

# Thermomagnetic device circuit breaker - CB TM2 12A SFB P - 2800877

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Thermomagnetic device circuit breaker, 2-pos., tripping characteristic SFB, 2 PDT contacts, plug for base element.


The figure shows the CB TM2 0.5A SFB P version

## Product Description

Thermomagnetic device circuit breaker



## Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 690324
GTIN	4046356690324
Custom tariff number	85362010
Note	Made to Order (non-returnable)

## 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)
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.
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## Technical data

### General

Flammability rating according to UL 94	V0
Mounting type	On base element
Color	gray
Number of positions	2
Insulating material group	II
Degree of pollution	2

### Electrical data

Fuse type	SFB
Rated surge voltage	2.5 kV (Increased insulation in actuation area)
	80 V DC (IEC 60934)
	80 V DC (UL 1077)
	80 V DC (UL 508 - with plug-in base)
Rated current $I_N$	12 A (IEC 60934)
	inductive load according to UL 1077
	12 A DC (low-induction load according to UL 1077)
	12 A DC (low-induction load according to UL 508 - with plug-in base)
	12 A DC
Rated insulation voltage $U_i$	277 V AC (UL 1077)
	250 V AC (IEC 60934)
Required backup fuse	$\geq 48$ A
Power dissipation	2.88 W (in nominal operation per channel)
Insulation resistance $R_{iso}$	$> 100$ M $\Omega$ (500 V DC)
Type of actuation	S type
Tripping method	TM (thermomagnetic)
Tripping level	Trip-free mechanism (positive)
	600 A (80 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)
	1500 V AC (Position to position)
Voltage drop	0.13 V (at $1 \times I_n$ )
Switching cycles, max.	6000 (240 V AC/ $1 \times I_n$ )
	3000 (80 V DC/ $1 \times I_n$ )
Contact type	2 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)

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## Technical data

### Electrical data

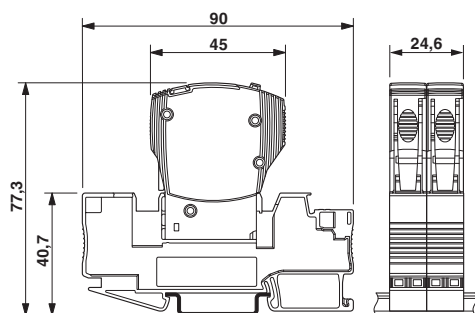
Minimum auxiliary contact operating voltage	10 V
Maximum auxiliary contact operating voltage	240 V
	240 V
Minimum auxiliary contact operating current	10 mA
Maximum auxiliary contact operating current	1 A
Vibration resistance, frequency	57 Hz ... 500 Hz
Vibration resistance, amplitude	0.61 mm (10 ... 57 Hz)
Vibration resistance, acceleration	80 m/s <sup>2</sup>
Vibration resistance, test duration	0 min. (Frequency cycles/axis)

### Standards and Regulations

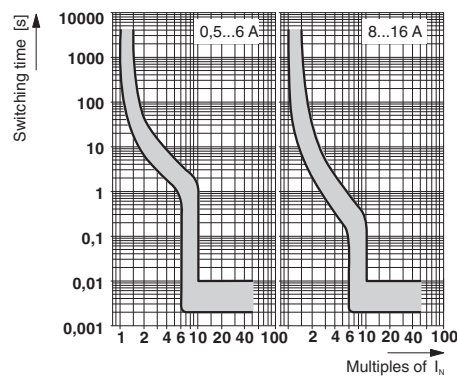
Standards/specifications	EN 60934
	UL 1077 UL/C-UL recognized
	UL 508 UL/C - UL listed
	CSA 22.2 No. 235-041

## Drawings

Dimensional drawing



Diagram

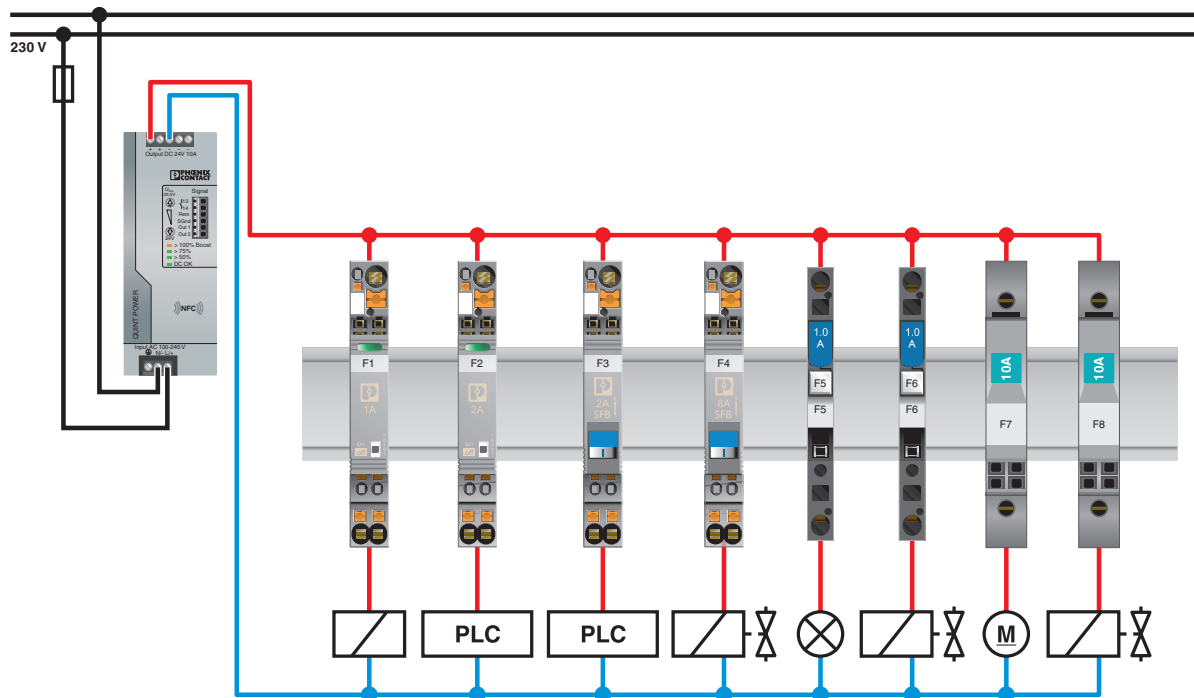


The figure shows the complete module consisting of a base element and connector

Trigger characteristic in the DC range

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Application drawing



The figure shows the single-position versions

## Approvals

Approvals

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

Ex Approvals

## Approval details

VDE Zeichengenehmigung		<a href="http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx">http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx</a>	40034683
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## Approvals

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140459
cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140459
GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	61419-13 HH
EAC			RU C- DE.A*30.B01561
CSA		<a href="http://www.csagroup.org/services/testing-and-certification/certified-product-listing/">http://www.csagroup.org/services/testing-and-certification/certified-product-listing/</a>	2786957
KC		<a href="http://eng.kcc.go.kr/user/ehpMain.do">http://eng.kcc.go.kr/user/ehpMain.do</a>	SW05012-15004
cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	