

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

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

Your advantages

- ✓ 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 240/277 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



COMPLETE line

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 690027
GTIN	4046356690027

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)

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Technical data

Ambient conditions

Vibration (operation)	8g (In accordance with IEC 60068-2-6, Test Fc)
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 oversized accordingly.
Flammability rating according to UL 94	V-0
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	M1 (normal blow)
Rated surge voltage	2.5 kV (Increased insulation in actuation area)
Rated voltage	50 V DC (IEC 60934)
	50 V DC (UL 1077)
	50 V DC (UL 508 - with plug-in base)
	240 V AC (Ue according to IEC 60934)
	277 V AC (UL 1077)
	277 V AC (UL 508 - with plug-in base)
Rated current I_N	5 A (IEC 60934)
	5 A AC (inductive load according to UL 1077)
	5 A DC (low-induction load according to UL 1077)
	5 A AC (inductive load according to UL 508 - with plug-in base)
	5 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)
Power dissipation	1.5 W (in nominal operation per channel)
Device resistance	60 mΩ
Insulation resistance R_{iso}	> 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_{cn}	300 A (240 V AC)
	600 A (50 V DC)
Required backup fuse	20 A ($I > I_{cn}$)
Short-circuit switching capacity	1000 A AC (277 V AC)
	1000 A DC (50 V DC)
Dielectric strength	3000 V AC (Actuation area)

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Technical data

Electrical data

	1500 V AC (Main to auxiliary circuit)
	1500 V AC (Open main circuit)
	1000 V AC (Open auxiliary circuit)
Voltage drop	0.31 V (at $1 \times I_n$)
Switching cycles, max.	6000 (at $1 \times I_n$)
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

Standards and Regulations

Standards/specifications	EN 60934
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Conformance/approvals

Designation	UL approval
Identification	UL Listed UL 508
	UL/C-UL Recognized UL 1077
Designation	CSA
Identification	CSA CAN/CSA-C22.2 No. 235-04
Designation	Shipbuilding approval
Identification	DNV GL

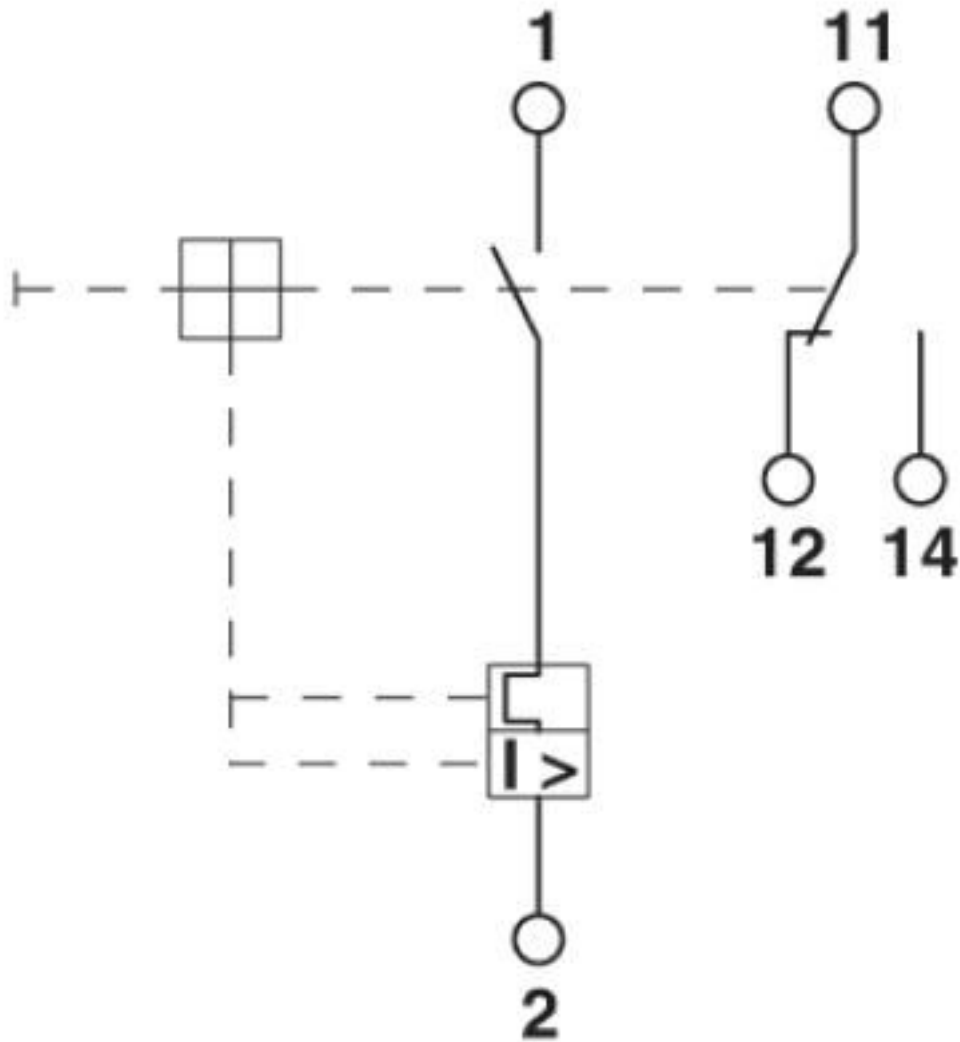
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

