

# Thermomagnetic device circuit breaker - CB TM1 0.5A SFB

## P - 2800835

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Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 PDT contact, plug for base element.

### Why buy this product

- ✓ 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
- ✓ Maximum overcurrent protection across long cable paths via SFB trigger characteristic
- ✓ Supply/remote signaling can be bridged with CLIPLINE complete accessories



### Key commercial data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 0                                                                                                       |
| Minimum order quantity | 1                                                                                                       |
| GTIN                   | <br>4 046356 689663 |
| Custom tariff number   | 85363010                                                                                                |
| Country of origin      | GERMANY                                                                                                 |

### Technical data

#### General

|                                         |                                                                                                               |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Installation instructions               | When mounted in rows, the nominal device current can be limited to just 80% or must be oversized accordingly. |
| Height                                  | 45 mm                                                                                                         |
| Width                                   | 12.3 mm                                                                                                       |
| Depth                                   | 52 mm                                                                                                         |
| Höhe Kompletmodul                       | 90 mm                                                                                                         |
| Breite Kompletmodul                     | 12.3 mm                                                                                                       |
| Tiefe Kompletmodul                      | 77.3 mm                                                                                                       |
| Ambient temperature (operation)         | -30 °C ... 60 °C                                                                                              |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C                                                                                              |
| Inflammability class according to UL 94 | V0                                                                                                            |

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### Technical data

#### General

|                           |                       |
|---------------------------|-----------------------|
| Degree of protection      | IP30 (Actuation area) |
| Mounting type             | On base element       |
| Color                     | gray                  |
| Number of positions       | 1                     |
| Insulating material group | II                    |
| Pollution degree          | 2                     |
| Design                    | Male                  |

#### Technical data

|                                                 |                                                                       |
|-------------------------------------------------|-----------------------------------------------------------------------|
| Fuse type                                       | SFB                                                                   |
| Rated surge voltage                             | 2.5 kV (Increased insulation in actuation area)                       |
| Rated voltage                                   | 240 V AC (Ue according to IEC 60934)                                  |
| Rated voltage                                   | 277 V AC (UL 1077)                                                    |
| Rated voltage                                   | 277 V AC (UL 508 - with plug-in base)                                 |
| Rated voltage                                   | 50 V DC (IEC 60934)                                                   |
| Rated voltage                                   | 50 V DC (UL 1077)                                                     |
| Rated voltage                                   | 50 V DC (UL 508 - with plug-in base)                                  |
| Rated current $I_n$                             | 0.5 A (IEC 60934)                                                     |
| Rated current $I_n$                             | 0.5 A AC (inductive load according to UL 1077)                        |
| Rated current $I_n$                             | 0.5 A DC (low-induction load according to UL 1077)                    |
| Rated current $I_n$                             | 0.5 A AC (inductive load according to UL 508 - with plug-in base)     |
| Rated current $I_n$                             | 0.5 A DC (low-induction load according to UL 508 - with plug-in base) |
| Rated insulation voltage $U_i$                  | 277 V AC (UL 1077)                                                    |
| Rated insulation voltage $U_i$                  | 250 V AC (IEC 60934)                                                  |
| Insulation resistance $R_{iso}$                 | > 100 MΩ (500 V DC)                                                   |
| Auxiliary circuit                               | 277 V AC / 0.5 A (Low-induction)                                      |
| Auxiliary circuit                               | 277 V AC / 1 A (Low-induction, maximum of 2000 cycles)                |
| Auxiliary circuit                               | 50 V DC / 1 A (Low-induction)                                         |
| Type of actuation                               | S type                                                                |
| Tripping method                                 | TM (thermomagnetic)                                                   |
| Tripping level                                  | Trip-free mechanism (positive)                                        |
| Required backup fuse                            | 15 A                                                                  |
| Rated short-circuit switching capacity $I_{cn}$ | 300 A (240 V AC)                                                      |
| Rated short-circuit switching capacity $I_{cn}$ | 600 A (50 V DC)                                                       |
| Dielectric strength                             | 3000 V AC (Actuation area)                                            |
| Dielectric strength                             | 1500 V AC (Main to auxiliary circuit)                                 |
| Dielectric strength                             | 1500 V AC (Open main circuit)                                         |
| Dielectric strength                             | 1000 V AC (Open auxiliary circuit)                                    |
| Voltage drop                                    | 2.5 V (at $1 \times I_n$ )                                            |
| Cycles, max.                                    | 6000 (at $1 \times I_n$ )                                             |
| Contact type                                    | 1 PDT                                                                 |

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### Technical data

#### Standards

|                              |                      |
|------------------------------|----------------------|
| Standard - Electrical safety | EN 60934             |
| Standard - Electrical safety | UL 1077              |
| Standard - Electrical safety | UL 508               |
| Standard - Electrical safety | CSA 22.2 No. 235-041 |

