

Thermomagnetic device circuit breaker - CB TM2 16A M1 P - 2800889

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Thermomagnetic device circuit breaker, 2-pos., tripping characteristic M1 (medium-blow), 2 PDT contacts, plug for base element.


Product Description

Thermomagnetic device circuit breaker

RoHS

COMPLETE

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 690508
GTIN	4046356690508
Weight per Piece (excluding packing)	60.000 g
Custom tariff number	85362010
Country of origin	Germany

Technical data

Dimensions

Height	45 mm
Width	24.6 mm
Depth	52 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 (IEC 60068-2-27, Test Ea)
Vibration (operation)	8g (IEC 60068-2-6, Test Fc)

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Technical data

Ambient conditions

Degree of protection	IP30 (Actuation area)
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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	V-0
Mounting type	on base element
Color	gray
Number of positions	2
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	80 V DC (IEC 60934)
	80 V DC (UL 1077)
	80 V DC (UL 508 - with plug-in base)
	240 V AC (U _e according to IEC 60934)
	277 V AC (UL 1077)
	277 V AC (UL 508 - with plug-in base)
Rated current I _N	16 A (IEC 60934)
	16 A AC (inductive load according to UL 1077)
	16 A DC (low-induction load according to UL 1077)
	16 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	5.12 W (in nominal operation per channel)
Device resistance	8 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}	400 A (240 V AC)
	600 A (80 V DC)
Required backup fuse	≥ 64 A (I > I _{cn})
Short-circuit switching capacity I _k	1000 A AC (277 V AC)

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Technical data

Electrical data

	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)
	1500 V AC (Position to position)
Voltage drop	0.13 V (at 1 x I _n)
Switching cycles, max.	6000 Number (240 V AC/1 x I _n)
	3000 Number (80 V DC/1 x 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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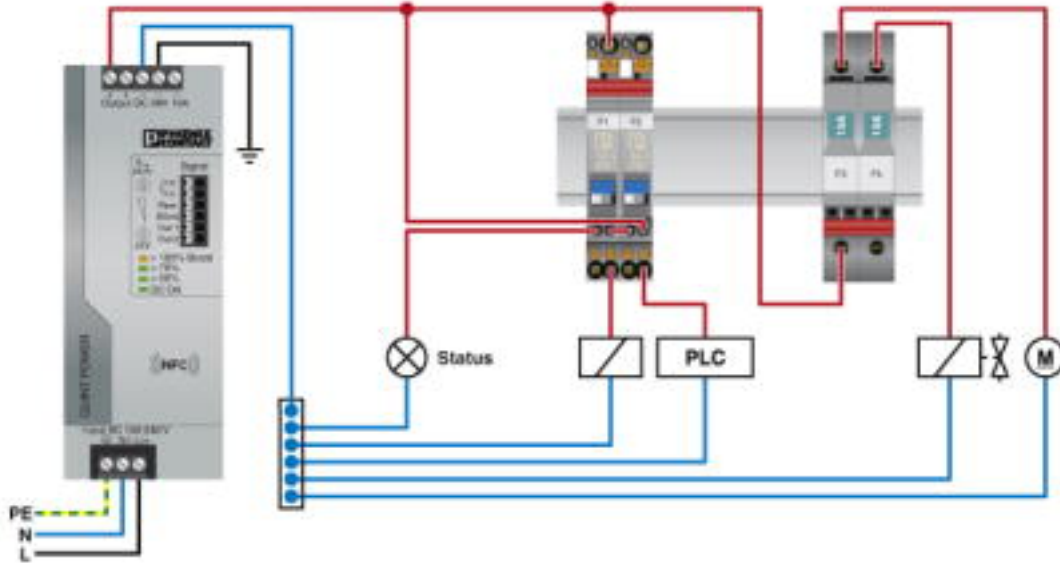
Environmental Product Compliance

