

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



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

See below:

**Approvals and Compliances**

**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

**Applications**

- Power supplies
- Uninterruptible power supply
- Power tools
- Industrial appliances
- HVAC
- Household appliances

**Weblinks**

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [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  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 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

**Approvals and Compliances**

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





**Approvals**

The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products. Approval Reference Type: T9

Approval Logo	Certificates	Certification Body	Description
	<a href="#">VDE Approvals</a>	VDE	VDE Certificate Number: 40038016
	<a href="#">UL Approvals</a>	UL	UL File Number: E71572
	<a href="#">CQC Approvals</a>	CQC	CCC Certificate Number: 2013010307617688

## Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
	Designed according to	GB 17701	Circuit-breaker for equipment





## Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

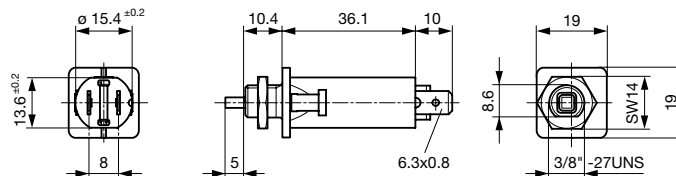
## Compliances

The product complies with following Guide Lines

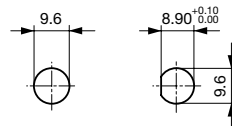
Identification	Details	Initiator	Description
	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	China RoHS	SCHURTER AG	The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

## Dimension [mm]

T9-211/311

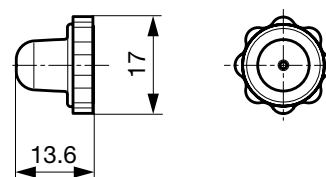
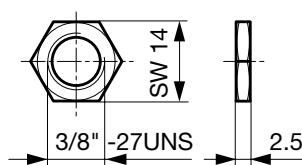






Panel thickness  $s = 0.8 - 5.5$  mm



Hexagonal nut TZZ12 / TZZ51

Cover TZZ31 für IP65 optional, see accessory

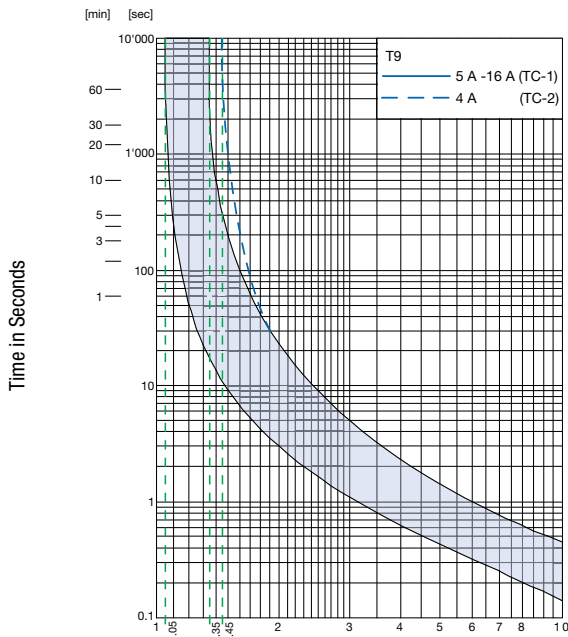


Approval		Rated current	Rated voltage AC	Rated voltage DC
	UL 1077	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
	CSA 22.2 235	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
	IEC 60934	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
	GB 17701	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V

**Typical internal resistance**

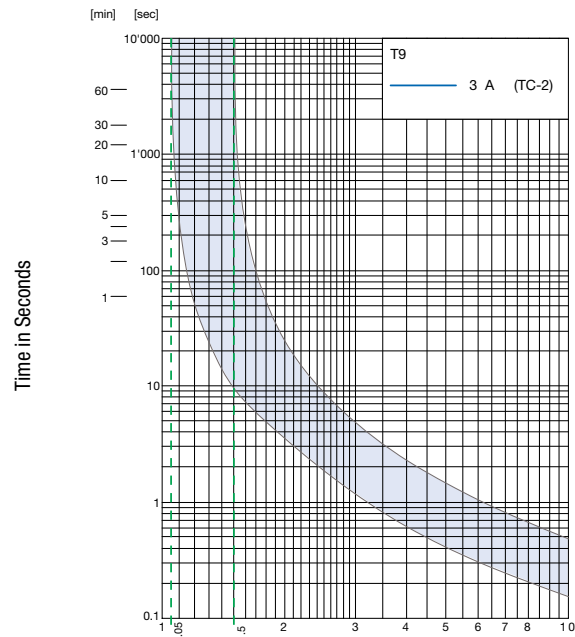
Rated Current [A]	Internal Resistance [mΩ]
3	65.0
4	21.6
5	23.6
6	16.3
7	15.3
8	12.9
10	7.3
12	7.0
14	4.8
15	4.3
16	3.9

**Time-Current-Curves**



Multiple of Rated Current In

Reference Temperature +23°



Multiple of Rated Current In

Reference Temperature +23°

**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	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	■
Threaded-neck type	Rated current not printed on front	10.0 A	4404.0022	■
Threaded-neck type	Rated current not printed on front	12.0 A	4404.0023	■
Threaded-neck type	Rated current not printed on front	14.0 A	4404.0026	■
Threaded-neck type	Rated current not printed on front	15.0 A	4404.0028	■
Threaded-neck type	Rated current not printed on front	16.0 A	4404.0024	■

■ Most Popular.

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

**Packaging Unit**    100 Pcs