Electronic device circuit breaker - CBMC E4 24DC/1-10A NO - 2906032

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Multi-channel electronic device circuit breaker 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.

Why buy this product

- 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
- Reliable protection against unintentional adjustment of current values, thanks to electronic locking
- Status LEDs in traffic light colors enable instantaneous determination of operating states

RoHS

Key Commercial Data

Packing unit	1 STK
GTIN	4 055626 149356
GTIN	4055626149356

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	≤ 2000 m (amsl (above mean sea level))
Shock (operation)	30g (IEC 60068-2-27, Test Ea)
Degree of protection	IP20

General

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Technical data

General

Flammability rating according to UL 94	V-0
Mounting type	DIN rail: 35 mm
Color	light grey RAL 7035
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. 40 A DC
	max. 40 A DC (per terminal position when bridging additional devices via IN+)
	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 A DC (adjustable per output channel)
Measuring tolerance I	typ. 15 %
Rated insulation voltage U_i	30 V (Load circuit)
Feedback resistance	max. 35 V DC
Fail-safe element	15 A DC (per output channel)
Efficiency	> 99 %
Closed circuit current I_0	typ. 33 mA
Power dissipation	typ. 0.8 W (No-load operation)
	9 W (Nominal operation)
Module initialization time	1.6 s
Waiting time after switch off of a channel	5 s (of overload / short circuit)
Temperature derating	24 A DC (at 60°C)
	28 A DC (at 54°C)
	32 A DC (At 47°C)
	36 A DC (at 41°C)
	40 A DC (at 35°C)
Tripping method	E (electronic)
Required backup fuse	not required, integrated failsafe element
Dielectric strength	max. 35 V DC (Load circuit)
Contact type	without electrical isolation
MTBF (IEC 61709, SN 29500)	8403361 h (at 25°C with 21% load)
	3067484 h (at 40°C with 34.25% load)
	534188 h (at 60°C with 100% load)
Shutdown time load circuit	≤ 10 ms (for short circuit > 2.0 x I_N)
	1 s (1.2 ... 2.0 x I_N)
Undervoltage shutdown load circuit	≤ 17.8 V DC (active)
	≥ 18.8 V DC (inactive)

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Electrical data

Surge voltage shutdown load circuit	≥ 30.5 V DC (active)
	≤ 29.5 V DC (inactive)
Max. capacitive load load circuit	45000 µF (Depending on the current setting and the short-circuit current available)
Vibration resistance, test duration	Per axis and direction

Remote indication contact

Connection name	Remote indication circuit
Switching function	N/O contact
Stripping length	10 mm
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
DC operating voltage	0 V DC ... 30 V DC
DC operating current	100 mA DC

Connection data

Connection name	Main circuit IN+
Connection method	Push-in connection
Stripping length	15 mm
Conductor cross section solid	0.2 mm² ... 10 mm²
Conductor cross section AWG	15 ... 8
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 4 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 6 mm²
Connection name	Main circuit IN-
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Connection name	Main circuit OUT
Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section solid	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 1.5 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²

Standards and Regulations

Standards/specifications	EN 61000-6-2
	EN 61000-6-3

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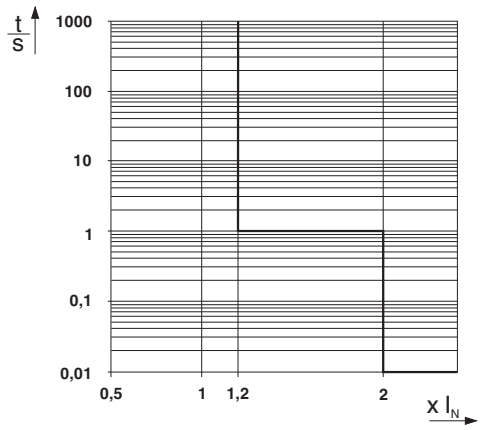
Technical data

