

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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

The figure shows the CB TM1 0.5A SFB P version

## 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
Weight per Piece (excluding packing)	40.000 g
Custom tariff number	85362010
Country of origin	Germany

## Technical data

### Environmental Product Compliance

China RoHS	Hazardous substances above threshold values
	Environmentally Friendly Use Period = 50
	For details go to tab "Downloads", Category "Manufacturer's declaration"

### Dimensions

Height	45 mm
Width	12.3 mm
Depth	52 mm

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

## Technical data

### Dimensions

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)
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.
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 $I_N$	10 A (IEC 60934)
	10 A DC (low-induction load according to UL 1077)
	10 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)
Required backup fuse	40 A
Contact type	1 PDT
Power dissipation	2 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)

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

## Technical data

### Electrical data

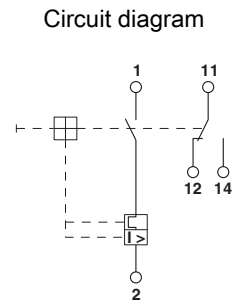
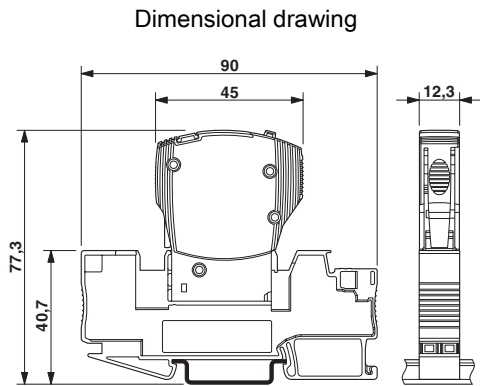
Tripping level	Trip-free mechanism (positive)
Rated short-circuit switching capacity $I_{cn}$	600 A (50 V DC)
Short-circuit switching capacity $I_k$	1000 A AC 277 V AC
	1000 A DC 50 V DC
Dielectric strength	3000 V AC (Actuation area)
	1500 V AC (Main to auxiliary circuit)
	1500 V AC (Open main circuit)
	1000 V AC (Open auxiliary circuit)
Voltage drop	0.13 V (at 1 x $I_n$ )
Switching cycles, max.	6000 (at 1 x $I_n$ )
Contact type	1 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 (IEC 60068-2-6, Fc, sine)
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

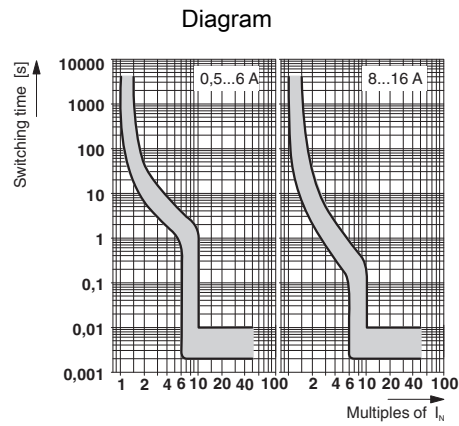
Standards/specifications	EN 60934
	UL 1077 UL/C-UL recognized
	UL 508 UL/C - UL listed
	CSA 22.2 No. 235-041

## Drawings

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843



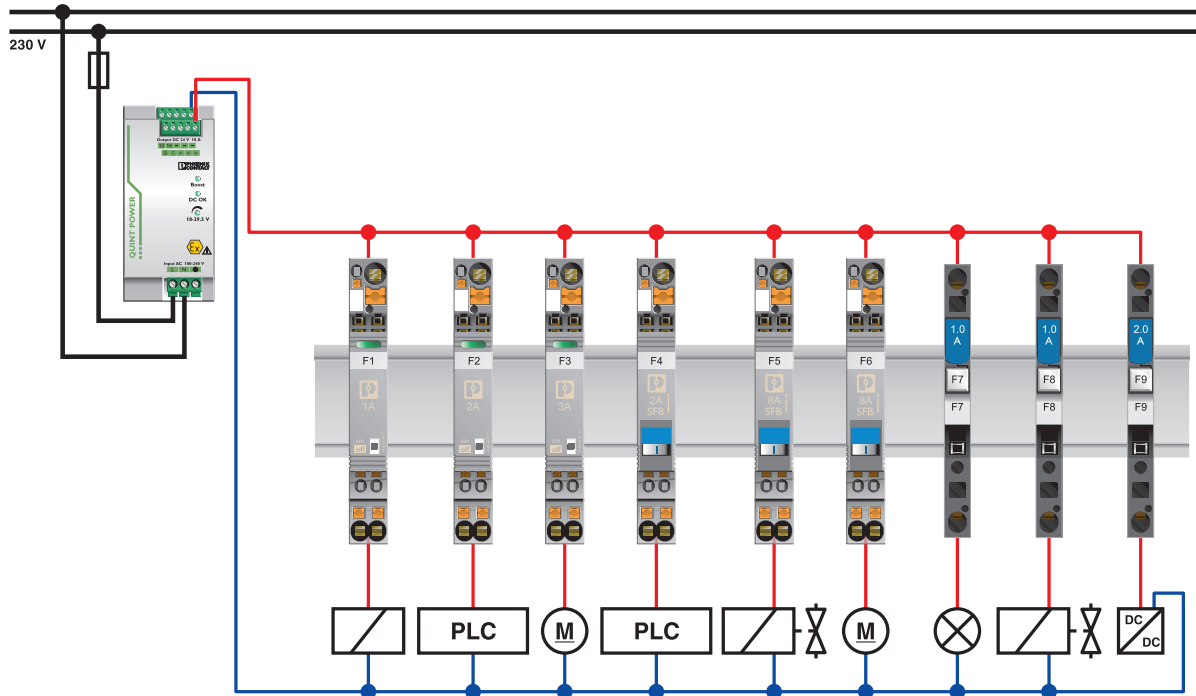
The figure shows the complete module consisting of a base element and connector



Trigger characteristic in the DC range

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

Application drawing



## 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
ETIM 4.0	EC000899
ETIM 5.0	EC000899

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

## Classifications

### 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 / UL Listed / cUL Listed / EAC / CSA / EAC / KC / cULus Recognized / cULus Listed

#### 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

UL Listed  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 172140

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

## Approvals


cUL Listed  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 172140

EAC 7500651.22.01.00243

CSA 2786957

EAC EAC-Zulassung

KC <http://rra.go.kr/eng2/index.jsp> SW05012-15002

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

cULus Listed 

## 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

# Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

## Accessories

### 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, Length: 23 mm, Width: 10.7 mm, Number of positions: 2, Color: red

---

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

---

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

---

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

## Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

### Accessories

---

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

---

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

---

Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, Pitch: 6.2 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: 5.15 x 12.15 mm

---

### Terminal marking

## Thermomagnetic device circuit breaker - CB TM1 10A SFB P - 2800843

### Accessories

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

---

### 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

---

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



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