

Thermomagnetic device circuit breaker - CB TM1 16A M1 P - 2800856

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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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 690171
GTIN	4046356690171

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)

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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	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 (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)
Switch-on delay	typ. 2 ms
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}	300 A (240 V AC)
	600 A (50 V DC)
Required backup fuse	64 A (I > I _{cn})
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)

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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	0.13 V (at 1 x I _n)
Switching cycles, max.	6000 Number (at 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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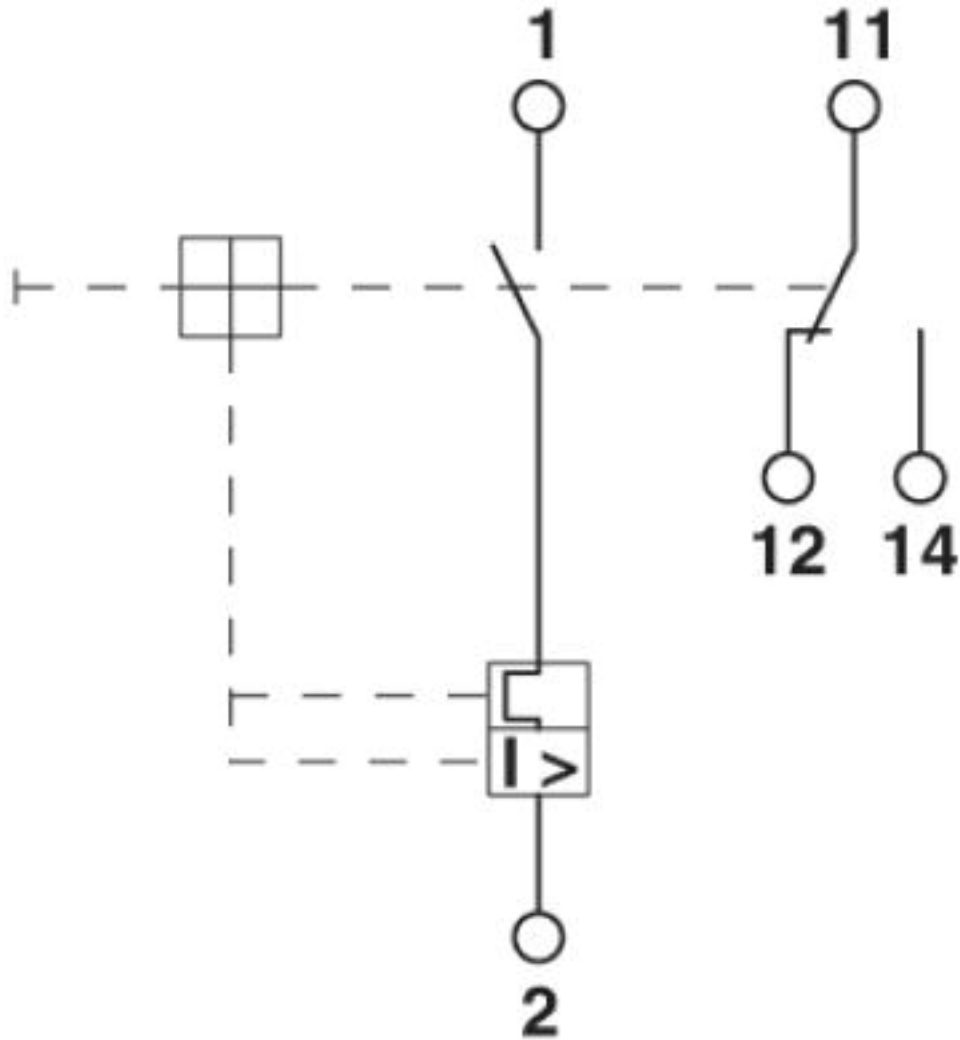
Environmental Product Compliance

