

## Solid-state relay module - EMG 12-OV- 5DC/240AC/1 - 2948801

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: 5 V DC, output: 24 - 280 V AC/max. 1 A

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



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 083472
GTIN	4017918083472
Weight per Piece (excluding packing)	49.980 g
Custom tariff number	85364190
Country of origin	Germany

### Technical data

#### Dimensions

Width	12.5 mm
Height	75 mm
Depth	102 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

#### Input data

Nominal input voltage $U_N$	5 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.1

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### Technical data

#### Input data

Input voltage range	4 V DC ... 5.5 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 $U_N$	10 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	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	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	3.5 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, input side

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

#### Connection data, output side

Connection name	Output side
Connection method	Screw connection

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### Technical data

#### Connection data, output side

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Conductor cross section AWG	24 ... 12

#### General

Test voltage input/output	3.5 kV AC
	3.5 kV AC
Mounting position	any
Assembly instructions	Mounted in rows with zero spacing: Horizontal/not in rows: Any
Operating mode	100% operating factor

#### Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178
Insulation	Basic insulation

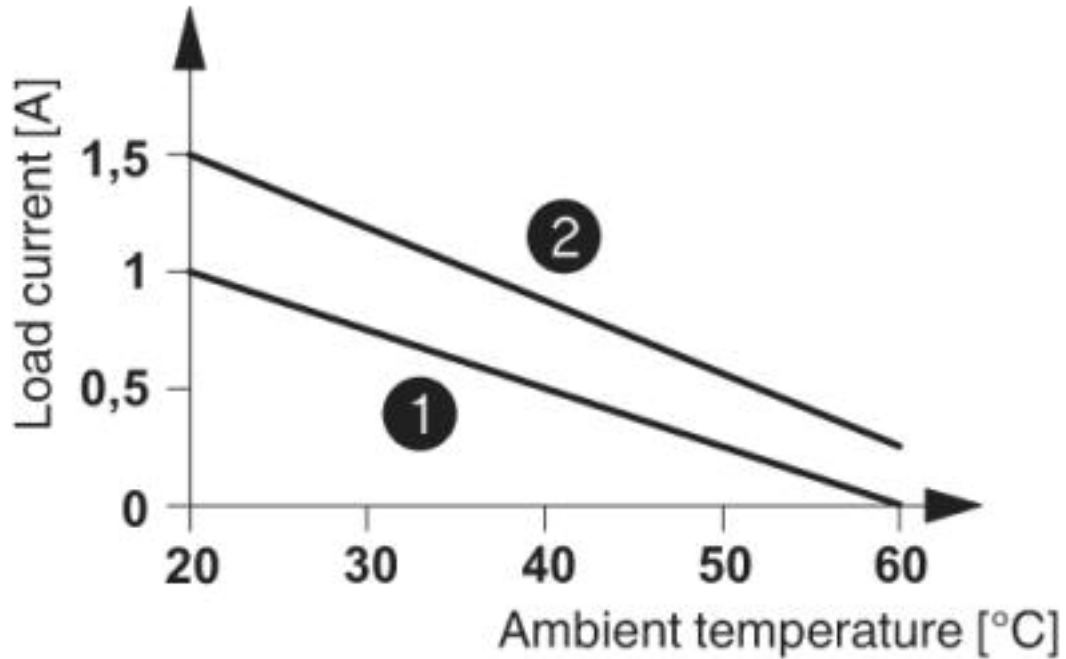
#### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings

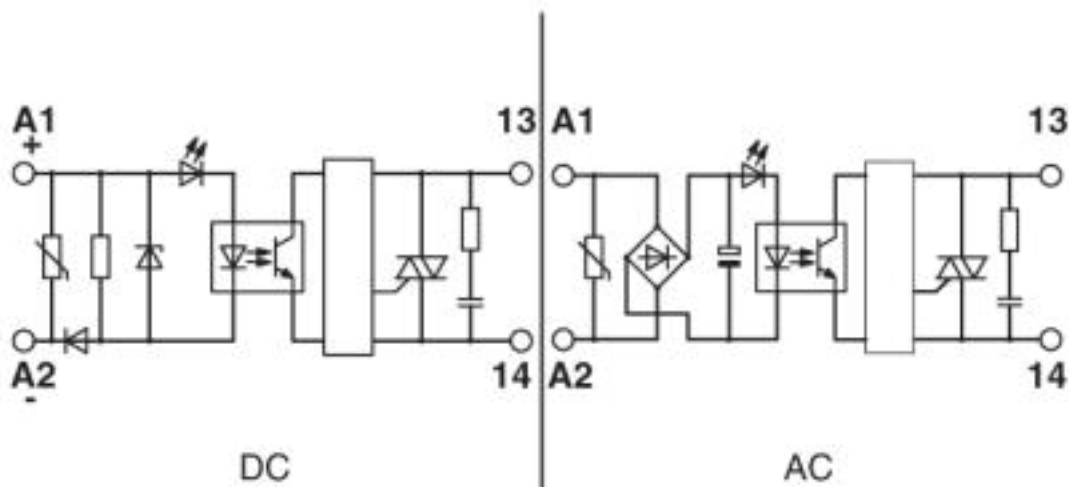
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Diagram



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

Circuit diagram



<https://www.phoenixcontact.com/us/products/2948801>

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### Classifications

#### eCl@ss

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

#### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121542
UNSPSC 11	39121542
UNSPSC 12.01	39121542
UNSPSC 13.2	39122326

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