

# Electronic device circuit breaker - EC-E 0,5A DC24V - 0903041

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Electronic circuit breaker, 1 reset input, nominal current: 0.5 A

## Your advantages

- ✔ Selective protection of all 24 V DC load circuits at switched-mode power supply units
- ✔ A combination of active electronic current limitation in the event of short circuit and overload shutdown ensures that the circuit breaker can respond to overloads faster than the switched-mode power supply unit
- ✔ The residual current is always limited to 1.3 - 1.8 times the nominal current

## Key Commercial Data

Packing unit	6 pc
GTIN	 4 046356 466875
GTIN	4046356466875

## Technical data

### General

Installation instructions	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.
Mounting type	DIN rail: 35 mm
Color	black
Flammability rating according to UL 94	V0

### Electrical data

Fuse	electronic
Fuse type	Automatic device
Rated surge voltage	0.5 kV
Operating voltage	24 V DC

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## Technical data

### Electrical data

	18 V DC ... 32 V DC
Nominal current $I_N$	0.5 A
Required backup fuse	not required, integrated failsafe element
Dielectric strength	max. 32 V DC (Load circuit)
Degree of pollution	2
Switching capacity $I_{CN}$	Active current limitation
Closed-circuit current range $I_0$	typ. 25 mA $\pm$ 5 mA (When switched on)

### Dimensions

Height	83 mm
Width	12.5 mm
Depth	80 mm
Height NS 35/7,5	83 mm
Height NS 35/15	90.5 mm

### Ambient conditions

Degree of protection	IP20 (Housing)
Ambient temperature (operation)	0 °C ... 50 °C (non-condensing)

### Connection data

Conductor cross section solid min.	0.5 mm <sup>2</sup>
Conductor cross section solid max.	16 mm <sup>2</sup>
Conductor cross section flexible min.	0.5 mm <sup>2</sup>
Conductor cross section flexible max.	16 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	6
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	10 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	10 mm <sup>2</sup>
2 conductors with same cross section, solid min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, solid max.	4 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	4 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	6 mm <sup>2</sup>
Connection method	Screw connection
Stripping length	10 mm

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## Technical data

### Connection data

Screw thread	M4
Tightening torque max	1.2 Nm

### Standards and Regulations

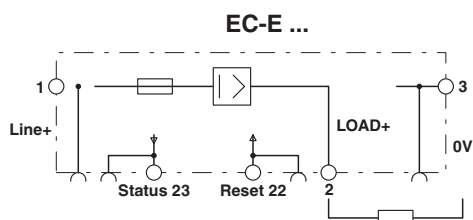
Standards/specifications	UL 508
	CSA 22.2 No. 14
	UL 2367
	CSA 22.2 No. 142
	CSA 22.2 No. 213
	UL 1604

### Environmental Product Compliance

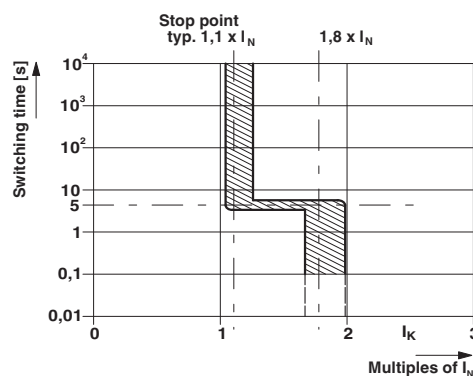
	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Circuit diagram



Diagram



Trigger characteristic

## Approvals

### Approvals

#### Approvals

DNV GL / UL Listed / cUL Listed / EAC / EAC / UL Recognized / cULus Listed

#### Ex Approvals

UL Recognized / CSA

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## Approvals

### Approval details

DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAE00002HC
UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 140324
EAC			EAC-Zulassung
EAC			RU C- DE.A*30.B01546
UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 317172
cULus Listed			

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