

Thermomagnetic device circuit breaker - CB TM2 12A F1 P - 2800899

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Thermomagnetic device circuit breaker, 2-pos., tripping characteristic F1 (fast-blow), 2 changeover contacts, plug for base element.

Product Description

Thermomagnetic device circuit breaker



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 690607
GTIN	4046356690607
Weight per Piece (excluding packing)	50.000 g
Custom tariff number	85362010
Country of origin	Indonesia

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)	15g (IEC 60068-2-27, Test Ea)

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Technical data

Ambient conditions

Vibration (operation)	5g (IEC 60068-2-6, Test Fc)
Degree of protection	IP30 (Actuation area)

General

Assembly note	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	V-0
Mounting type	on base element
Color	gray
Number of positions	2
Insulating material group	II
Degree of pollution	2
Type	Male

Electrical data

Fuse type	F1 (fast blow)
Rated surge voltage	2.5 kV (Increased insulation in actuation area)
Rated voltage	80 V DC (IEC 60934)
	80 V DC (UL 1077)
	80 V DC (UL 508 - with plug-in base)
Rated current I_N	12 A (IEC 60934)
	inductive load according to UL 1077
	12 A DC (low-induction load according to UL 1077)
	12 A DC (low-induction load according to UL 508 - with plug-in base)
	12 A
Rated insulation voltage U_i	277 V AC (UL 1077)
	250 V AC (IEC 60934)
Power dissipation	2.88 W (in nominal operation per channel)
Device resistance	11 mΩ
Insulation resistance R_{iso}	> 100 MΩ (500 V DC)
Type of actuation	S type
Tripping method	TM (thermomagnetic)
Tripping level	Trip-free mechanism (positive)
	600 A (80 V DC)
Required backup fuse	≥ 48 A ($I > I_{cn}$)
Short-circuit switching capacity	1000 A AC (277 V AC)
	1000 A DC (50 V DC)
Dielectric strength	3000 V AC (Actuation area)

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Technical data

Electrical data

	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 x I _n)
Switching cycles, max.	6000 (240 V AC / 1 x I _n)
	3000 (80 V DC/1 x I _n)
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

Standards and Regulations

Standards/specifications	EN 60934
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Conformance/approvals

Designation	UL approval
Identification	UL Listed UL 508
	UL/C-UL Recognized UL 1077
Designation	CSA
Identification	CSA CAN/CSA-C22.2 No. 235-04
Designation	Shipbuilding approval
Identification	DNV GL

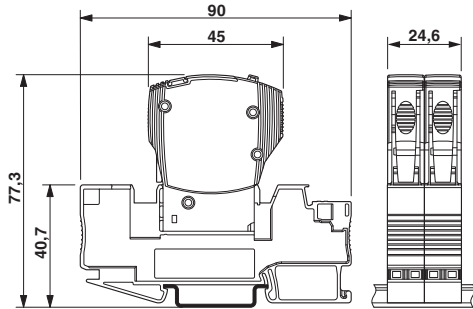
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

