

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



2954235

<https://www.phoenixcontact.com/us/products/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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2954235       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 1 pc          |
| Sales key                            | C460          |
| Product key                          | DK61C1        |
| GTIN                                 | 4017918084899 |
| Weight per piece (including packing) | 85.92 g       |
| Weight per piece (excluding packing) | 81.36 g       |
| Customs tariff number                | 85364190      |
| Country of origin                    | DE            |

## Technical data

### Notes

#### Utilization restriction

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

### Product properties

|                |                          |
|----------------|--------------------------|
| Product type   | Solid-state relay module |
| Application    | Output function          |
| Operating mode | 100% operating factor    |

#### Insulation characteristics

|                      |                  |
|----------------------|------------------|
| Insulation           | Basic insulation |
| Overtoltage category | III              |
| Pollution degree     | 2                |

#### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 15.04.2026 |
|------------------------------|------------|

### Electrical properties

|                             |                          |
|-----------------------------|--------------------------|
| Test voltage (Input/output) | 3.5 kV AC (Input/output) |
|-----------------------------|--------------------------|

### 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  |
| 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   |
| Protective circuit                                   | Reverse polarity protection; Polarity protection diode<br>Surge protection; Varistor |
| Transmission frequency                               | 25 Hz  |

### Output data

|                             |  |
|-----------------------------|--|
| Contact switching type      | 1 N/O contact                          |
| Design of digital output    | electronic                             |
| 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                                  |

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|  |   |
|--|---|
| Leakage current                                  | 4 mA (in off state)                                       |
| Surge current                                    | 160 A (t = 10 ms)   |
| Phase angle cos phi min                          | 0.5   |
| Max. load value                                  | 128 A <sup>2</sup> s (I <sup>2</sup> x t where t = 10 ms) |
| Peak offstate voltage                            | 600 V (Periodic peak reverse voltage)                     |
| Voltage drop at max. limiting continuous current | ≤ 1 V   |
| Output circuit                                   | 2-conductor, floating                                     |
| Protective circuit                               | RC element; RC element<br>Surge protection; Varistor      |

## Connection data

### Input side

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross-section rigid    | 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                                   |
| Tightening torque                | 0.5 Nm ... 0.6 Nm                           |

### Output side

|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
| Stripping length                 | 8 mm  |
| Screw thread                     | M3  |
| Conductor cross-section rigid    | 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                                   |
| Tightening torque                | 0.5 Nm ... 0.6 Nm                           |

## Dimensions

### Item dimensions

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

## Material specifications

|  |                  |
|--|------------------|
| Color                                  | green (RAL 6021) |
| Flammability rating according to UL 94 | V0               |

## Environmental and real-life conditions

### Ambient conditions

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

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|   |                  |
|---|------------------|
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |
|---|------------------|

## Standards and regulations

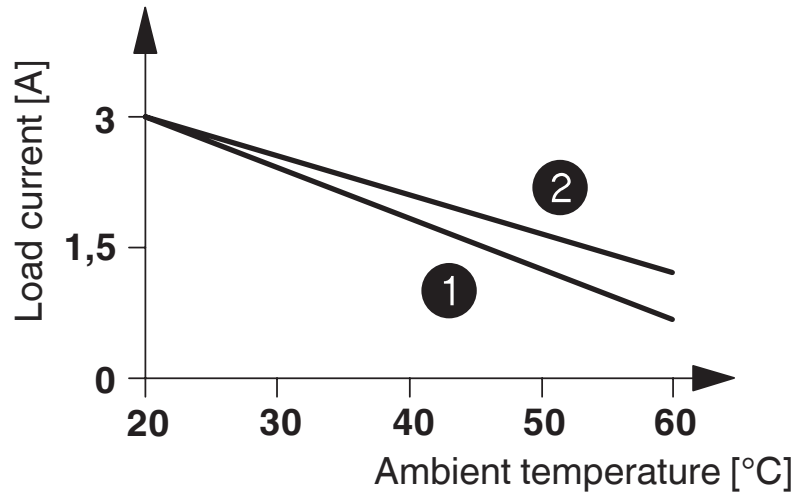
|                       |           |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
|                       | EN 50178  |

## Mounting

|                   |                           |
|-------------------|---------------------------|
| Mounting type     | DIN rail mounting         |
| Assembly note     | in rows with zero spacing |
| Mounting position | horizontal                |

