Circuit Breaker for Equipment thermal, Threaded neck type, Reset type, Quick connect terminals



## See below:

## **Approvals and Compliances**

### **Description**

- Threaded neck type
- Thermal circuit breaker
- 1-pole
- Reset type
- Quick connect terminals 6.3 x 0.8 mm

## **Unique Selling Proposition**

- Compact design
- Positively trip-free release
- Available with cover
- Different mounting possibilities

### **Applications**

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

#### Weblinks

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

### **Technical Data**

Rated Voltage AC	AC 240 VAC
Rated Voltage DC	28 VDC
Rated current range AC	0.05 - 15/16 A, see approbations
Conditional short circuit capacity Inc	IEC 60934: PC1, AC 240 V: 1 kA
Short circuit capacity Icn	IEC 60934: at ln < 7 A/240 VAC : 8 x ln
	IEC 60934: at In ≥ 7 A/240 VAC : 200 A
	AC/DC 28 V : 400 A
Degree of Protection	front side IP40 acc. to IEC 60529
Dielectric Strength	50Hz: > 1.5kV
	Impulse 1.2/50 µs: > 2.5 kV
Insulation Resistance	$500\text{VDC} > 100\text{M}\Omega$
Endurance typical	2 x Ir: 5000 switching cycles
Endurance minimum	Reset type
	AC: 2 x lr, cos φ 0.6:
	DC: $2 \times Ir$ , $L/R = 2 - 3 \text{ ms}$ :
	50 switching cycles

Overload	IEC: min. 40 trips		
	@ 6 x lr, cos φ 0.6		
	UL / CSA: min. 50 trips		
	@ 1.5 x lr, cos φ 0.75		
Allowable Operation Temp.	-5°C to 60°C		
Vibration Resistance	± 1.5 mm @ 10 - 60 Hz		
	acc. to IEC 60068-2-6, test Fc		
	10 G @ 60 - 500 Hz		
	acc. to IEC 60068-2-6, test Fc		
Shock Resistance	100 G / 6ms		
	acc. to IEC 60068-2-27, test Ea		
Tripping Type	Thermal		
Actuation Type	Reset type		
Weight	ca. 10 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

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: T12

Approval Logo	Certificates	Certification Body	Description
© <sup>V</sup> E	VDE Approvals	VDE	VDE Certificate Number: 99673
c <b>Al</b> °us	UL Approvals	UL	UR File Number: E71572
<b>(11)</b>	CCC Approvals	CCC	CCC Certificate Number: 2020970307003504

#### **Product standards**

Product standards that are referenced

Organization	Design	Standard	Description
<u>IEC</u>	Designed according to	IEC 60934	Circuit-breakers for equipment (CBE)
(UL)	Designed according to	UL 1077	Standard for Supplementary Protectors for Use in Electrical Equipment
CSA Group	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
<b>(W)</b>	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>	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

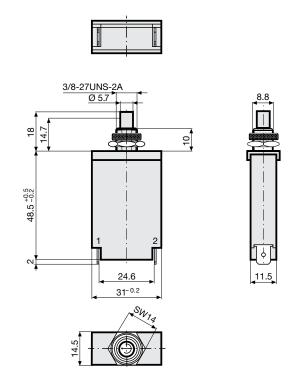
### Compliances

The product complies with following Guide Lines

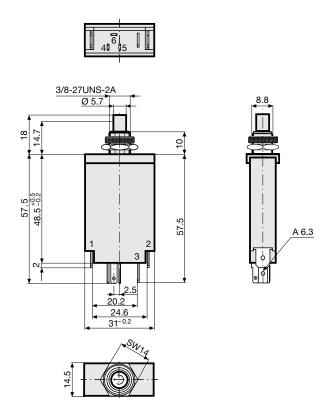
Identification	Details	Initiator	Description
C€	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UK CA	UKCA declaration of conformity	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
<b>5</b> 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.

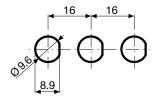
# Dimension [mm]

T12-211



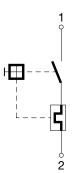
T12-211SN



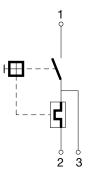


# **Diagrams**

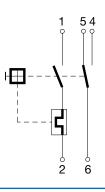
T12-...



