

CB TM1 4A SFB P - Thermomagnetic device circuit breaker



2800839

<https://www.phoenixcontact.com/in/products/2800839>

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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	2800839
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CLA
Product key	CLA124
Catalog page	Page 311 (C-4-2019)
GTIN	4046356689908
Weight per piece (including packing)	45 g
Weight per piece (excluding packing)	41.5 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 overdimensioned 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

Degree of pollution	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	4 A (IEC 60934)
	4 A DC (low-induction load according to UL 1077)
	4 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 Ω (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	90 m Ω
Required backup fuse	16 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 _n)
Fuse	SFB
Power dissipation	1.44 W (in nominal operation per channel)
Voltage drop	0.34 V (at 1 x I _n)

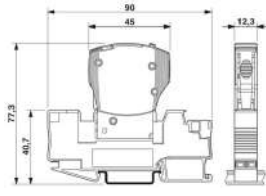
Auxiliary contact

Minimum operating voltage U _{min} DC	10 V
Maximum operating voltage U _{max} DC	240 V
Maximum operating voltage U _{max} AC	240 V
Minimum operating current I _{min}	10 mA
Max. operating current I _{max}	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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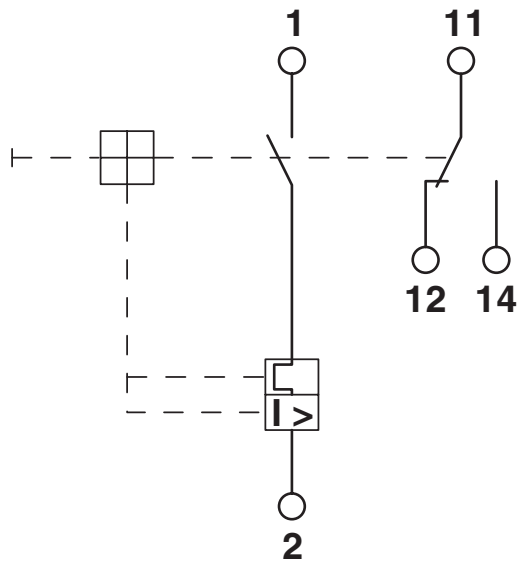
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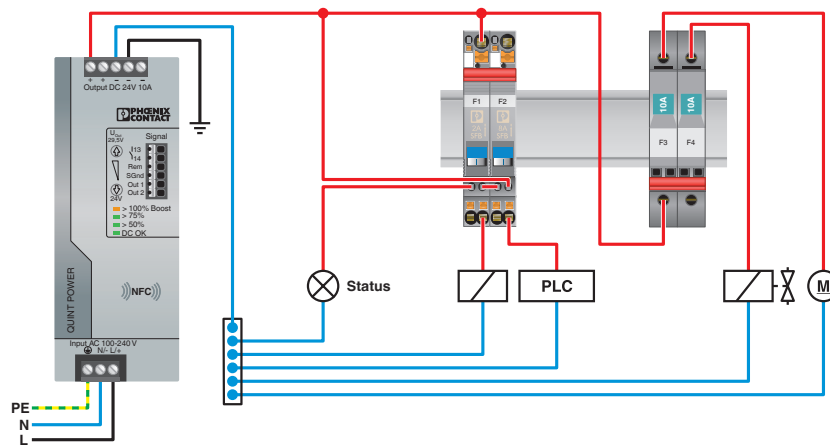
<https://www.phoenixcontact.com/in/products/2800839>

