

## Relay Module - PR1-RSP3-LV-230AC/21 - 2834436

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Preassembled relay modules with spring-cage connection, consisting of: Relay socket plug-in miniature power relay with power contacts, plug-in display/interference suppression module and relay retaining bracket. Input voltage: 230 V AC, contacts: 1 PDT, 10 A

### Product Features

- Safe isolation between coil and contact side
- Operational reliability thanks to sealed relay
- Logical contact arrangement thanks to 1/3-level relay base



### Key Commercial Data

|                                      |          |
|--------------------------------------|----------|
| Packing unit                         | 1 pc     |
| Minimum order quantity               | 5 pc     |
| Weight per Piece (excluding packing) | 66.42 g  |
| Custom tariff number                 | 85364900 |
| Country of origin                    | Germany  |

### Technical data

#### Note

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---------------------------------------------------------------------------|

#### Dimensions

|        |       |
|--------|-------|
| Width  | 16 mm |
| Height | 97 mm |
| Depth  | 72 mm |

#### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -25 °C ... 60 °C |
| Ambient temperature (storage/transport) | -25 °C ... 85 °C |

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## Technical data

### Coil side

|                                |                   |
|--------------------------------|-------------------|
| Nominal input voltage $U_N$    | 230 V AC          |
| Typical input current at $U_N$ | 6 mA (at 50 Hz)   |
|                                | 5.5 mA (At 60 Hz) |
| Typical response time          | 3 ms ... 12 ms    |
| Typical release time range     | 2 ms ... 22 ms    |
| Protective circuit             | Varistor          |
| Operating voltage display      | Yellow LED        |

### Contact side

|                                                        |                        |
|--------------------------------------------------------|------------------------|
| Contact type                                           | 1 PDT                  |
| Contact material                                       | AgNi                   |
| Maximum switching voltage                              | 250 V AC/DC            |
| Minimum switching voltage                              | 12 V (at 10 mA)        |
| Min. switching current                                 | 10 mA (at 12 V)        |
| Maximum inrush current                                 | 30 A (300 ms)          |
| Limiting continuous current                            | 10 A                   |
| Interrupting rating (ohmic load) max.                  | 3000 W (for 250 V AC)  |
|                                                        | 50 W (at 110 V DC)     |
|                                                        | 80 W (at 220 V DC)     |
|                                                        | 288 W (at 24 V DC)     |
|                                                        | At 440 V AC            |
|                                                        | 58 W (at 48 V DC)      |
|                                                        | 48 W (at 60 V DC)      |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)    |
|                                                        | 0.2 A (at 110 V, DC13) |
|                                                        | 0.2 A (at 250 V, DC13) |
|                                                        | 6 A (at 24 V, AC15)    |
|                                                        | 6 A (at 120 V, AC15)   |
|                                                        | 6 A (at 250 V, AC15)   |

### General

|                                          |                        |
|------------------------------------------|------------------------|
| Test voltage relay winding/relay contact | 4 kV (50 Hz, 1 min.)   |
| Operating mode                           | 100% operating factor  |
| Mechanical service life                  | $3 \times 10^7$ cycles |
| Standards/regulations                    | IEC 60664              |
|                                          | EN 50178               |
|                                          | IEC 62103              |
| Degree of pollution                      | 3                      |

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### Technical data

#### General

|                       |                           |
|-----------------------|---------------------------|
| Overvoltage category  | III                       |
| Mounting position     | any                       |
| Assembly instructions | In rows with zero spacing |

#### Connection data input side

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Connection name                  | Coil side                                   |
| Connection method                | Spring-cage connection                      |
| Stripping length                 | 10 mm                                       |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 16                                   |

#### Standards and Regulations

|                       |           |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
|                       | EN 50178  |
|                       | IEC 62103 |
| Degree of pollution   | 3         |
| Overvoltage category  | III       |

