

# Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

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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	
GTIN	4046356690997

## 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

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

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## Technical data

### Ambient conditions

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 $I_N$	6 A
Active current limitation	typ. 1.25 x $I_N$
Closed circuit current $I_o$	typ. 8 mA (When switched on)
	typ. 11 mA (With status output)
Power dissipation	1.04 W (Nominal operation)
Temperature derating	5 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	130 mV (at $I_N$ )
Shutdown time load circuit	130 ms (see time/current characteristic curve)
Undervoltage switch-off load circuit	< 14 V (typ. OFF)
	> 17 V (typ. ON)
Max. capacitive load load circuit	20000 $\mu$ F
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)
Pulse length reset input	min. 20 ms
Voltage reset input	< 3 V DC (Low state)
	> 8 V DC (High state)

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## Technical data

### Electrical data

Auxiliary type of contact	Positive-switching signal output
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### Standards and Regulations

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

### Conformance/approvals

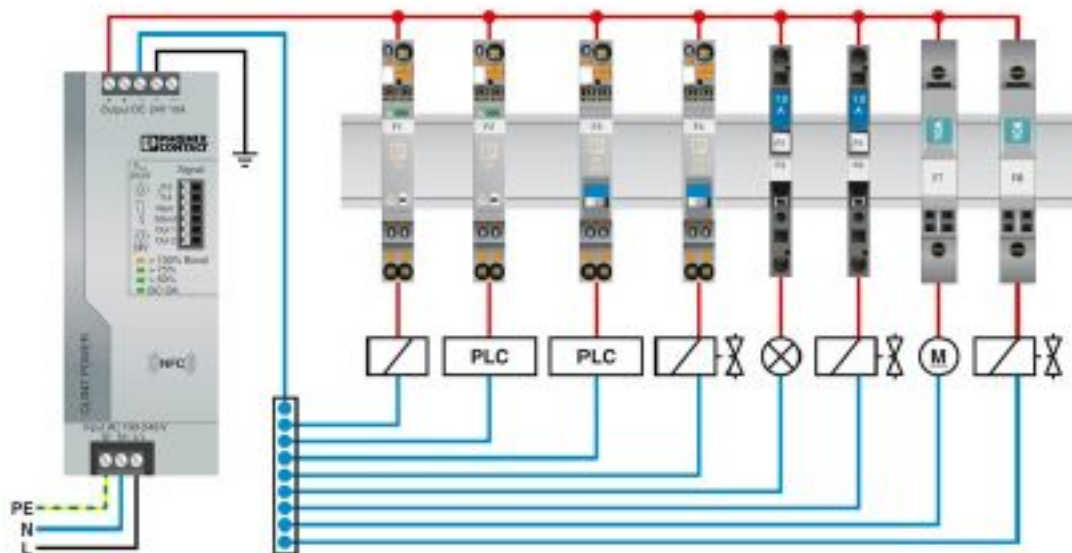
Designation	UL approval
Identification	UL Listed UL 508
	UL Recognized UL 2367
Designation	Shipbuilding approval
Identification	DNV GL

