

## Electronic device circuit breaker - EC-E1 12A - 0903031

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Electronic circuit breaker, signal contact: 1 N/O contact, nominal current: 12 A

### Product Features

- 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
- Selective protection of all 24 V DC load circuits at switched-mode power supply units
- The residual current is always limited to 1.3 - 1.8 times the nominal current



### Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	2.52 g
Custom tariff number	85362010
Country of origin	Germany

### 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

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## Technical data

### Electrical data

Rated surge voltage	0.5 kV
Operating voltage	24 V DC
	18 V DC ... 32 V DC
Nominal current $I_N$	12 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.	20
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>

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### Connection data

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
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

## Classifications

### eCl@ss

eCl@ss 4.0	27141116
eCl@ss 4.1	27141116
eCl@ss 5.0	27141116
eCl@ss 5.1	27141116
eCl@ss 6.0	27141116
eCl@ss 7.0	27141116
eCl@ss 8.0	27141116

### ETIM

ETIM 2.0	EC000899
ETIM 3.0	EC000899
ETIM 4.0	EC000899
ETIM 5.0	EC000899

### UNSPSC

UNSPSC 6.01	30211812
UNSPSC 7.0901	39121411

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## Classifications

### UNSPSC

UNSPSC 11	39121411
UNSPSC 12.01	39121411
UNSPSC 13.2	39121411

## Approvals

### Approvals

#### Approvals


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

#### Ex Approvals


UL Recognized / CSA

#### Approvals submitted

## Approval details

UL Recognized 

EAC

UL Listed 

cUL Listed 

GL

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## Approvals



## Drawings

Circuit diagram

