CB E1 24DC/10A S-C P - Electronic circuit breaker

2800928

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Electronic circuit breaker, 1-pos., active current limitation, status output and control 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 switch-on and switch-off thanks to the controller function
- Increased system transparency with integrated remote message function

Commercial data

Item number	2800928
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL04
Product key	CLA134
GTIN	4046356690843
Weight per piece (including packing)	36.5 g
Weight per piece (excluding packing)	36.5 g
Customs tariff number	85362010
Country of origin	DE

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

Electrical properties

Maximum load current	10 A
Maximum current with single arrangement	10 A

General

Operating voltage	24 V DC
	18 V DC ... 30 V DC
Nominal current I_N	10 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 x I_N
Fuse	electronic
Closed circuit current I_0	typ. 8 mA (When switched on)
	typ. 11 mA (With status output)
Power dissipation	1.46 W (Nominal operation)
Temperature derating	9 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	120 mV (at I_N)
Fail-safe element	15 A DC
Contact switching type	without electrical isolation

Load circuit

Shutdown time	80 ms (see time/current characteristic curve)
Undervoltage switch-off	< 14 V (typ. OFF)
	> 17 V (typ. ON)
Max. capacitive load	20000 µF
Switch-on delay	typ. 2 ms

Auxiliary contact

Contact connection type	Positive-switching signal output

Reset

Input voltage	max. 30 V DC
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	10 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 (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)

Approvals

UL approval

Identification	UL Listed UL 508
	UL Recognized UL 2367

Shipbuilding approval

Identification	DNV GL

Standards and regulations

Standard designation	EMV

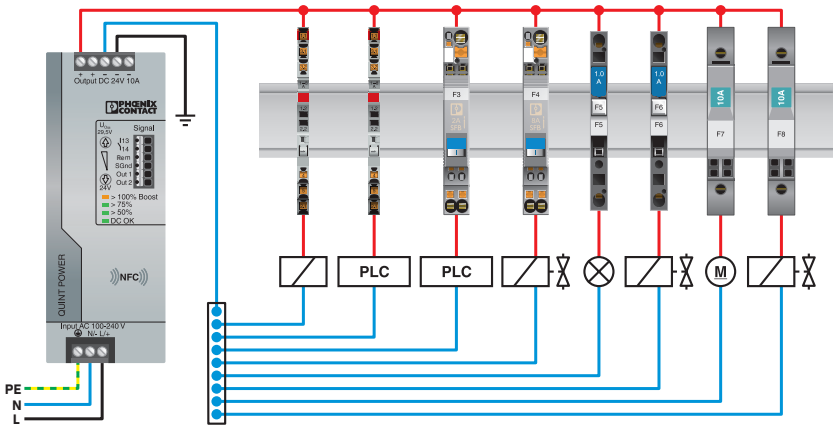
Standards/specifications	EN 61000-6-3
Note	Interference emission
Standard designation	EMV
Standards/specifications	EN 61000-6-2
Note	Noise immunity

Mounting

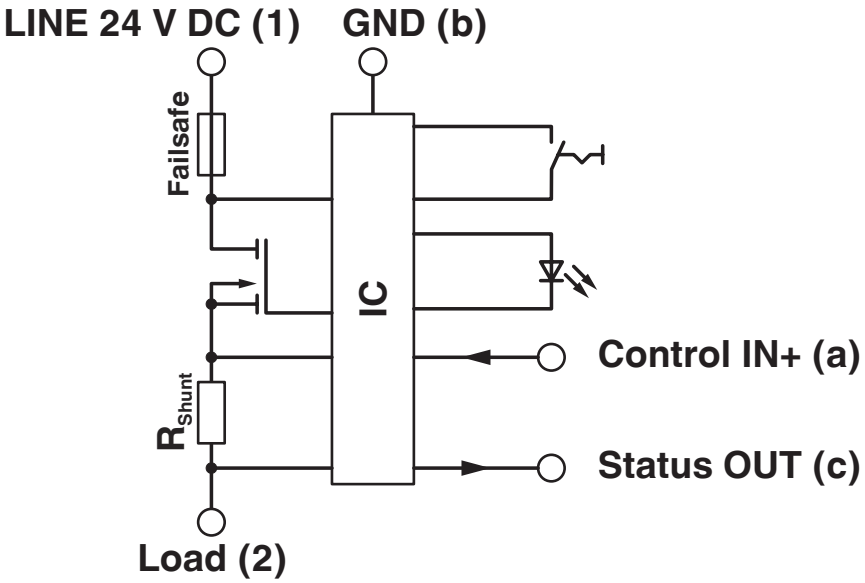
Mounting type	on base element

Drawings

Application drawing



Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2800928

UL Recognized
Approval ID: FILE E 317172

DNV GL
Approval ID: TAE00003KA

cULus Listed
Approval ID: E123528

Classifications

ECLASS

ECLASS-13.0	27140401
ECLASS-15.0	27140401

ETIM

ETIM 10.0	EC003538

UNSPSC

UNSPSC 21.0	39121400

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	94edb62b-1a8c-4dae-a609-101b21a8a2d4

EF3.1 Climate Change

CO2e kg	4.808 kg CO2e

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