

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Multi-channel electronic device circuit breaker that can be preconfigured, for protecting four loads at 24 V DC in the event of overload and short circuit. With electronic locking of the set nominal currents. For installation on DIN rails.

Your advantages

- ✓ Easy device replacement without replanning, thanks to compact design and options for individual adjustments
- ✓ Circuits can be adjusted without any tools by means of one single pushable LED button
- ✓ Pre-configuration available – for device protection that meets the specific requirements of your system
- ✓ Optimum protection for cables and sensors as well as NEC Class 2 circuits by means of an additional internal output fuse
- ✓ Reliable protection against unintentional adjustment of current values, thanks to electronic locking
- ✓ Status LEDs in traffic light colors enable instantaneous determination of operating states



Key Commercial Data

Packing unit	1 pc
--------------	------

Technical data

Dimensions

Height	90 mm
Width	36 mm
Depth	98 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Humidity test	96 h, 95 % RH, 40 °C
Altitude	≤ 3000 m Up to 52 °C (amsl (above mean sea level))
	≤ 4000 m Up to 46 °C (amsl (above mean sea level))
Shock (operation)	30g (IEC 60068-2-27, Test Ea)
Vibration (operation)	10 Hz ... 57.6 Hz (Amplitude ±0.35 mm; in accordance with IEC 60068-2-6, Test Fc)
	57.6 Hz ... 150 Hz (Acceleration 5g; in accordance with IEC 60068-2-6, Test Fc)

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

Technical data

Ambient conditions

Degree of protection	IP20
----------------------	------

General

Flammability rating according to UL 94	V-0
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
Number of positions	4
Protection class	III
Type	DIN rail module, one-piece

Electrical data

Fuse type	electronic
Rated surge voltage	0.5 kV
Operating voltage	18 V DC ... 30 V DC
Rated voltage	24 V DC
Rated current I_N	max. 16 A DC (IN+)
	max. 40 A DC (per terminal position when bridging additional devices via IN+)
	1 / 2 / 3 / 4 A DC (adjustable or fixed per output channel)
Measuring tolerance I	$\pm 15\%$
Feedback resistance	max. 35 V DC
Fail-safe element	4 A DC (per output channel)
Efficiency	> 99 %
Closed circuit current I_0	typ. 33 mA
Power dissipation	typ. 0.8 W (No-load operation)
	< 4 W (Nominal operation)
Module initialization time	1.6 s
Waiting time after switch off of a channel	5 s (at overload / short circuit)
Tripping method	E (electronic)
Required backup fuse	not required, integrated failsafe element
Dielectric strength	max. 35 V DC (Load circuit)
MTBF (IEC 61709, SN 29500)	11764705 h (at 25°C with 21% load)
	5319148 h (at 40°C with 34.25% load)
	846023 h (at 60°C with 100% load)
Shutdown time load circuit	≤ 10 ms (for short circuit > $2.0 \times I_N$)
	1 s ($1.2 \dots 2.0 \times I_N$)
Undervoltage shutdown load circuit	≤ 17.8 V DC (active)
	≥ 18.8 V DC (inactive)
Surge voltage shutdown load circuit	≥ 30.5 V DC (active)
	≤ 29.5 V DC (inactive)
Max. capacitive load load circuit	30000 μ F (Depending on the current setting and the short-circuit current available)

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

Technical data

Remote indication contact

Connection name	Remote indication circuit
Switching function	N/O contact
Stripping length	10 mm
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
DC operating voltage	0 V DC ... 30 V DC
DC operating current	100 mA DC

Signaling

Channel LED off	off (Channel switched off)
Channel LED green	lit (Channel switched on)
Channel LED yellow	lit (Channel switched on, channel load > 80%)
	flashing (Programming mode active)
Channel LED red	lit (Channel switched off, over- or undervoltage active)
	ON temporarily (Channel switched off, 5 s cool-down phase, overload or short-circuit release)
	flashing (Channel switched off, ready to be switched back on, overload or short-circuit release)
	two flashes (Channel switched off, device total current limit 40 A exceeded)

Connection data

Connection name	Main circuit IN+
Connection method	Push-in connection
Stripping length	15 mm
Conductor cross section solid	0.2 mm ² ... 10 mm ²
Conductor cross section AWG	24 ... 8
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 4 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 6 mm ²
Connection name	Main circuit IN-
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²
Connection name	Main circuit OUT
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

Technical data

Connection data

Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 2.5 mm ²

Standards and Regulations

Standards/specifications	EN 61000-6-2
	EN 61000-6-3
	EN 60068-2-6
	EN 60068-2-27
	EN 60068-2-78
	EN 50178

Environmental Product Compliance

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

Approvals

Approvals

Approvals

UL Recognized / UL Listed / UL Recognized / cUL Listed / EAC / cULus Listed

Ex Approvals

Approval details


UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E317172-20150319
---------------	---	--

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm FILE E 123528
-----------	---	---


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

Electronic device circuit breaker - CBMC E4 24DC/1-4A NO-C - 2908713

Approvals

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528
------------	---	---	---------------

EAC		RU C- DE.A*30.B01561
-----	---	-------------------------

cULus Listed	
--------------	---

Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>