

# CB TM1 2A SFB P - Thermomagnetic device circuit breaker



2800837

<https://www.phoenixcontact.com/in/products/2800837>

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

## Your advantages

- Individually adjustable with protective plugs
- Fuse protection for above-average conductor lengths with the aid of the SFB characteristic curve
- Protective plug with fixed nominal current value as protection against unintentional changes
- Increased safety with electrical isolation in the event of errors

## Commercial data

Item number	2800837
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CLA
Product key	CLA124
Catalog page	Page 311 (C-4-2019)
GTIN	4046356689885
Weight per piece (including packing)	45.242 g
Weight per piece (excluding packing)	27.794 g
Customs tariff number	85362010
Country of origin	ID

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## Technical data

### Notes

General	When mounted in rows, the nominal device current can be limited to just 80% or must be oversized accordingly.
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### Product properties

Product type	Thermomagnetic device circuit breakers
Product family	CB TM
Type	Male
Number of positions	1
No. of channels	1

### Data management status

Article revision	06
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### Insulation characteristics

Pollution degree	2
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### Electrical properties

Fuse type	Automatic device
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#### General

Rated voltage	50 V DC (IEC 60934)
	50 V DC (UL 1077)
	50 V DC (UL 508 - with plug-in base)
Rated insulation voltage $U_i$	277 V AC (UL 1077)
	250 V AC (IEC 60934)
Rated current $I_N$	2 A (IEC 60934)
	2 A DC (low-induction load according to UL 1077)
	2 A DC (low-induction load according to UL 508 - with plug-in base)
Rated surge voltage	2.5 kV (Increased insulation in actuation area)
Insulation resistance $R_{iso}$	> 100 M $\Omega$ (500 V DC)
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)
Type of actuation	S type
Tripping method	TM (thermomagnetic)
Tripping level	Trip-free mechanism (positive)
Device resistance	300 m $\Omega$
Required backup fuse	15 A ( $I > I_{cn}$ )
Rated short-circuit switching capacity $I_{cn}$	600 A (50 V DC)
Short-circuit switching capacity	1000 A AC (277 V AC)
	1000 A DC (50 V DC)

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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)
Switching cycles, max.	6000 (at 1 x I <sub>n</sub> )
Fuse	SFB
Power dissipation	1.2 W (in nominal operation per channel)
Voltage drop	0.64 V (at 1 x I <sub>n</sub> )

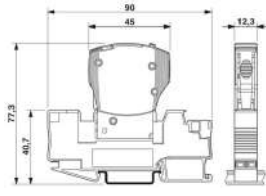
## Auxiliary contact

Minimum operating voltage U <sub>min</sub> DC	10 V
Maximum operating voltage U <sub>max</sub> DC	240 V
Maximum operating voltage U <sub>max</sub> AC	240 V
Minimum operating current I <sub>min</sub>	10 mA
Max. operating current I <sub>max</sub>	1 A

## Connection data

Connection method	pluggable
Connection method	pluggable

## Dimensions

Dimensional drawing	
Width	12.3 mm
Height	45 mm
Depth	52 mm
Complete module width	12.3 mm
Complete module height	90 mm
Complete module depth	77.3 mm

## Material specifications

Color	gray (RAL 7042)
	black (RAL 9005)
Flammability rating according to UL 94	V-0
Insulating material group	II

## Mechanical properties

### Mechanical data

Open side panel	No
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP30 (Actuation area)
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)
Vibration (operation)	8g (IEC 60068-2-6, Test Fc)

## Approvals

### UL approval

Identification	UL Listed UL 508
	UL/C-UL Recognized UL 1077

### CSA

Identification	CSA CAN/CSA-C22.2 No. 235-04
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### Shipbuilding approval

Identification	DNV GL
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## Standards and regulations

Standards/specifications	EN 60934
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## Mounting

