

Circuit Breaker for Equipment thermal, Flange type, Reset type, Quick connect terminals



See below:

Approvals and Compliances

Description

- Flange 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 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 | Overload | IEC: min. 40 trips @ 6 x I _r , cos φ 0.6 |
| Rated Voltage DC | 28 V | | UL / CSA: min. 50 trips @ 1.5 x I _r , cos φ 0.75 |
| Rated current range AC | 0.05 - 15/16 A, see approbations | Allowable Operation Temp. | -5 °C to 60 °C |
| Conditional short circuit capacity | IEC: Inc, PC1, AC 240 V: 1 kA | 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 |
| Short circuit capacity I _{cn} | at I _n < 7 A/240 VAC : 8 x I _n at I _n ≥ 7 A/240 VAC : 200 A AC/DC 28 V : 400 A | Shock Resistance | 100 G / 6ms acc. to IEC 60068-2-27, test Ea |
| Degree of Protection | from front side IP 40 acc. to IEC 60529 | Tripping Type | Thermal |
| Dielectric Strength | 50Hz: > 1.5 kV Impulse 1.2/50 μs: > 2.5 kV | Actuation Type | Reset type |
| Insulation Resistance | 500VDC > 100 MΩ | Weight | ca. 10g |
| Endurance typical | 2 x I _r : 5000 switching cycles | | |
| Endurance minimum | Reset type AC : 2 x I _r , cos φ 0.6 : DC : 2 x I _r , L/R = 2 - 3 ms : 50 switching cycles | | |

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: T12

| Approval Logo | Certificates | Certification Body | Description |
|---------------|-------------------------------|--------------------|--|
| | VDE Approvals | VDE | VDE Certificate Number: 99673 |
| | UL Approvals | UL | UL File Number: E71572 |
| | CQC Approvals | CQC | CCC Certificate Number: 2012010307564275 |

Product standards

Product standards that are referenced

| Organization | Design | Standard | Description |
|--|-----------------------|-------------------|---|
|  | Designed according to | IEC 60934 | Circuit-breakers for equipment (CBE) |
|  | Designed according to | UL 1077 | Standard for Supplementary Protectors for Use in Electrical Equipment |
|  | 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 |
|--|--------------------------------|--------------|---|
|  | Designed for applications acc. | IEC/UL 60950 | IEC 60950-1 includes the basic requirements for the safety of information technology equipment. |