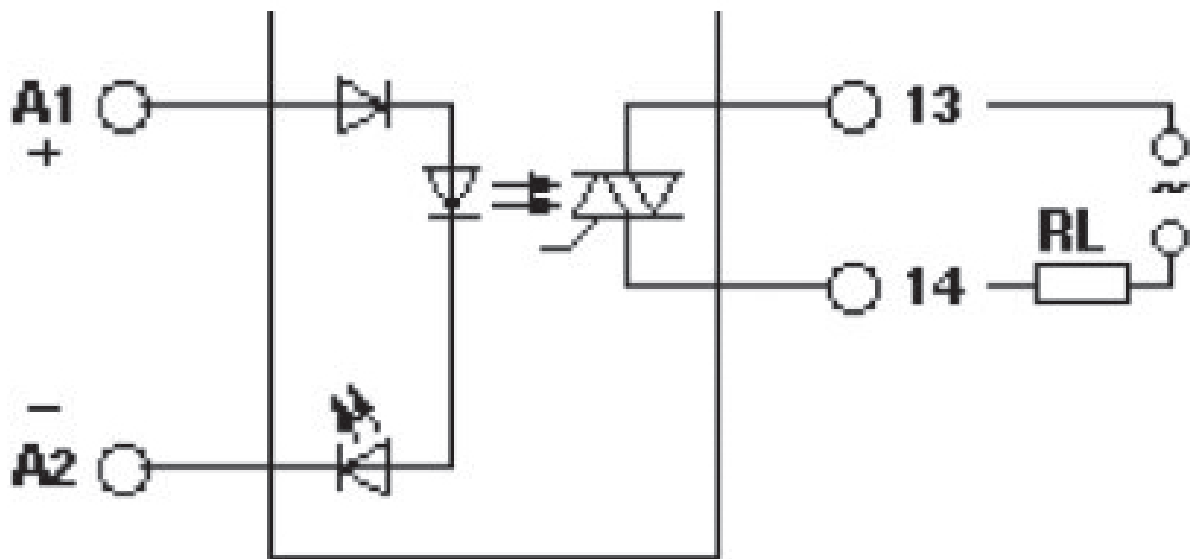
## Drawings

Diagram



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

Circuit diagram



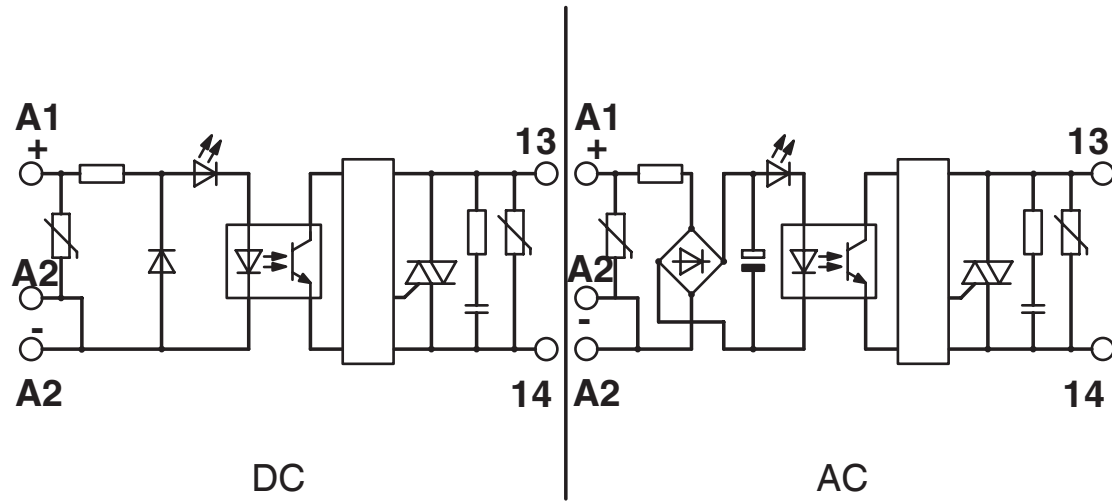
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Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2954235>



**EAC**

Approval ID: RU\*C-DE.\*08.B.00010

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371604 |
| ECLASS-15.0 | 27371604 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001504 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes                |
| Exemption                               | 6(c), 7(a), 7(c)-I |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50   |
|  | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 0a0268b6-de29-4425-ac48-9d044af204eb |

### EF3.1 Climate Change

|         |               |
|---------|---------------|
| CO2e kg | 0.459 kg CO2e |
|---------|---------------|

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