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



See below: Approvals and Compliances

Applications

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

Weblinks

pdf data sheet, html datasheet, General Product Information, Distributor-Stock-Check, Detailed request for product, Product News

Т9_311

Description

- Threaded neck type
- Thermal circuit breaker
- 1-pole
- On request available with elevaled 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

Technical Data

Rated Voltage AC	240 VAC	Allowable Operation Temp.	3 A: -5 °C to 60 °C
Rated Voltage DC	48 / 32 VDC		4 A: -5°C to 50 °C
Rated current	3-16 A, see approbations		5-16 A: -5 °C to 60 °C
Conditional short circuit capa- city Inc	IEC 60934: PC1, AC 240 V: 2 kA	Weight	9 - 13 g
	UL / CSA: SC, AC 240 V DC 48 / 32 V: 2 kA, C1		
Degree of protection front side	IP40		
Endurance minimum	IEC: 200% lr, $\cos \phi$ 0.6: min. 50 swit- ching cycles		
Endurance typical	3-8 A: 150% lr, cos φ 0.9: 2500 switching cycles		
	10-16 A: 150% lr, cos φ 0.9: 6000 switching cycles		
Dielectric Strength	1500 VAC		
Insulation Resistance	500 VDC > 1000 MΩ		

Approvals and Compliances

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

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

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
<u>NE</u>	VDE Approvals	VDE	VDE Certificate Number: 40038016
c W us	UL Approvals	UL	UL File Number: E71572
	CCC Approvals	CCC	CCC Certificate Number: 2020970307003348

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Product standards

Product standards that are referenced

TTOUUCI Stariuarus iriai a			
Organization	Design	Standard	Description
IEC	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
(U)	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
GE CSA Broup	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
IEC	Designed for applications acc.	IEC/UL 62368-1	IEC 62368-1 includes the basic requirements for safety of audio, video, information technology and office equipment.

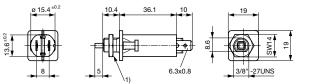
Compliances

The product complies with following Guide Lines

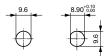
	•		
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
5 0	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	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]

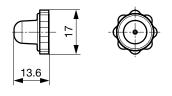
T9-211/311



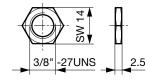
Pannel thickness 0.8 - 5.5 mm 1) max. torque: 0.6Nm



Cover TZZ31für IP65 optional, see accessory



Hexagonal nut TZZ12 / TZZ51



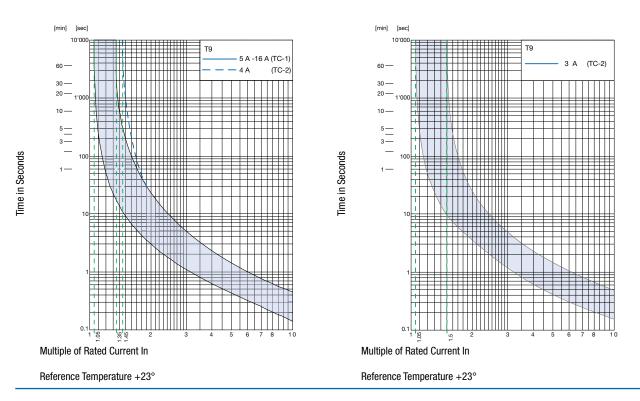
Thermal (T- and TA-Line) https://www.schurter.com /PG17_18_19

Approval		Rated current	Rated Voltage AC	Rated Voltage DC
c 🗫 us	UL 1077	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
c 🕄 us	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 per pole

Rated Current [A]	Internal Resistance [m Ω]
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

Accessories

Part Number	Туре	Resources / Description
4404.0039	TZZ31	Protection cover for IP65
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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Schurter:

<u>TZZ31</u> <u>4404.004</u> <u>4404.0026</u> <u>4404.0022</u> <u>4404.0028</u> <u>4404.0020</u> <u>4404.0025</u> <u>4404.0019</u> <u>4404.0027</u> <u>4404.0024</u> 4404.0021 <u>4404.0023</u> <u>4404.0039</u> <u>4404.0049</u>