

Thermomagnetic device circuit breaker - CB TM1 3A SFB P - 2800838

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Thermomagnetic device circuit breaker, 1-pos., tripping characteristic SFB, 1 PDT contact, plug for base element.

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
- Maximum overcurrent protection across long cable paths via SFB trigger characteristic
- Supply/remote signaling can be bridged with CLIPLINE complete accessories

Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 689892
GTIN	4046356689892

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 (IEC 60068-2-27, Test Ea)

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Technical data

Ambient conditions

Vibration (operation)	8g (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	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	SFB
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)
Rated current I_N	3 A (IEC 60934)
	3 A DC (low-induction load according to UL 1077)
	3 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	1.26 W (in nominal operation per channel)
Device resistance	140 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}	600 A (50 V DC)
Required backup fuse	15 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)
	1500 V AC (Main to auxiliary circuit)
	1500 V AC (Open main circuit)
	1000 V AC (Open auxiliary circuit)
Voltage drop	0.42 V (at $1 \times I_n$)
Switching cycles, max.	6000 (at $1 \times I_n$)
Contact type	1 PDT

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Electrical data

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

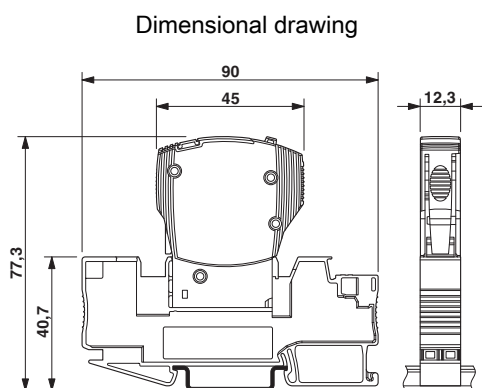
Standards and Regulations

Standards/specifications	EN 60934
	UL 1077 UL/C-UL recognized
	UL 508 UL/C - UL listed
	CSA 22.2 No. 235-04

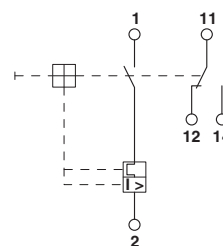
Environmental Product Compliance

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



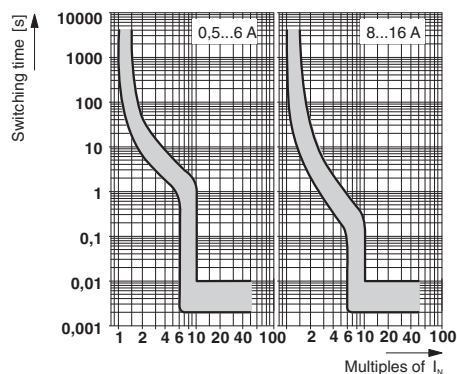
Circuit diagram



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

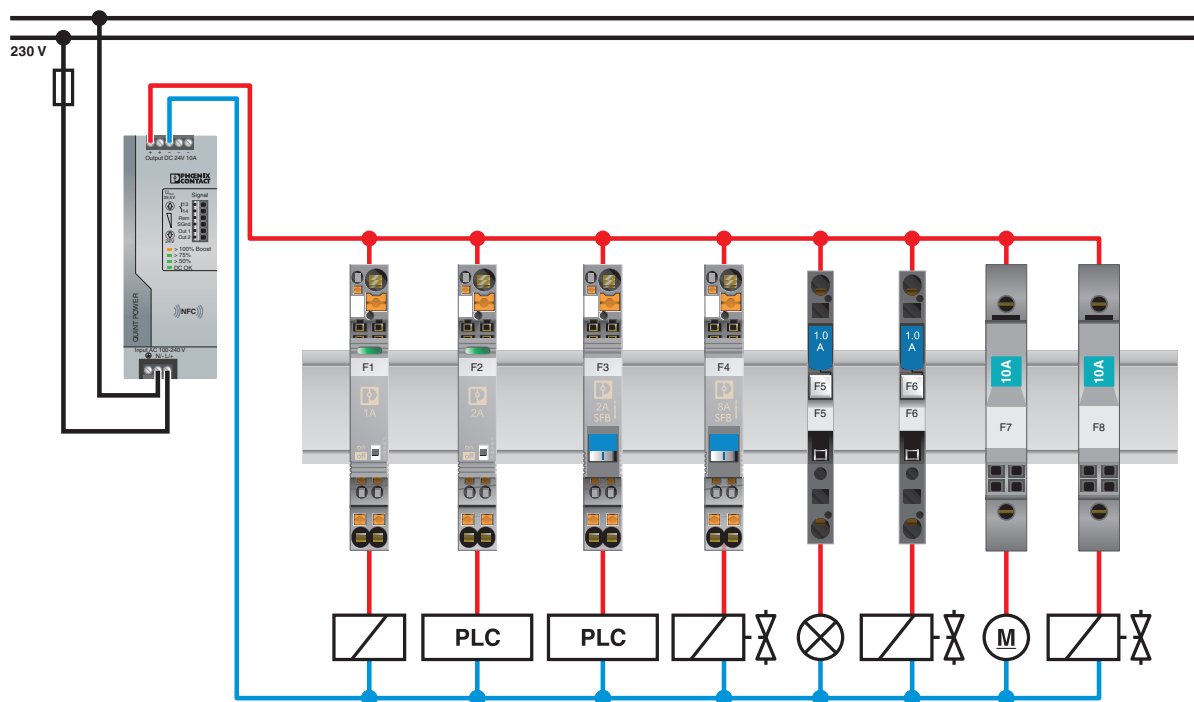
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Diagram



Trigger characteristic in the DC range

Application drawing



Approvals

Approvals

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Approvals

Approvals

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

Ex Approvals

Approval details


VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40034683
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
GL		http://exchange.dnv.com/tari/	61419-13 HH
UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 172140
EAC			RU C-DE.A*30.B01561
CSA		http://www.csagroup.org/services-industries/product-listing/	2786957

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Approvals

EAC		EAC-Zulassung
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KC		http://eng.kcc.go.kr/user/ehpMain.do	SW05012-15002
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm
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cULus Listed

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