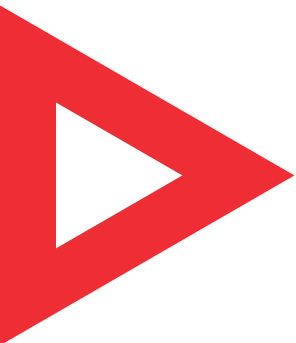
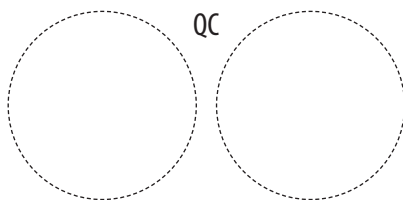


Catalogue No.

Production date



Installation and operation manual / Warranty card

Electrical set **kW**

Complete heating element on a Ø180 flange intended for installation in DHW heaters

For use in steel-enamelled tanks with anodic protection.

 Please read the instructions carefully before beginning the installation and use of the product.

1. Intended use / 2. Technical spec. / 3. Installation

1. Intended use

The heating element with a manual temperature controller is intended for the enamelled indirect water heaters only. If the water heater is equipped with a cathodic corrosion protection (either a magnesium or a titanium anode), the heating element should be partially isolated from the tank's walls. Thus the electrochemical potential difference in the water-filled tank will be partially evened out. This greatly extends the durability of the heating element and prolongs the life of the magnesium anode and the water heater. Range of operating temperatures of the heating element: from 10°C (±7°C) to 73°C (±4°C). The manual temperature controller has a so-called ECO point - in which the temperature amounts to 60°C (±3°C).

2. Technical specification

Specification	unit	Heating element GE	
Heater power	kW	2	3
Voltage	V	230~	
Temperature range	°C	10 (±7) ÷ 73 (±4)	
Installation	mm	Ø 180 flange	
Protection class	IP	24	
Protection	A	10	

3. Installation

Installation of the heating element should be performed only by a qualified installer with a valid SEP with the principles of fire protection. The manufacturer is not liable for damage to the heating element caused by improper installation.

The heater is designed to work with a pressure of not more than 10 bar. Remember to install a safety valve with an opening pressure of not more than that specified in the operating parameters of the water heater. The valve should be selected based on its capacity, taking into account the power of all the heating elements and heat exchangers in the tank.

It is recommended to install electrical set in Galmet heat exchangers.

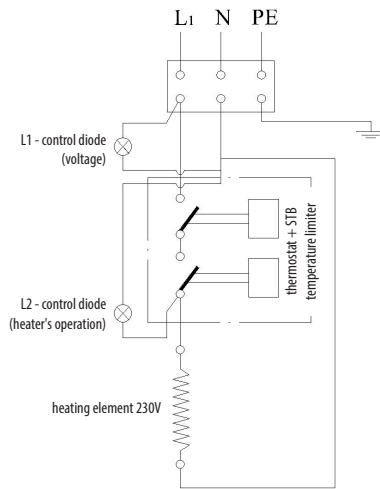


ATTENTION! Before installing the electrical set, it is recommended to install the magnesium anode.

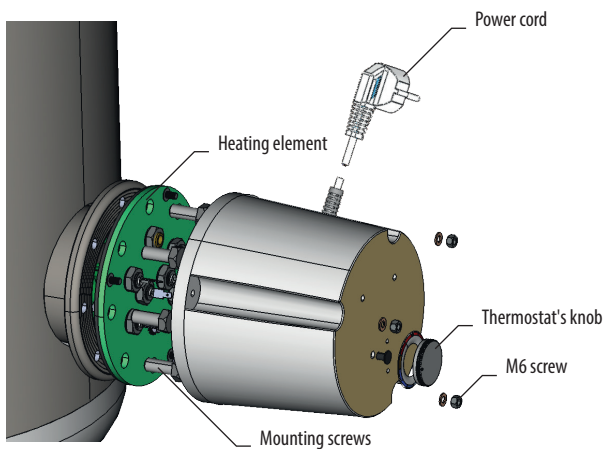
In order to install the electrical set, the following should be done:

- empty the water from the tank,
- unscrew the inspection hole cover (8 screws),
- install the heating element, which can only work in a horizontal position,
- fill the tank with water,
- check the tightness of the threaded connection and tighten if necessary,
- connect the control module with the heating element,
- plug the heating element to the power socket while providing the basic fire protection.

