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
- Wide current range
- High breaking capacity
- 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 240/277 VAC, see approbations
Rated Voltage DC	28 VDC
Rated current range AC	0.05 - 30 A
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 : 400 A
	AC/DC 28 V : 400 A
Degree of Protection	from 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 lr: 3000 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 q

## **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: T13

## **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
GF Group	Designed according to	CSA C22.2 No. 235	Supplementary Protectors
<b>(3)</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>	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

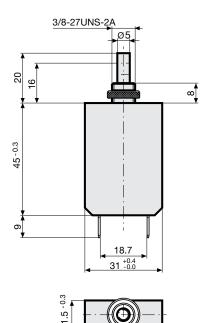
The product complies with following Guide Lines

Identification	Details	Initiator	Description
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	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
<b>5</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]

T13-211



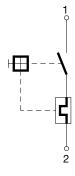






## **Diagrams**

T13-...



Approval		Rated current	Rated Voltage AC	Rated Voltage DC
<b>A1</b> °	UL 1077	0.0530 A	277 V	28 V
<b>(F)</b>	CSA C22.2 No. 235	0.0530 A	277 V	28 V
₽VE	EN 60934	0.0530 A	240 V	-
<u></u>	GB 17701	0.0530 A	240 V	-

## Typical internal resistance per pole

Rated Current [A]         Internal Resistance [Ω]           0.05         376.500           0.50         4.40           1.00         1.10           2.00         0.31           3.00         0.14           4.00         0.068           5.00         0.048           6.00         0.033           8.00         0.026           9.00         0.0125           10.00         0.0125           11.00         0.0085           12.00         0.0085           13.00         0.0085           14.00         0.007           15.00         0.007           16.00         0.007           17.00         0.0047           18.00         0.0047           19.00         0.0047           20.00         0.004           21.00         0.003           22.00         0.003           23.00         0.003           25.00         0.003           25.00         0.002           28.00         0.002           29.00         0.002	Typical Internal resistance per pole			
0.50       4.40         1.00       1.10         2.00       0.31         3.00       0.14         4.00       0.068         5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         19.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         25.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	Rated Current [A]	Internal Resistance [ $\Omega$ ]		
1.00       1.10         2.00       0.31         3.00       0.14         4.00       0.068         5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.007         15.00       0.007         15.00       0.007         17.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	0.05	376.500		
2.00       0.31         3.00       0.14         4.00       0.068         5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	0.50	4.40		
3.00       0.14         4.00       0.068         5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	1.00	1.10		
4.00       0.068         5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         25.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	2.00	0.31		
5.00       0.048         6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         24.00       0.003         25.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002	3.00	0.14		
6.00       0.033         8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	4.00	0.068		
8.00       0.026         9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	5.00	0.048		
9.00       0.0125         10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	6.00	0.033		
10.00       0.0125         11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	8.00	0.026		
11.00       0.0085         12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.0035         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002         29.00       0.002	9.00	0.0125		
12.00       0.0085         13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002         29.00       0.002	10.00	0.0125		
13.00       0.0085         14.00       0.007         15.00       0.007         16.00       0.0047         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.0035         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	11.00	0.0085		
14.00       0.007         15.00       0.007         16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.003         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002         29.00       0.002	12.00	0.0085		
15.00     0.007       16.00     0.007       17.00     0.0047       18.00     0.0047       19.00     0.0047       20.00     0.004       21.00     0.0035       22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.002       27.00     0.002       28.00     0.002       29.00     0.002	13.00	0.0085		
16.00       0.007         17.00       0.0047         18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.0035         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.002         27.00       0.002         28.00       0.002         29.00       0.002	14.00	0.007		
17.00     0.0047       18.00     0.0047       19.00     0.0047       20.00     0.004       21.00     0.0035       22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.002       27.00     0.002       28.00     0.002       29.00     0.002	15.00	0.007		
18.00       0.0047         19.00       0.0047         20.00       0.004         21.00       0.0035         22.00       0.003         23.00       0.003         24.00       0.003         25.00       0.003         26.00       0.0022         27.00       0.002         28.00       0.002         29.00       0.002	16.00	0.007		
19.00     0.0047       20.00     0.004       21.00     0.0035       22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	17.00	0.0047		
20.00     0.004       21.00     0.0035       22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	18.00	0.0047		
21.00     0.0035       22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	19.00	0.0047		
22.00     0.003       23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	20.00	0.004		
23.00     0.003       24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	21.00	0.0035		
24.00     0.003       25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	22.00	0.003		
25.00     0.003       26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	23.00	0.003		
26.00     0.0022       27.00     0.002       28.00     0.002       29.00     0.002	24.00	0.003		
27.00     0.002       28.00     0.002       29.00     0.002	25.00	0.003		
28.00 0.002 29.00 0.002	26.00	0.0022		
29.00 0.002	27.00	0.002		
	28.00	0.002		
30.00 0.002	29.00	0.002		
	30.00	0.002		

