CB TM1 10A SFB P - Thermomagnetic device circuit breaker

2800843

https://www.phoenixcontact.com/us/products/2800843

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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
- Modular expansion possible thanks to the uniform, plug-in housing concept
- Compact design with precise nominal current levels
- 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

Commercial data

Item number	2800843
Packing unit	1 pc
Sales key	CL04
Product key	CLA124
Catalog page	Page 391 (C-4-2019)
GTIN	4046356689946
Weight per piece (including packing)	44.194 g
Weight per piece (excluding packing)	26.794 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 overdimensioned accordingly.

Product properties

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

Insulation characteristics

Degree of pollution	2

Electrical properties

Fuse type	Automatic device

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	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 surge voltage	2.5 kV (Increased insulation in actuation area)
Insulation resistance R_{iso}	> 100 MΩ (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	13 mΩ
Required backup fuse	40 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)
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	2 W (in nominal operation per channel)
Voltage drop	0.13 V (at 1 x I_n)

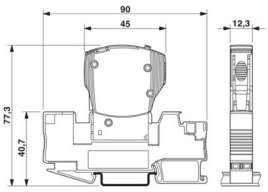
Auxiliary contact

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

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

Shipbuilding approval

Identification	DNV GL

Standards and regulations

Standards/specifications	EN 60934

Mounting

Mounting type	on base element

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC003538

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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