

# Thermomagnetic device circuit breaker - CB TM2 16A SFB P - 2800878

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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
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)
Degree of protection	IP30 (Actuation area)

### General

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## Technical data

### 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	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 $I_N$	16 A (IEC 60934)
	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)
	16 A DC
Rated insulation voltage $U_i$	277 V AC (UL 1077)
	250 V AC (IEC 60934)
Required backup fuse	$\geq 64$ A
Contact type	2 PDT
Power dissipation	5.12 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 $1 \times I_N$ )

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## Technical data

### Electrical data

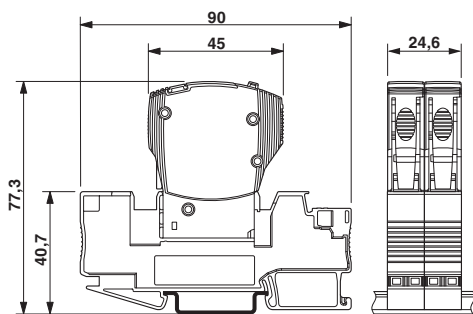
Switching cycles, max.	6000 (240 V AC/1 x I <sub>n</sub> )
	3000 (80 V DC/1 x I <sub>n</sub> )
Contact type	2 PDT
Auxiliary circuit	277 V AC / 0.5 A (Low-induction)
	277 V AC / 1 A (Low-induction, maximum of 2000 cycles)
	50 V DC / 1 A (Low-induction)
Minimum auxiliary contact operating voltage	10 V
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

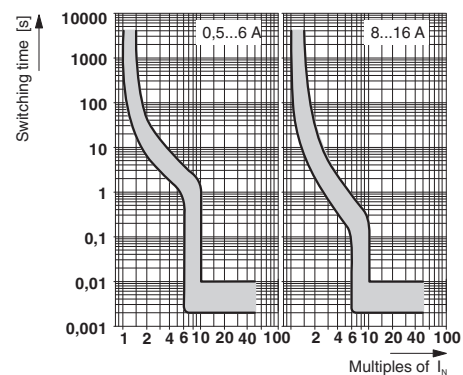
## Drawings

Dimensional drawing



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

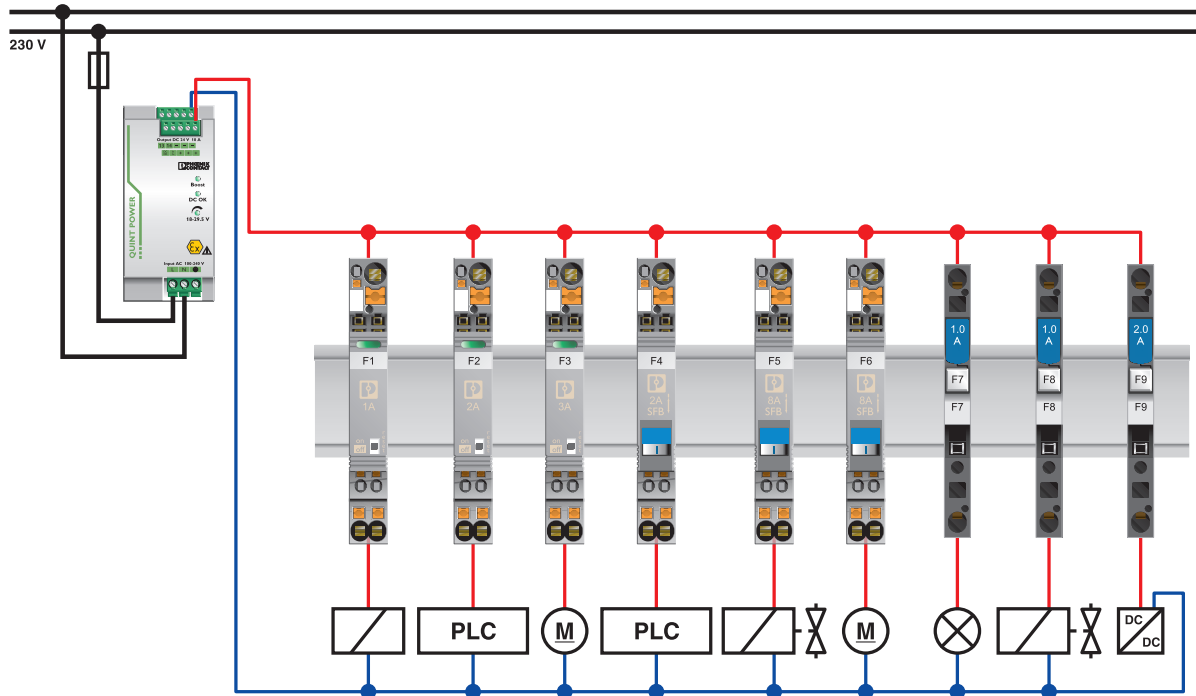
Diagram



Trigger characteristic in the DC range

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Application drawing



The figure shows the single-position versions

## Classifications

eCl@ss

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

ETIM

ETIM 3.0	EC000899
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## Classifications

### ETIM

ETIM 4.0	EC000899
ETIM 5.0	EC000899

### UNSPSC

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

## Approvals


### Approvals

#### Approvals

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

#### Ex Approvals

### Approval details

VDE Zeichengenehmigung  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://www.gl-group.com/newbuilding/approvals/index.html> 61419-13 HH

EAC 7500651.22.01.00243

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## Approvals

CSA 2786957

EAC EAC-Zulassung

KC <http://rra.go.kr/eng2/index.jsp> SW05012-15004

cULus Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

## Accessories

### 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

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### Accessories

#### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 10.7 mm, Number of positions: 2, Color: red

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Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 16.9 mm, Number of positions: 3, Color: red

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Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 23.1 mm, Number of positions: 4, Color: red

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Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 29.3 mm, Number of positions: 5, Color: red

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Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 60.3 mm, Number of positions: 10, Color: red

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## Thermomagnetic device circuit breaker - CB TM2 16A SFB P - 2800878

### Accessories

Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, Pitch: 6.2 mm, Length: 23 mm, Width: 122.3 mm, Number of positions: 20, Color: red

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Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, Pitch: 6.2 mm, Number of positions: 50, Color: red

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### 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: 5.15 x 12.15 mm

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### Terminal marking

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 12 mm, Lettering field: 5.15 x 12.15 mm

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### Necessary add-on products

## Thermomagnetic device circuit breaker - CB TM2 16A SFB P - 2800878

### Accessories

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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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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