

Thermomagnetic device circuit breaker - CB TM1 2A M1 P - 2800848

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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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Technical data

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 (Ue 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	2 A (IEC 60934)
	2 A AC (inductive load according to UL 1077)
	2 A DC (low-induction load according to UL 1077)
	2 A AC (inductive load according to UL 508 - with plug-in base)
	2 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	15 A
Contact type	1 PDT
Power dissipation	1.2 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	0.64 V (at $1 \times I_n$)
Switching cycles, max.	6000 (at $1 \times I_n$)
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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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

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

Ex Approvals

Approvals submitted

Approval details

VDE Zeichengenehmigung 

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Approvals

UL Recognized 

cUL Recognized 

GL

UL Listed 

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CSA

EAC

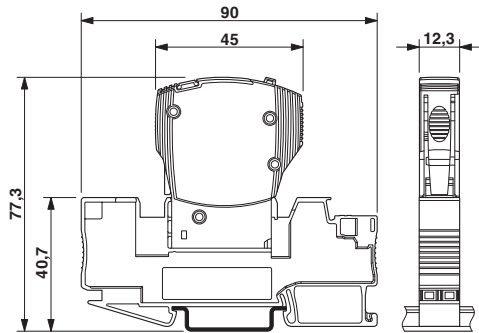
cULus Recognized 

cULus Listed 

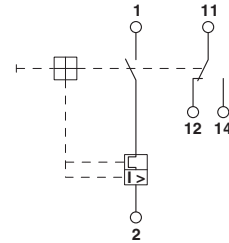
Drawings

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Dimensional drawing

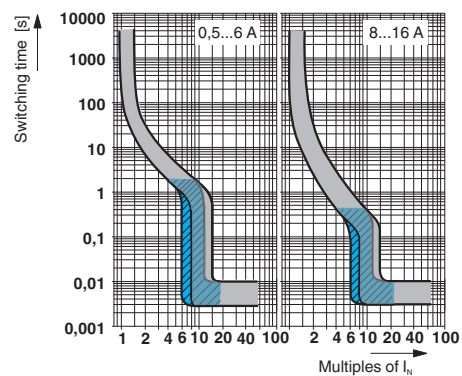


Circuit diagram



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

