

Electronic device circuit breaker - CB E1 24DC/2A S-R P - 2800909

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Electronic device circuit breaker, 1-pos., active current limitation, status output and reset input, plug for base element.

Your advantages

- ✓ 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
- ✓ The reset input can be switched by means of remote control
- ✓ Active current limitation, even when switching capacitive loads
- ✓ Supply/remote signaling can be bridged with CLIPLINE complete accessories



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 690867
GTIN	4046356690867
Weight per Piece (excluding packing)	36.100 g
Custom tariff number	85362010
Country of origin	Germany

Technical data

Dimensions

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

Ambient conditions

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Technical data

Ambient conditions

Ambient temperature (operation)	-25 °C ... 50 °C (non-condensing)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Humidity test	96 h, 95 % RH, 40 °C
Vibration (operation)	3g (In accordance with IEC 60068-2-6, Test Fc)
Degree of protection	IP30 (Actuation area)

General

Installation instructions	When mounted in rows without convection cooling, the nominal device current should only be led to a maximum of 80% due to the thermal effect during continuous operation (100% operating factor). Special precautionary measures must be taken in systems or machines, to prevent components from restarting (e.g., use of a safety PLC). Parallel connection of multiple circuit breakers is not permitted.
Flammability rating according to UL 94	V-0
Mounting type	on base element
Color	gray
Number of positions	1
Degree of pollution	2
Type	Male

Electrical data

Fuse type	electronic
Rated surge voltage	0.5 kV
Operating voltage	24 V DC 18 V DC ... 30 V DC
Nominal current I_N	2 A
Active current limitation	typ. 1.25 x I_N
Closed circuit current I_0	typ. 8 mA (When switched on) typ. 11 mA (With status output)
Power dissipation	0.46 W (Nominal operation)
Temperature derating	2 A (at 50 °C)
Tripping method	E (electronic)
Required backup fuse	not required, integrated failsafe element
Dielectric strength	max. 30 V DC (Load circuit)
Voltage drop	100 mV (at I_N)
Shutdown time load circuit	400 ms (see time/current characteristic curve)
Undervoltage shutdown load circuit	< 14 V (typ. OFF) > 17 V (typ. ON)
Max. capacitive load load circuit	20000 µF
Output voltage status output	24 V DC
Output current status output	max. 0.2 A (Short-circuit-proof)
Input voltage reset input	7 V DC ... 30 V DC (Reset with falling edge)
Current consumption reset input	typ. 2.6 mA (at 24 V DC)

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Technical data

Electrical data

Pulse length reset input	min. 20 ms
Voltage reset input	< 3 V DC (Low state)
	> 8 V DC (High state)
Auxiliary type of contact	Positive-switching signal output

Standards and Regulations

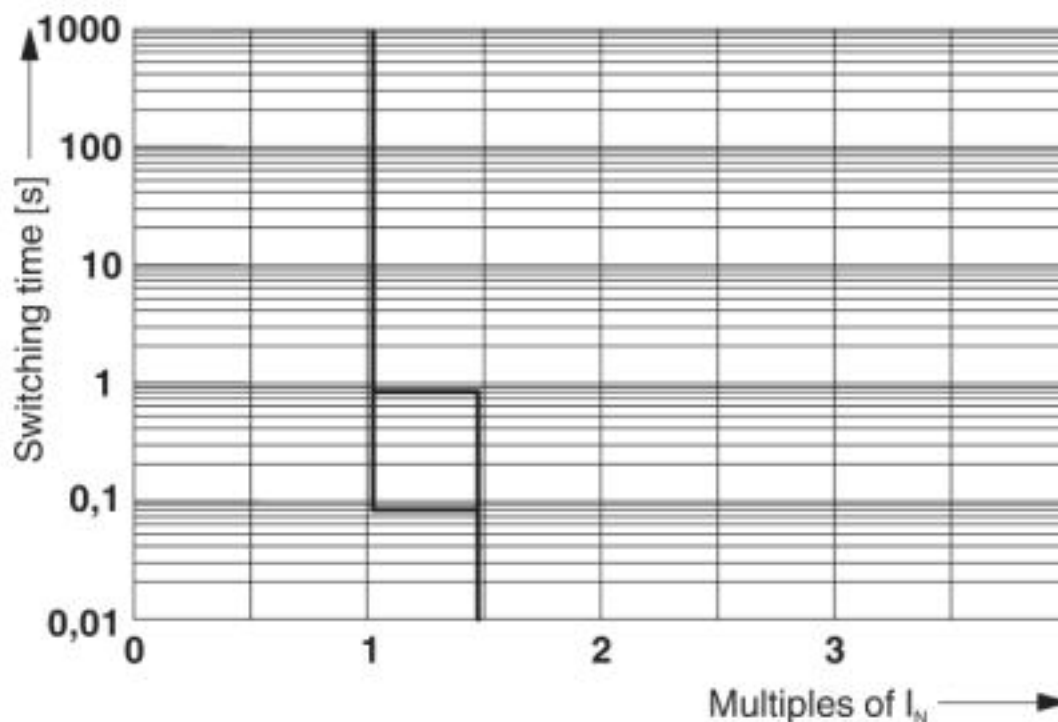
Standards/specifications	EMV EN 61000-6-3 Interference emission
	EMV EN 61000-6-2 Noise immunity

