

# EMG 10-OV-220DC/24DC/1 - Solid-state relay module



2944258

<https://www.phoenixcontact.com/us/products/2944258>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Power solid-state relay, with LED and protective circuit in input and output circuits, input: 220 V DC, output: 5 - 36 V DC/max. 1 A

## Commercial data

Item number	2944258
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	C460
Product key	DK61C1
GTIN	4017918081553
Weight per piece (including packing)	38.53 g
Weight per piece (excluding packing)	38.53 g
Customs tariff number	85364900
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
------------	------------------

#### 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 $U_N$	220 V DC
Input voltage range in reference to $U_N$	0.9 ... 1.1
Input voltage range	198 V DC ... 242 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.27$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.9$
Typical input current at $U_N$	3.5 mA
Typical response time	0.1 ms
Typical turn-off time	0.2 ms
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode
Transmission frequency	500 Hz

### Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
Output nominal voltage	24 V DC
Output voltage range	5 V DC ... 36 V DC
Limiting continuous current	1 A (see derating curve)
Surge current	2 A ( $t = 1$ s)
Peak offstate voltage	45 V DC (Collector-emitter reverse voltage)
Voltage drop at max. limiting continuous current	$\leq 1$ V
Output circuit	2-conductor, floating

Protective circuit	Reverse polarity protection; Polarity protection diode
--------------------	--

## 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	10 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 ... 50 °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

# EMG 10-OV-220DC/24DC/1 - Solid-state relay module



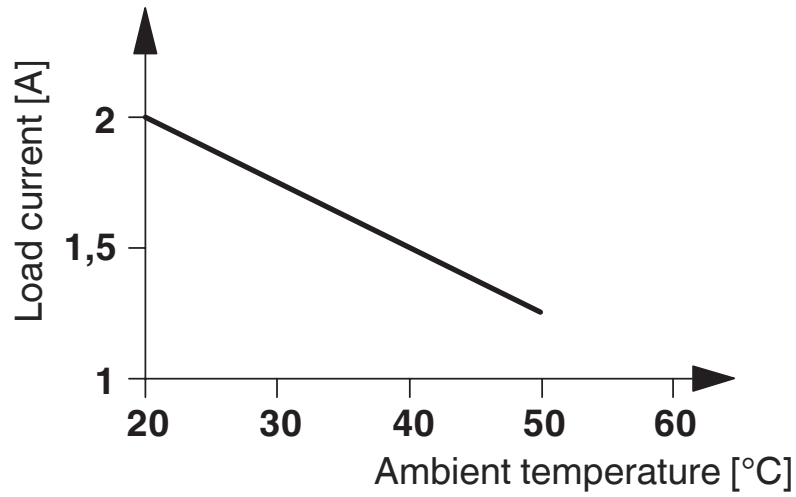
2944258

<https://www.phoenixcontact.com/us/products/2944258>

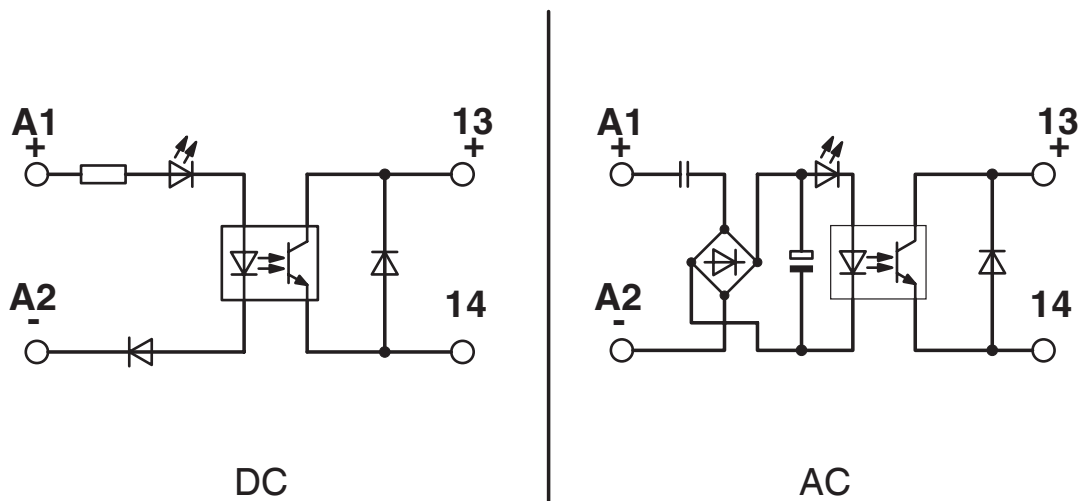
Mounting position	any
-------------------	-----

## Drawings

Diagram



Circuit diagram



# EMG 10-OV-220DC/24DC/1 - Solid-state relay module



2944258

<https://www.phoenixcontact.com/us/products/2944258>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2944258>



**EAC**

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

2944258

<https://www.phoenixcontact.com/us/products/2944258>

## Classifications

### ECLASS

ECLASS-13.0	27371604
ECLASS-15.0	27371604

### ETIM

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

### UNSPSC

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

2944258

<https://www.phoenixcontact.com/us/products/2944258>

## 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	c04c854f-cded-4daa-8dff-11ee7675c38e

### EF3.1 Climate Change

CO2e kg	1.313 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)