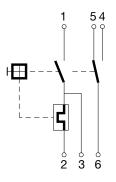
T12-...N



T12-...S



T12-...SN



Approval		Main circuit Rated current	Rated Voltage AC	Rated Voltage DC	Auxiliary circuit Rated current	Rated Voltage AC	Rated Voltage DC
c <b>M</b> °us	UL 1077 CSA C22.2 No. 235	0.0515 A	240 V	28 V	2 A 3 A	120 V	- 28 V
<b>(P</b>	CSA C22.2 No. 235	0.316 A	240 V	28 V	1 A	240 V	-
<b>D</b> V <sub>E</sub>	IEC 60934	0.0516 A	240 V	28 V	1 A	240 V	28 V
<b>(W)</b>	GB 17701	0.0516 A	240 V	28 V	1 A	240 V	28 V

# Typical internal resistance per pole

Rated Current [A]	Internal Resistance [Ω]
0.05	225.000
0.50	3.300
1.00	0.880
2.00	0.267
3.00	0.128
4.00	0.073
5.00	0.040
6.00	0.031
7.00	0.018
8.00	0.018
9.00	0.010
10.00	0.0087
11.00	0.0087
12.00	0.0087
13.00	0.0087
14.00	0.0070
15.00	0.0070
16.00	0.0055

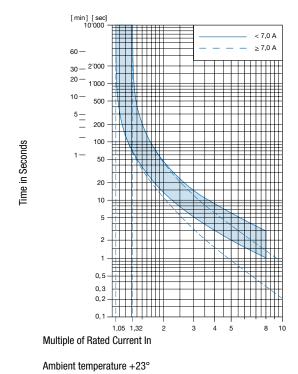
# Effect of ambient temperature

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	0.87
0	0.90
10	0.95
23	1.00
30	1.05
40	1.12
50	1.20
60	1.30

Example: Rated current = 5 A, Environmental temperature = 50 °C, --> Correction factor = 1.2, Resulting current = 6.0 A

### **Time-Current-Curves**



# Config. Code

# T12 - 1 2 3 A B C - 1.23

The characters are placeholders for the correspondingly keys of selections from the key tables.

T12 - <b>1</b> 2 3 A B C - 1.23 = <b>Mounting</b>		Setting indication	Configuration key
Mounting	Configuration key	Setting indication	R
Threaded neck type with hexagonal- and knurled nut	2	T12 - 1 2 3 A B C - <b>1.23</b> = Rated current	
T12 - 1 <b>2</b> 3 A B C - 1.23 <b>= Actuation Type</b>		Rated current	Configuration key
Actuation Type	Configuration	0.05 A	0.05
	key	0.1 A	0.1
Reset type	1	0.15 A	0.15
T12 - 1 2 <b>3</b> A B C - 1.23 = <b>Terminal</b>		0.2 A	0.2
		0.3 A	0.3
Terminal	Configuration key	0.4 A	0.4
Quick connect terminal 6.3x0.8mm	1	0.5 A	0.5
Quick connect terminal 0.3x0.0mm	<u> </u>	0.6 A	0.6
T12 - 1 2 3 <b>A</b> B C - 1.23 <b>= Auxiliary contact</b>		0.7 A	0.7
A 35		0.8 A	0.8
Auxiliary contact	Configuration key	0.9 A	0.9
Auxiliary contact	S	1.0	1
		1.1 A	1.1
T12 - 1 2 3 A <b>B</b> C - 1.23 <b>= Shunt terminal</b>		1.2 A	1.2
Shunt terminal	Configuration	1.3 A	1.3
Shunt terminal	key	1.4 A	1.4
Shunt terminal	N	1.5 A	1.5
		1.6 A	1.6
T12 - 1 2 3 A B <b>C</b> - 1.23 <b>= Setting indication</b>		1.7 A	1.7

Other rated currents on request

Rated current	Configuration key	Rated current	Configuration key
1.8 A	1.8	6.5 A	6.5
1.9 A	1.9	7.0 A	7
2.0 A	2	7.5 A	7.5
2.1 A	2.1	8.0 A	8
2.3 A	2.3	8.5 A	8.5
2.5 A	2.5	9.0 A	9
2.8 A	2.8	9.5 A	9.5
3.0 A	3	10.0 A	10
3.3 A	3.3	11.0 A	11
3.5 A	3.5	12.0 A	12
4.0 A	4	13.0 A	13
4.5 A	4.5	14.0 A	14
5.0 A	5	15.0 A	15
5.5 A	5.5	16.0 A	16
6.0	6	Other rated currents on request	

Other rated currents on request

### **Variants**

Rated Current [A]		Construction variants		Config. Code	Order Number
	Auxiliary contact	Shunt terminal	Setting indication		
0.8	•			T12-211S-0.8	4410.0044
1	•	•	•	T12-211SNR-1	4410.0655
2.5	•			T12-211S-2.5	4410.0046
6.5	•			T12-211S-6.5	4410.0264
10				T12-211-10	4410.0106
12				T12-211-12	4410.0019

Most Popular.

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

**Packaging Unit** 20 Pcs

### **Accessories**

## Description



**T-Line Accessories** Accessories to T-Line