

Solid-state relay module - EMG 12-OV-230AC/240AC/1 - 2948872

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Power solid-state relay, with LED and protective circuit in input and output circuits, input: 230 V AC, output: 24 - 280 V AC/max. 1 A

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

Product Features

- Protective circuit in input and output
- EMG-17-OV, short-circuit-proof with indicator LED
- RC protective circuit
- Electrical isolation
- Status indicator
- Direct control with switching levels from 5 V to 230 V and up to 2 A
- Zero voltage switch



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	50.68 GRM
Custom tariff number	85364900
Country of origin	Germany

Technical data

Dimensions

Width	12.5 mm
Height	75 mm
Depth	102 mm

Ambient conditions

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Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C
Degree of protection	IP20

Input data

Nominal input voltage U_N	230 V AC
Input voltage range in reference to U_N	0.8 ... 1.05
Switching threshold "0" signal in reference to U_N	≤ 0.29
Switching threshold "1" signal in reference to U_N	≥ 0.8
Typical input current at U_N	3 mA
Typical response time	24 ms (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	10 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	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	≤ 1.5 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 ²

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Connection data

Conductor cross section solid max.	4 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	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
Inflammability class according to UL 94	V0
Standards/regulations	IEC 60664
	EN 50178
	IEC 62103
Rated surge voltage / insulation	Basic insulation

Classifications

eCl@ss

eCl@ss 4.0	27371102
eCl@ss 4.1	27371102
eCl@ss 5.0	27371001
eCl@ss 5.1	27371001
eCl@ss 6.0	27371001
eCl@ss 7.0	27371001
eCl@ss 8.0	27371001

ETIM

ETIM 2.0	EC001504
ETIM 3.0	EC001504
ETIM 4.0	EC001504
ETIM 5.0	EC001504

UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121542

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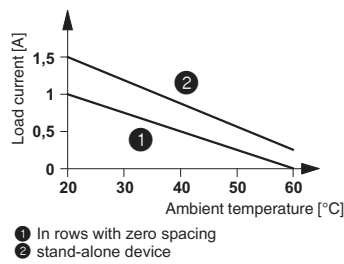
Classifications

UNSPSC

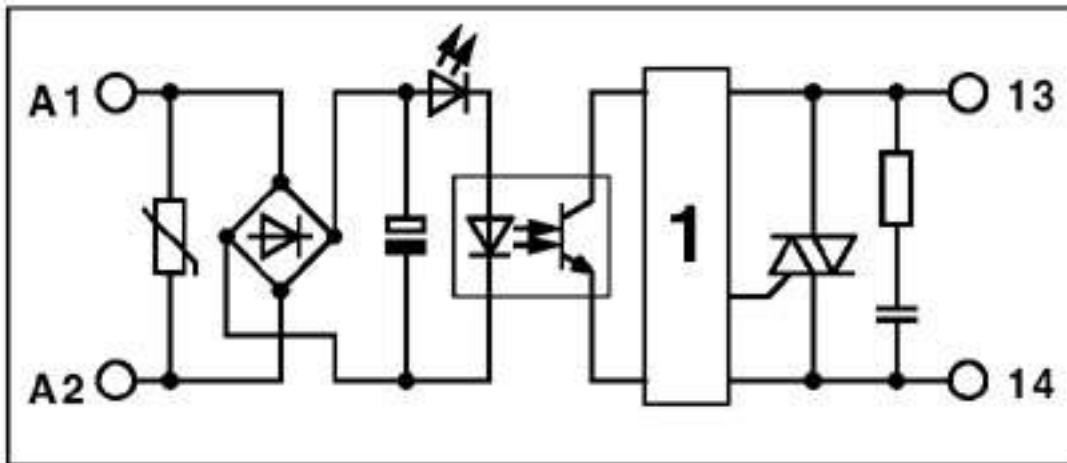
UNSPSC 11	39121542
UNSPSC 12.01	39121542
UNSPSC 13.2	39121542

Drawings

Diagram



Circuit diagram



1 = zero voltage switch