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

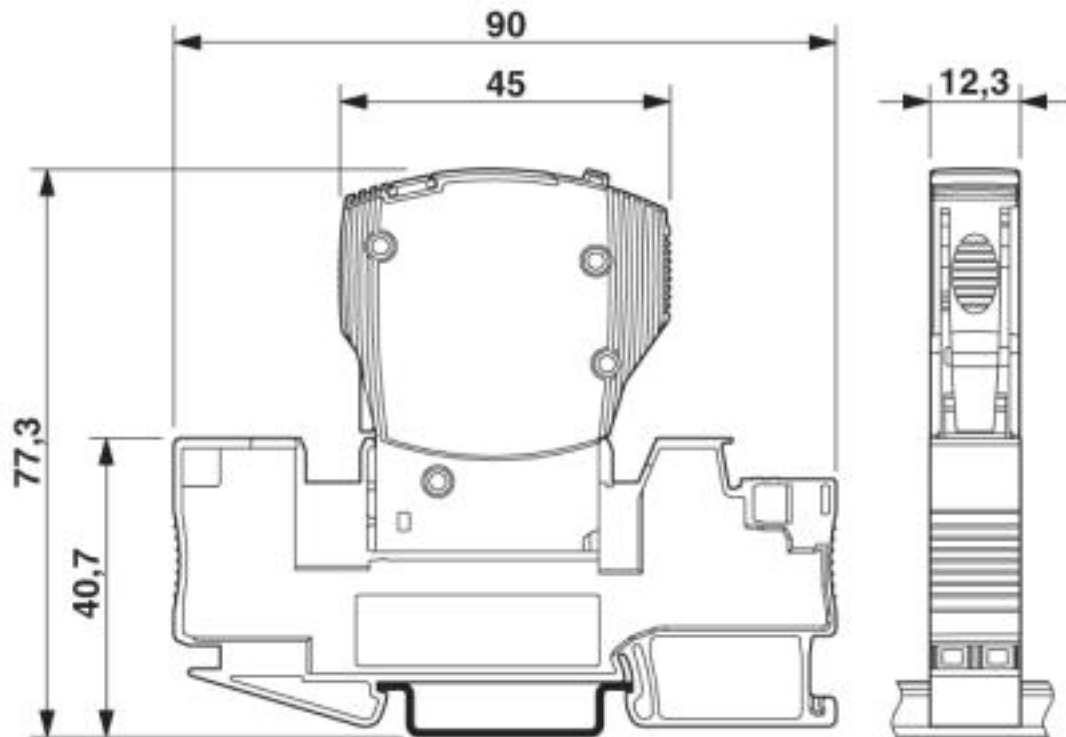
Diagram



Trigger characteristic

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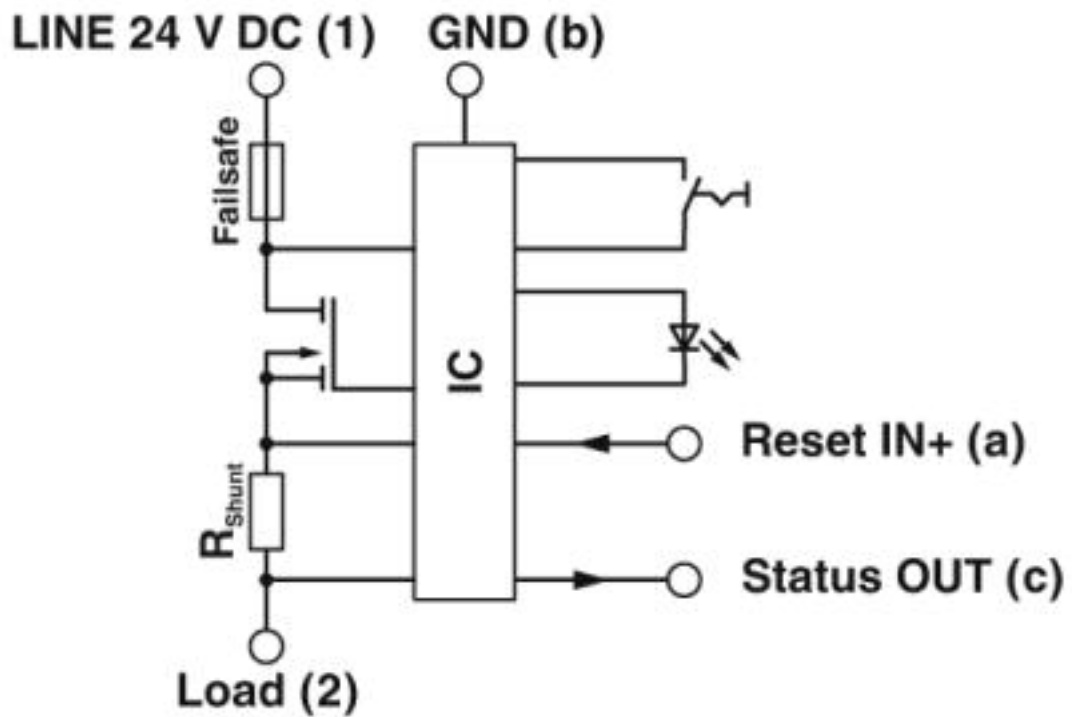
Dimensional drawing