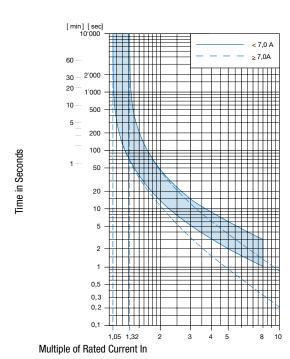
#### Effect of ambient temperature

The units are calibrated for an ambient temperature of  $\pm 23^{\circ}$ 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	0.88
0	0.90
10	0.95
23	1.00
30	1.05
40	1.10
50	1.18
60	1.26

Example: Rated current = 5 A, Environmental temperature = 40 °C, --> Correction factor = 1.1, Resulting current = 5.5 A --> Fount to next higher rated current: 6 A

## **Time-Current-Curves**

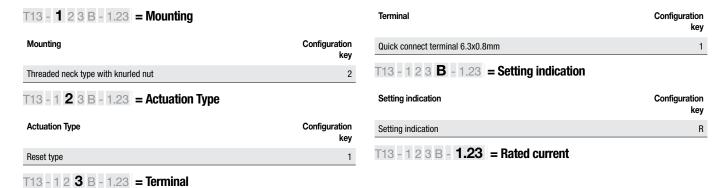


Reference Temperature +23°

#### Config. Code

T13 - 1 2 3 B - 1.23

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



Rated current	Configuration key	Rated current	Configuration key
0.05 A	0.05	3.5 A	3.5
0.1 A	0.1	4.0 A	4
0.15 A	0.15	4.5 A	4.5
0.2 A	0.2	5.0 A	5
0.3 A	0.3	5.5 A	5.5
0.4 A	0.4	6.0	6
0.5 A	0.5	6.5 A	6.5
0.6 A	0.6	7.0 A	7
0.7 A	0.7	7.5 A	7.5
0.8 A	0.8	8.0 A	8
0.9 A	0.9	8.5 A	8.5
1.0	1	9.0 A	9
1.1 A	1.1	9.5 A	9.5
1.2 A	1.2	10.0 A	10
1.3 A	1.3	11.0 A	11
1.4 A	1.4	12.0 A	12
1.5 A	1.5	13.0 A	13
1.6 A	1.6	14.0 A	14
1.7 A	1.7	15.0 A	15
1.8 A	1.8	16.0 A	16
1.9 A	1.9	17.0 A	17
2.0 A	2	18.0 A	18
2.1 A	2.1	19.0 A	19
2.3 A	2.3	20.0 A	20
2.5 A	2.5	22.0 A	22
2.8 A	2.8	25.0 A	25
3.0 A	3	28.0 A	28
3.3 A	3.3	30.0 A	30
Other rated currents on request		Other rated currents on request	

## **Variants**

Rated current	Setting indication	Config. Code	Order Number	
15.0 A		T13-211-15	4411.0007	
20.0 A		T13-211-20	4411.0010	
30.0 A		T13-211-30	4411.0017	
18.0 A		T13-211-18	4411.0019	
25.0 A		T13-211-25	4411.0073	
30.0 A	•	T13-211R-30	4411.0221	

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

# **Mouser Electronics**

**Authorized Distributor** 

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

## Schurter:

 4411.0007
 4411.0011
 4411.0013
 4411.0014
 4411.0017
 4411.0018
 4411.0033
 4411.0052
 4411.0073
 4411.0087

 4411.0089
 4411.0096
 4411.0109
 4411.0135
 4411.0223
 4411.0006
 4411.0015
 4411.0044
 4411.009
 4411.0090

 4411.0010