

### TS-710 Series

- Thermal release
- Cycling trip-free
- Fitting into the mounting cut out of some miniature fuse holders



The TS-line consists of a series of low cost thermally operated CBEs available in three frame sizes for rated currents up to 40 A.

They are intended to provide protection against sustained overloads. All CBEs of the TS-line use a thermo-bimetal to simulate the thermal behavior of the protected components, which could be conductors in wiring, motors, transformers etc.

The snap-action type of bimetal opens the contact when the temperature of the bimetal has reached a certain threshold level. The circuit will then remain open unless the reset (or ON-) button is permanently depressed. In this case the snap-action contact will momentarily re-close until the bimetal has reached its trip-temperature again and effects the automatic opening operation. This behavior is termed «cycling trip-free». The «cycling» indicates the momentary re-closings which do occur, the «trip-free» indicates that the opening operation of the contacts can not be prevented by pressing the ON or the RESET button.

Every CBE of the TS-line can well cope with overload currents up to 6 times the rated currents without any back-up assistance. If the fault current could be higher, CBEs require back-up protection. In many instances, this back-up protection is provided by the protective devices of the building installation.

The TS-Line is designed for automatic interruption and non-automatic (manual) resetting only (R-type CBEs). They utilize a reliable snap-action bimetal to achieve the automatic opening operation and quick connect terminals for easy connection.

Common features are:

- Attractive prices
- Wide range of ratings
- Reliable design
- Approvals

The TS-710 lines fits into the mounting cut-out of miniature fuseholders. Where the advantage of having a reusable protective device counts, this CBE has its application. Rated currents from 3A to 16A.

Effect of ambient temperature

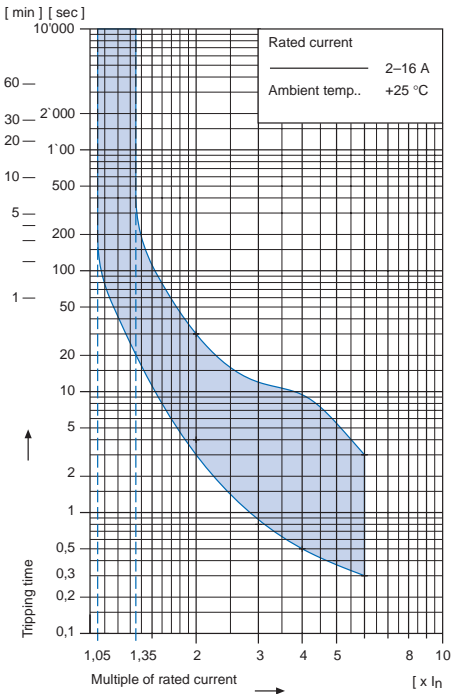
The unit is calibrated for an ambient temperature of +25°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor from the table below:

| Ambient temperature [°C] | Correction factor   |        |
|--------------------------|---------------------|--------|
|                          | Rated current 2-4 A | 5-16 A |
| +10                      | 0,69                | 0,83   |
| +15                      | 0,83                | 0,90   |
| +20                      | 0,91                | 0,94   |
| +25                      | 1,00                | 1,00   |
| +30                      | 1,25                | 1,08   |
| +35                      | 1,54                | 1,14   |
| +40                      | 2,00                | 1,20   |
| +45                      |                     | 1,30   |
| +50                      |                     | 1,39   |
| +55                      |                     | 1,54   |
| +60                      |                     | 1,72   |

Example

Rated current at +25°C                    4,0 A  
Ambient temperature                    +30°C  
Correction factor                    1,25  
Chosen rated current at  
+30°C ambient temperature  
**4 A x 1,25 = 5 A**

Tripping characteristic



Technical data

|   |   |                          |
|---|---|--------------------------|
| Rated voltage U <sub>e</sub>                      | See approvals, page 217                             | AC 125; 250 V    DC 32 V |
| Rated current I <sub>n</sub>                      | See approvals, page 217                             | 2 – 16 A                 |
| Conditional short circuit current I <sub>nc</sub> | PC1, AC 250 V                                       | 1000 A                   |
| Short circuit capacity I <sub>cn</sub>            | AC 240 V  | 200 A                    |
| Dielectric strength                               |   | AC 1500 V                |
| Endurance   | Number of cycles at 1,5 x I <sub>n</sub> (AC 125 V) | 500                      |
| Type of actuation                                 | • Reset type  | R                        |
| Type of tripping                                  | • Thermal<br>• Cycling trip-free                    | TO                       |
| Weight  |   | approx. 10 g             |

Rated voltage AC



CSA

C 22,2

4 – 10 A

250 V

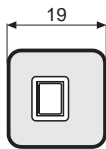
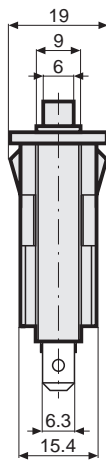
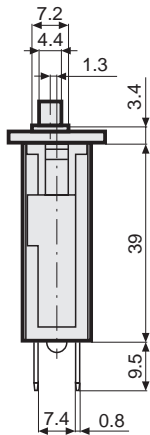
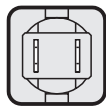
T S - 7 1 0

---

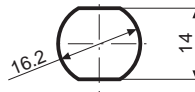
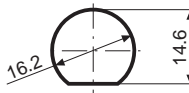
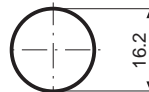
12

Snap-in type

TS-710



Cut-out



Schematic diagram