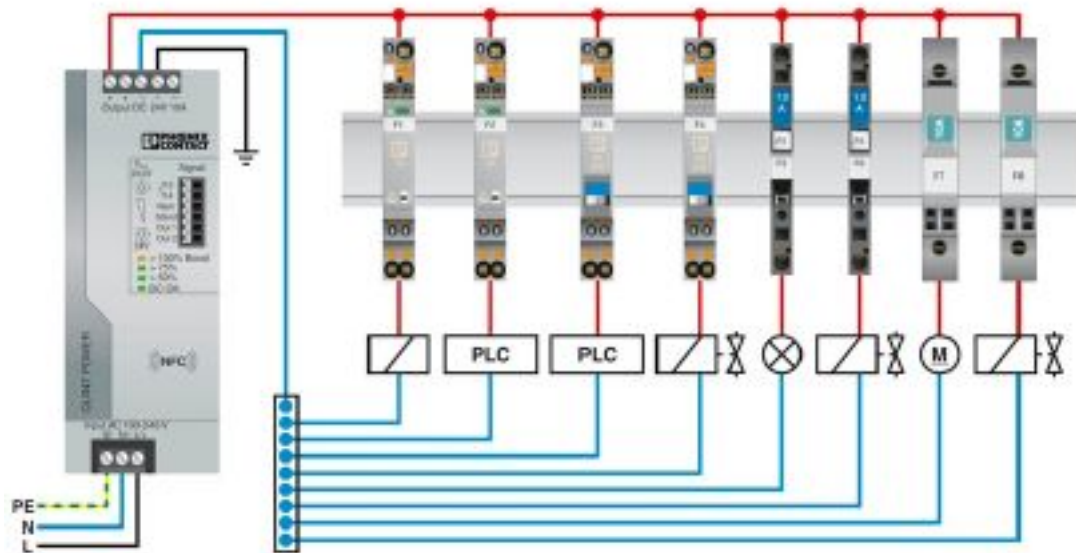
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Circuit diagram

