

Screw-in heater

AHIR-B-C-...
AHIR-BI-C-...

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



Application

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

Features

- SH The heating element is made of three U-shaped heating tubes, which are mounted isolated into a 1½" conical brass nipple by food-safe plastic sleeves.
Thanks to the insulated mounting of the heating tubes, the devices are also suitable for enamelled boilers.
The unheated zone is 150 mm for all types.
Suitable for daily heating of hot water.
- 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 OFF 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

Drinking and heating water
Cronifer 1.4529

Drinking and heating water
Incoloy 825; 2.4858

Type	Order-no.	Power	Immersion length [EL]
AHIR-B-C-1.0	012-4401	1.0kW; 400V 3~	300mm
AHIR-B-C-1.5	012-4402	1.5kW; 400V 3~	300mm
AHIR-B-C-2.0	012-4403	2.0kW; 400V 3~	300mm
AHIR-B-C-2.5	012-4404	2.5kW; 400V 3~	350mm
AHIR-B-C-3.0	012-4405	3.0kW; 400V 3~	400mm
AHIR-B-C-3.8	012-4406	3.8kW; 400V 3~	450mm
AHIR-B-C-4.5	012-4407	4.5kW; 400V 3~	500mm
AHIR-B-C-6.0	012-4408	6.0kW; 400V 3~	600mm
AHIR-B-C-7.5	012-4409	7.5kW; 400V 3~	700mm
AHIR-B-C-9.0	012-4410	9.0kW; 400V 3~	750mm
AHIR-BI-C-1.0	012-4441	1.0kW; 400V 3~	300mm
AHIR-BI-C-1.5	012-4442	1.5kW; 400V 3~	300mm
AHIR-BI-C-2.0	012-4443	2.0kW; 400V 3~	300mm
AHIR-BI-C-2.5	012-4444	2.5kW; 400V 3~	350mm
AHIR-BI-C-3.0	012-4445	3.0kW; 400V 3~	400mm
AHIR-BI-C-3.8	012-4446	3.8kW; 400V 3~	450mm
AHIR-BI-C-4.5	012-4447	4.5kW; 400V 3~	500mm
AHIR-BI-C-6.0	012-4448	6.0kW; 400V 3~	600mm
AHIR-BI-C-7.5	012-4449	7.5kW; 400V 3~	700mm
AHIR-BI-C-9.0	012-4450	9.0kW; 400V 3~	750mm

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

Adjustment range	0...*...28...85 °C
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

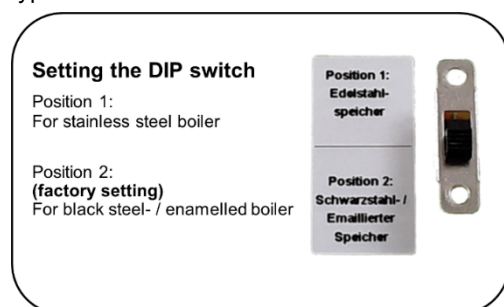
Fitting thread
Brass nipple
Heating tube Cronifer
Heating tube Incoloy 825
Surface load
Electrical connection
Operating pressure
Housing cover
Housing base
Protection mode

R 1½" sonical
CuZn40Pb2
1.4529, Ø 8.2 mm
2.4858, Ø 8.4 mm
8-9 W/cm²
Spring clip
10 bar max.
Polycarbonate, RAL 7035 (light gray)
Polycarbonate, RAL 7016 (anthracite gray)
IP41 acc. EN 60529

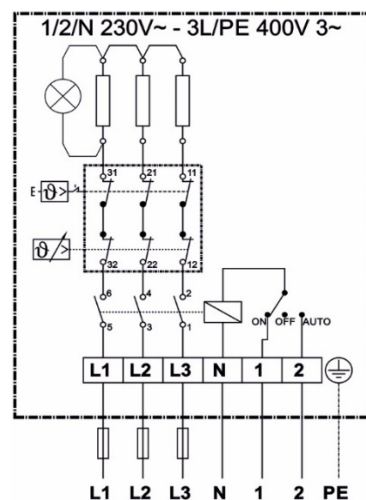
Fitting notes

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.

Please note: This heating element is applicable in stainless steel boilers as well as in black steel / enamelled boilers. Select the settings via DIP switch in the housing interior according to the boiler type.



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

