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



T9-211: Threaded neck with nut PA66

#### See below:

# **Approvals and Compliances**

# Description

- Threaded neck type
- Thermal circuit breaker
- 1-pole
- On request available with elevaled glow-wire ratings
- Quick connect terminals 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 ca-	IEC: Inc, PC1, AC 240 V: 2 kA
pacity	
	UL / CSA: SC, AC 240 V DC 48 / 32 V:
	2 kA, C1
Degree of protection front side	IP 40
Endurance minimum	IEC: 200% Ir, cos φ 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% Ir, cos φ 0.9:
	6000 switching cycles
Dielectric Strength	1500 VAC
Insulation Resistance	$500 \text{ VDC} > 1000 \text{ M}\Omega$

3 A: -5 °C to 60 °C
4 A: -5°C to 50 °C
5-16 A: -5 °C to 60 °C
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
_DVE	VDE Approvals	VDE	VDE Certificate Number: 40038016
c <b>Fl</b> °us	UL Approvals	UL	UL File Number: E71572
(W)	CQC Approvals	CQC	CCC Certificate Number: 2013010307617688

## **Product standards**

Product standards that are referenced

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

# **Application standards**

Application standards where the product can be used

Organization	Design	Standard	Description
<u>IEC</u>	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment. $\label{eq:continuous}$

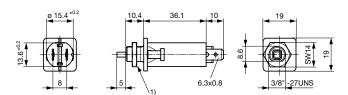
# Compliances

The product complies with following Guide Lines

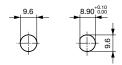
	•		
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
RoHS	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
<b>©</b>	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]

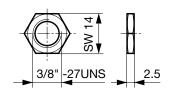
T9-211/311



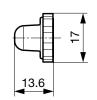
Pannel thickness 0.8 - 5.5 mm 1) max. torque: 0.6Nm



Hexagonal nut TZZ12 / TZZ51



Cover TZZ31für IP65 optional, see accessory



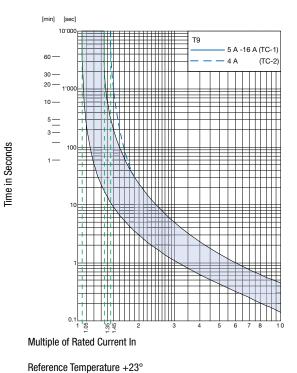


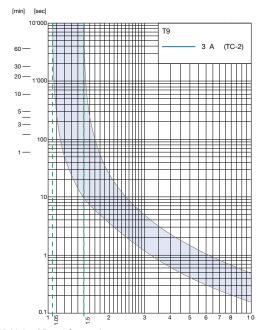
Approval		Rated current	Rated Voltage AC	Rated Voltage DC
c <b>FL</b> °us	UL 1077	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
c <b>AU</b> °us	CSA 22.2 235	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
<b>D</b> VE <b>D</b> VE	IEC 60934	3 - 12 A 14 - 16 A	240 V 240 V	48 V 32 V
(°)	GB 17701	3 - 12 A 14 - 16 A	240 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°

Time in Seconds

#### 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  $^{\circ}$ 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 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 short	Rated current not printed on front	3.0 A	4404.0084
Threaded neck short	Rated current not printed on front	4.0 A	4404.0083
Threaded neck short	Rated current not printed on front	5.0 A	4404.0082
Threaded neck short	Rated current not printed on front	6.0	4404.0081
Threaded neck short	Rated current not printed on front	7.0 A	4404.0080
Threaded neck short	Rated current not printed on front	8.0 A	4404.0079
Threaded neck short	Rated current not printed on front	10.0 A	4404.0078
Threaded neck short	Rated current not printed on front	12.0 A	4404.0077
Threaded neck short	Rated current not printed on front	14.0 A	4404.0076
Threaded neck short	Rated current not printed on front	15.0 A	4404.0075
Threaded neck short	Rated current not printed on front	16.0 A	4404.0074

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

**Packaging Unit** 

100 Pcs