Standards and Regulations

	EN 60068-2-78
	UL 508
	UL 2367

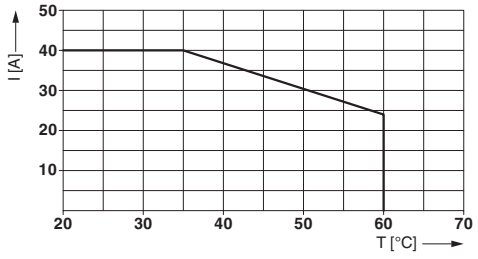
Drawings

Diagram

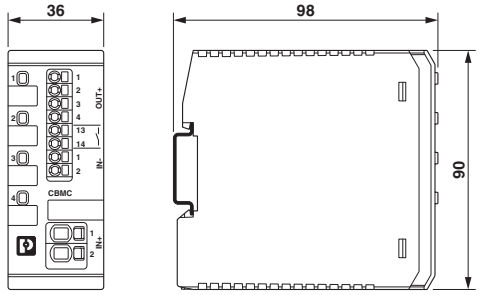


Trigger characteristic in the DC range

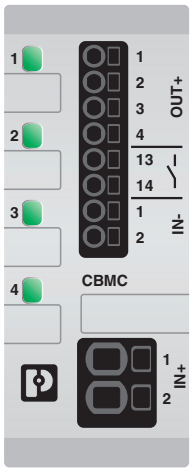
Diagram



Dimensional drawing

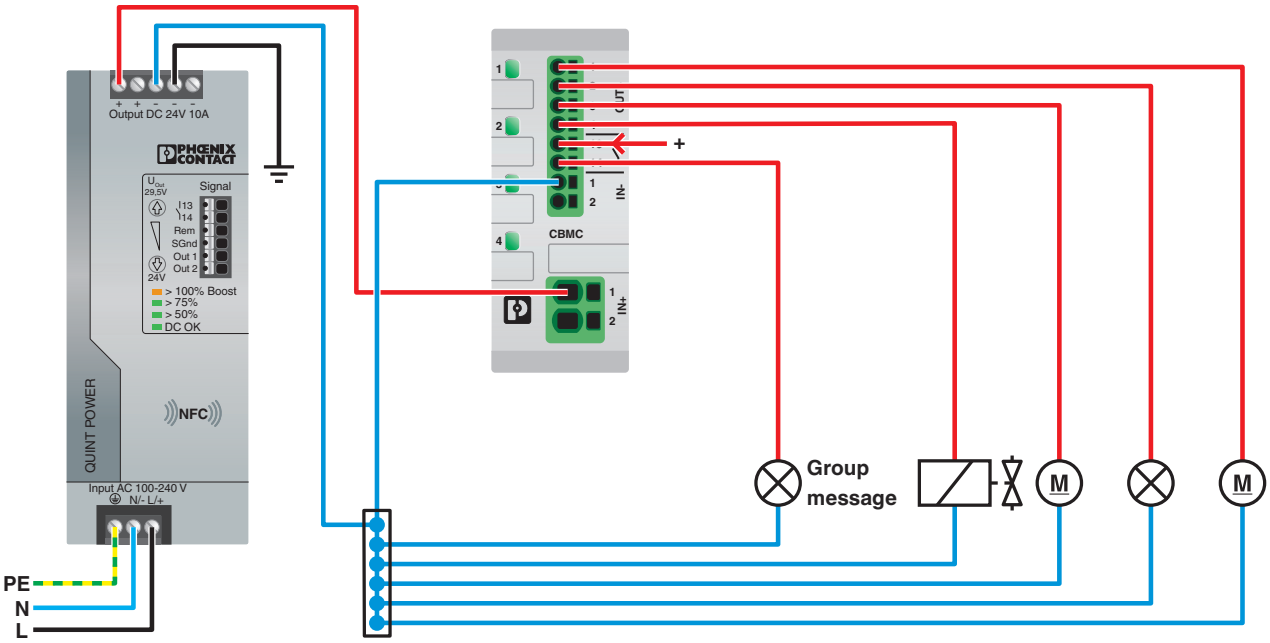


Product drawing



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Application drawing



Approvals

Approvals

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

Ex Approvals

Approval details

EAC		RU C-DE.A*30.B01561
UL Listed	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 123528

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Approvals

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

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