

Circuit Breaker for Equipment thermal, Threaded-neck type, 1 pole



T9-311: Threaded neck type with nut nickel-plated



### Description

- Threaded neck type
- Thermal circuit breaker
- 1-pole
- On request available with elevated glow-wire ratings
- Quick connect terminal 6.3 x 0.8 mm

### Unique Selling Proposition

- Reset type
- Cycling trip-free release
- Compact design
- Different mounting possibilities

### Standards

- Approval Reference Type: T9
- IEC 60934
- UL 1077
- CSA C22.2 No. 235
- GB 17701

### Applications

- Designed for standard and medical applications
- Power supplies
- Uninterruptible power supply
- Power tools
- Industrial appliances
- HVAC
- Household appliances

### Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Product News](#)

### Technical Data

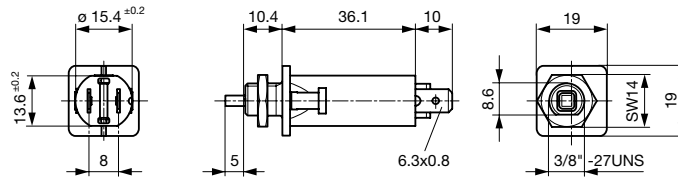
|                                    |  |
|------------------------------------|--|
| Rated Voltage AC                   | 240 V, 50 / 60 Hz  |
| Rated Voltage DC                   | 48 / 32 V, see approvals   |
| Rated current                      | 3-16 A, see approbations   |
| Conditional short circuit capacity | IEC: Inc, PC1, AC 240 V: 2 kA<br>UL / CSA: SC, AC 240 V DC 48 / 32 V: 2 kA, C1   |
| Degree of protection front side    | IP 40  |
| Endurance minimum                  | IEC: 200% I <sub>r</sub> , cos φ 0.6: min. 50 switching cycles   |
| Endurance typical                  | 3-8 A: 150% I <sub>r</sub> , cos φ 0.9: 2500 switching cycles<br>10-16 A: 150% I <sub>r</sub> , cos φ 0.9: 6000 switching cycles |
| Dielectric Strength                | 1500 VAC   |
| Insulation Resistance              | 500 VDC > 1000 MΩ  |

|                     |                        |
|---------------------|------------------------|
| Ambient temperature | 3 A: -5 °C to 60 °C    |
|                     | 4 A: -5°C to 50 °C     |
|                     | 5-16 A: -5 °C to 60 °C |
| Weight              | 9 - 13 g               |

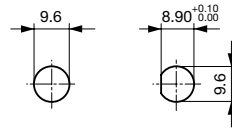
Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [General Product Information](#)

## Dimension [mm]

T9-211/311

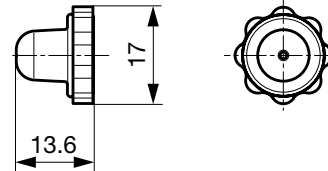
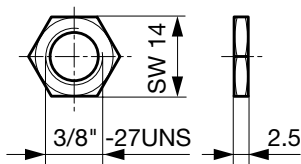


Panel thickness  $s = 0.8 - 5.5$  mm



Hexagonal nut TZZ12 / TZZ51

Cover TZZ31 für IP65 optional, see accessory

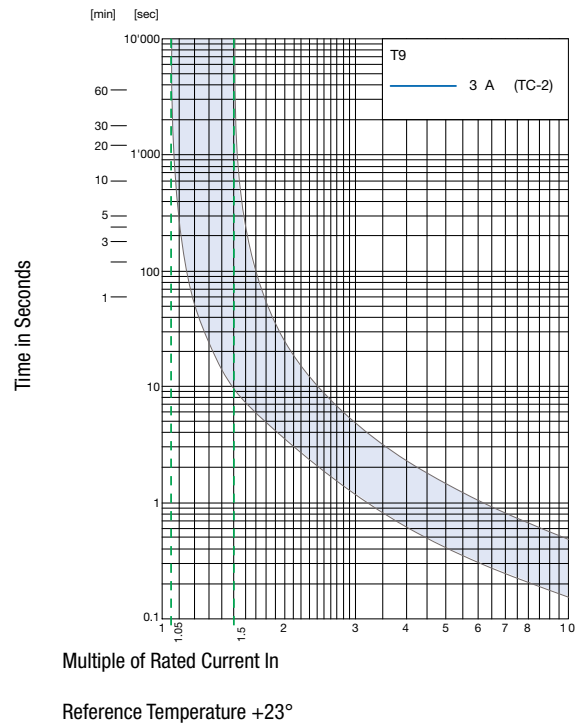
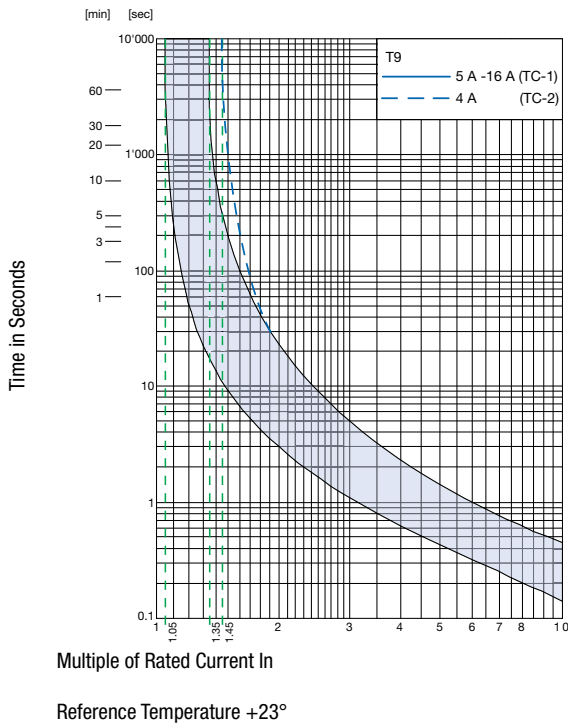


