

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China







#### Circuit Breaker for Equipment thermal, Threaded neck type, Reset type, Screw terminals















#### **Description**

- Threaded neck type
- Thermal circuit breaker
- 1-pole
- Reset type
- Wide current range
- High breaking capacity
- Bolts and nuts

#### **Unique Selling Proposition**

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

#### **Standards**

- IEC 60934
- UL 1077
- CSA C22.2 No. 235
- GB 17701

#### **Applications**

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

#### Weblinks

pdf datasheet, html-datasheet, General Product Information, Approvals, CE declaration of conformity, RoHS, CHINA-RoHS, REACH, Distributor-Stock-Check, Detailed request for product, Product News

#### **Technical Data**

Rated Voltage AC	240/277 V; 50/60 Hz, see approbations	
Rated Voltage DC	28 V	
Rated current range AC	0.05 - 30 A	
Conditional short circuit capacity	IEC: Inc, PC1, AC 240 V: 1 kA	
Short circuit capacity Icn	at In < 7 A/240 VAC : 8 x In	
	at In ≥ 7 A/240 VAC : 400 A	
	AC/DC 28 V : 400 A	
Degree of Protection	from front side IP 40 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: 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	

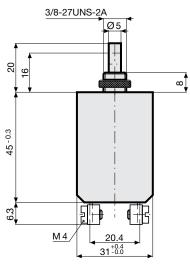
Overload	IEC: min. 40 trips	
	@ 6 x lr, cos φ 0.6	
	UL / CSA: min. 50 trips	
	@ 1.5 x lr, cos φ 0.75	
Ambient temperature	-5°C to 60°C	
Vibration Resistance	± 1.5 mm @ 10 - 60 Hz	
	acc. to IEC 60068-2-6, test Fc	
	10 G @ 60 - 500 Hz	
	acc. to IEC 60068-2-6, test Fc	
Shock Resistance	100 G / 6ms	
	acc.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

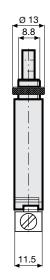
Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in **General Product Information** 

#### **Dimension**

T13-212





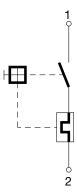






## **Diagrams**

T13-...



Approval STATES	UL 1077	Rated current 0.0530 A	Rated voltage AC 277 V	Rated voltage DC 28 V
<b>(P</b>	CSA C22.2 No. 235	0.0530 A	277 V	28 V
DVE	EN 60934	0.0530 A	240 V	-
( <u>)</u>	GB 17701	0.0530 A	240 V	-

### Typical internal resistance

rypical internal resistance		
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	0.0035	
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	
30.00	0.002	

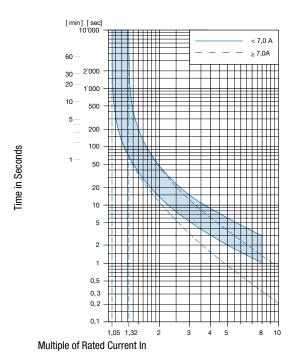
#### Effect of ambient temperature

The units are calibrated for an ambient temperature of  $+23^{\circ}$ 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**

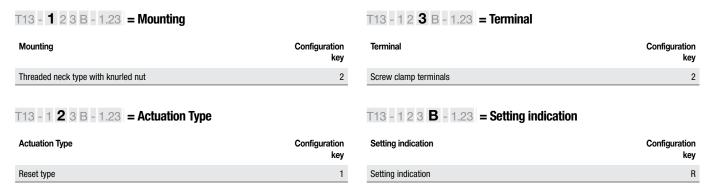


# Config. Code

Reference Temperature +23°

T13 - 1 2 3 B - 1.23

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



T13 - 1 2 3 B - <b>1.23 = Rated current</b>		
Rated current	Configuration key	
0.05 A	0.05	
0.1 A	0.1	
0.15 A	0.15	
0.2 A	0.2	
0.3 A	0.3	
0.4 A	0.4	
0.5 A	0.5	
0.6 A	0.6	
0.7 A	0.7	
0.8 A	0.8	
0.9 A	0.9	
1.0	1	
1.1 A	1.1	
1.2 A	1.2	
1.3 A	1.3	
1.4 A	1.4	

Rated current	Configuration key
3.5 A	3.5
4.0 A	4
4.5 A	4.5
5.0 A	5
5.5 A	5.5
6.0	6
6.5 A	6.5
7.0 A	7
7.5 A	7.5
8.0 A	8
8.5 A	8.5
9.0 A	9
9.5 A	9.5
10.0 A	10
11.0 A	11
12.0 A	12
13.0 A	13
14.0 A	14
15.0 A	15
16.0 A	16
17.0 A	17
18.0 A	18
19.0 A	19
20.0 A	20
22.0 A	22
25.0 A	25
28.0 A	28
30.0 A	30

Other rated currents on request

1.5

1.6

1.7

1.8 1.9

2

2.1 2.3

2.5

2.8

3.3

3

Other rated currents on request

#### **Variants**

1.5 A

1.6 A

1.7 A

1.8 A

1.9 A 2.0 A

2.1 A

2.3 A 2.5 A

2.8 A

3.0 A

3.3 A

Rated current	Setting indication	Config. Code	Order Number
16.0 A		T13-212-16	4411.0012
30.0 A		T13-212-30	4411.0067
12.0 A		T13-212-12	4411.0099
11.0 A	•	T13-212R-11	4411.0210
15.0 A	•	T13-212R-15	4411.0211

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

20 Pcs

**Packaging Unit** 

#### **Accessories**

Description



T-Linie Zubehör Accessories to T-Line

Circuit Breakers