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

Drawings

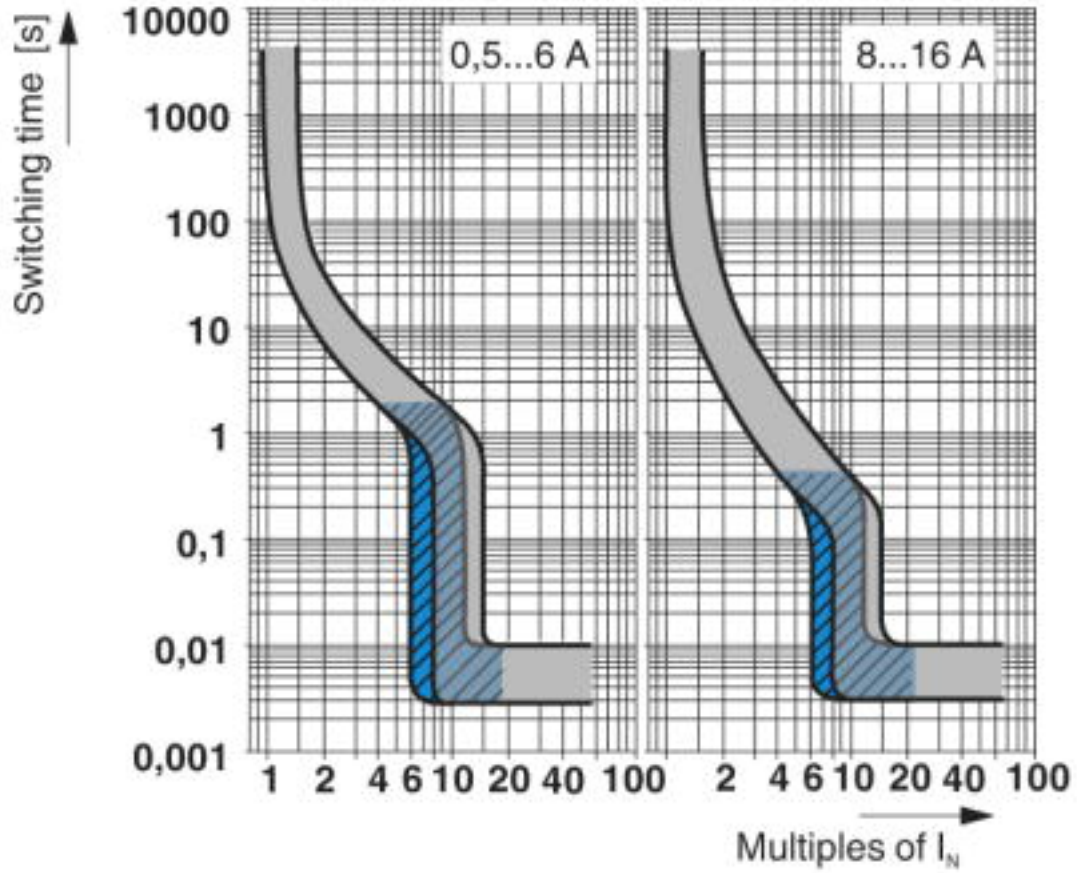
Thermomagnetic device circuit breaker - CB TM2 16A M1 P - 2800889

Application drawing



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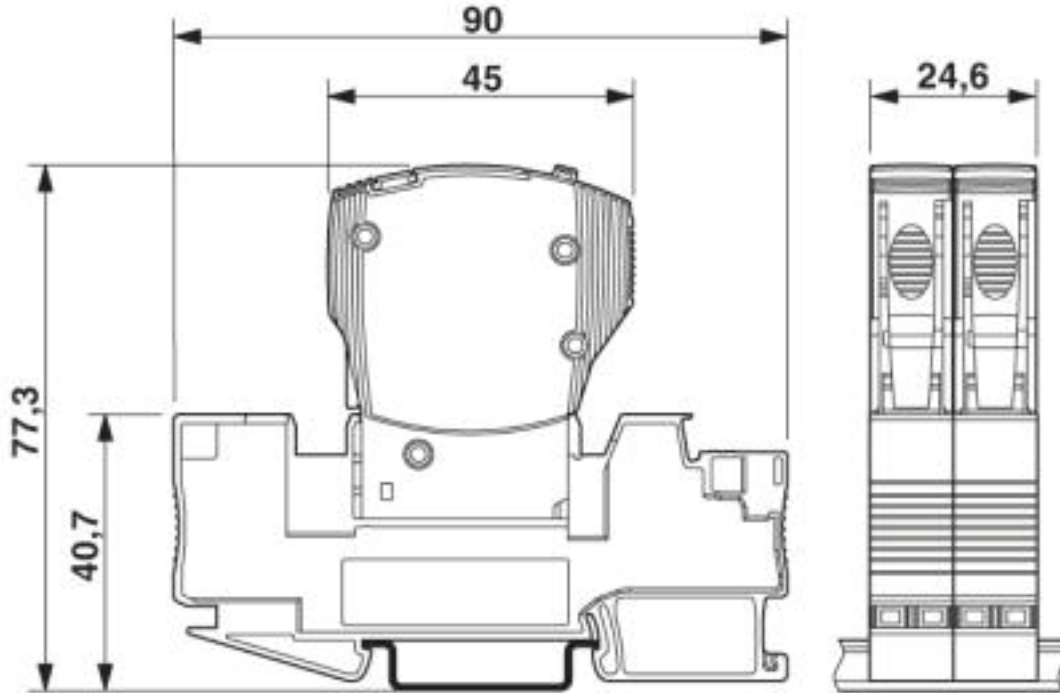
Diagram