| Approval |              | Rated current | Rated voltage AC | Rated voltage DC |
|----------|--------------|---------------|------------------|------------------|
|          | UL 1077      | 3 - 12 A      | 240 V            | 48 V             |
|          |              | 14 - 16 A     | 240 V            | 32 V             |
|          | CSA 22.2 235 | 3 - 12 A      | 240 V            | 48 V             |
|          |              | 14 - 16 A     | 240 V            | 32 V             |
|          | IEC 60934    | 3 - 12 A      | 240 V            | 48 V             |
|          |              | 14 - 16 A     | 240 V            | 32 V             |
|          | GB 17701     | 3 - 12 A      | 240 V            | 48 V             |
|          |              | 14 - 16 A     | 240 V            | 32 V             |

## Typical internal resistance

| Rated Current [A] | Internal Resistance [mΩ] |
|-------------------|--------------------------|
| 3                 | 65.0                     |
| 4                 | 21.6                     |
| 5                 | 23.6                     |
| 6                 | 16.3                     |
| 7                 | 15.3                     |
| 8                 | 12.9                     |
| 10                | 7.3                      |
| 12                | 7.0                      |
| 14                | 4.8                      |
| 15                | 4.3                      |
| 16                | 3.9                      |

**Time-Current-Curves**



**Effect of ambient temperature**

The units are calibrated for an ambient temperature of +23°C. To determine the rated current for a lower or higher ambient temperature, use a correction factor (typical value) from the table below:

| Ambient temperature [°C] | Correction factor |
|--------------------------|-------------------|
| -5                       | 0,85              |
| +10                      | 0,95              |
| +23                      | 1,00              |
| +40                      | 1,08              |
| +60                      | 1,21              |

Example: Rated current = 10 A; Environmental temperature = 60 °C; --> Correction factor = 1.21; Resulting current = 12.1 A --> Fount to next higher rated current: 13 A

**Accessory**

| Part Number | Type      | Resources / Description                |
|-------------|-----------|--|
| 4404.0039   | TZZ31     | Protection cover for IP 65             |
| 4400.0420   | TZZ11     | Knurled nut nickel-plated              |
| 4400.0559   | TZZ11-414 | Knurled nut black                      |
| 4400.0425   | TZZ12     | Additional hexagonal nut nickel-plated |
| 4404.0072   | TZZ51     | Additional hexagonal nut PA 66         |

**Variants**

| Mounting           | Front printing                     | Rated current | Order Number |
|--------------------|------------------------------------|---------------|--------------|
| Threaded-neck type | Rated current not printed on front | 3.0 A         | 4404.0049    |
| Threaded-neck type | Rated current not printed on front | 4.0 A         | 4404.0019    |
| Threaded-neck type | Rated current not printed on front | 5.0 A         | 4404.0025    |
| Threaded-neck type | Rated current not printed on front | 6.0 A         | 4404.0020    |
| Threaded-neck type | Rated current not printed on front | 7.0 A         | 4404.0027    |
| Threaded-neck type | Rated current not printed on front | 8.0 A         | 4404.0021    |

| Mounting           | Front printing                     | Rated current | Order Number              |   |
|--------------------|------------------------------------|---------------|---------------------------|---|
| Threaded-neck type | Rated current not printed on front | 10.0 A        | <a href="#">4404.0022</a> | ■ |
| Threaded-neck type | Rated current not printed on front | 12.0 A        | <a href="#">4404.0023</a> | ■ |
| Threaded-neck type | Rated current not printed on front | 14.0 A        | <a href="#">4404.0026</a> | ■ |
| Threaded-neck type | Rated current not printed on front | 15.0 A        | <a href="#">4404.0028</a> | ■ |
| Threaded-neck type | Rated current not printed on front | 16.0 A        | <a href="#">4404.0024</a> | ■ |

■ Most Popular.

Availability for all products can be searched real-time:<http://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>

**Packaging Unit** 100 Pcs