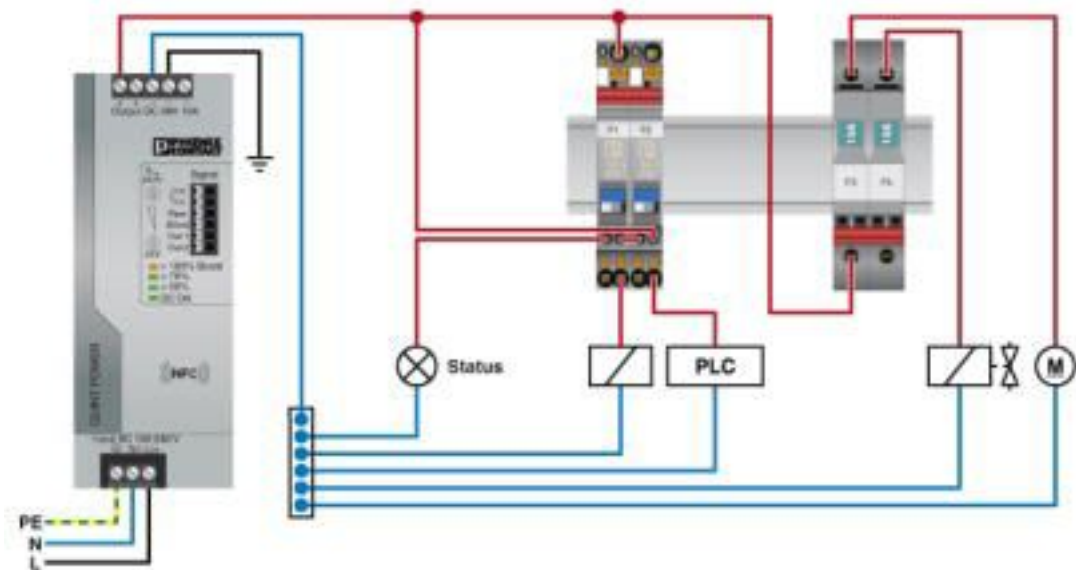


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Application drawing

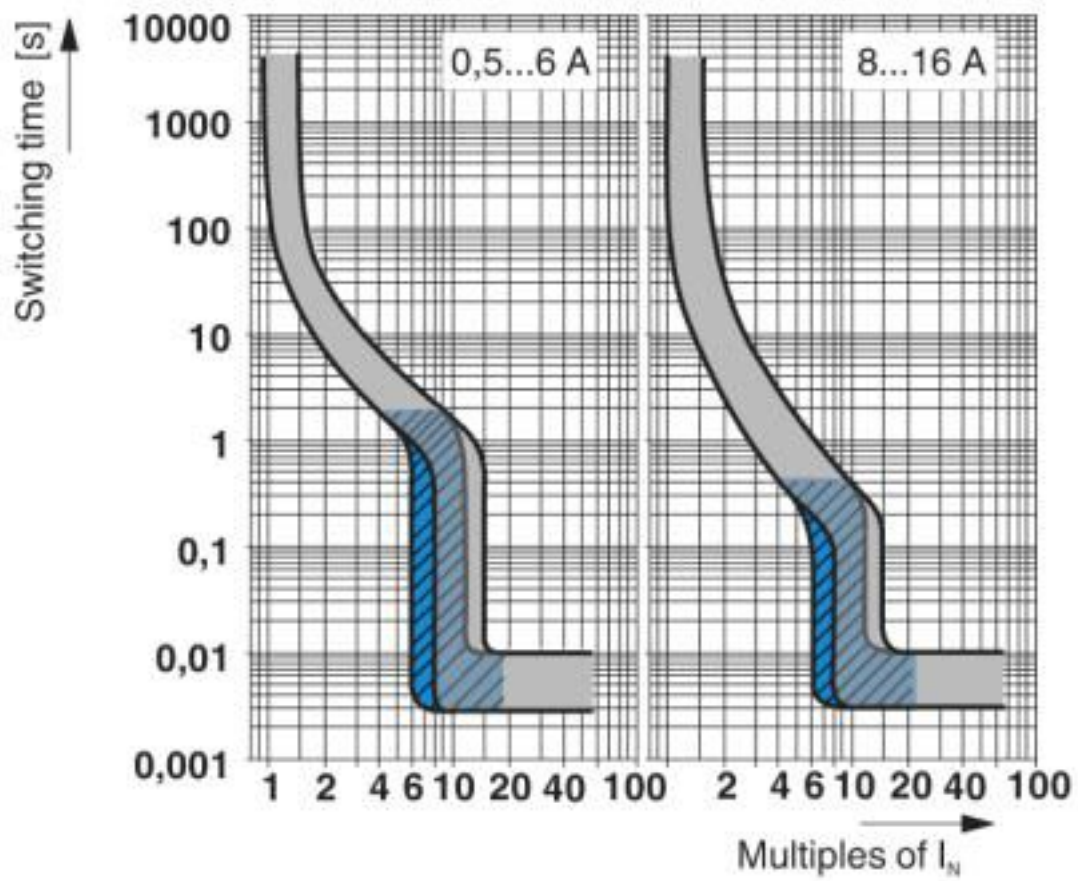


Application drawing



Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

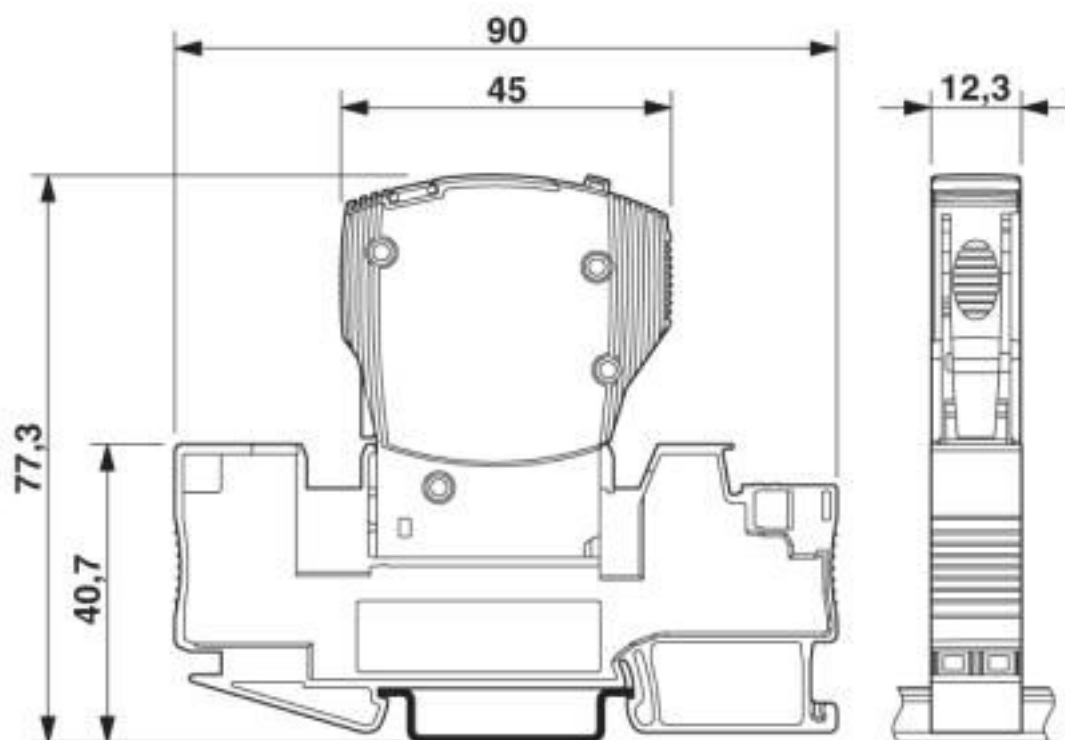
Diagram



Trigger characteristic
Gray: DC range, blue: AC range

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Dimensional drawing



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

Classifications

eCl@ss

eCl@ss 10.0.1	27141116
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141116
eCl@ss 8.0	27141116
eCl@ss 9.0	27141116

ETIM

ETIM 3.0	EC000899
ETIM 4.0	EC000899
ETIM 5.0	EC000899
ETIM 6.0	EC000899
ETIM 7.0	EC000899

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Classifications

UNSPSC

UNSPSC 6.01	30211812
UNSPSC 7.0901	39121411
UNSPSC 11	39121411
UNSPSC 12.01	39121411
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

Approvals

CSA / UL Listed / UL Recognized / cUL Recognized / cUL Listed / VDE Zeichengenehmigung / EAC / KC / DNV GL / CCC / cULus Recognized / cULus Listed

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	2786957
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UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
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Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40034683
EAC			RU C- DE.*09.B.00169
KC		http://eng.kcc.go.kr/user/ehpMain.do	SW05012-15001A
DNV GL		https://approvalfinder.dnvgl.com/	TAE00003C7
CCC			2019010307158887
cULus Recognized			
cULus Listed			

Accessories

Accessories

Bridge

Jumper - CB PT BRIDGE - 2801014



Bridge plug for bridging contacts 1 to 2 for CB base elements

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Accessories

Jumper - CB RC BRIDGE - 2801616



Bridge plug for bridging contacts 11 to 14 for CB base elements

Cutting tools

Front cutter - CUTFOX-FBS - 1212124



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

Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, pitch: 6.2 mm, width: 16.9 mm, number of positions: 3, color: red

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, pitch: 6.2 mm, width: 23.1 mm, number of positions: 4, color: red

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Accessories

Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, pitch: 6.2 mm, width: 29.3 mm, number of positions: 5, color: red

Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, pitch: 6.2 mm, width: 60.3 mm, number of positions: 10, color: red

Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, pitch: 6.2 mm, width: 122.3 mm, number of positions: 20, color: red

Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, pitch: 6.2 mm, width: 308.3 mm, number of positions: 50, color: red

Labeled terminal marker

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 size: 5.15 x 12.15 mm, Number of individual labels: 5

Terminal marking

Thermomagnetic device circuit breaker - CB TM1 5A M1 P - 2800851

Accessories

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 12 mm, lettering field size: 5.15 x 12.15 mm, Number of individual labels: 5

Necessary add-on products

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



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

Base element - CB 1/10-1/10 UT-BE - 2801305



Base element with screw connection technology for CB... device circuit breakers

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

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