Trigger characteristic
Gray: DC range, blue: AC range

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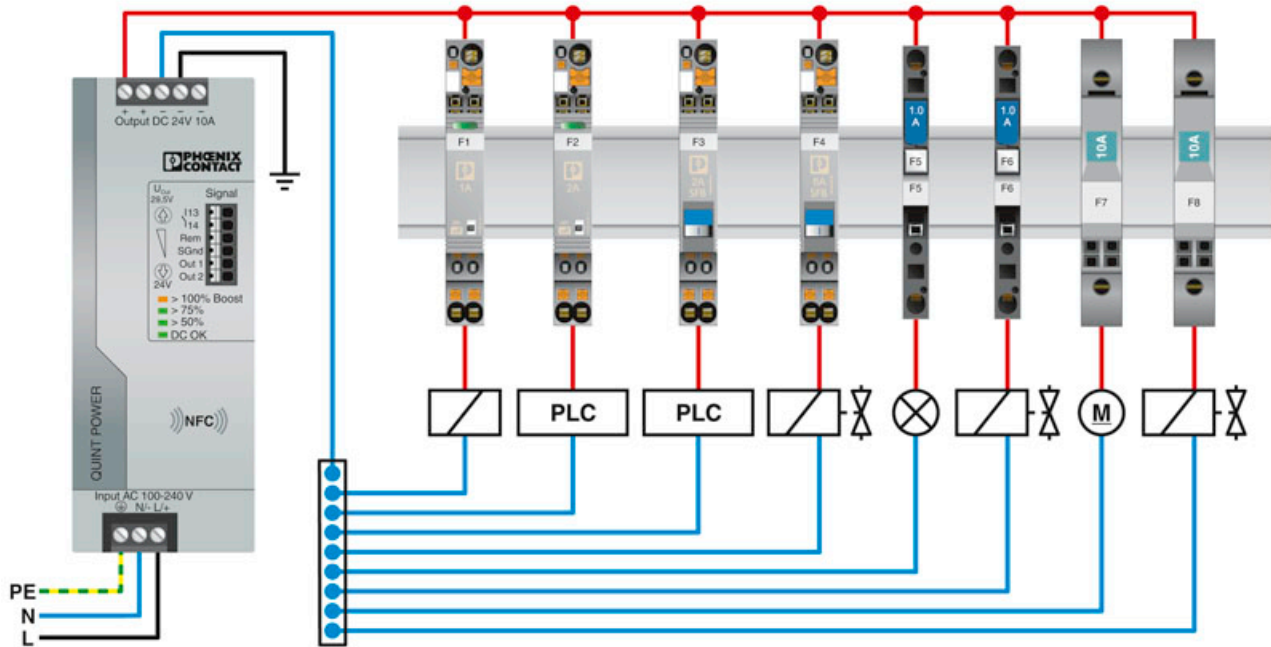
Dimensional drawing



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

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Application drawing



The figure shows the single-position versions

Classifications

eCl@ss

eCl@ss 4.0	27141100
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Classifications

eCl@ss

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

UNSPSC

UNSPSC 6.01	30211812
UNSPSC 7.0901	39121411
UNSPSC 11	39121411
UNSPSC 12.01	39121411
UNSPSC 13.2	39121410

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	2786957
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Approvals

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40034683
EAC			EAC-Zulassung
EAC			RU C-DE.A*30.B01561
KC		http://eng.kcc.go.kr/user/ehpMain.do	SW05012-15005
DNV GL		https://approvalfinder.dnvgl.com/	TAE00003C7
CCC			2019010307158887
cULus Recognized			

Accessories

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Accessories

Bridge

Jumper - CB PT BRIDGE - 2801014



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

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

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Accessories

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

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

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Accessories

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

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

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Accessories

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



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