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

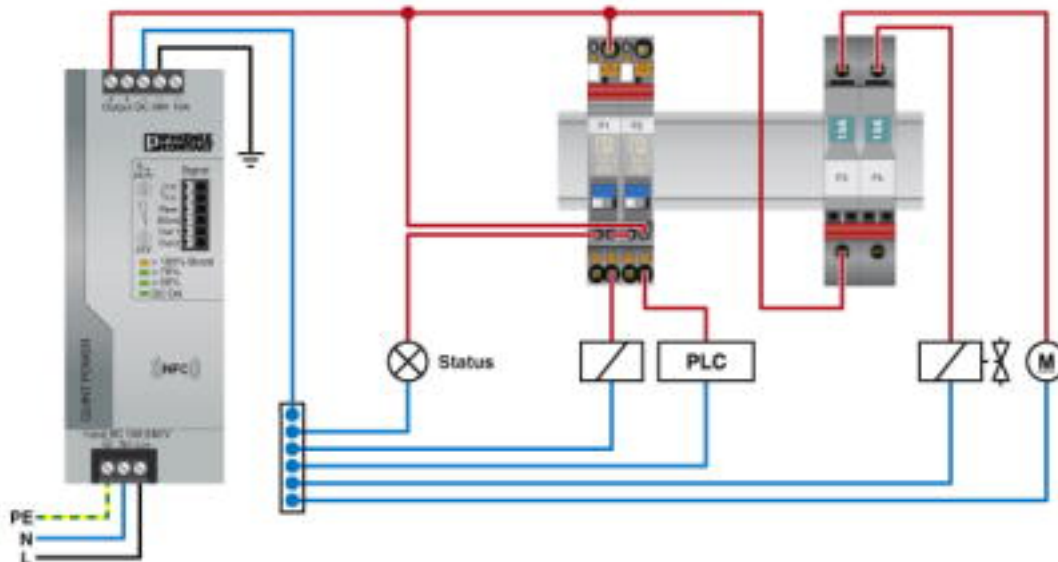
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Circuit diagram

