

Flange heater

with combination of temperature control, safety temperature limiter, operating light, contactor and change-over switch



Application

Auxiliary heating system of industrial water and heating water in solar plants and heat pump systems

Features

- FH The heating element is made of three U-shaped heating tubes, each press-fitted into a press-fitting nipple. These are bolted with the immersion tube onto a steel flange. A food-safe plastic disk serves as insulation. The unheated zone is 70 mm for all types.
- TC Electromechanical temperature control acc. EN 14597, not fail safe.
- STL Electromechanical safety temperature limiter acc. EN 14597, fail safe. If nominal value is reached, the limiter switches and stays locked in this position. Reset is performed manually and is only possible after the sensing element is cooled off by approx. 10 K.
- Time factor of sensing element acc. EN 14597
 - Operation type TC Type 2 B acc. EN 14597
 - Operation type STL Type 2 BK acc. EN 14597

Type summary

Industrial and heating water
Cronifer 1.4529

Type	Order-no.	Power	Immersion length [EL]
AHFR-B-C-2.0	012-1401	2.0kW; 400V 3~	260mm
AHFR-B-C-4.0	012-1403	4.0kW; 400V 3~	260mm
AHFR-B-C-6.0	012-1405	6.0kW; 400V 3~	360mm
AHFR-B-C-7.5	012-1406	7.5kW; 400V 3~	420mm
AHFR-B-C-9.0	012-1408	9.0kW; 400V 3~	490mm
AHFR-B-C-10.0	012-1409	10.0kW; 400V 3~	540mm
Industrial and heating water Incoloy 825; 2.4858			
AHFR-BI-C-2.0	012-1441	2.0kW; 400V 3~	260mm
AHFR-BI-C-4.0	012-1443	4.0kW; 400V 3~	260mm
AHFR-BI-C-6.0	012-1445	6.0kW; 400V 3~	360mm
AHFR-BI-C-7.5	012-1446	7.5kW; 400V 3~	420mm
AHFR-BI-C-9.0	012-1448	9.0kW; 400V 3~	490mm
AHFR-BI-C-10.0	012-1449	10.0kW; 400V 3~	540mm

Technical data

The following indications are valid for the above listed standard types. Due to the function, other types might show different data.

Application range	Adjustable cut-off temperature	0...*...28...85 °C
	Safety cut-off temperature ϑ_{off}	110 °C (0-9 K)
	Ambient temperature on switching head	max. 50 °C (T50)
	Thermal switching differential	11.0 K \pm 5.5 K
	Ambient temperature for storage and transport	-30...+90 °C
Calibration	Calibration tolerance	\pm 7 K
	Time factor in water	<45 s

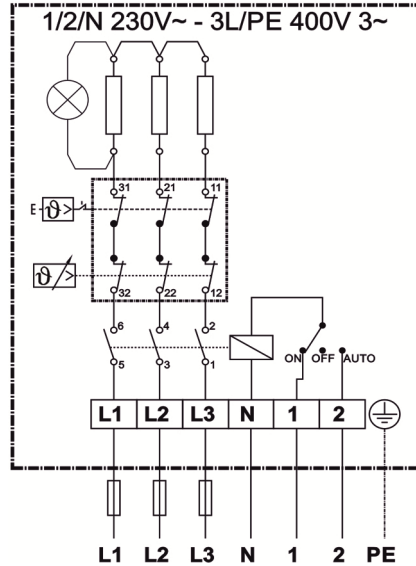
Specification

Flange material	St 37
Outside flange diameter	Ø 180 mm
Pitch circle diameter	Ø 150 mm / 8 X M12
Flange seal	EPDM, KTW certification
Plastic disk	PP-H, FDA certification
Heating tube industrial water	Cronifer 1.4529, Ø 8.2 mm
Heating tube industrial water	Incoloy 825; 2.4858, Ø 8.2 mm
Surface load	7 W/cm ²
Electrical connection	Spring clip
Operating pressure	10 bar max.
Housing cover	Polycarbonate, RAL 7035 (light gray)
Protection mode	IP21 acc. EN 60529

Fitting notes

The device must be installed horizontally. The heating tubes must be covered entirely by the liquid. The circulation of the liquid shall not be inhibited.

Wiring diagram



Operating voltage

L1/L2/L3 400 V 3~
1/N - 2/N 230 V~

Clamp 1 = ON

230 V~ connection from power plant or carry current

Clamp 2 = AUTO

230 V~ connection hp release auxiliary heating

Dimension drawing

