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# 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

## 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
- 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 STK
GTIN	 4 046356 690010

## 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
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

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## Technical data

### General

Installation instructions	When mounted in rows, the nominal device current can be limited to just 80% or must be oversized 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 <sub>e</sub> 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 <sub>N</sub>	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 <sub>i</sub>	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 <sub>iso</sub>	> 100 MΩ (500 V DC)
Type of actuation	S type
Tripping method	TM (thermomagnetic)
Tripping level	Trip-free mechanism (positive)
Rated short-circuit switching capacity I <sub>cn</sub>	300 A (240 V AC)
	600 A (50 V DC)
Short-circuit switching capacity I <sub>k</sub>	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)

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## Technical data

### Electrical data

Voltage drop	0.34 V (at 1 x I <sub>n</sub> )
Switching cycles, max.	6000 (at 1 x I <sub>n</sub> )
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 <sup>2</sup>
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
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

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## Classifications

### UNSPSC

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

UL Recognized

cUL Recognized

GL

UL Listed

cUL Listed

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

## Approvals

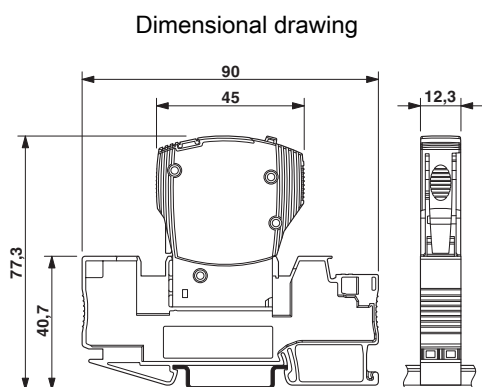
EAC

CSA

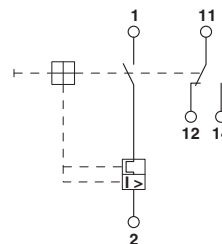
cULus Recognized

cULus Listed

## Drawings

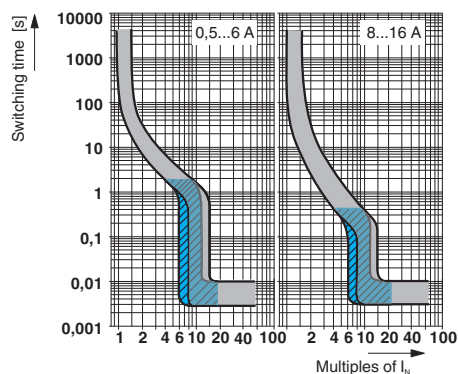


Circuit diagram



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

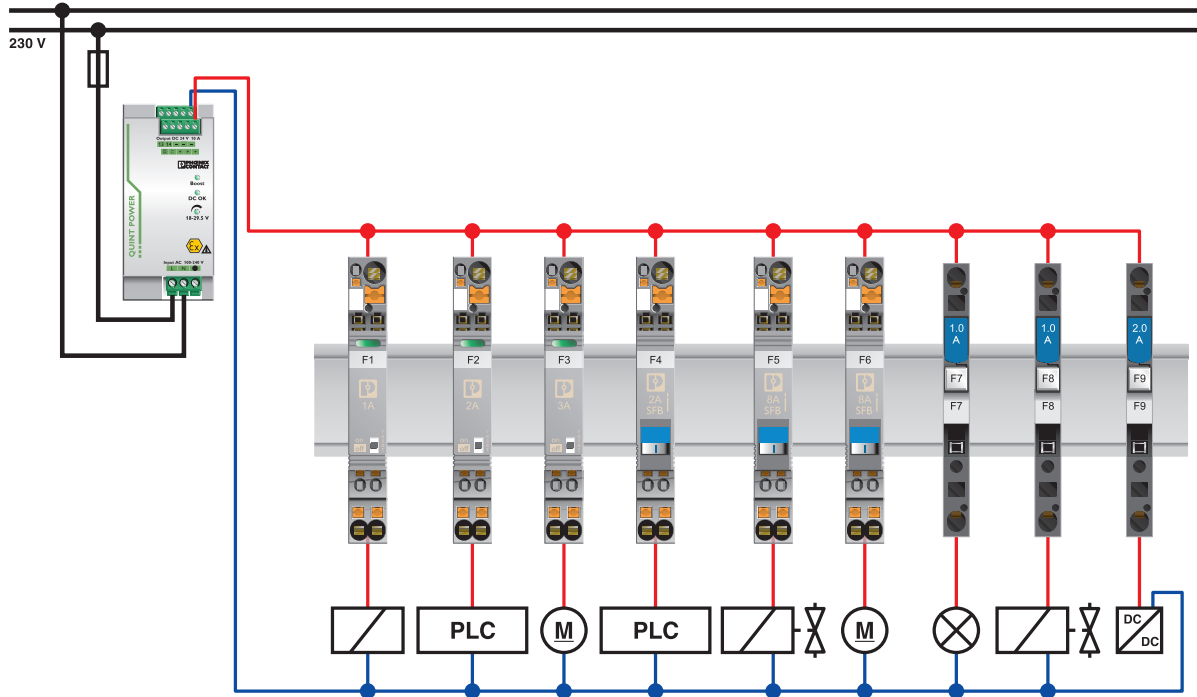
Diagram



Trigger characteristic  
 Gray: DC range, blue: AC range

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Application drawing



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