

with combination of temperature control and safety temperature limiter



Application

Auxiliary heating of industrial water and heating water.

Features

FH The flange with the heating tubes is made of V4A-steel, material no. 1.4404
The ceramic heating elements are 45 mm in diameter
The unheated zone is 110 mm for all types.

- Type A 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 E 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. 20 K.
- Time factor of sensing element acc. EN 14597
 - Operation type TC Type 1 B acc. EN 14597
 - Operation type STL Type 2 BDEFHKL acc. EN 14597

Type summary

Type	Order-no.	Power	Immersion length [EL]
Type A	AHFR-K-A-280-10	012-5301	10.0 / 8.3 / 6.7 / 5.0 / 3.3 / 1.7kW
	AHFR-K-A-280-15	012-5302	15.0 / 12.5 / 10.0 / 7.5 / 5 / 2.5kW
	AHFR-K-A-280-20	012-5303	20.0 / 16.7 / 13.3 / 10.0 / 6.7 / 3.3kW
Type E	AHFR-K-E-280-25	012-5304	25.0 / 20.8 / 16.7 / 12.5 / 8.3 / 4.2kW
	AHFR-K-E-280-30	012-5305	30.0 / 25.0 / 20.0 / 15.0 / 10.0 / 5.0kW
	AHFR-K-E-280-32	012-5306	32.0 / 26.7 / 21.3 / 16.0 / 10.7 / 5.3kW
	AHFR-K-E-280-35	012-5307	35.0 / 29.2 / 23.3 / 17.5 / 11.7 / 5.8kW
	AHFR-K-E-280-40	012-5308	40.0 / 33.3 / 26.7 / 20.0 / 13.3 / 6.7kW
	AHFR-K-E-280-45	012-5309	45.0 / 37.5 / 30.0 / 22.5 / 15.0 / 7.5kW

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 Type A / Type E Safety cut-off temperature ϑ_{off} Ambient temperature on switching head Thermal switching differential Type A / Type E Ambient temperature for storage and transport	0...*...28...85 °C / 15...95 °C 110 °C (0-9 K) max. 50 °C (T50) 11.0 K ± 5.5 K / 4.0 K ± 2.0 K -10...+50 °C
Calibration	Calibration tolerance Type A / Type E Time factor in water	± 7 K / ± 6 K <45 s

Specification

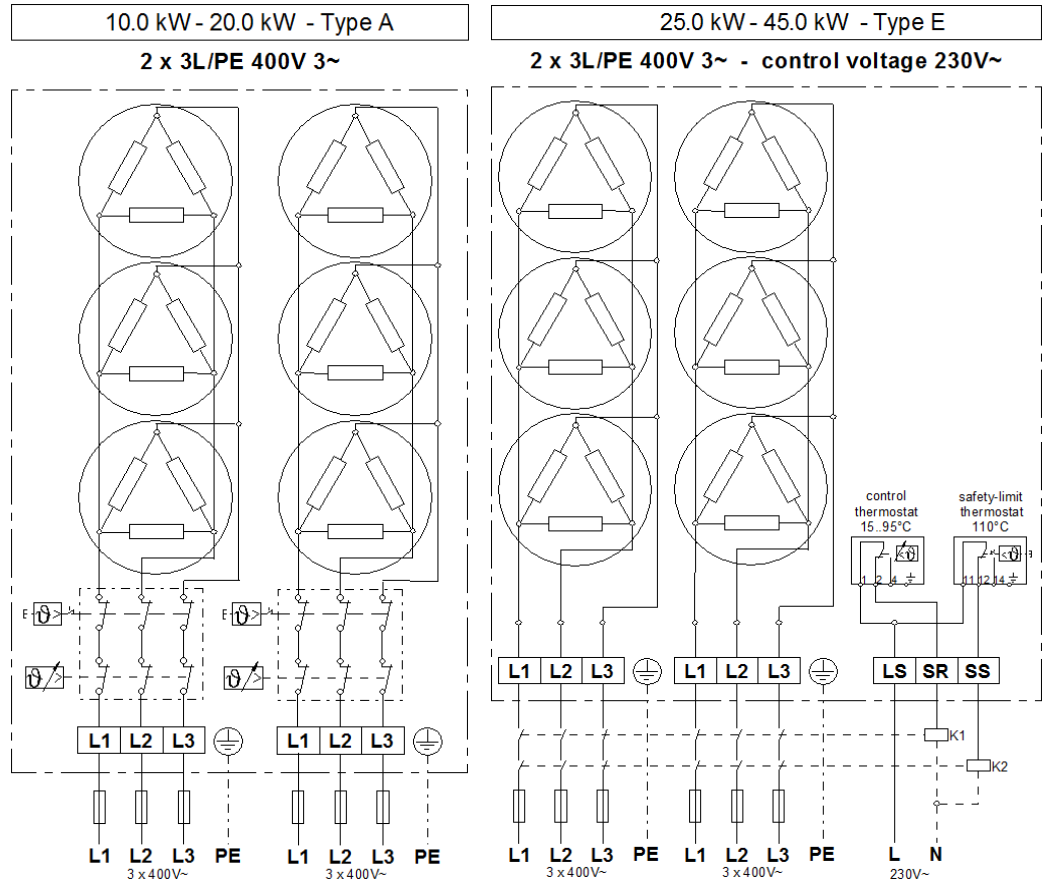
Flange material
 Outside flange diameter
 Pitch circle diameter
 Flange seal
 Immersion tube
 Surface load
 Electrical connection
 Operating pressure
 Housing cover
 Protection mode

CrNi, V4A, W-no. 1.4404
 Ø 280 mm
 Ø 245 mm / 12 X M14
 EPDM-Disk, 90 Shore A
 CrNi, V4A, W-Nr. 1.4404
 $<3 \text{ W/cm}^2$
 Screw type terminal
 10 bar max.
 ABS UL94 V0, NCS 2005-R80B (light gray)
 IP31 acc. EN 60529

Fitting notes

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

Wiring diagram



Dimension drawing

