

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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	2800910
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL04
Product key	CLA134
Catalog page	Page 383 (C-4-2019)
GTIN	4046356690973
Weight per piece (including packing)	34.3 g
Weight per piece (excluding packing)	34.3 g
Customs tariff number	85362010
Country of origin	DE

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

## Technical data

### Notes

General	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.
---------	--

### Product properties

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

### Insulation characteristics

Degree of pollution	2
---------------------	---

### Electrical properties

#### General

Operating voltage	24 V DC
	18 V DC ... 30 V DC
Nominal current $I_N$	3 A
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	0.62 W (Nominal operation)
Temperature derating	3 A (at 50 °C)
MTBF (IEC 61709, SN 29500)	8320000 h (at 25 °C with 80 % load)
	7410000 h (at 40 °C with 80 % load)
Voltage drop	120 mV (at $I_N$ )
Fail-safe element	6 A DC

#### Load circuit

Shutdown time	300 ms (see time/current characteristic curve)
Undervoltage switch-off	< 14 V (typ. OFF)
	> 17 V (typ. ON)

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

Max. capacitive load	20000 µF
----------------------	----------

## Auxiliary contact

Contact connection type	Positive-switching signal output
-------------------------	----------------------------------

## 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)

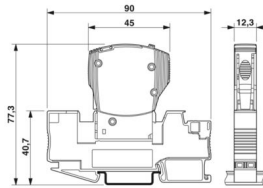
## Status output

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

## Connection data

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

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP30 (Actuation area)
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 (according to IEC 60068-2-6, Test Fc)

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

## Approvals

### UL approval

Identification	UL Listed UL 508
	UL Recognized UL 2367

### Shipbuilding approval

Identification	DNV GL
----------------	--------

## Standards and regulations

Standard designation	EMV
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
---------------	-----------------

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

## Classifications

### ECLASS

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

### ETIM

ETIM 9.0	EC003538
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# CB E1 24DC/3A S-R P - Electronic circuit breaker



2800910

<https://www.phoenixcontact.com/us/products/2800910>

## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 25;
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

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