

## DATA SHEET

### ETT-F2 Electric Heating Element, G 6/4", for utilization of electricity surplus from PV systems



#### Main Features

Application	Heating of static working fluid in hot water storage tanks and thermal stores. The element is intended for utilizing electricity surplus from single-phase and three-phase photovoltaic systems.
Working substance	Drinking water, heating water, antifreeze fluid for heating systems and heat pumps.
Installation	Element shall be completely immersed in working fluid.
Element type	Electric, resistive, nickel-plated, thermostatic head with contactor.
Connection to mains	Cable for fixed wiring to a terminal box or electrical switchboard.

This heating element is not designed to heat fluids in stainless-steel tanks.  
This heating element is not designed to heat other fluids than listed, nor gases or vapours.  
Heating fluid in direct contact with the heating element shall meet the relevant standards.

#### Hot water in direct contact with the heating element shall not exceed the following values

Total Dissolved Solids (TDS)	pH	Chlorides	Mg	Na	Fe
600 mg/l	6.5–9.5	100 mg/litre	20 mg/litre	200 mg/litre	0.2 mg/litre

#### Technical Data

Electrical wiring	3/N/PE AC 400/230 V
IP rating	IP 54
Protection class by EN 61140 ed. 2	I
Power cable cross section and length	7 x 2.5 mm <sup>2</sup> /2 m
Cable gland	Pg 16
Adjustable thermostat	single-phase, capillary type, adjustable
Switch-over contact of adjustable thermostat	16 A
Adjustable temperature range of adjustable thermostat	by 0 ± 5 °C to 90 ± 3 °C
Switching difference of the adjustable thermostat	5 ± 1.5 °C
Upper and lower limit of the adjustable thermostat*	15 °C – frost protection, 60 °C – for HW storage tanks
Safety thermostat	3-phase, capillary type, fixed temp.
Switch-off temperature	99 +0/-6 °C
Reset	manual, after temperature drops below 80 °C
Contactor	AC1 : 20 A/690 V, 1Z
Coil voltage	AC 220–240 V
Frequency	50 Hz

\* Both limits can be changed or eliminated completely after removing the knob.

#### Materials

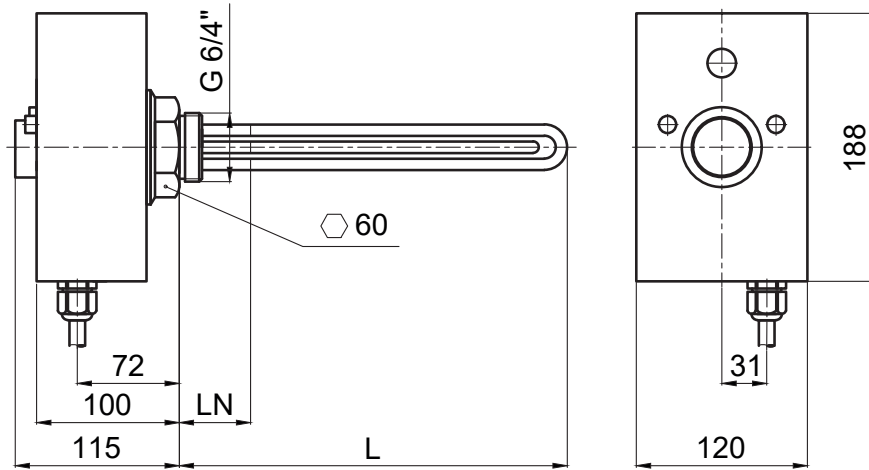
Heating element	nickel-plated copper
Heating element housing	aluminium alloy
Threaded hexagon	nickel-plated brass
Power cable	silicone

Element type	Nominal output	Element length L [mm]	Non-heating end length LN [mm]	Supply voltage	Code
ETT-F2 – 3.0	3 kW	370	180	3x230 V	<b>20232</b>
ETT-F2 – 5.0	5 kW	500	180	3x230 V	<b>20234</b>

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#### Dimensions



#### Internal wiring diagram