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

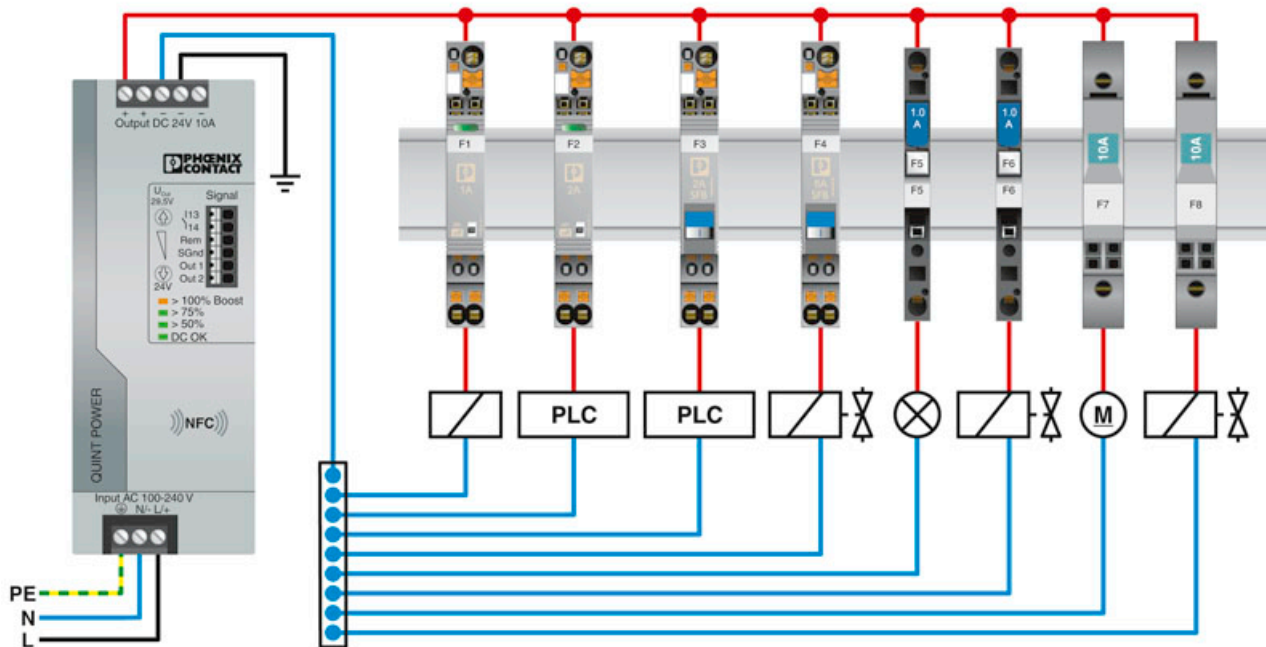
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Circuit diagram



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Application drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27140401
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

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Classifications

eCl@ss

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
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

UL Listed / UL Recognized / cUL Listed / DNV GL / cULus Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 317172
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Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 140324
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DNV GL		https://approvalfinder.dnvgl.com/	TAE00003KA
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cULus Listed			
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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

Cutting tools

Front cutter - CUTFOX-FBS - 1212124



Cutting tool, for separating individual jumper bars from FBS ... plug-in bridges and EB ... insertion bridges

Jumper

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Accessories

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 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, width: 16.9 mm, number of positions: 3, color: red

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, pitch: 6.2 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, width: 29.3 mm, number of positions: 5, color: red

Plug-in bridge - FBS 10-6 - 3030271



Plug-in bridge, pitch: 6.2 mm, width: 60.3 mm, number of positions: 10, color: red

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Accessories

Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, pitch: 6.2 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, width: 308.3 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 size: 5.15 x 12.15 mm, Number of individual labels: 5

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

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Accessories

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



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