

# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

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.



Plug-in high-power relay with power contacts, specifically for switching high DC loads, 1 N/O contact, blowout magnet, coil voltage: 230 V AC

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2908047       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | C460          |
| Product key                          | DK6961        |
| GTIN                                 | 4055626266916 |
| Weight per piece (including packing) | 80.5 g        |
| Weight per piece (excluding packing) | 80.5 g        |
| Customs tariff number                | 85364900      |
| Country of origin                    | PL            |

# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

## Technical data

### Product properties

|                         |                                |
|-------------------------|--------------------------------|
| Product type            | Single relay                   |
| Operating mode          | 100% operating factor          |
| Mechanical service life | approx. $2 \times 10^7$ cycles |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 3   |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 25.08.2025 |
|------------------------------|------------|

### Electrical properties

|   |   |
|---|---|
| Service life electrical                         | see diagram                             |
| Maximum power dissipation for nominal condition | 2.76 W                                  |
| Test voltage (Winding/contact)                  | 2.5 kV (50 Hz, 1 min., winding/contact) |
| Rated surge voltage                             | 4 kV                                    |

### Input data

#### Coil side

|   |  |
|---|--|
| Nominal input voltage $U_N$               | 230 V AC                                     |
| Input voltage range                       | 195.5 V AC ... 253 V AC                      |
| Input voltage range in reference to $U_N$ | see diagram                                  |
| Mains frequency                           | 50/60 Hz                                     |
| Drive and function                        | monostable                                   |
| Drive (polarity)                          | non-polarized                                |
| Typical input current at $U_N$            | 12 mA  |
| Typical response time                     | 5 ms ... 25 ms (depending on phase relation) |
| Typical release time range                | 5 ms ... 18 ms (depending on phase relation) |

### Output data

#### Switching

|                             |                            |
|-----------------------------|----------------------------|
| Contact switching type      | 1 N/O contact              |
| Type of switch contact      | Single contact             |
| Contact material            | AgNi                       |
| Maximum switching voltage   | 440 V AC<br>250 V DC       |
| Minimum switching voltage   | 5 V (At 24 mA)             |
| Limiting continuous current | 16 A                       |
| Maximum inrush current      | 50 A (20 ms)<br>30 A (4 s) |

# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

|                                       |                               |
|---------------------------------------|-------------------------------|
| Min. switching current                | 5 mA (at 24 V)                |
| Interrupting rating (ohmic load) max. | 384 W (at 24 V DC)            |
|                                       | 744 W (at 48 V DC)            |
|                                       | 900 W (at 60 V DC)            |
|                                       | 1540 W (at 110 V DC)          |
|                                       | 2640 W (at 220 V DC)          |
|                                       | 4000 VA (for 250 V AC)        |
| Switching capacity min.               | 120 mW                        |
| Switching capacity                    | 1 A (220 V, DC13)             |
|                                       | 1.5 A (240 V, AC15)           |
|                                       | 16 A (24 V DC, L/R = 40 ms)   |
|                                       | 12 A (48 V DC, L/R = 40 ms)   |
|                                       | 9.5 A (60 V DC, L/R = 40 ms)  |
|                                       | 5.4 A (110 V DC, L/R = 40 ms) |
|                                       | 3 A (220 V DC, L/R = 40 ms)   |
|                                       | 2.7 A (250 V DC, L/R = 40 ms) |

## Connection data

|                   |                    |
|-------------------|--------------------|
| Connection method | Plug-in connection |
|-------------------|--------------------|

## Dimensions

|        |         |
|--------|---------|
| Width  | 38.6 mm |
| Height | 36.1 mm |
| Depth  | 45.5 mm |

## Environmental and real-life conditions

### Ambient conditions

|   |                  |
|---|------------------|
| Degree of protection                    | RT I             |
| Ambient temperature (operation)         | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

### Corrosive gas test

|                |                            |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
|                | EN 60068-2-60              |

