

# EMG 12-OV- 24DC/ 60DC/1 - Solid-state relay module



2948746

<https://www.phoenixcontact.com/us/products/2948746>

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: 24 V DC, output: 12 - 60 V DC/max. 1 A

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

## Commercial data

Item number	2948746
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK61C1
GTIN	4017918083410
Weight per piece (including packing)	48.51 g
Weight per piece (excluding packing)	48.51 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
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### Product properties

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

#### Insulation characteristics

Insulation	Basic insulation
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#### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Test voltage (Input/output)	3.5 kV AC (Input/output)
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### 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 $U_N$	7 mA
Typical response time	20 $\mu$ s
Typical turn-off time	200 $\mu$ s
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection
Transmission frequency	500 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output nominal voltage	60 V DC
Output voltage range	12 V DC ... 60 V DC
Limiting continuous current	1 A (see derating curve)
Peak offstate voltage	60 V DC
Voltage drop at max. limiting continuous current	1.2 V
Output circuit	2-conductor, floating

Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection

## 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

### 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

## Dimensions

### Item dimensions

Width	12.5 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
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

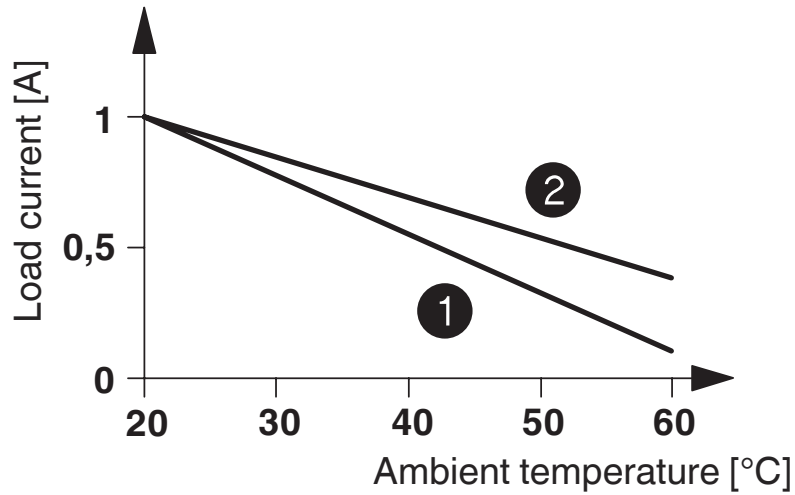
Standards/regulations	IEC 60664
	EN 50178

## Mounting

Mounting type	DIN rail mounting
Assembly note	in rows with zero spacing
Mounting position	any

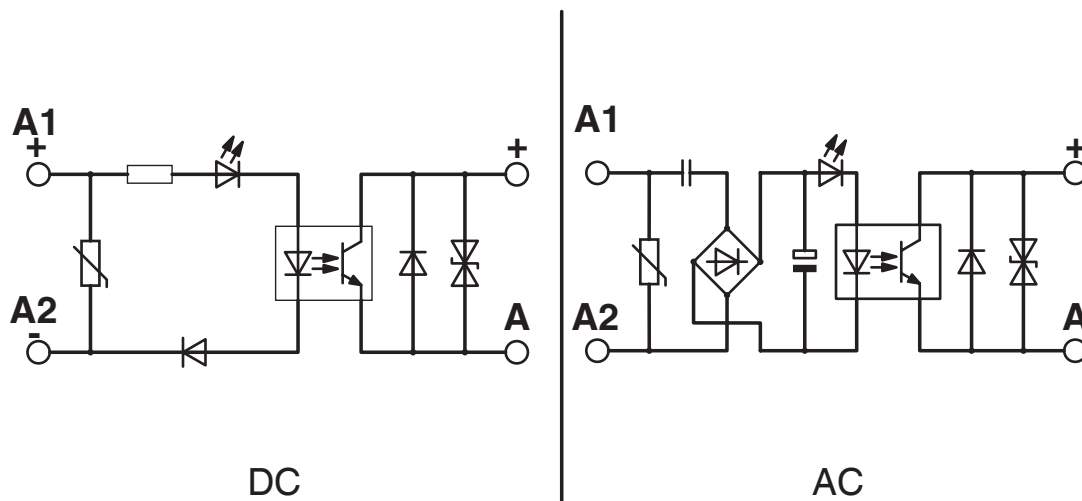
## Drawings

Diagram



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

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2948746>



**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
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### 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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
SCIP	2db01f19-9725-411d-b337-6a64364f37dd

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