

# CB E1 24DC/8A S-R P - Electronic circuit breaker



2800913

<https://www.phoenixcontact.com/us/products/2800913>

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

## Your advantages

- Individually adjustable with protective plugs
- Protective plug with fixed nominal current value as protection against unintentional changes
- Active current limitation to improve the capacity of the upstream power supply
- Remote reconnection with the reset function
- Increased system transparency with integrated remote message function

## Commercial data

Item number	2800913
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL04
Product key	CLA134
GTIN	4046356691000
Weight per piece (including packing)	36.4 g
Weight per piece (excluding packing)	36.4 g
Customs tariff number	85362010
Country of origin	DE

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## Technical data

### Product properties

Product type	Device circuit breakers
Product family	CB E
Type	Male
Number of positions	1
No. of channels	1

### Insulation characteristics

Degree of pollution	2
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### Electrical properties

Maximum load current	8 A
Maximum current with single arrangement	8 A

### General

Operating voltage	24 V DC
	18 V DC ... 30 V DC
Nominal current $I_N$	8 A
Rated insulation voltage $U_i$	30 V (Load circuit)
Rated surge voltage	0.5 kV
Tripping method	E (electronic)
Required backup fuse	not required, integrated failsafe element
Dielectric strength	max. 30 V DC (Load circuit)
Active current limitation	typ. $1.25 \times I_N$
Fuse	electronic
Closed circuit current $I_0$	typ. 8 mA (When switched on)
	typ. 11 mA (With status output)
Power dissipation	1.06 W (Nominal operation)
Temperature derating	7.2 A (at 50 °C)
MTBF (IEC 61709, SN 29500)	7200000 h (at 25 °C with 80 % load)
	6330000 h (at 40 °C with 80 % load)
Voltage drop	100 mV (at $I_N$ )
Fail-safe element	15 A DC
Contact switching type	without electrical isolation

### Load circuit

Shutdown time	100 ms (see time/current characteristic curve)
Undervoltage switch-off	< 14 V (typ. OFF)
	> 17 V (typ. ON)
Max. capacitive load	20000 $\mu$ F
Switch-on delay	typ. 2 ms

### Auxiliary contact

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Contact connection type	Positive-switching signal output
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## Reset

Input voltage range	7 V DC ... 30 V DC (Reset with falling edge)
Current consumption	typ. 2.6 mA (at 24 V DC)
Pulse length	min. 20 ms
Voltage	< 3 V DC (Low state) > 8 V DC (High state)

## Status output

Output voltage	24 V DC
Output current	max. 0.2 A (Short-circuit-proof)

## Connection data

Maximum load current	8 A
Connection method	pluggable

## Dimensions

Width	12.3 mm
Height	45 mm
Depth	52 mm

## Material specifications

Color	gray (RAL 7042) black (RAL 9005)
Flammability rating according to UL 94	V-0

## Environmental and real-life conditions

### Ambient conditions

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

## Approvals

### UL approval

Identification	UL Listed UL 508 UL Recognized UL 2367
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### Shipbuilding approval

Identification	DNV GL
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## Standards and regulations

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

## Mounting

Mounting type	on base element
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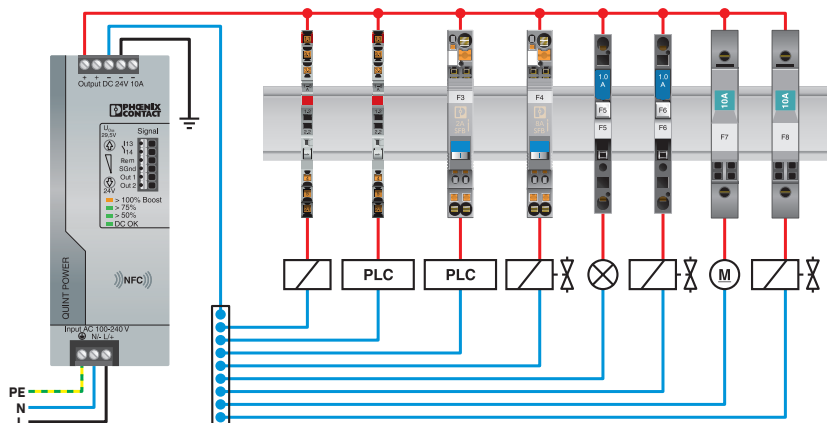


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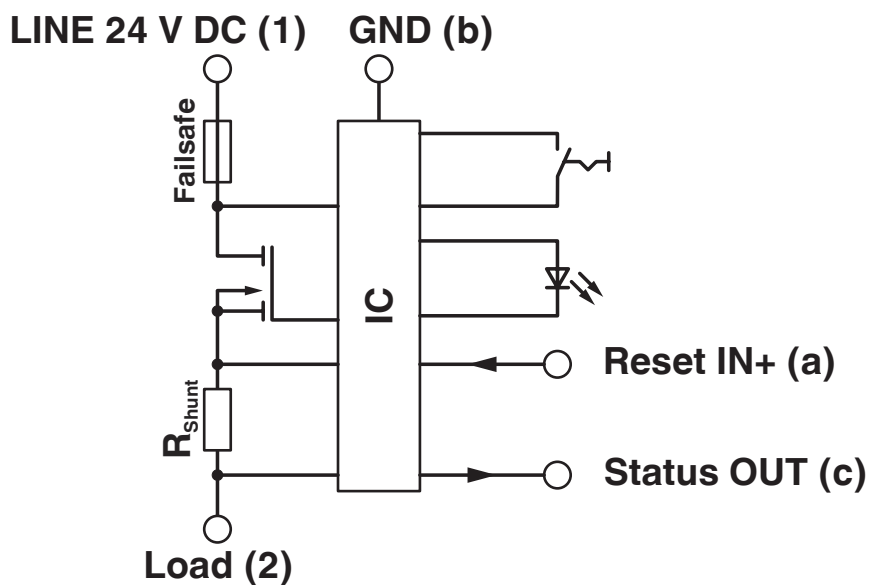
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## Drawings

Application drawing



Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2800913>



**UL Recognized**

Approval ID: FILE E 317172



**DNV GL**

Approval ID: TAE00003KA



**cULus Listed**

Approval ID: E123528

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## Classifications

### ECLASS

ECLASS-13.0	27140401
ECLASS-15.0	27140401

### ETIM

ETIM 10.0	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
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-25
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	1dadf158-03f9-433b-937f-a301d351a441

### EF3.1 Climate Change

CO2e kg	3.643 kg CO2e
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)