

# EMG 12-OV-220DC/240AC/1

Order No.: 2948856

The illustration shows version EMG 12-OV, with AC voltage output, max. 1 A




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2948856>

Power optocoupler, with light indicator and protection circuits in the input and output circuits, input: 220 V DC, output: 24-280 V AC/max. 1 A



## Commercial data

|                          |  |
|--------------------------|--|
| GTIN (EAN)               | <br>4 017918 083526 |
| Note                     | Made-to-order  |
| sales group              | G112   |
| Pack                     | 10 pcs.  |
| Customs tariff           | 85364900   |
| Catalog page information | Page 139 (IF-2011)   |

## Product notes

WEEE/RoHS-compliant since:  
09/18/2006



<http://www.download.phoenixcontact.com>  
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## Technical data

### Input data

|  |             |
|--|-------------|
| Nominal input voltage $U_N$                          | 220 V DC    |
| Input voltage range in reference to $U_N$            | 0.8 ... 1.1 |
| 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 mA  |
| Typical response time                                | (max. one half cycle - zero-voltage crossing) |
| Typical turn-off time                                | (max. one half cycle - zero-current crossing) |
| Status display                                       | Yellow LED                                    |
| Type of protection                                   | Protection against polarity reversal          |
|  | Surge protection                              |
| Protective circuit/component                         | Polarity protection diode                     |
|  | Varistor                                      |
| Transmission frequency                               | 25 Hz   |

#### Output data

|  |  |
|--|--|
| Output nominal voltage                           | 240 V AC   |
| Output nominal voltage range                     | 24 V AC ... 280 V AC (50 Hz ... 60 Hz)                     |
| Limiting continuous current                      | 1 A (see derating curve)                                   |
| Min. load current                                | 50 mA  |
| Leakage current                                  | 2.5 mA   |
| Surge current                                    | 125 A (t = 10 ms)  |
| Max. load value                                  | $78 \text{ A}^2\text{s}$ ( $I^2 \times t$ where t = 10 ms) |
| Peak offstate voltage                            | 600 V (Periodic peak reverse voltage)                      |
| Voltage drop at max. limiting continuous current | $\leq 1.5 \text{ V}$                                       |
| Output circuit                                   | 2-wire, floating   |
| Type of protection                               | RC element   |
| Protective circuit/component                     | RC element   |

#### Connection data

|  |                     |
|--|---------------------|
| Connection method                      | Screw connection    |
| Stripping length                       | 8 mm                |
| Screw thread                           | M3                  |
| Conductor cross section solid min.     | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.     | 4 mm <sup>2</sup>   |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG/kcmil min. | 24                  |
| Conductor cross section AWG/kcmil max  | 12                  |

#### General data

|   |  |
|---|--|
| Width                                   | 12.5 mm  |
| Height                                  | 75 mm  |
| Depth                                   | 102 mm   |
| Test voltage input/output               | 3.5 kV AC  |
| Ambient temperature (operation)         | -20 °C ... 60 °C   |
| Ambient temperature (storage/transport) | -20 °C ... 70 °C   |
| Mounting position                       | Any  |
| Assembly instructions                   | Mounted in rows with zero spacing: Horizontal/not in rows: Any |
| Operating mode                          | 100% operating factor  |
| Degree of protection                    | IP20   |
| Inflammability class acc. to UL 94      | V0   |
| Standards/regulations                   | IEC 60664  |
|   | EN 50178   |
|   | IEC 62103  |
| Rated surge voltage / insulation        | Basic insulation   |

#### Certificates / Approvals



Certification

GOST

#### Accessories

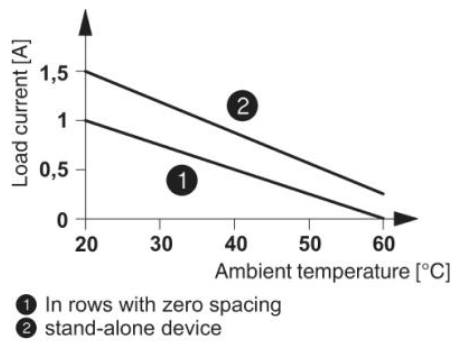
| Item | Designation | Description |
|------|-------------|-------------|
|------|-------------|-------------|

#### Marking

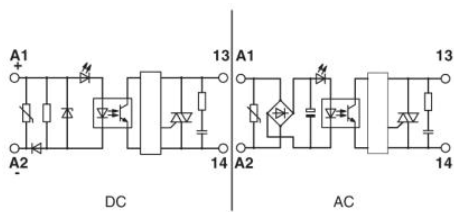
|         |            |                               |
|---------|------------|-------------------------------|
| 2947035 | EMG-GKS 12 | Equipment marker, width 12 mm |
|---------|------------|-------------------------------|

## Diagrams/Drawings

### Diagram



### Circuit diagram



**Address**

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