### Classifications

#### ETIM

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

#### UNSPSC

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

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27141116 |
| eCl@ss 4.1 | 27141116 |
| eCl@ss 5.0 | 27141116 |
| eCl@ss 5.1 | 27141116 |
| eCl@ss 6.0 | 27141116 |
| eCl@ss 7.0 | 27141116 |

### Approvals

#### Approvals

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VDE Zeichengenehmigung / UL Recognized / cUL Recognized / cULus Recognized

#### Ex Approvals

#### Approvals submitted

#### Approval details

# Thermomagnetic device circuit breaker - CB TM1 0.5A SFB

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### Approvals

VDE Zeichengenehmigung 

UL Recognized 

cUL Recognized 

cULus Recognized 

### Accessories

#### Accessories

#### Bridges

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, Number of positions: 2, Color: red

Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, Number of positions: 3, Color: red

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, Number of positions: 4, Color: red

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## Accessories

Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, Number of positions: 5, Color: red

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Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, Number of positions: 10, Color: red

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Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, Number of positions: 20, Color: red

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Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, Number of positions: 50, Color: red

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## Marking

Zack Marker strip, flat - ZBF 12:UNBEDRUCKT - 0809735



Zack Marker strip, flat, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into flat marker groove, For terminal block width: 12 mm, Lettering field: 5.15 x 12.15 mm

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## Accessories

Zack Marker strip, flat - ZBF 12 CUS - 0825018



Zack Marker strip, flat, Can be ordered: Strip, white, Labeled according to customer specifications, Mounting type: Snap into flat marker groove, For terminal block width: 12 mm, Lettering field: 5.15 x 12.15 mm

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## Tools

Cable-cutting tool - CUTFOX-FBS - 1212124



Cutting tool, for separating individual jumper bars from FBS ... plug-in bridges and EB ... insertion bridges

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Jumper - CB PT BRIDGE - 2801014



Bridge plugs for the CB 1/6-2/4 PT-BE base element

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## Additional products

Base element - CB 1/6-2/4 PT-BE - 2800929



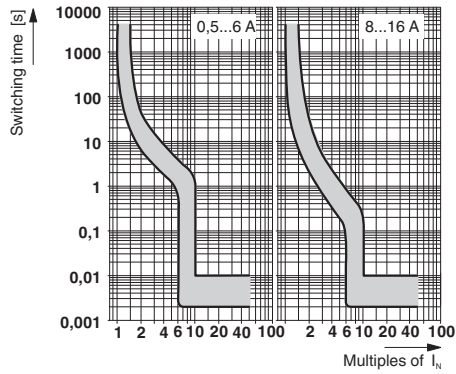
Base element with push-in connection technology for CB ... device circuit breakers