### Articles in set

#### Relay socket - PR1-BSP3/2X21 - 2833534



Relay socket PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

#### Single relay - REL-MR-230AC/21HC - 2961422



Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 230 V AC

## Relay Module - PR1-RSP3-LV-230AC/21 - 2834436

### Articles in set

Plug-in module - LV-120-230AC/110DC - 2833738



Plug-in module, for mounting on PR1 and PR2, with varistor and yellow LED, input voltage: 120 - 230 V AC/110 V DC  $\pm$  20%

Relay retaining bracket - EL1-P16 - 2833547



Relay retaining bracket, with eject function and integrated equipment marking area (7.5 x 15 mm), to suit relay socket PR1, for 16 mm high miniature power relay and solid-state relay

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371603 |
| eCl@ss 5.1 | 27371603 |
| eCl@ss 6.0 | 27371603 |
| eCl@ss 7.0 | 27371603 |
| eCl@ss 8.0 | 27371601 |
| eCl@ss 9.0 | 27371601 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001456 |
| ETIM 3.0 | EC001456 |
| ETIM 4.0 | EC001456 |
| ETIM 5.0 | EC001437 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211917 |
| UNSPSC 7.0901 | 39121516 |
| UNSPSC 11     | 39121516 |
| UNSPSC 12.01  | 39121516 |
| UNSPSC 13.2   | 39121516 |

# Relay Module - PR1-RSP3-LV-230AC/21 - 2834436

## Approvals

Approvals

Approvals

EAC / EAC

Ex Approvals

Approvals submitted

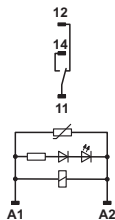
## Approval details

EAC

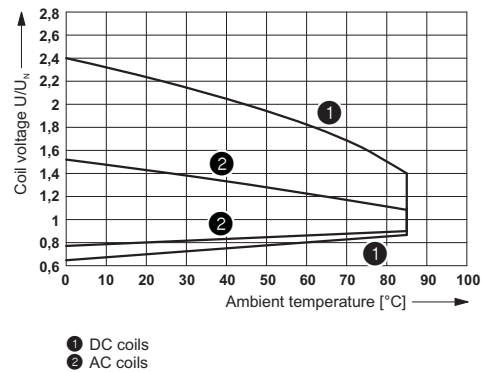
EAC

## Drawings

Circuit diagram



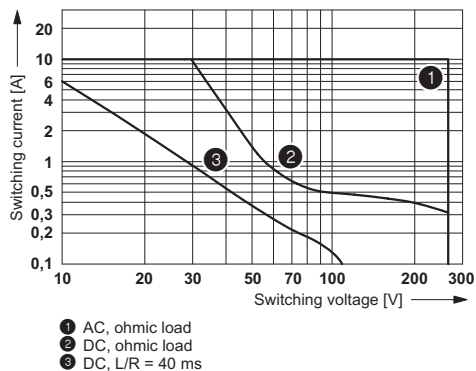
Diagram



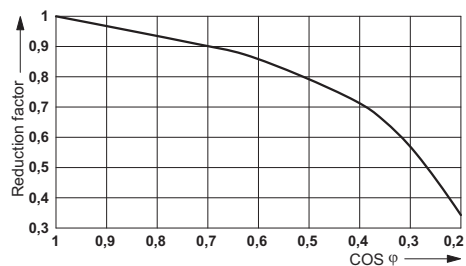
Operating voltage range of the relay

## Relay Module - PR1-RSP3-LV-230AC/21 - 2834436

Diagram



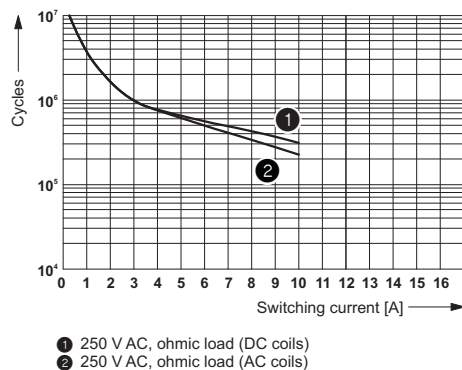
Diagram



Interrupting rating

Service life reduction factor with various cos phi

Diagram



Electrical service life