

# Solid-state relay module - EMG 17-OV- 24DC/240AC/3 - 2954235

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: 24 V DC, output: 48 - 280 V AC/max. 3 A

The figure shows version EMG 17-OV, with AC voltage output, max. 3 A



## Key Commercial Data

|              |   |
|--------------|---|
| Packing unit | 10 pc   |
| GTIN         | <br>4 017918 084899 |
| GTIN         | 4017918084899   |

## Technical data

### Note

|                         |   |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

### Dimensions

|        |         |
|--------|---------|
| Width  | 17.5 mm |
| Height | 75 mm   |
| Depth  | 102 mm  |

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
| Degree of protection                    | IP20             |

### Input data

|   |                         |
|---|-------------------------|
| Nominal input voltage $U_N$               | 24 V DC                 |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.2             |
| Input voltage range                       | 19.2 V DC ... 28.8 V DC |

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## Technical data

### Input data

|  |                             |
|--|-----------------------------|
| Switching threshold "0" signal in reference to $U_N$ | $\leq 0.4$                  |
| Switching threshold "1" signal in reference to $U_N$ | $\geq 0.8$                  |
| Typical input current at $U_N$                       | 3.6 mA                      |
| Typical response time                                | 10 ms                       |
| Typical turn-off time                                | 10 ms                       |
| Operating voltage display                            | Yellow LED                  |
| Type of protection                                   | Reverse polarity protection |
|  | Surge protection            |
| Protective circuit/component                         | Polarity protection diode   |
|  | Varistor                    |
| Transmission frequency                               | 25 Hz                       |

### Output data

|  |  |
|--|--|
| Output nominal voltage                           | 240 V AC   |
| Output voltage range                             | 48 V AC ... 280 V AC (50 Hz ... 60 Hz)                 |
| Limiting continuous current                      | 3 A (see derating curve)                               |
| Min. load current                                | 50 mA  |
| Leakage current                                  | 4 mA (in off state)                                    |
| Surge current                                    | 160 A (t = 10 ms)                                      |
| Max. load value                                  | 128 A <sup>2</sup> s ( $I^2 \times t$ where t = 10 ms) |
| Peak offstate voltage                            | 600 V (Periodic peak reverse voltage)                  |
| Voltage drop at max. limiting continuous current | $\leq 1$ V   |
| Output circuit                                   | 2-wire, floating                                       |
| Type of protection                               | RC element   |
|  | Surge protection                                       |
| Protective circuit/component                     | RC element   |
|  | Varistor   |

### General

|  |                           |
|--|---------------------------|
| Test voltage input/output              | 3.5 kV AC                 |
|  | 3.5 kV AC                 |
| Mounting position                      | horizontal                |
| Assembly instructions                  | In rows with zero spacing |
| Operating mode                         | 100% operating factor     |
| Flammability rating according to UL 94 | V0                        |

### Connection data

|                               |   |
|-------------------------------|---|
| Connection name               | Input side                                |
| Connection method             | Screw connection                          |
| Stripping length              | 8 mm                                      |
| Screw thread                  | M3  |
| Conductor cross section solid | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup> |

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## Technical data

### Connection data

|                                  |   |
|----------------------------------|---|
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 12                                   |

### Connection data 2

|                                  |   |
|----------------------------------|---|
| Connection name                  | Output side                                 |
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>   |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 12                                   |

### Standards and Regulations

|                       |                  |
|-----------------------|------------------|
| Standards/regulations | IEC 60664        |
|                       | EN 50178         |
| Insulation            | Basic insulation |
| Pollution degree      | 2                |
| Overvoltage category  | III              |

