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EMG 12-OV- 24DC/240AC/1 - Solid-state relay module

2948827

https://www.phoenixcontact.com/gb/products/2948827

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

Commercial data

Item number	2948827
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	CK61C1
Product key	CK61C1
Catalog page	Page 139 (IF-2011)
GTIN	4017918083496
Weight per piece (including packing)	46.64 g
Weight per piece (excluding packing)	46.64 g
Customs tariff number	85364190
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	Solid-state relay module
Application	Output function
Operating mode	100% operating factor

Data management status

Date of last data management	03.05.2024

Insulation characteristics

Insulation	Basic insulation

Insulation characteristics

Insulation	Basic insulation

Electrical properties

Test voltage (Input/output)	3.5 kV AC (Input/output)

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	≤ 0.4
Switching threshold "1" signal in reference to U_N	≥ 0.8
Typical input current at U_N	6.8 mA
Typical response time	max. one half cycle - zero-voltage crossing
Typical turn-off time	max. one half cycle - zero-current crossing
Status display	LED (yellow)
Protective circuit	Reverse polarity protection; Polarity protection diode
	Surge protection; Varistor
Transmission frequency	10 Hz

Output data

Contact switching type	1 N/O contact
Design of digital output	electronic
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

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Leakage current	3.5 mA
Surge current	125 A (t = 10 ms)
Phase angle cos phi min	0.5
Max. load value	78 A^2s (I^2 x t where t = 10 ms)
Peak offstate voltage	600 V (Periodic peak reverse voltage)
Voltage drop at max. limiting continuous current	≤ 1.5 V
Output circuit	2-conductor, floating
Protective circuit	RC element; RC element

Connection data

Input side

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm² ... 4 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
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 mm² ... 4 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12

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

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Mounting

Mounting type	DIN rail mounting
Assembly note	Mounted in rows with zero spacing: Horizontal/not in rows: Any
Mounting position	any

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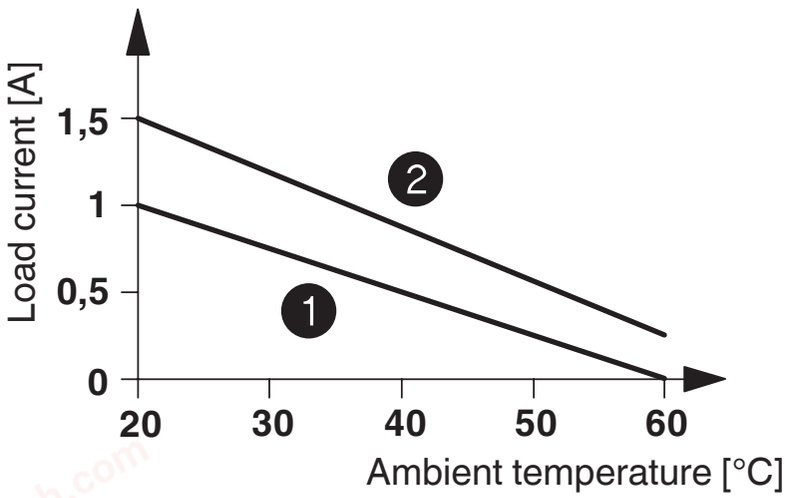
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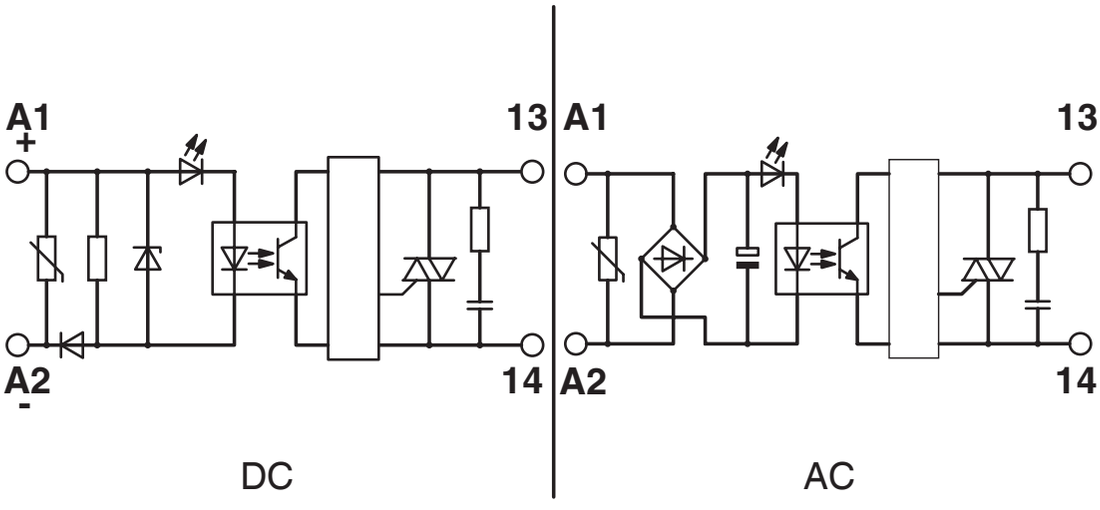
Drawings

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/gb/products/2948827

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	27371604
ECLASS-12.0	27371604
ECLASS-13.0	27371604

ETIM

ETIM 9.0	EC001504

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)

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	126a85a0-ffa3-4467-9c30-5a44349d40a6

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Accessories

EMG-GKS 12 - Marking material

2947035

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Device marking label, width: 12 mm, area: 12 x 8 mm, e.g. for EML(10x7) R adhesive marking material

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