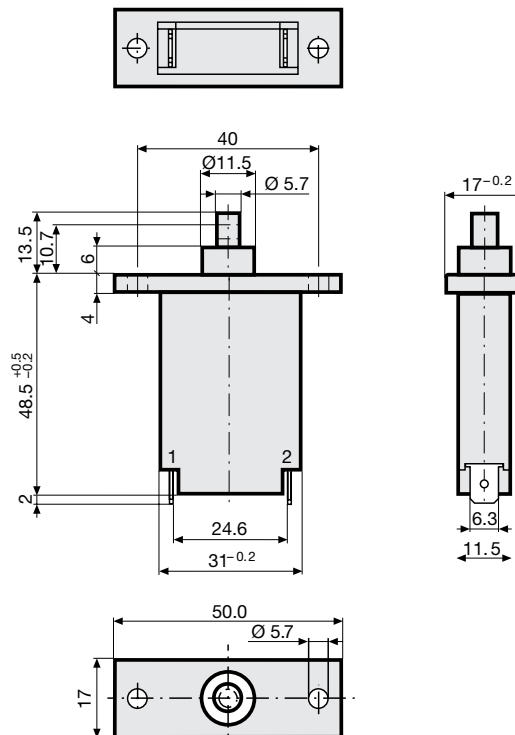
Compliances

The product complies with following Guide Lines

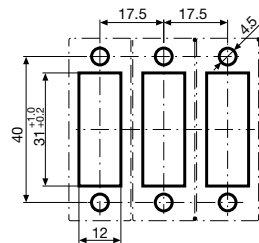
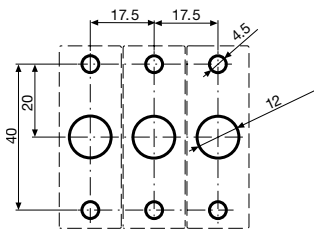
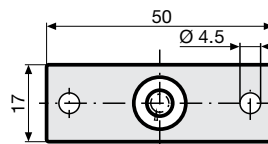
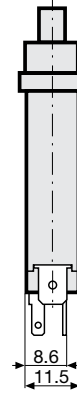
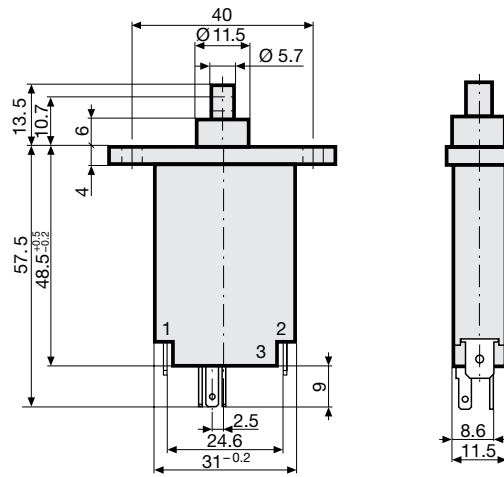
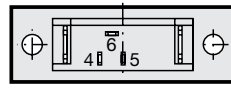
| Identification | Details | Initiator | Description |
|--|--|-------------|---|
|  | CE declaration of conformity | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with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

T12-111



T12-111SN

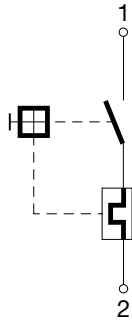


Installation from rear

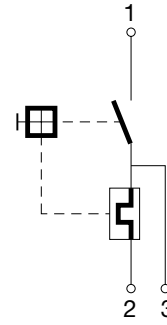
Installation from front

Diagrams

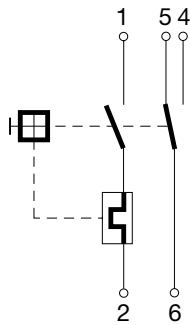
Tap 4,8 x 0,8 mm



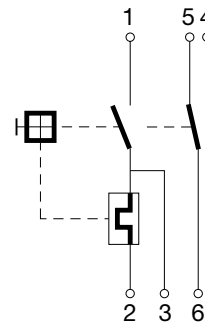
Tap 4,8 x 0,8 mm



Tap 4,8 x 0,8 mm



Tap 4,8 x 0,8 mm



| Approval | Main circuit | | | Auxiliary circuit | | |
|------------------------------|---------------|------------------|------------------|-------------------|------------------|------------------|
| | Rated current | Rated Voltage AC | Rated Voltage DC | Rated current | Rated Voltage AC | Rated Voltage DC |
| UL 1077 CSA C22.2 No. 235 | 0.05...15 A | 240 V | 28 V | 2 A 3 A | 120 V - | - 28 V |
| CSA C22.2 No. 235 | 0.3...16 A | 240 V | 28 V | 1 A | 240 V | - |
| IEC 60934 | 0.05...16 A | 240 V | 28 V | 1 A | 240 V | 28 V |
| GB 17701 | 0.05...16 A | 240 V | 28 V | 1 A | 240 V | 28 V |