Mounting type	on base element
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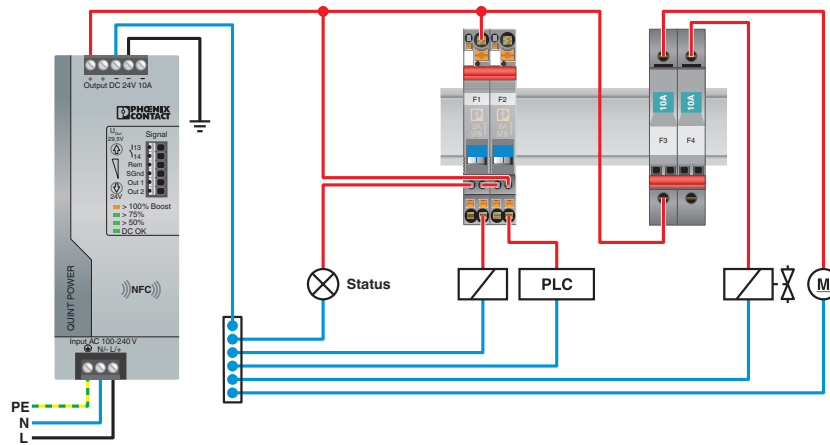
# CB TM1 2A SFB P - Thermomagnetic device circuit breaker

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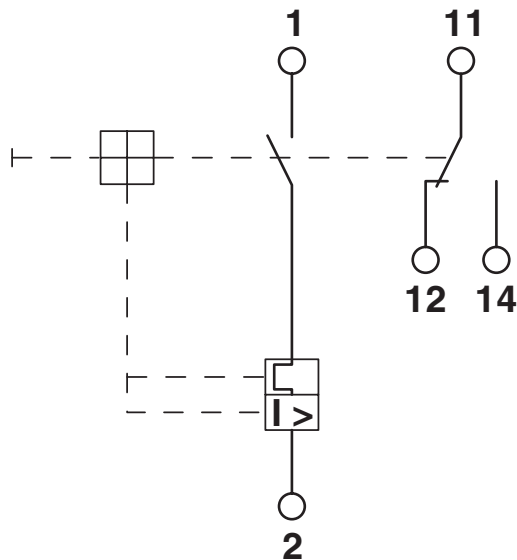
<https://www.phoenixcontact.com/in/products/2800837>

## Drawings

Application drawing



Circuit diagram



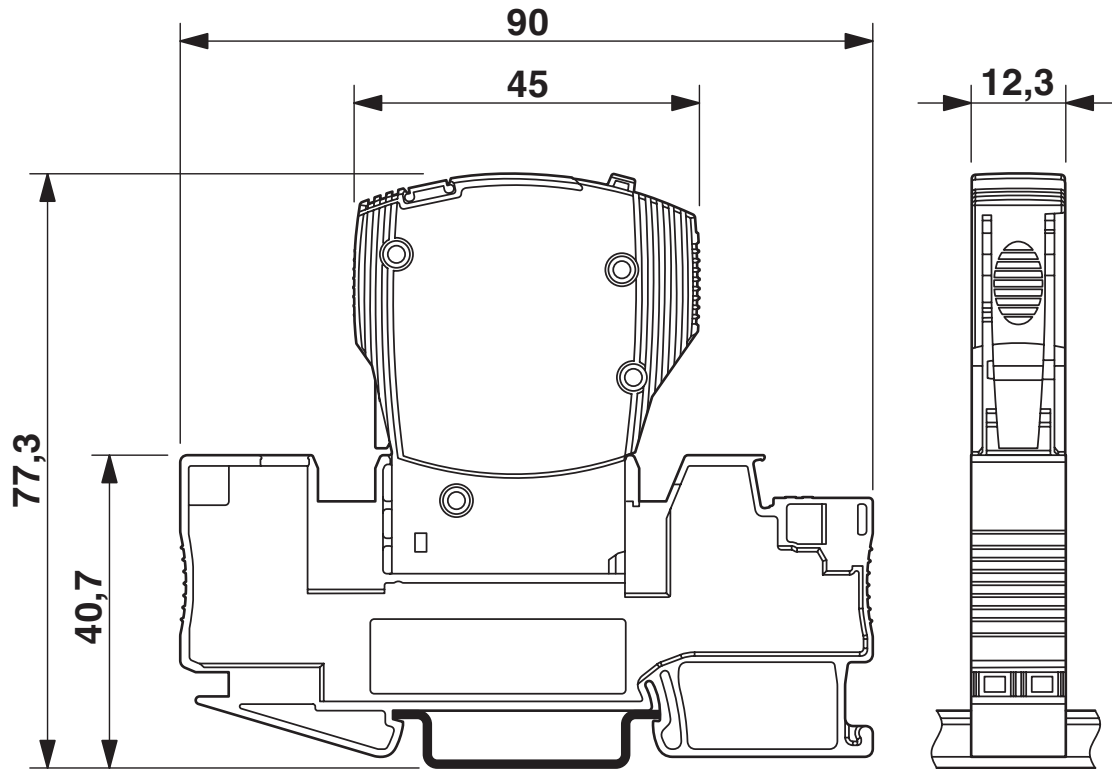
# CB TM1 2A SFB P - Thermomagnetic device circuit breaker



