

Description

Single pole thermal circuit breaker with press-to-reset, tease-free, trip-free, snap action mechanism. Type 2-5000 is available with optional manual release (-H), type 2-5700 can be supplied as a push-push switch/circuit breaker (R-type TO CBE to EN 60934 in press-to-reset configuration; M-type when fitted with manual release -H; S-type with push-push operation). Fitted with flange or threadneck for panel mounting. Options include an additional unprotected circuit tap (-A3). Approved to CBE standard EN 60934 (IEC 60934).

The 2-5700 is also available including a C14 appliance inlet as completely assembled power entry module (optionally with or without line filter).

Typical applications

Motors, transformers, solenoids, battery chargers, power supplies, appliances, machinery, extra low voltage systems.

Ordering information

Type No.

2-5000 flange mounting

2-5700 threadneck panel mounting

Threadneck design - type 2-5700 only

iG1 Plastic threadneck 3/8-27UNS-2A with screwed-on metal hexnut and plastic knurled nut⁽¹⁾

iG2 Plastic threadneck M12x1 with screwed-on hexnut and metal knurled nut

Terminal design

P10 blade terminals according to IEC 61210, 6.3 x 0.8 mm

K10 screw terminals M4x6

Manual release (optional)

H manual release facility (type 2-5000 only)

DD push to release/push to reset (type 2-5700 only)

Current ratings

0.05...25 A

2-5700 - iG1 - P10 - DD - 8 A ordering example

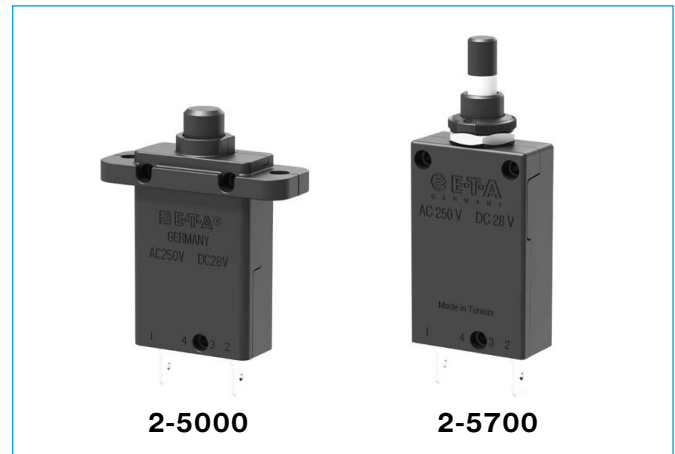
⁽¹⁾ Use this version for configuration with XR38 power entry module

Please be informed that we have minimum ordering quantities to be observed.

Preferred types

| Preferred types | Standard current ratings (A) | | | | | | | | | | | | |
|-------------------|------------------------------|---|---|---|---|---|---|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 15 | 16 | 20 | 25 |
| 2-5700-iG1-P10- | x | x | x | x | x | x | x | x | x | x | x | x | x |
| 2-5700-iG1-P10-DD | | | x | x | x | x | x | x | x | x | x | x | x |
| 2-5700-iG2-P10- | | | x | x | x | x | x | x | x | x | x | x | x |
| 2-5700-iG2-P10-DD | | | x | x | x | x | x | x | x | x | x | x | x |

Compliance



Technical data

For further details please see: www.e-t-a.de/ti_e

| | | | |
|--|---|---------------------|----------------------------|
| Voltage rating | AC 250 V; DC 28 V (UL: AC 250 V; DC 50 V) | | |
| Current rating range | 0.05...25 A | | |
| Typical life | AC 250 V / DC 28 V: 0.05...16 A 5,000 operations at 2 x I _N , inductive 17...25 A 5,000 operations at 2 x I _N , resistive | | |
| Ambient temperature | -20...+60 °C (-4...+140 °F) | | |
| Insulation coordination (IEC 60664, IEC 60934) | Overvoltage category II (impulse withstand voltage 2,5kV), pollution degree 2 | | |
| Dielectric strength | II to operating area, Test voltage AC 3000 V | | |
| Insulation resistance | > 100 MΩ (DC 500 V) | | |
| Interrupting capacity I _{cn} | 0.05...2.5 A | 8 x I _N | |
| | 3...5 A | 20 x I _N | |
| | 6...12 A | 200 A | |
| | 13...25 A | 300 A | |
| Interrupting capacity (UL 1077) | I _N | U _N | S.C. |
| | 0.05...20 A | AC 250 V | 2,000 A, C1a |
| | 0.05...25 A | DC 50 V | 2,500 A, C1 ⁽²⁾ |
| | ⁽²⁾ Back-up fuse approx. 2 x rated current of the circuit breaker, minimum 15 A | | |
| Degree of protection (IEC 60529) | operating area IP40 terminal area IP00 | | |
| Vibration | 8 g (57-500 Hz) ± 0.61 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis | | |
| Shock | 25 g (11 ms) to IEC 60068-2-27, test Ea | | |
| Corrosion | 96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka | | |
| Humidity | 240 hours at 95 % RH to IEC 60068-2-78, test Cab | | |
| Mass | approx. 29 g | | |