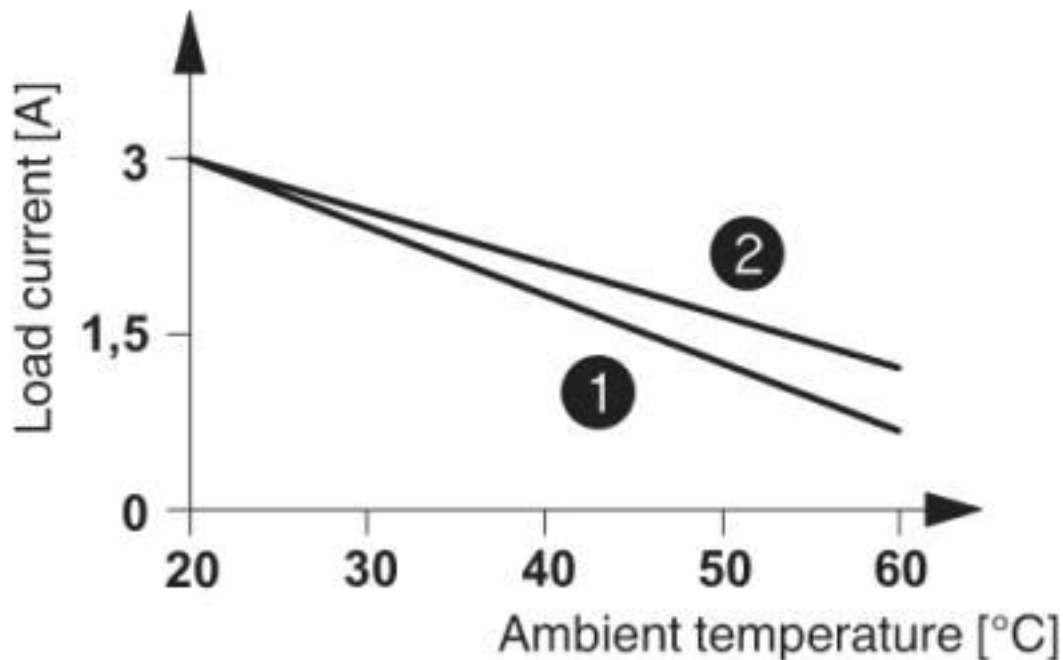
### Environmental Product Compliance

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

## Drawings

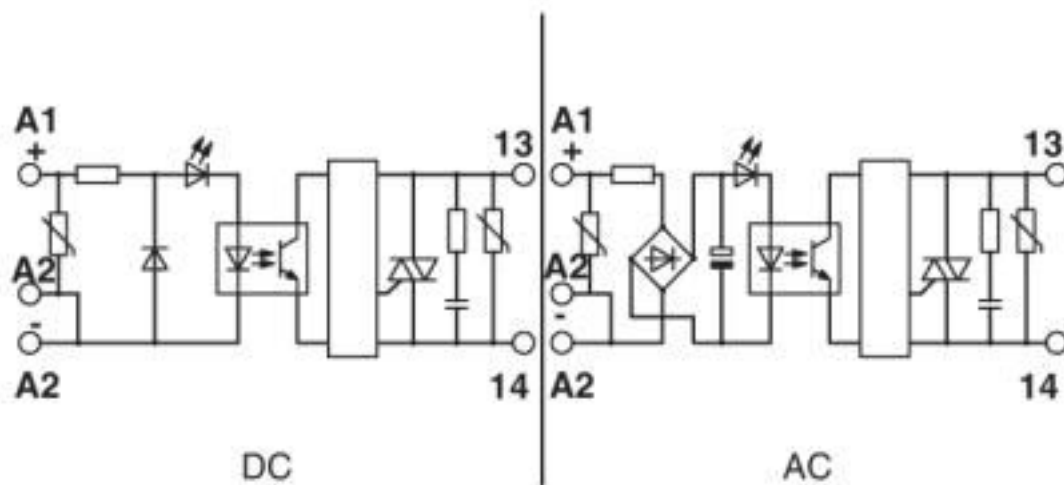
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Diagram



- ① In rows with zero spacing
- ② stand-alone device

Circuit diagram



## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27371604 |
| eCl@ss 4.0    | 27371100 |

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## Classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.1 | 27371100 |
| eCl@ss 5.0 | 27371000 |
| eCl@ss 5.1 | 27371000 |
| eCl@ss 6.0 | 27371600 |
| eCl@ss 7.0 | 27371604 |
| eCl@ss 8.0 | 27371604 |
| eCl@ss 9.0 | 27371604 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001504 |
| ETIM 3.0 | EC001504 |
| ETIM 4.0 | EC001504 |
| ETIM 5.0 | EC001504 |
| ETIM 6.0 | EC001504 |
| ETIM 7.0 | EC001504 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121542 |
| UNSPSC 11     | 39121542 |
| UNSPSC 12.01  | 39121542 |
| UNSPSC 13.2   | 39122326 |
| UNSPSC 18.0   | 39122326 |
| UNSPSC 19.0   | 39122326 |
| UNSPSC 20.0   | 39122326 |
| UNSPSC 21.0   | 39122326 |

## Approvals

### Approvals

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Approvals

EAC / EAC

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Ex Approvals

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### Approval details

## Solid-state relay module - EMG 17-OV- 24DC/240AC/3 - 2954235

### Approvals

|     |   |                 |
|-----|---|-----------------|
| EAC |  | TR_TS_D_00573_c |
|-----|---|-----------------|

|     |   |                         |
|-----|---|-------------------------|
| EAC |  | RU*C-<br>DE.*08.B.00010 |
|-----|---|-------------------------|

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