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## Drawings

## Thermomagnetic device circuit breaker - CB TM1 0.5A SFB P - 2800835

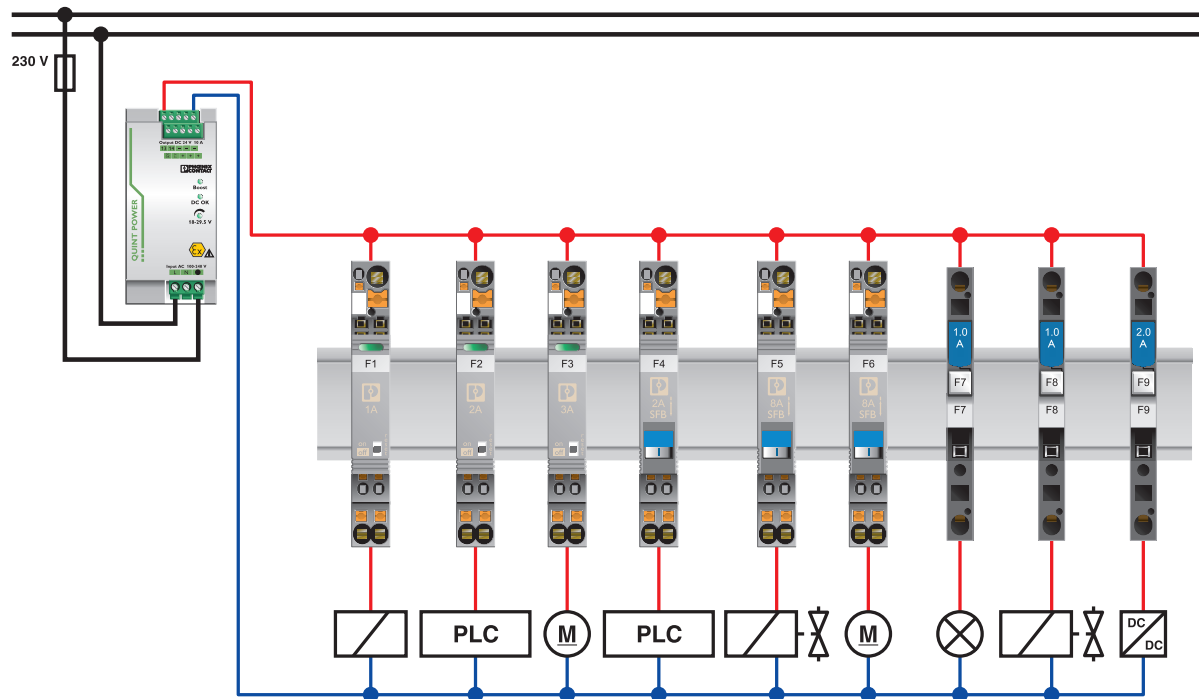
Diagram



Trigger characteristic in the DC range

## Thermomagnetic device circuit breaker - CB TM1 0.5A SFB P - 2800835

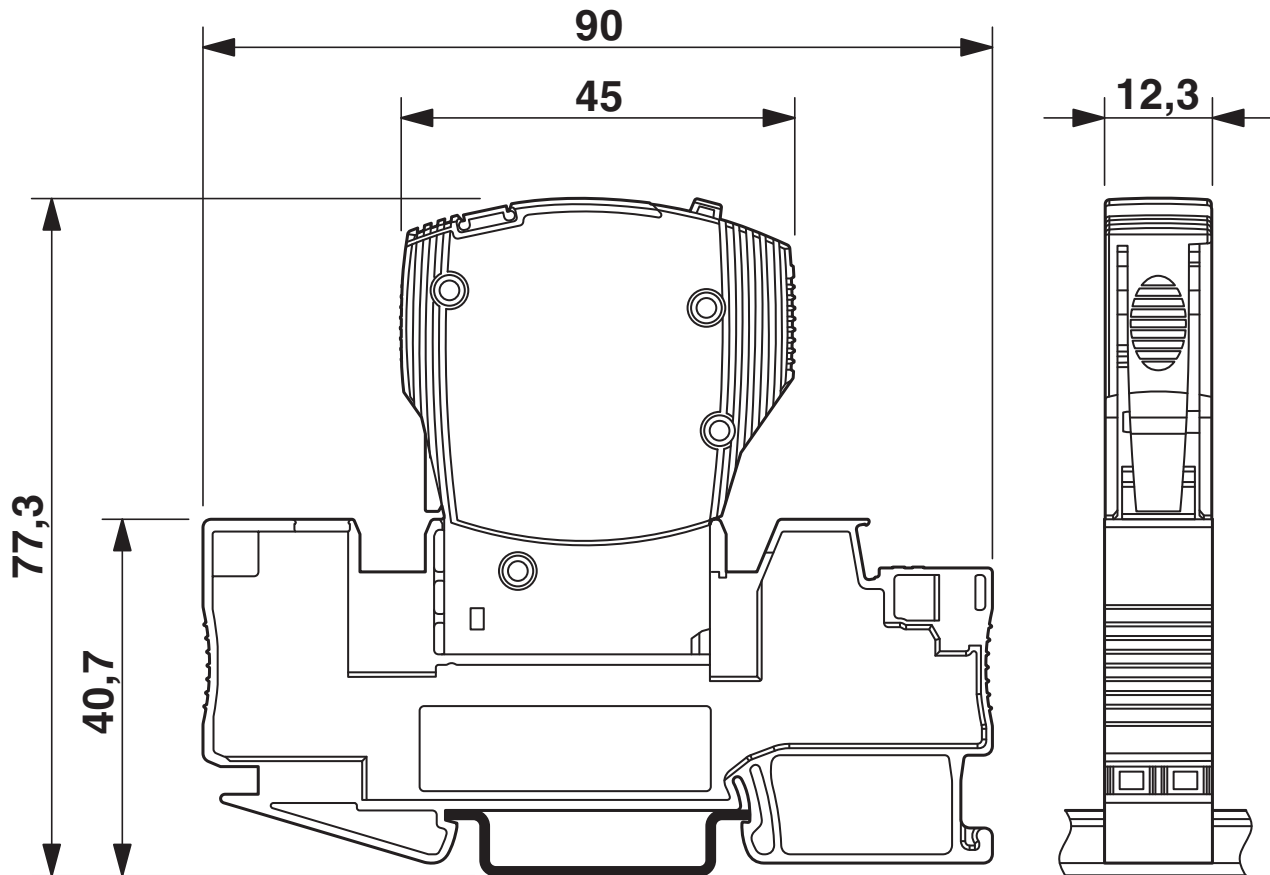
Application drawing





## Thermomagnetic device circuit breaker - CB TM1 0.5A SFB P - 2800835

Dimensioned drawing



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



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