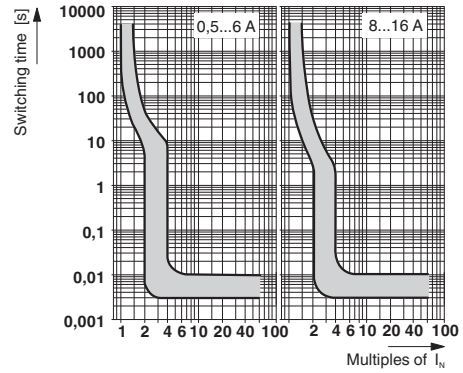
Drawings

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Dimensional drawing



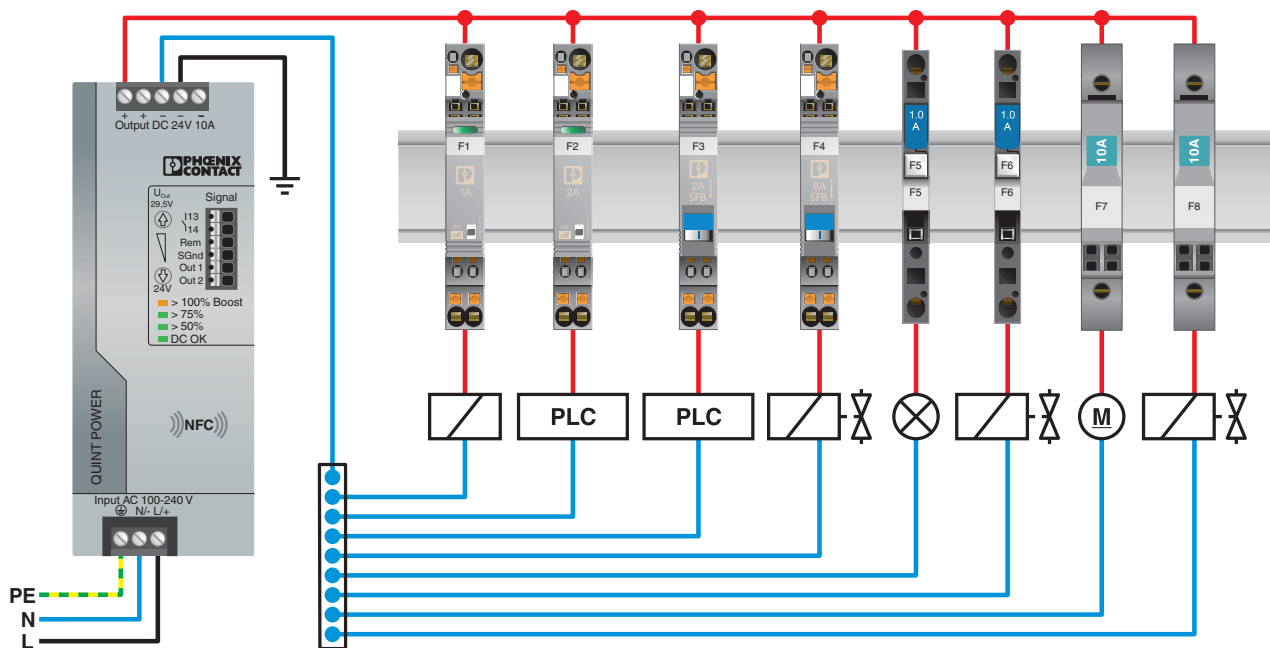
Diagram



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

Trigger characteristic in the DC range

Application drawing



The figure shows the single-position versions

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Application drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27141116
eCl@ss 11.0	27141116
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141116
eCl@ss 9.0	27141116

ETIM

ETIM 3.0	EC000899
ETIM 4.0	EC000899

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Classifications

ETIM

ETIM 6.0	EC000899
ETIM 7.0	EC000899

UNSPSC

UNSPSC 6.01	30211812
UNSPSC 7.0901	39121411
UNSPSC 11	39121411
UNSPSC 12.01	39121411
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	2786957
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140459
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Approvals

EAC			RU C-DE.*09.B.00169
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KC		http://eng.kcc.go.kr/user/ehpMain.do	SW05012-15006
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DNV GL		https://approvalfinder.dnvgl.com/	TAE00003C7
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CCC			2019010307158887
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VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40034683
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cULus Recognized			
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Accessories

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Bridge

Bridge - CB PT BRIDGE - 2801014



Bridge plug for bridging contacts 1 to 2 for CB base elements

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Accessories

Bridge - 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

Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 3-6 - 3030242



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, pitch: 6.2 mm, color: red

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Accessories

Plug-in bridge - FBS 5-6 - 3030349



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, pitch: 6.2 mm, color: red

Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, pitch: 6.2 mm, 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 size: 5.15 x 12.15 mm, Number of individual labels: 5

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Accessories

Terminal marking

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



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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

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