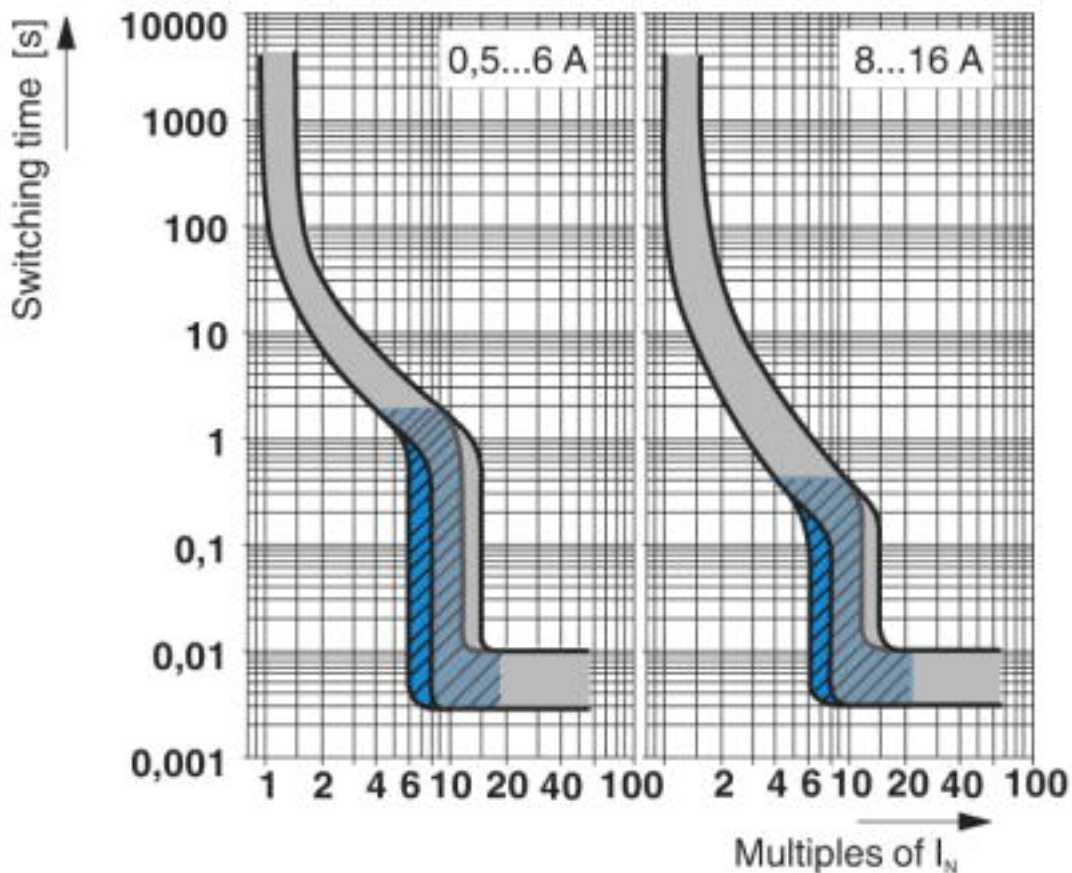


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Application drawing



Diagram

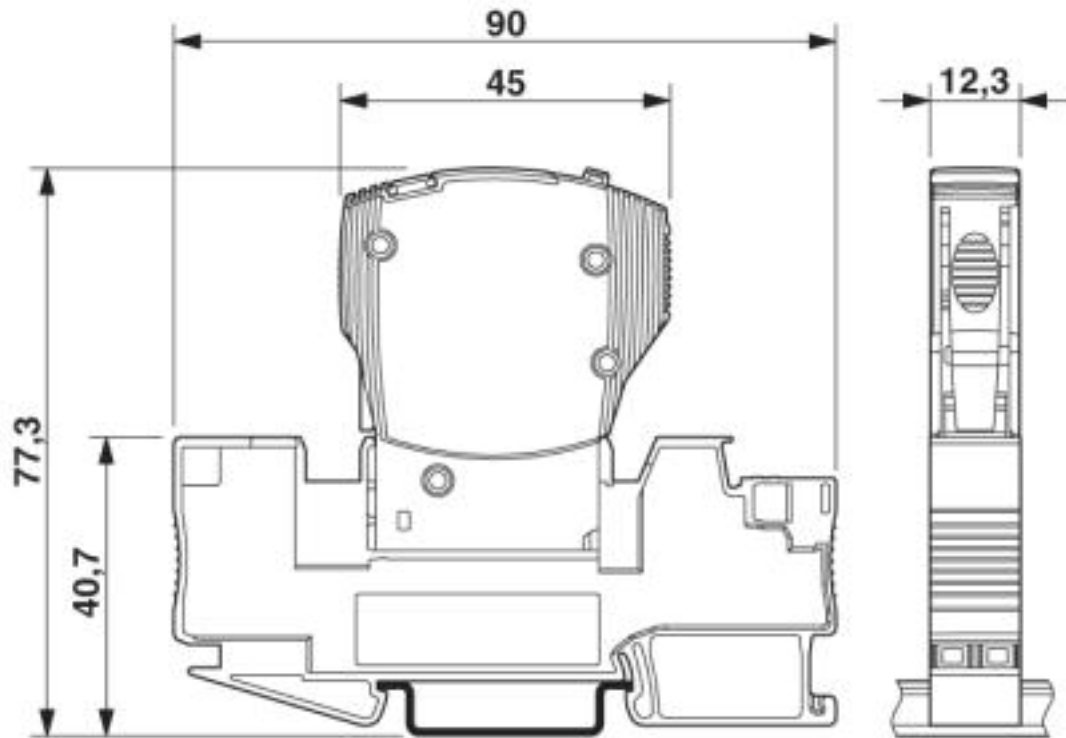


Trigger characteristic

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Gray: DC range, blue: AC range