4. Schemes



Electrical diagram 230V



Scheme of the heating element's installation

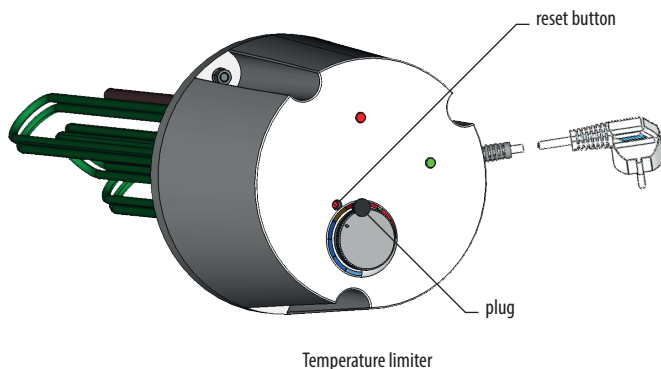
5. Operation / 6. Troubleshooting

5. Operation

The control module is equipped with bimetallic thermostat, which allows the desired temperature to be set. Operating temperature range of the control module ranges from 10°C ($\pm 7^\circ\text{C}$) to 73°C ($\pm 4^\circ\text{C}$). The control module has a second protection called "temperature limiter", which protects the heating element from overheating. In case of temperature limiter's activation, an inspection of the electrical part of the module should be performed by a qualified installer with a valid SEP permissions. The maximum stop temperature of the temperature limiter is 98°C ($\pm 8^\circ\text{C}$).

Resetting the temperature limiter:

- unplug the power plug,
- take off the reset button's cap,
- press the reset button,
- attach the cap,
- plug the power plug back in,
- use the dial to set the desired temperature.



6. Troubleshooting

PROBLEM	PROBABLE CAUSE	REMEDY
Indicator light (green) does not work. Water heater is not working.	- A break in the electrical circuit, damaged electronic plate.	- Check fuse-elements (safety devices). - Check heater's connections. - Replace damaged electronic plate.
Indicator light (red) does not work (heating element operation)	- Damaged thermoregulator.	- Replace damaged thermoregulator (service).
Water temperature does not rise, indicator light glows.	- Damaged heating element.	- Replace the heating element (service).
Water temperature exceeds the desired set temperature	- Damaged thermoregulator.	- Replace damaged thermoregulator (service).
Indicator light (green) does not work. Water heater is working.	- Damaged indicator light.	- Replace the indicator light.

7. Warranty

7.1. Warranty void

The buyer loses the warranty if:

- the buyer makes any repairs or alterations to the heating element,
- the service detects any interference in any part of the heating element,
- the service detects any damage, tampering or removal of serial numbers or other identifying marks to the heating element,
- this warrant card gets lost.

7.2. Repair terms

In the event of product's malfunction please notify the distributor. All flaws resulted from the manufacturer's fault will be removed up to 21 days from the date of notification. Keep the receipt and warranty card in order for the service to access it.

7.3. Scope of the warranty

The following defects or failures are not covered by the warranty:

- mechanical damage caused by the use of chemical agents,
- caused by improper installation of the heating element,
- caused by improper manual handling, transport, storage, or cleaning of the heating element,
- improper use of the heating element (not using the element in accordance with generally accepted standards of using the electric heating elements).

24 months of warranty for the electrical set GE*

* Provided that the user complies with the basic principles of operation.

8. Safety conditions

- the safety valves must be set so that the pressure in the tank does not exceed its nominal value,
- the overflow system should be set so that the pressure in the tank does not exceeded its nominal value,
- heating element must be installed in the bottom part of the tank on Ø 180 mm flange,
- before the initial start-up - ensure that there is water in the tank (the heating element must reside below the water level),
- maximum working pressure cannot exceed 10 bar.



If the supply cord is damaged, it should be replaced by a special cord from the manufacturer or repaired at a proper repair service.



This symbol indicates that the electrical and electronic equipment can not be put together with other waste. These devices must be returned to a designated waste disposal, where they will be processed accordingly. Waste disposal of the electrical and electronic equipment helps protect the environment and prevent any potential negative effects on human health.

DECLARATION OF CONFORMITY



„GALMET Sp. z o.o.” Sp. K.
48-100 Głubczyce, Raciborska 36

declares that the following product:
**2 kW and 3 kW electrical sets
for the enamelled water heaters**

to which this declaration applies to is compliant with the following directives:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU

as well as the following standards:

PN-EN 60335-2-73
PN-EN 60335-1
PN-EN 62233
PN-EN 55014-1
PN-EN 55014-2
PN-EN 61000-4

Głubczyce, 01.03.2018

(Place and date)

PREZES Zarządu
Stanisław Galara

(Authorized person signature)

WARRANTY CARD

No.	Repair date	Repair description	Service's signature	Owner's signature

Repair date	Repair date	Repair date	Repair date
Scope of the repair	Scope of the repair	Scope of the repair	Scope of the repair
Service's stamp	Service's stamp	Service's stamp	Service's stamp
Owner's name and address	Owner's name and address	Owner's name and address	Owner's name and address
Owner's signature	Owner's signature	Owner's signature	Owner's signature

WARRANTY CARD



„Galmef Sp. z o.o.“ Sp. K.
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tel.: +48 77 403 45 00
fax: +48 77 403 45 99

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Warranty coupon 1	Warranty coupon 2	Warranty coupon 3	Warranty coupon 4
Heater type:	Heater type:	Heater type:	Heater type:
Serial no.:	Serial no.:	Serial no.:	Serial no.:
Date of sale	Date of sale	Date of sale	Date of sale
Seller's stamp and signature	Seller's stamp and signature	Seller's stamp and signature	Seller's stamp and signature

Confirmation of the installation
Heater type:
Serial no.:
Date of sale
Seller's stamp and signature