

Thermomagnetic device circuit breaker - CB TM1 4A M1 P - 2800850

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Thermomagnetic device circuit breaker, 1-pos., tripping characteristic M1 (medium-blow), 1 PDT contact, plug for base element.

The figure shows the CB TM1 0.5A M1 P version

Product Features

- Compact design with precise nominal current levels
- Modular expansion possible thanks to the uniform, plug-in housing concept
- Sophisticated remote signaling concept enables monitoring from any location
- Protect 230/240 V AC power supply systems with the M1 characteristic curve (based on the C characteristic)
- Supply/remote signaling can be bridged with CLIPLINE complete accessories



Key Commercial Data

| | |
|--------------------------------------|----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 40.0 g |
| Custom tariff number | 85362010 |
| Country of origin | Germany |

Technical data

Dimensions

| | |
|------------------------|---------|
| Height | 45 mm |
| Width | 12.3 mm |
| Depth | 52 mm |
| Complete module height | 90 mm |
| Complete module width | 12.3 mm |
| Complete module depth | 77.3 mm |

Ambient conditions

| | |
|---------------------------------|------------------|
| Ambient temperature (operation) | -30 °C ... 60 °C |
|---------------------------------|------------------|

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Ambient conditions

| | |
|---|--|
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Humidity test | 240 h, 95% RH, 40°C |
| Shock (operation) | 30g (According to IEC 60068-2-27, Test Ea) |
| Degree of protection | IP30 (Actuation area) |

General

| | |
|--|---|
| Installation instructions | When mounted in rows, the nominal device current can be limited to just 80% or must be overdimensioned accordingly. |
| Flammability rating according to UL 94 | V0 |
| Mounting type | On base element |
| Color | gray |
| Number of positions | 1 |
| Insulating material group | II |
| Degree of pollution | 2 |
| Type | Male |

Electrical data

| | |
|---|---|
| Fuse type | normal blow |
| Rated surge voltage | 2.5 kV (Increased insulation in actuation area) |
| Rated voltage | 240 V AC (U _e according to IEC 60934) |
| | 277 V AC (UL 1077) |
| | 277 V AC (UL 508 - with plug-in base) |
| | 50 V DC (IEC 60934) |
| | 50 V DC (UL 1077) |
| | 50 V DC (UL 508 - with plug-in base) |
| Rated current I _N | 4 A (IEC 60934) |
| | 4 A AC (inductive load according to UL 1077) |
| | 4 A DC (low-induction load according to UL 1077) |
| | 4 A AC (inductive load according to UL 508 - with plug-in base) |
| | 4 A DC (low-induction load according to UL 508 - with plug-in base) |
| Rated insulation voltage U _i | 277 V AC (UL 1077) |
| | 250 V AC (IEC 60934) |
| Required backup fuse | 16 A |
| Contact type | 1 PDT |
| Power dissipation | 1.44 W (in nominal operation per channel) |
| Insulation resistance R _{iso} | > 100 MΩ (500 V DC) |
| Type of actuation | S type |
| Tripping method | TM (thermomagnetic) |

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Electrical data

| | |
|---|--|
| Tripping level | Trip-free mechanism (positive) |
| Rated short-circuit switching capacity I_{cn} | 300 A (240 V AC) |
| | 600 A (50 V DC) |
| Short-circuit switching capacity I_k | 1000 A AC 277 V AC |
| | 1000 A DC 50 V DC |
| Dielectric strength | 3000 V AC (Actuation area) |
| | 1500 V AC (Main to auxiliary circuit) |
| | 1500 V AC (Open main circuit) |
| | 1000 V AC (Open auxiliary circuit) |
| Voltage drop | 0.34 V (at 1 x I_n) |
| Switching cycles, max. | 6000 (at 1 x I_n) |
| Contact type | 1 PDT |
| Auxiliary circuit | 277 V AC / 0.5 A (Low-induction) |
| | 277 V AC / 1 A (Low-induction, maximum of 2000 cycles) |
| | 50 V DC / 1 A (Low-induction) |
| Minimum auxiliary contact operating voltage | 10 V |
| Maximum auxiliary contact operating voltage | 240 V |
| | 240 V |
| Minimum auxiliary contact operating current | 10 mA |
| Maximum auxiliary contact operating current | 1 A |
| Vibration resistance, frequency | 57 Hz ... 500 Hz |
| Vibration resistance, amplitude | ± 0.61 mm (10 - 57 Hz) |
| Vibration resistance, acceleration | 80 m/s ² |
| Vibration resistance, test duration | 10 (Frequency cycles/axis) |

Standards and Regulations

| | |
|--------------------------|----------------------------|
| Standards/specifications | EN 60934 |
| | UL 1077 UL/C-UL recognized |
| | UL 508 UL/C - UL listed |
| | CSA 22.2 No. 235-041 |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27141116 |
| eCl@ss 4.1 | 27141116 |
| eCl@ss 5.0 | 27141116 |

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Classifications

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| | |
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| eCl@ss 5.1 | 27141116 |
| eCl@ss 6.0 | 27141116 |
| eCl@ss 7.0 | 27141116 |
| eCl@ss 8.0 | 27141116 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC000899 |
| ETIM 4.0 | EC000899 |
| ETIM 5.0 | EC000899 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211812 |
| UNSPSC 7.0901 | 39121411 |
| UNSPSC 11 | 39121411 |
| UNSPSC 12.01 | 39121411 |
| UNSPSC 13.2 | 39121411 |

Approvals

Approvals


Approvals

VDE Zeichengenehmigung / UL Recognized / cUL Recognized / GL / UL Listed / cUL Listed / EAC / CSA / cULus Recognized / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| |
|--|
| VDE Zeichengenehmigung  |
|--|


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Approvals

UL Recognized 

cUL Recognized 

GL


UL Listed 

cUL Listed 

EAC

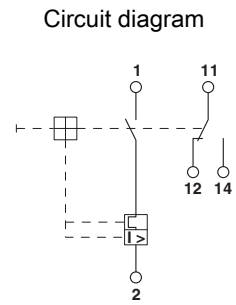
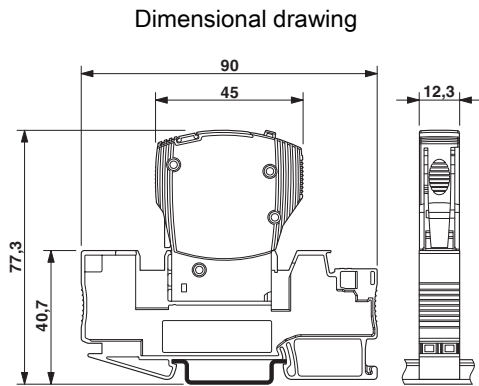
CSA

cULus Recognized 

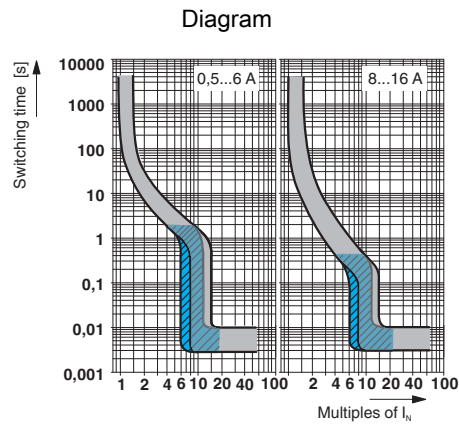
cULus Listed 

Drawings

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The figure shows the complete module consisting of a base element and connector



Trigger characteristic
Gray: DC range, blue: AC range

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Application drawing

