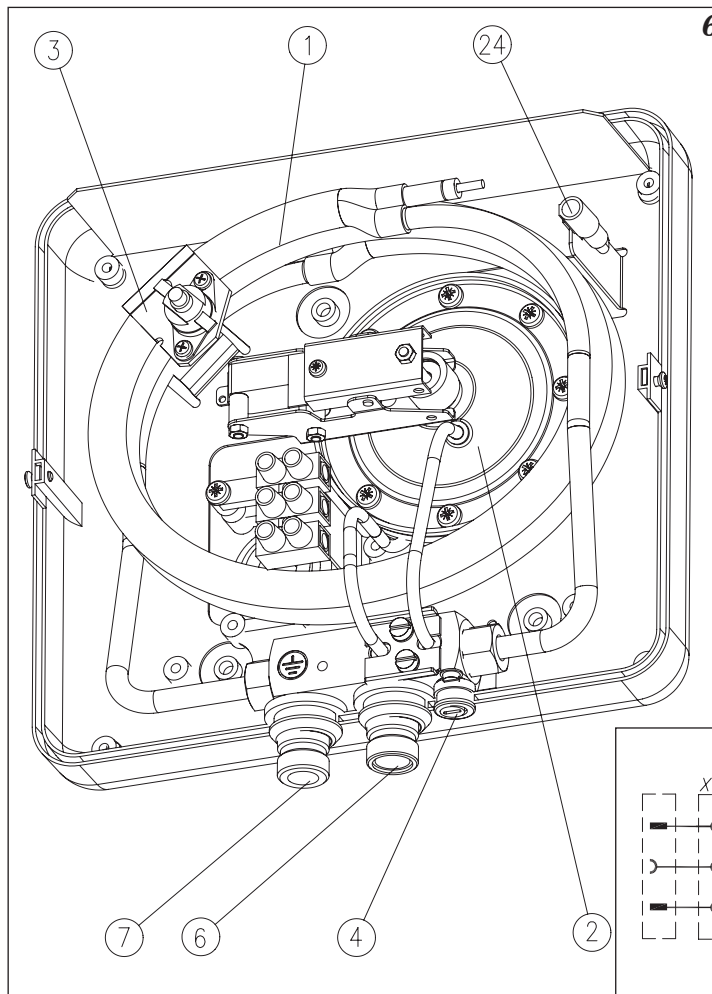
1. Cut off water and electric supplies.
2. Disconnect the heater from the tap set - look at Installation.
3. Take the filter out [12] from the fittings at cold water inlet.
4. Clean the filter [12].
5. Install the filter [12] in the former position.
6. Fix the heater on the tap set.
7. Open cold water pipe on water supply - check connections for leaks.
8. Vent the installation.

The filter should be cleaned after you repair the water system, if a lot of effluent appears or after a year of operation.

Construction

Picture 6 EPJ - 3,5 construction of the appliance

- [1] - Heating box
- [2] - differential pressure switch
- [3] - safety temperature limiter
- [4] - regulating valve
- [6] - inlet - cold water
- [7] - outlet - hot water
- [24] - "heat on" indicator



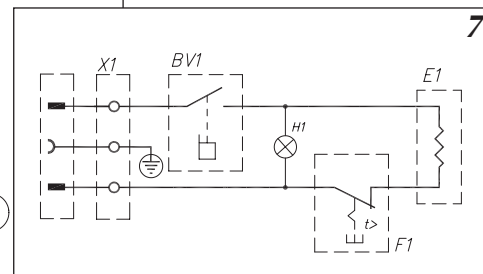
6 See general construction of EPJ-3,5 in the diagram No. 6 and the construction of EPJ-4,4/5,5 in the diagram No. 8.

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

Resetting the safety temperature limiter should be performed by authorised service personnel.