### 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"

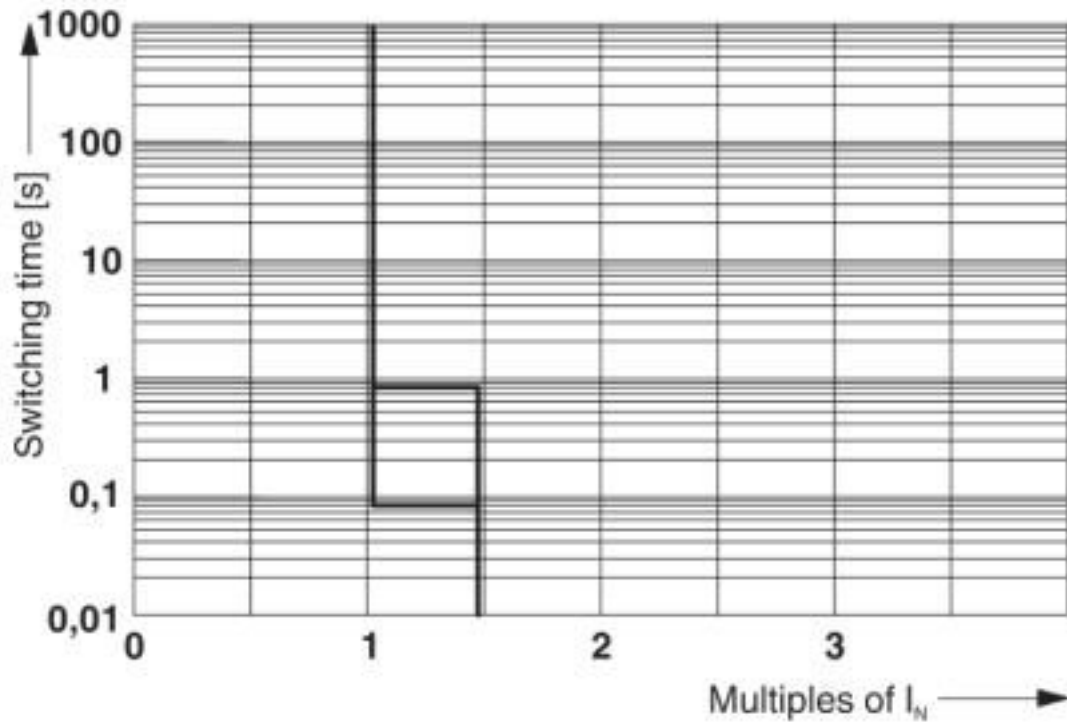
## Drawings

Application drawing



# Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

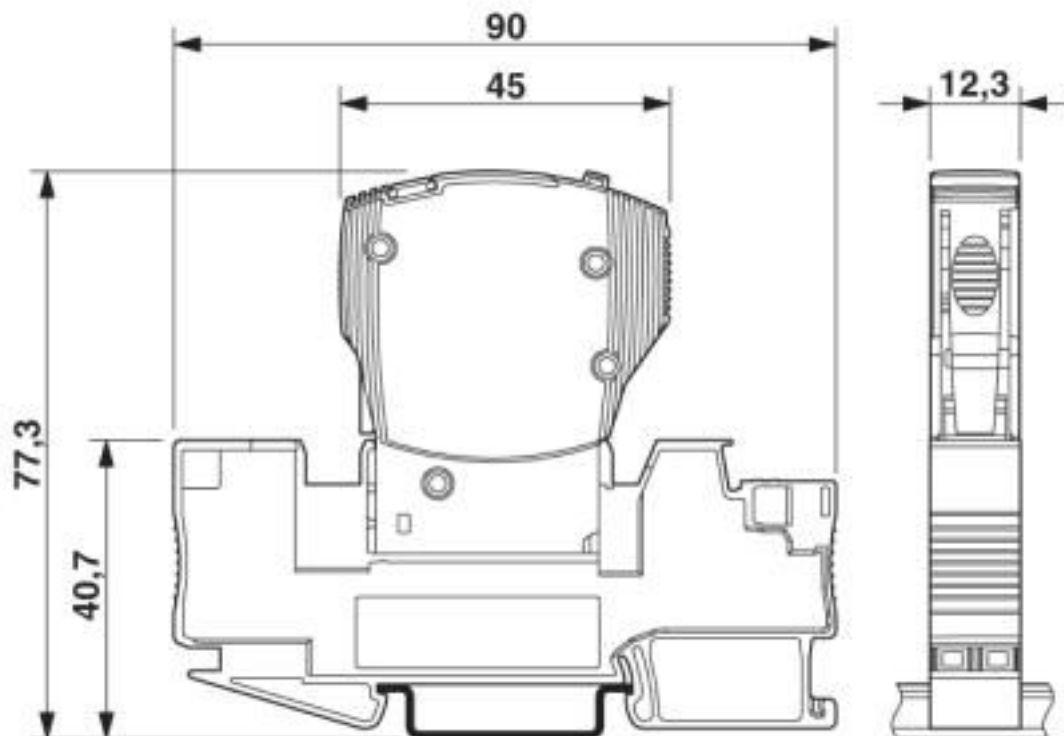
Diagram



Trigger characteristic

## Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

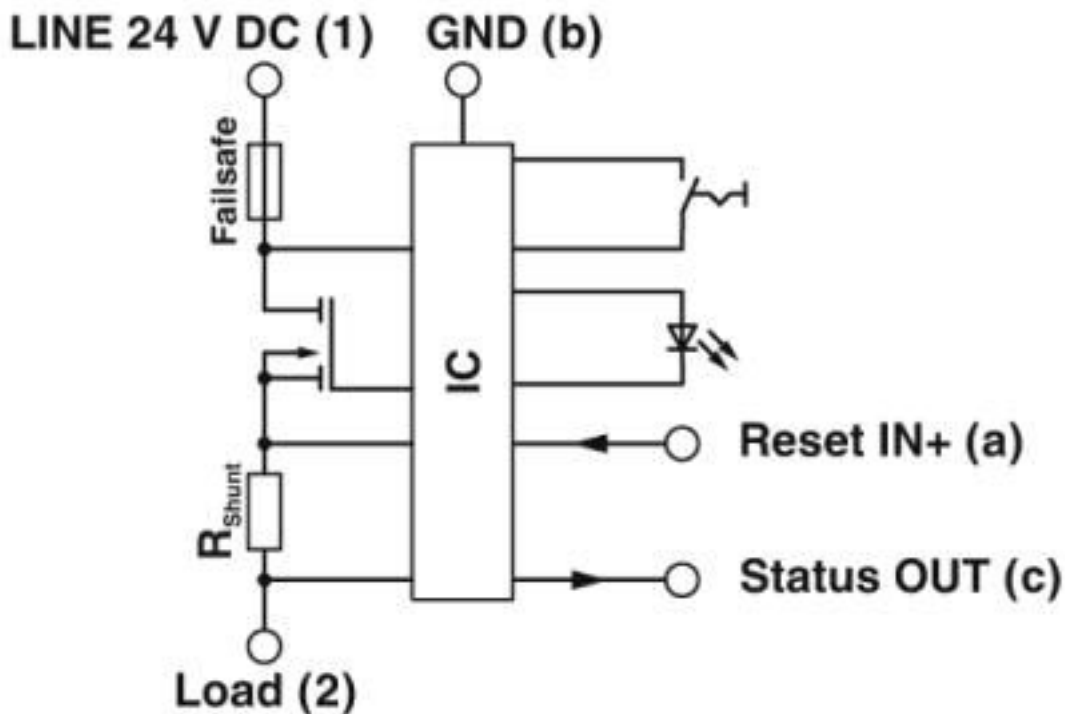
Dimensional drawing



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

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Circuit diagram



## 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
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

# Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

## Classifications

### UNSPSC

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		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 317172
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cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
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DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00003KA
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cULus Listed			
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## Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

### Accessories

#### Accessories

#### Bridge

Jumper - CB PT BRIDGE - 2801014



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

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Jumper - CB RC BRIDGE - 2801616



Bridge plug for bridging contacts 11 to 14 for CB base elements

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#### Cutting tools

Front cutter - CUTFOX-FBS - 1212124



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

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#### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

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Plug-in bridge - FBS 3-6 - 3030242



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

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## Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

### Accessories

Plug-in bridge - FBS 4-6 - 3030255



Plug-in bridge, pitch: 6.2 mm, width: 23.1 mm, number of positions: 4, color: red

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Plug-in bridge - FBS 5-6 - 3030349



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

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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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Plug-in bridge - FBS 20-6 - 3030365



Plug-in bridge, pitch: 6.2 mm, width: 122.3 mm, number of positions: 20, color: red

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Plug-in bridge - FBS 50-6 - 3032224



Plug-in bridge, pitch: 6.2 mm, width: 308.3 mm, number of positions: 50, color: red

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Labeled terminal marker

## Electronic device circuit breaker - CB E1 24DC/6A S-R P - 2800912

### Accessories

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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### 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

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### 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

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