## Standards and regulations

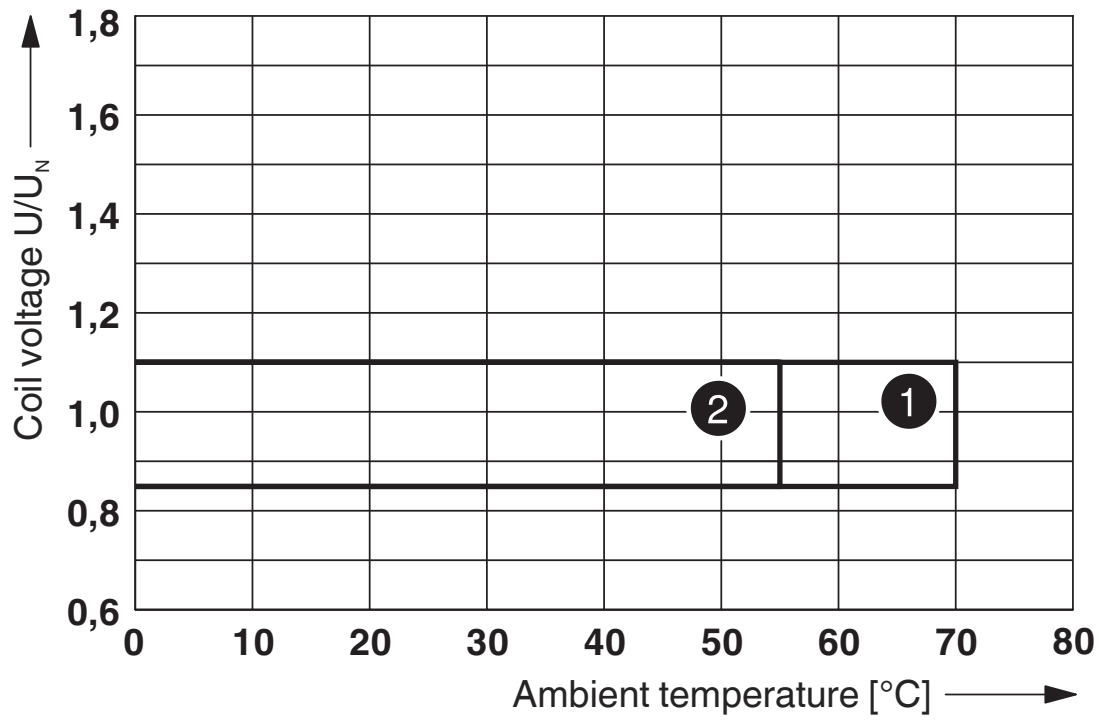
|                       |           |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
|                       | IEC 61810 |