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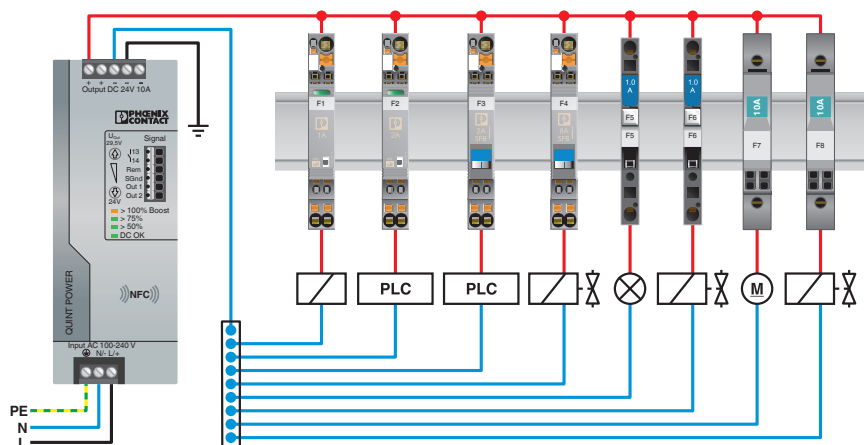
<https://www.phoenixcontact.com/in/products/2800837>