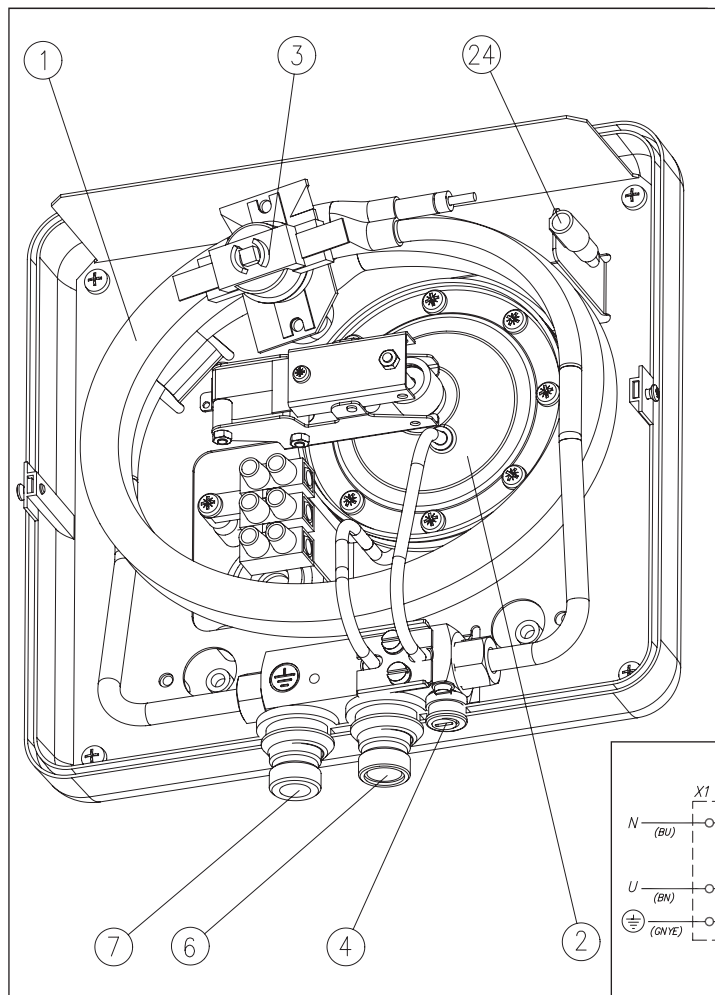
Picture 7 EPJ - 3,5 wiring diagram

- E1 - heating box [1]
- BV1 - differential pressure switch [2]
- F1 - safety temperature limiter [3]
- X1 - mains, cord with a plug [8]
- H1 - "heat on" indicator [24]



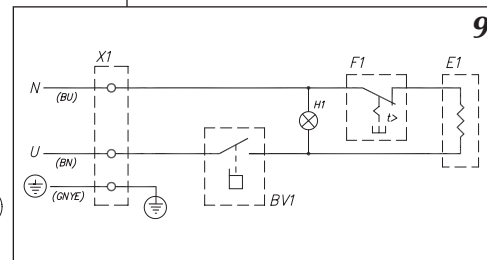
Picture 8 EPJ - 4,4; EPJ - 5,5 construction of the appliance

- [1] - Heating box
- [2] - differential pressure switch
- [3] - safety temperature limiter
- [4] - regulating valve
- [6] - inlet - cold water
- [7] - outlet - hot water
- [24] - "heat on" indicator



Picture 9 EPJ - 4,4; EPJ - 5,5 wiring diagram

- E1 - heating box [1]
- BV1 - differential pressure switch [2]
- F1 - safety temperature limiter [3]
- X1 - mains, cord with a plug [8]
- H1 - "heat on" indicator [24]
- BN - brown
- BU - blue
- GYE - green-yellow



Faults

If the inseparable supply cord will become damage, it should be replaced at the manufacturer or in special repair shop or by a qualified person in order to avoid all risks.

Set contents

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.

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

- a failure of the mains supplies (e.g. fuses),
- insufficient flow through the heater (e.g. dirty filter, incorrect setting of the flow regulating valve) - refer to "Flow regulation".

The guarantee does not cover the above repairs.

If there is a fault in the appliance (the heater does not work and all the above reasons do not occur), contact the nearest authorised service.

EPJ - water heater	- 1 piece,
Tap set	- 2 piece,
Gasket	- 1 piece,
Spanner for regulating the flow	- 1 piece,
Screw	- 1 piece,
Sleeve	- 1 piece,



electric
water heaters

electric
boilers.