

# EMG 22-REL/KSR-230/21/AU - Relay Module



2949295

<https://www.phoenixcontact.com/us/products/2949295>

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Relay module, with soldered-in miniature switching relay, contact (AgNi+Au): small to large loads, 1 changeover contact, input voltage 230 V AC/DC

## Your advantages

- Safe isolation according to DIN EN 50178 between coil and contact
- Integrated input circuit and interference suppression circuit

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2949295                        |
| Packing unit                         | 1 pc                           |
| Minimum order quantity               | 10 pc                          |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C460                           |
| Product key                          | CK6141                         |
| Catalog page                         | Page 135 (IF-2011)             |
| GTIN                                 | 4017918083755                  |
| Weight per piece (including packing) | 64.5 g                         |
| Weight per piece (excluding packing) | 64.5 g                         |
| Customs tariff number                | 85364900                       |
| Country of origin                    | DE                             |

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## Technical data

### Notes

#### Utilization restriction

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

### Product properties

|                         |                                |
|-------------------------|--------------------------------|
| Product type            | Relay Module                   |
| Product family          | EMG                            |
| Application             | Universal                      |
| Operating mode          | 100% operating factor          |
| Mechanical service life | approx. $5 \times 10^7$ cycles |

#### Insulation characteristics

|            |  |
|------------|--|
| Insulation | Basic insulation   |
|            | Safe isolation, reinforced insulation, and 6 kV between input circuit and output contact current paths |

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|----------------------|--|
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| Overvoltage category | III  |
| Pollution degree     | 2  |

### Electrical properties

|   |  |
|---|--|
| Maximum power dissipation for nominal condition | 1.15 W   |
| Test voltage (Winding/contact)                  | 5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact) |
| Rated insulation voltage                        | 260 V AC   |
| Rated surge voltage                             | 4 kV   |

### Input data

#### Coil side

|                                |                                       |
|--------------------------------|---------------------------------------|
| Nominal input voltage $U_N$    | 230 V AC/DC                           |
| Input voltage range            | 207 V AC/DC ... 243.8 V AC/DC (20 °C) |
| Drive and function             | monostable                            |
| Drive (polarity)               | polarized                             |
| Typical input current at $U_N$ | 5 mA                                  |
| Typical response time          | 8 ms                                  |
| Typical release time           | 10 ms                                 |
| Protective circuit             | Bridge rectifier; Bridge rectifier    |
|                                | Varistor; Varistor                    |
| Operating voltage display      | Yellow LED                            |

## Output data

### Switching

|                                       |                        |
|---------------------------------------|------------------------|
| Contact switching type                | 1 changeover contact   |
| Type of switch contact                | Single contact         |
| Contact material                      | AgNi, hard gold-plated |
| Maximum switching voltage             | 30 V AC<br>36 V DC     |
| Limiting continuous current           | 50 mA                  |
| Maximum inrush current                | 50 mA                  |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC)     |

### Switching: when the gold layer is destroyed

|                                       |  |
|---------------------------------------|--|
| Note                                  | the following values are applicable if a gold layer is destroyed   |
| Maximum switching voltage             | 250 V AC/DC  |
| Limiting continuous current           | 6 A  |
| Maximum inrush current                | 8 A  |
| Interrupting rating (ohmic load) max. | 144 W (at 24 V DC)<br>58 W (at 48 V DC)<br>48 W (at 60 V DC)<br>50 W (at 110 V DC)<br>80 W (at 220 V DC)<br>1500 VA (for 250 V AC) |

## Connection data

### Coil 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                                   |

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|                                  |   |
|----------------------------------|---|
| Connection method                | Screw connection                            |
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| Conductor cross section AWG      | 24 ... 12                                   |

## Dimensions

|       |         |
|-------|---------|
| Width | 22.5 mm |
|-------|---------|

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|        |         |
|--------|---------|
| Height | 75 mm   |
| Depth  | 62.5 mm |

## Environmental and real-life conditions

### Ambient conditions

|   |                  |
|---|------------------|
| Degree of protection                    | IP20             |
| Ambient temperature (operation)         | -20 °C ... 50 °C |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C |

## Standards and regulations

|                       |          |
|-----------------------|----------|
| Standards/regulations | EN 50178 |
|-----------------------|----------|

## Mounting

|                       |                           |
|-----------------------|---------------------------|
| Mounting type         | DIN rail mounting         |
| Assembly instructions | in rows with zero spacing |
| Mounting position     | any                       |

# EMG 22-REL/KSR-230/21/AU - Relay Module

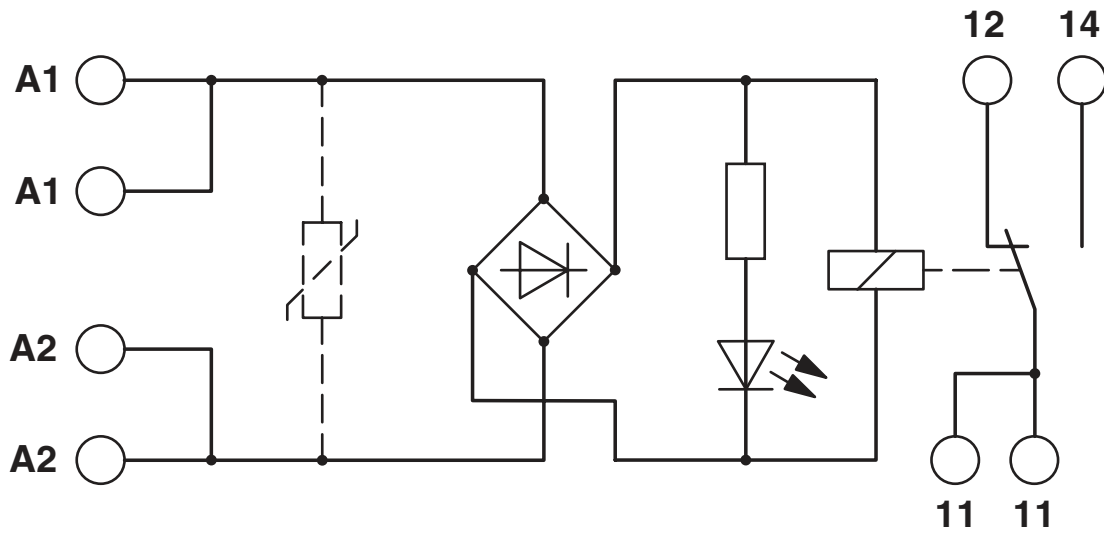


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## Drawings

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2949295>



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**EAC**

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

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC001437 |
|----------|----------|

### UNSPSC

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

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## Environmental product compliance

|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1   |
|            | Hexahydromethylphthalic anhydride  |
| China RoHS | Environmentally Friendly Use Period = 50 years   |
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |

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