

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



2906032

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Multi-channel electronic 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.

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

Commercial data

Item number	2906032
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CLA
Product key	CLA152
Catalog page	Page 375 (C-4-2019)
GTIN	4055626149356
Weight per piece (including packing)	140.2 g
Weight per piece (excluding packing)	133.94 g
Customs tariff number	85362010
Country of origin	DE

Technical data

Notes

General

Note	Repeated hard short circuits can reduce the melting integral of the integrated backup fuse.
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Product properties

Type	DIN rail module, one-piece
Product type	Device circuit breakers
Product family	CBMC
Number of positions	1
No. of channels	4

Insulation characteristics

Protection class	III
Pollution degree	2

Electrical properties

No. of channels	4
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General

Operating voltage	18 V DC ... 30 V DC
Rated voltage	24 V DC
Rated current I_N	max. 40 A DC (IN+) max. 40 A DC (per terminal position when bridging additional devices via IN+)
Rated current I_N	1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 A DC (adjustable per output channel)
Rated current (pre-adjusted)	4 A
Rated surge voltage	0.5 kV
Tripping method	E (electronic)
Feedback resistance	max. 35 V DC
Required backup fuse	Only required if I_{max} of the power supply > the short-circuit switching capacity. Integrated failsafe element.
Short-circuit switching capacity	300 A
Dielectric strength	max. 35 V DC (Load circuit)
Fuse	electronic
Efficiency	> 99 %
Closed circuit current I_0	typ. 25 mA
Power dissipation	typ. 0.6 W (No-load operation) < 9 W (Nominal operation)
Module initialization time	1.6 s
Waiting time after switch off of a channel	5 s (at overload / short circuit)
Measuring tolerance I	± 15 %

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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)
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 35 °C with 100 % load)
Fail-safe element	15 A DC (per output channel)

Load circuit

Shutdown time	≤ 10 ms (for short circuit > 2.0 x I _N)
	1 s (1.2 ... 2.0 x I _N)
Undervoltage switch-off	≤ 17.8 V DC (active)
	≥ 18.8 V DC (inactive)
Overvoltage switch-off	≥ 30.5 V DC (active)
	≤ 29.5 V DC (inactive)
Max. capacitive load	45000 µF (Depending on the current setting and the short-circuit current available)

Indicator/remote signaling

Connection name	Remote indication circuit
Switching function	N/O contact
Operating voltage	0 V DC ... 30 V DC
Operating current	100 mA DC

Connection data

Main circuit IN+

Connection method	Push-in connection
Stripping length	15 mm
Conductor cross section rigid	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

Main circuit IN-

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross section rigid	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

Main circuit OUT