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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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## 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 $U_N$	$\leq 0.29$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
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	$\leq 1.5$ 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 <sup>2</sup>

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

## Technical data

### Connection data

Conductor cross section solid max.	4 mm <sup>2</sup>
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
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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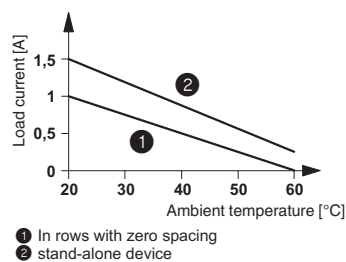
### Classifications

#### UNSPSC

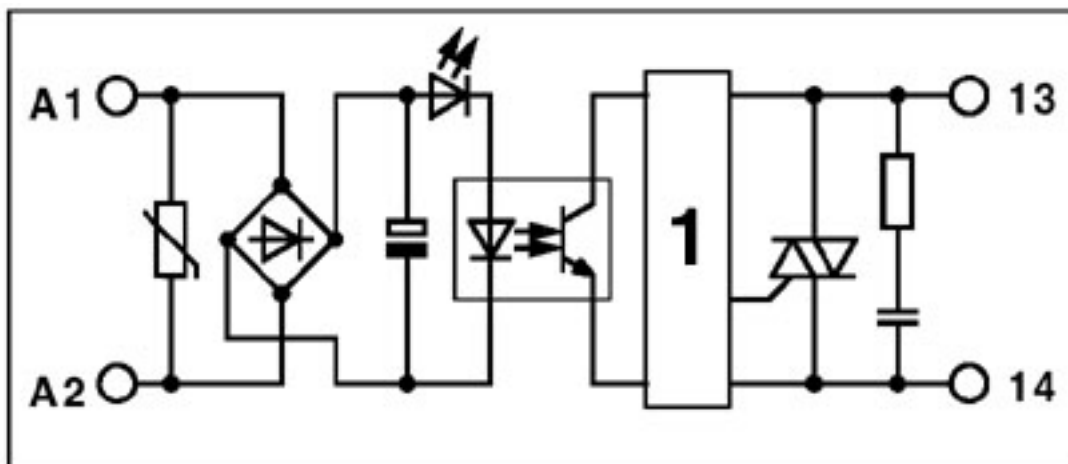
UNSPSC 11	39121542
UNSPSC 12.01	39121542
UNSPSC 13.2	39121542

### Drawings

Diagram



Circuit diagram



1 = zero voltage switch