Approvals

| Authority | Standard | Rated voltage | Current ratings |
|-----------|--------------|---------------------|--------------------------------|
| VDE | IEC/EN 60934 | AC 250 V DC 28 V | 0.05 A...25 A 0.05 A...25 A |
| UL | UL 1077 | AC 250 V DC 50 V | 0.05 A...20 A 0.05 A...25 A |
| CSA | C22.2 No 235 | AC 250 V DC 50 V | 0.05 A...20 A 0.05 A...25 A |
| CQC | GB 17701 | AC 250 V DC 28 V | 0.05 A...25 A 0.05 A...25 A |

Standard current ratings and typical internal resistance values

| Current rating (A) | Internal resistance (Ω) | Current rating (A) | Internal resistance (Ω) |
|--------------------|----------------------------------|--------------------|----------------------------------|
| 0.05 | 280 | 3 | 0.1 |
| 0.08 | 100 | 3.5 | 0.06 |
| 0.1 | 110 | 4 | 0.06 |
| 0.2 | 29 | 4.5 | 0.05 |
| 0.3 | 14 | 5 | 0.05 |
| 0.4 | 7 | 6 | 0.02 |
| 0.5 | 4.9 | 7 | 0.02 |
| 0.6 | 3.4 | 8 | 0.02 |
| 0.7 | 2.5 | 10 | < 0.02 |
| 0.8 | 1.8 | 12 | < 0.02 |
| 1 | 1.2 | 13 | < 0.02 |
| 1.2 | 0.8 | 15 | < 0.02 |
| 1.5 | 0.6 | 16 | < 0.02 |
| 1.8 | 0.4 | 20 | < 0.02 |
| 2 | 0.3 | 22 | < 0.02 |
| 2.5 | 0.2 | 25 | < 0.02 |

Installation drawings



Dimensions

2-5000-P10



2-5700-P10



Terminal design

-K10



Internal connection diagrams



Typical time/current characteristics

Ambient temperature +23 °C/+73.4 °C



The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section Technical information.

| | | | | | | | |
|------------------------|------|------|------|-------|------|------|------|
| Ambient temperature °F | -4 | +14 | +32 | +73.4 | +104 | +122 | +140 |
| °C | -20 | -10 | 0 | +23 | +40 | +50 | +60 |
| Derating factor | 0.76 | 0.84 | 0.92 | 1 | 1.08 | 1.16 | 1.24 |

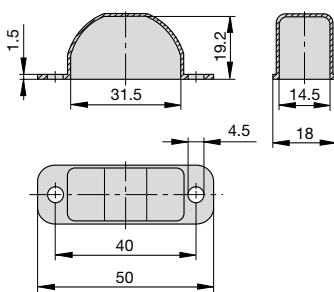
Accessories for types 2-5000 and 2-5700 with screw terminals -K10

**Bus bar
Y 303 563 01**

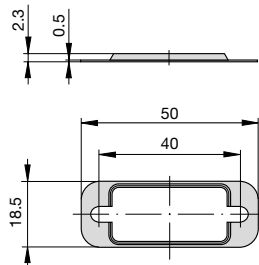


Accessories for type 2-5000

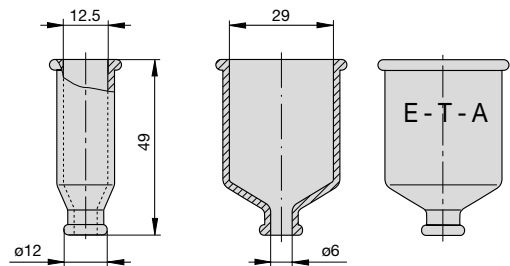
**Water splash cover, transparent
for push button
Y 300 728 01**



**Fixing plate
Y 301 056 02**

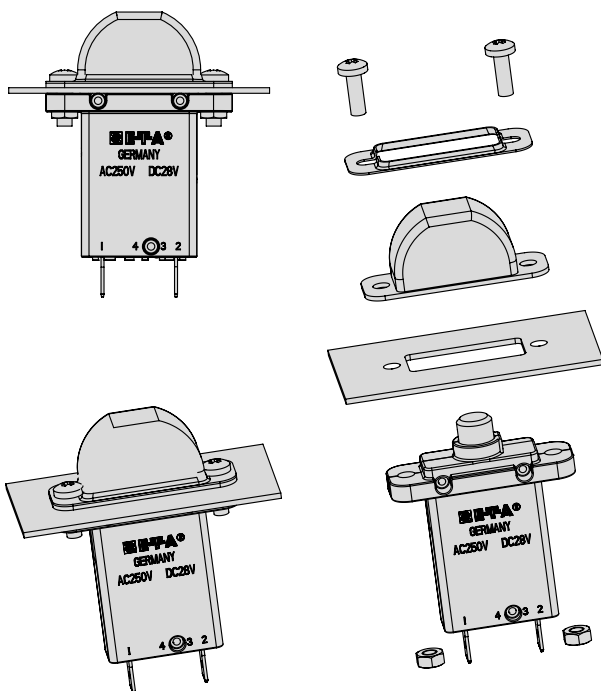


**Rear terminal shroud, transparent (IP20)
Y 300 476 01**



Mounting the protective cover with mounting plate:

Mounting option 1:
admissible for panel thicknesses of up to 1.5 mm



Mounting option 2:
for any panel thicknesses