## Mounting

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

## Drawings

Diagram



- ① DC coils
- ② AC coils

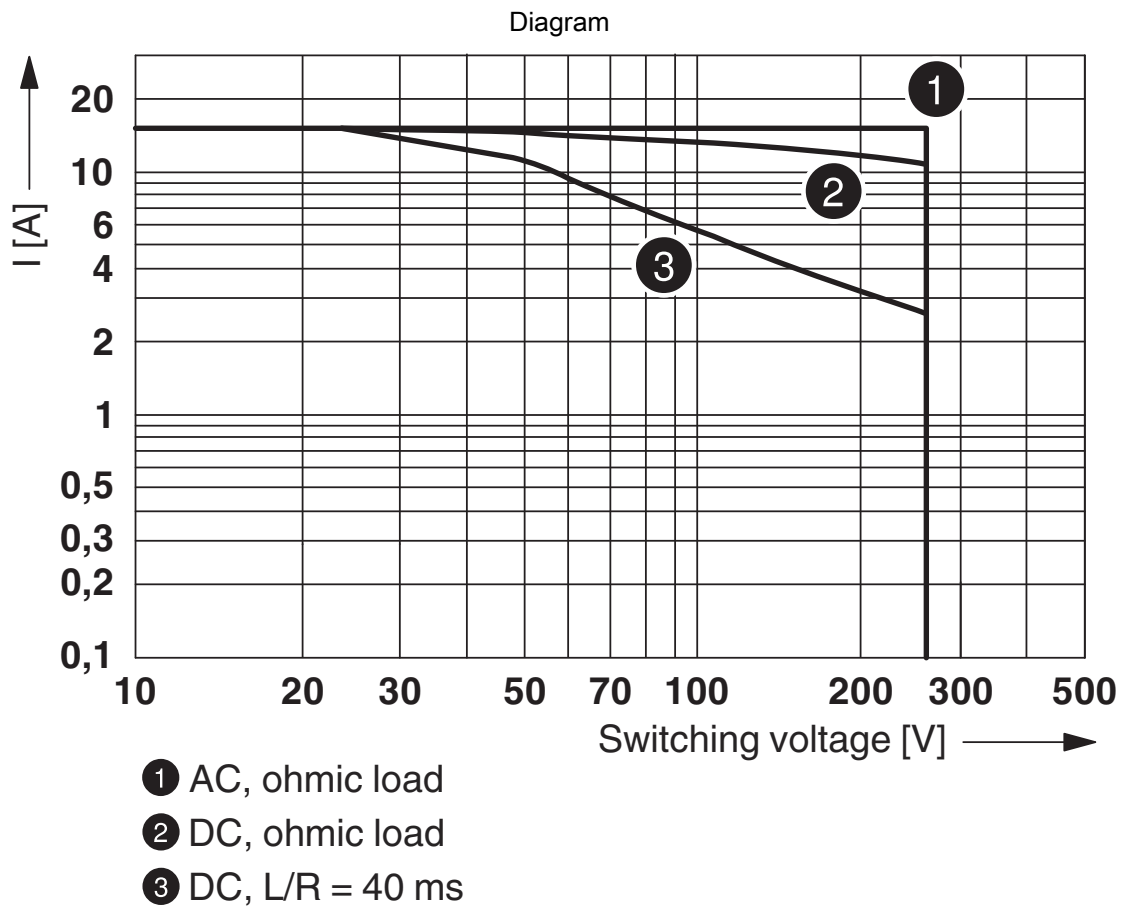
Operating voltage range

# REL-PR1-230AC/1/MB - Single relay

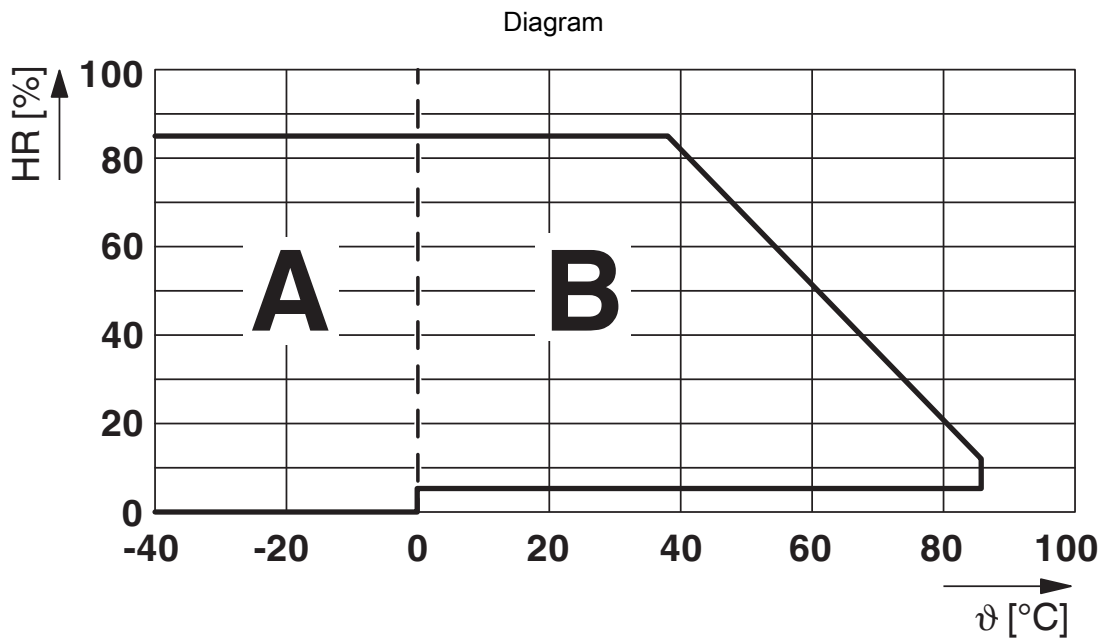


2908047

<https://www.phoenixcontact.com/us/products/2908047>



Interrupting rating



Permissible humidity for operation and storage.