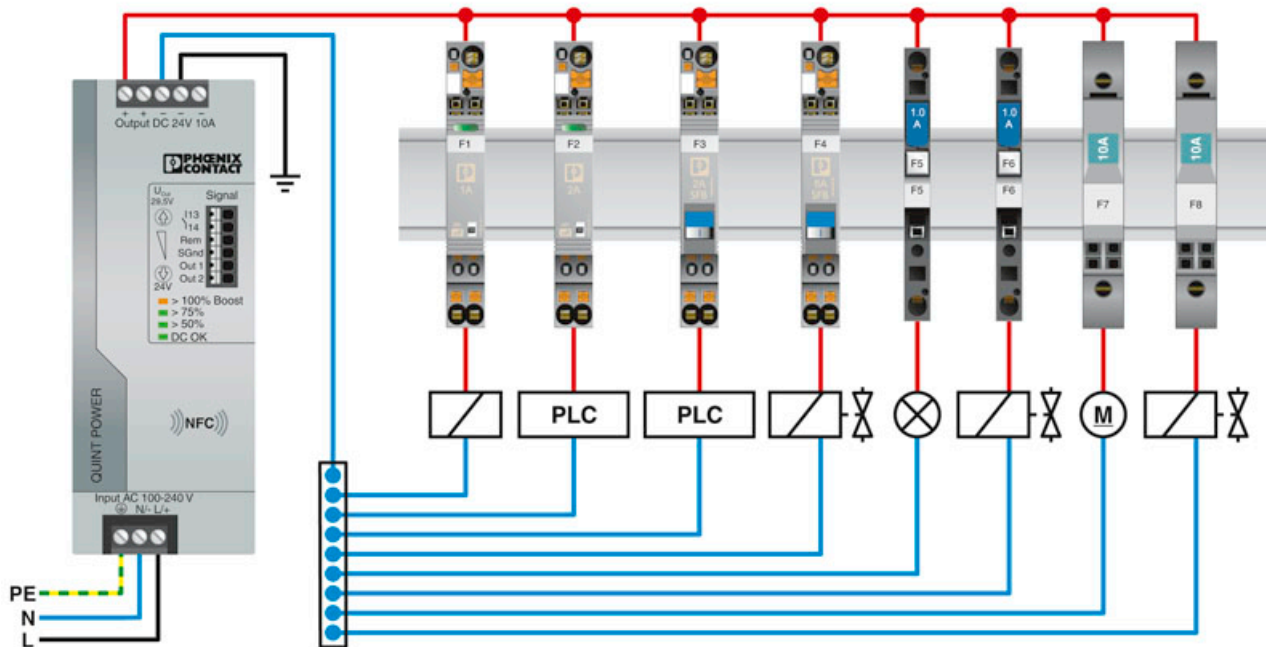
Dimensional drawing



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

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Application drawing



Approvals

Approvals

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

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Approvals

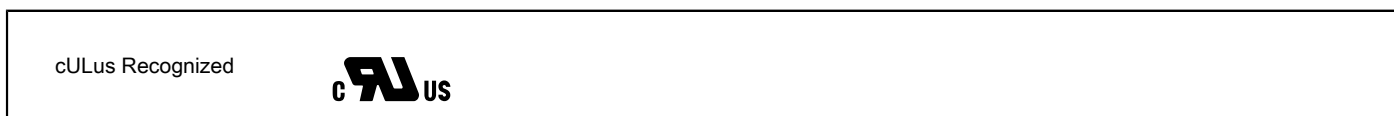
Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	2786957
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
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
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.A*30.B01561
KC		http://eng.kcc.go.kr/user/ehpMain.do	SW05012-15001A
DNV GL		https://approvalfinder.dnvgl.com/	TAE00003C7

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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>