Drawings

Circuit diagram



Application drawing

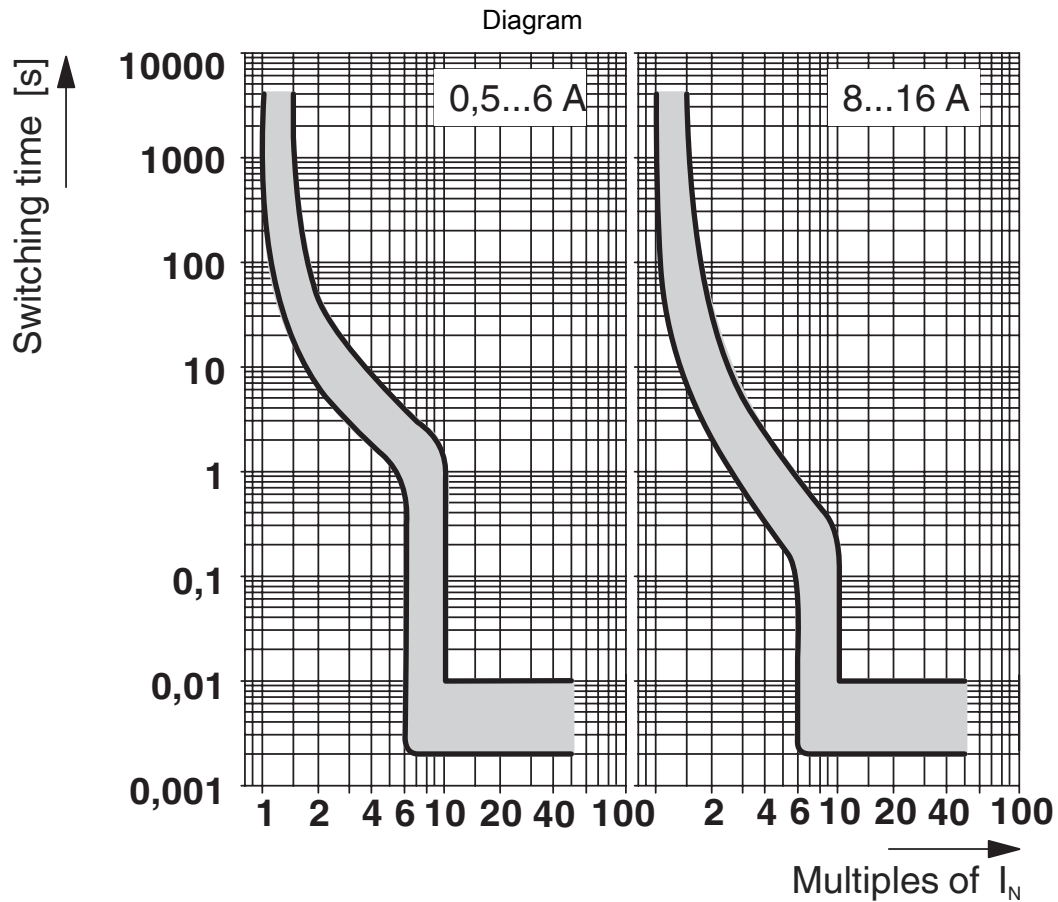


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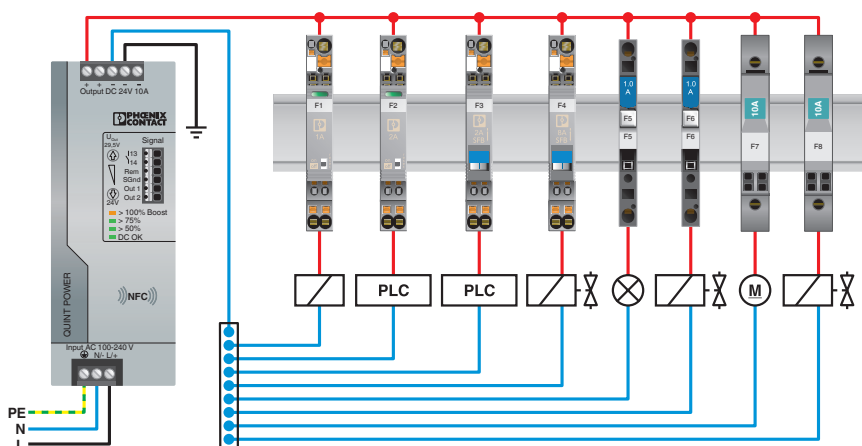
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Trigger characteristic in the DC range

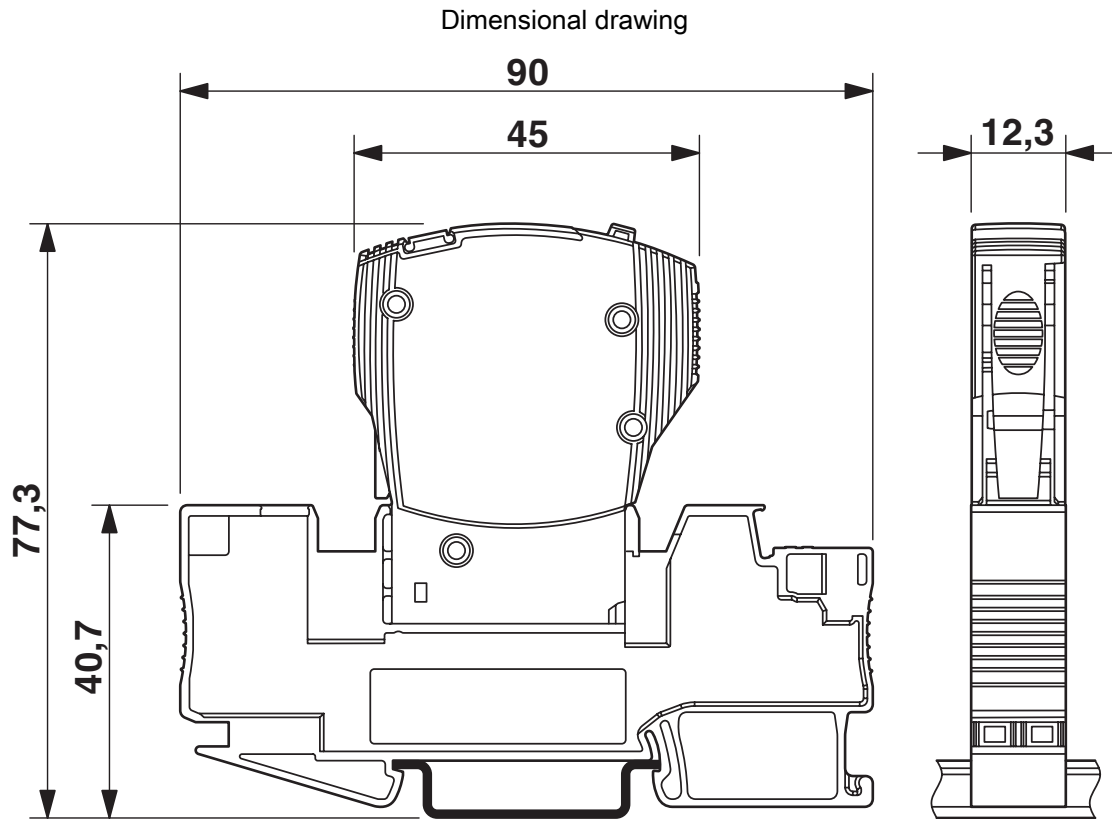
Application drawing



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

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Approvals

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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

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

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



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

2801305

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



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CB S-BE - Base element

2905067

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

Accessories

ZBF 12:UNBEDRUCKT - Zack Marker strip, flat

0809735

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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

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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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