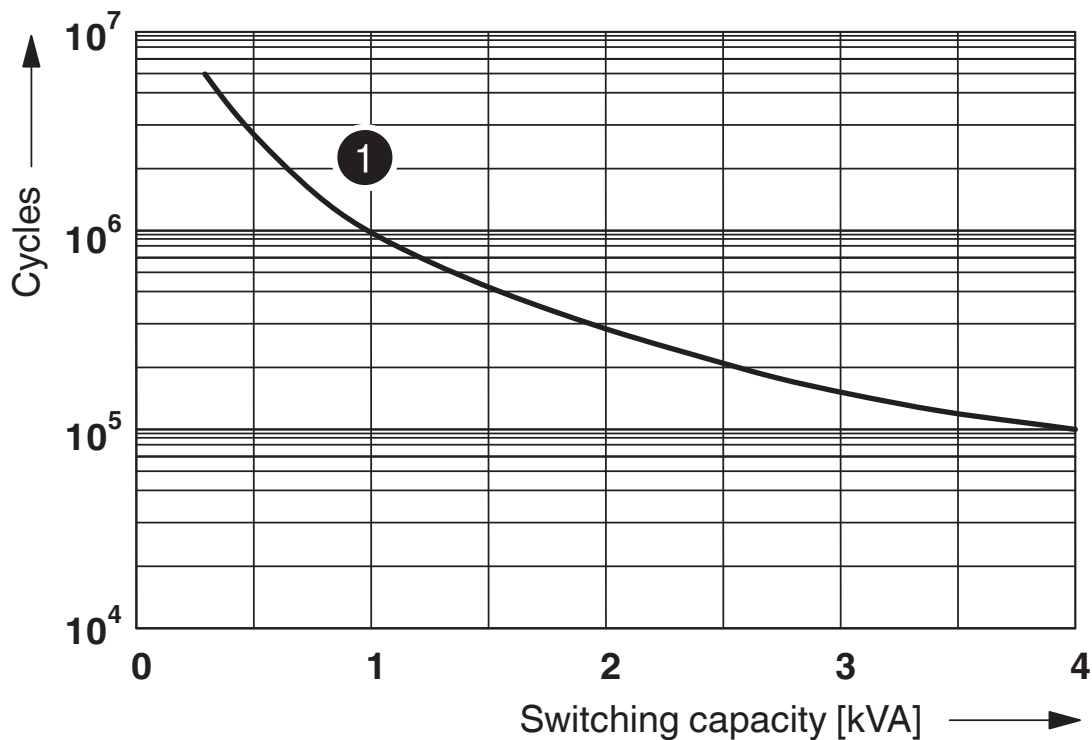
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^{\circ}\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^{\circ}\text{C}$ .

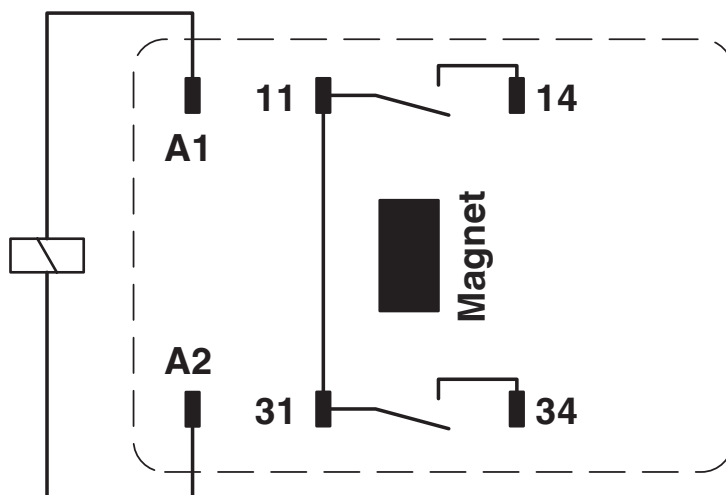
Diagram



① 250 V AC, Ohmic load

Electrical service life

Circuit diagram



# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908047>



**CSA**

Approval ID: 256725



**EAC**

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



**cULus Recognized**

Approval ID: E172140



# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

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

# REL-PR1-230AC/1/MB - Single relay



2908047

<https://www.phoenixcontact.com/us/products/2908047>

## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

Phoenix Contact 2025 © - 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)