Dimensional drawing



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

Application drawing

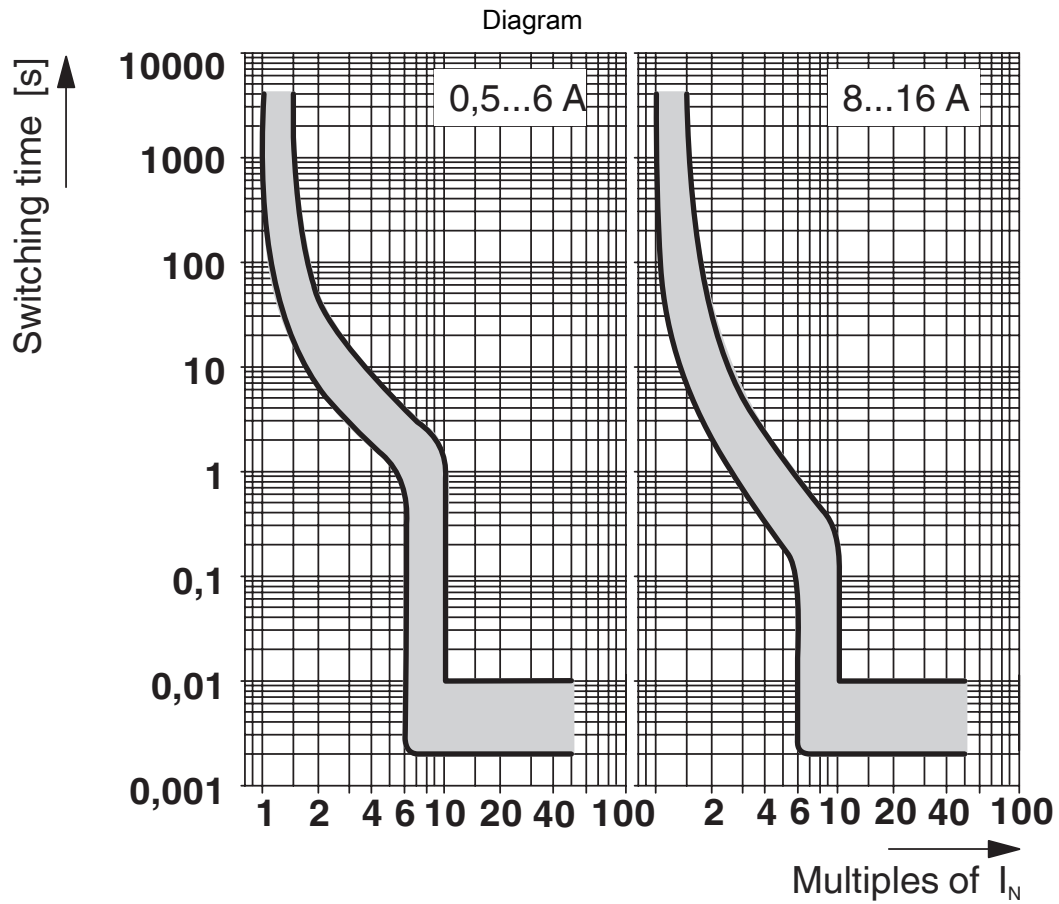


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Trigger characteristic in the DC range

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/2800837>



**cUL Recognized**  
Approval ID: FILE E 140459



**UL Recognized**  
Approval ID: FILE E 140459



**EAC**  
Approval ID: EAC-Zulassung



**DNV GL**  
Approval ID: TAE00003C7



**EAC**  
Approval ID: RU C-DE.\*09.B.00169



**VDE Zeichengenehmigung**  
Approval ID: 40034683



**UL Listed**  
Approval ID: FILE E 172140



**CCC**  
Approval ID: 2019010307158887



**CSA**  
Approval ID: 2786957



**cUL Listed**  
Approval ID: FILE E 172140



**KC**  
Approval ID: SW05012-15002



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## UAE-RoHS

Approval ID: 22-09-50937

## UAE-RoHS

Approval ID: 22-09-50938

## cULus Recognized

## cULus Listed

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## Classifications

### ECLASS

ECLASS-11.0	27140401
ECLASS-12.0	27140401
ECLASS-13.0	27140401

### ETIM

ETIM 9.0	EC003538
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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## Mandatory accessories

### CB 1/6-2/4 PT-BE - Base element

2800929

<https://www.phoenixcontact.com/in/products/2800929>

Base element with push-in connection technology for CB ... device circuit breakers



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

2801305

<https://www.phoenixcontact.com/in/products/2801305>

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



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## CB S-BE - Base element

2905067

<https://www.phoenixcontact.com/in/products/2905067>



Solder base element for PCB mounting for accommodating CB TM... or CB E... device circuit breakers

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## Accessories

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

0809735

<https://www.phoenixcontact.com/in/products/0809735>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12 mm, lettering field size: 5.15 x 12.15 mm, Number of individual labels: 5

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## ZBF 12 CUS - Zack Marker strip, flat

0825018

<https://www.phoenixcontact.com/in/products/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 size: 5.15 x 12.15 mm, Number of individual labels: 5

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PHOENIX CONTACT (I) Pvt. Ltd.

A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420

[info@phoenixcontact.co.in](mailto:info@phoenixcontact.co.in)