Typical internal resistance

| 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 |

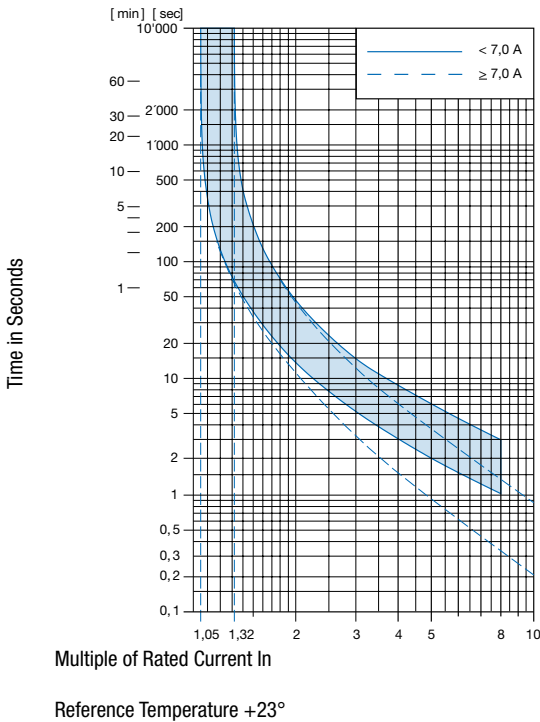
Effect of ambient temperature

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 - **1** 2 3 A B C - 1.23 = Mounting

| Mounting | Configuration key |
|----------------------|-------------------|
| Screwflange mounting | 1 |

T12 - 1 **2** 3 A B C - 1.23 = Actuation Type

| Actuation Type | Configuration key |
|----------------|-------------------|
| Reset type | 1 |

T12 - 1 2 **3** A B C - 1.23 = Terminal

| Terminal | Configuration key |
|----------------------------------|-------------------|
| Quick connect terminal 6.3x0.8mm | 1 |

T12 - 1 2 3 **A** B C - 1.23 = Auxiliary contact

| Auxiliary contact | Configuration key |
|-------------------|-------------------|
| Auxiliary contact | S |

T12 - 1 2 3 A **B** C - 1.23 = Shunt terminal

| Shunt terminal | Configuration key |
|----------------|-------------------|
| Shunt terminal | N |

T12 - 1 2 3 A B **C** - 1.23 = Setting indication

| Setting indication | Configuration key |
|--------------------|-------------------|
| Setting indication | R |

T12 - 1 2 3 A B C - **1.23** = Rated current

| 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 |

Other rated currents on request

| Rated current | Configuration key | Rated current | Configuration key |
|---------------|-------------------|---------------|-------------------|
| 1.5 A | 1.5 | 5.5 A | 5.5 |
| 1.6 A | 1.6 | 6.0 | 6 |
| 1.7 A | 1.7 | 6.5 A | 6.5 |
| 1.8 A | 1.8 | 7.0 A | 7 |
| 1.9 A | 1.9 | 7.5 A | 7.5 |
| 2.0 A | 2 | 8.0 A | 8 |
| 2.1 A | 2.1 | 8.5 A | 8.5 |
| 2.3 A | 2.3 | 9.0 A | 9 |
| 2.5 A | 2.5 | 9.5 A | 9.5 |
| 2.8 A | 2.8 | 10.0 A | 10 |
| 3.0 A | 3 | 11.0 A | 11 |
| 3.3 A | 3.3 | 12.0 A | 12 |
| 3.5 A | 3.5 | 13.0 A | 13 |
| 4.0 A | 4 | 14.0 A | 14 |
| 4.5 A | 4.5 | 15.0 A | 15 |
| 5.0 A | 5 | 16.0 A | 16 |

Other rated currents on request

Variants

| Rated current | Construction variants | | | Config. Code | Order Number |
|---------------|-----------------------|----------------|--------------------|--------------|--------------|
| | Auxiliary contact | Shunt terminal | Setting indication | | |
| 1.5 A | | | | T12-111-1.5 | 4410.0038 |
| 2.0 A | | | | T12-111-2 | 4410.0034 |
| 3.0 A | | | | T12-111-3 | 4410.0135 |
| 10.0 A | | | | T12-111-10 | 4410.0163 |
| 15.0 A | | | | T12-111-15 | 4410.0777 |
| 16.0 A | • | | | T12-111S-16 | 4410.0385 |

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