

## Electronic device circuit breaker - EC-E 6A DC24V - 0903046

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Electronic circuit breaker, 1 reset input, nominal current: 6 A

### Your advantages

- ✔ 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 | 6 pc  |
| GTIN         | <br>4 046356 466929 |
| GTIN         | 4046356466929   |

### 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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### Electrical data

|                                    |   |
|------------------------------------|---|
|                                    | 18 V DC ... 32 V DC                       |
| Nominal current $I_N$              | 6 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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#### 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          |

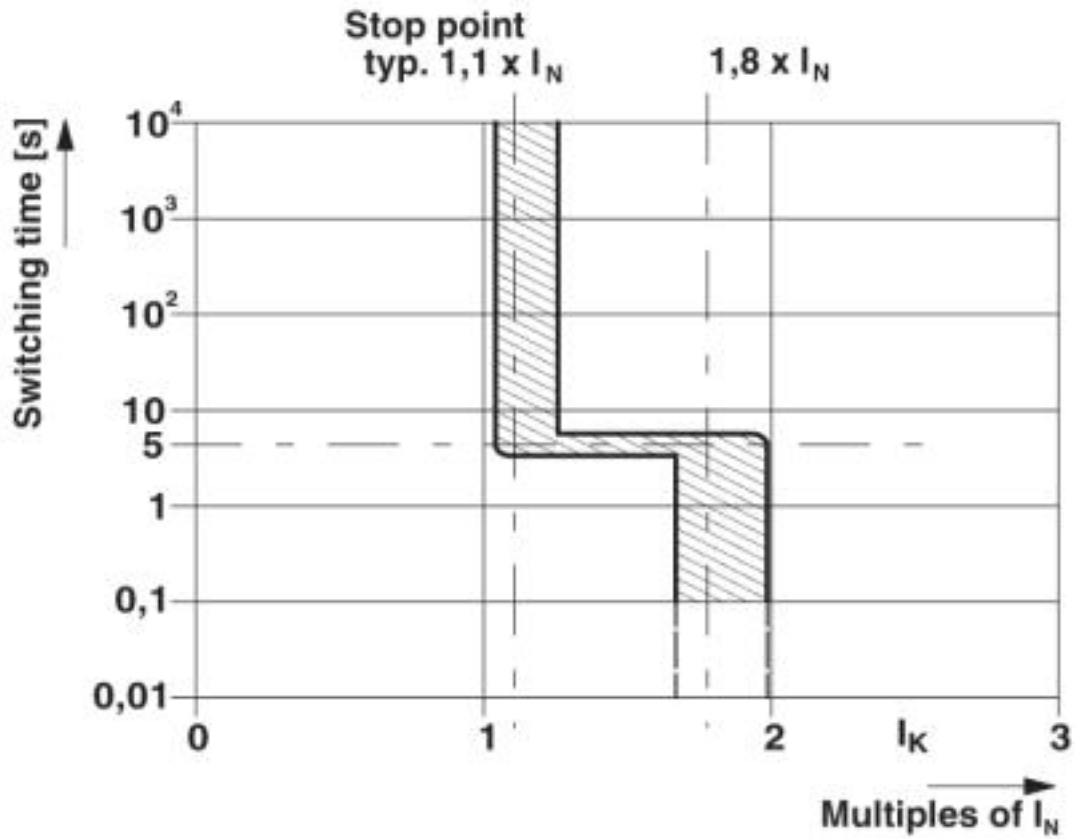
#### Environmental Product Compliance

|            |   |
|------------|---|
|            | 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

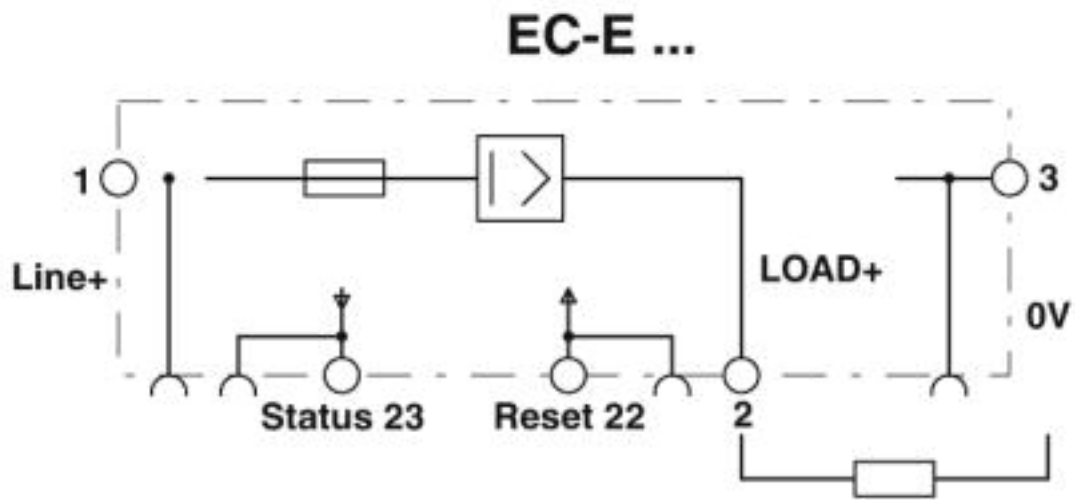
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Diagram



Trigger characteristic

Circuit diagram



Approvals

Approvals

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## Approvals

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### Approvals

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

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### Ex Approvals

UL Recognized / CSA

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### Approval details

|               |  |   |                         |
|---------------|--|---|-------------------------|
| DNV GL        |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</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           |  |   | RU C-<br>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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