# REL-PR1-220DC/1/MB - Single relay

2908046

https://www.phoenixcontact.com/nl/products/2908046

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Plug-in high-power relay with power contacts, specifically for switching high DC loads, 1 N/O contact, blowout magnet, coil voltage: 220 V DC

## Commercial data

| | |
|---|---|
| Item number | 2908046 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | DK6961 |
| Product key | DK6961 |
| GTIN | 4055626266909 |
| Weight per piece (including packing) | 82,7 g |
| Weight per piece (excluding packing) | 82,7 g |
| Customs tariff number | 85364900 |
| Country of origin | PL |

# Technical data

## Product properties

| | |
|---|---|
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 2x $10^7$ cycles |

### Insulation characteristics

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

### Data management status

| | |
|---|---|
| Date of last data management | 05.09.2025 |

## Electrical properties

| | |
|---|---|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 1.61 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 $U_N$ | 220 V DC |
| Input voltage range | 187 V DC ... 242 V DC |
| Input voltage range in reference to $U_N$ | see diagram |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at $U_N$ | 7.3 mA |
| Typical response time | 20 ms |
| Typical release time | 15 ms |

## 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 |
| | 250 V DC |
| Minimum switching voltage | 5 V (At 24 mA) |
| Limiting continuous current | 16 A |
| Maximum inrush current | 50 A (20 ms) |
| | 30 A (4 s) |
| Min. switching current | 5 mA (at 24 V) |
| | 384 W (at 24 V DC) |

| | |
|---|---|
| Interrupting rating (ohmic load) max. | 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 power 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

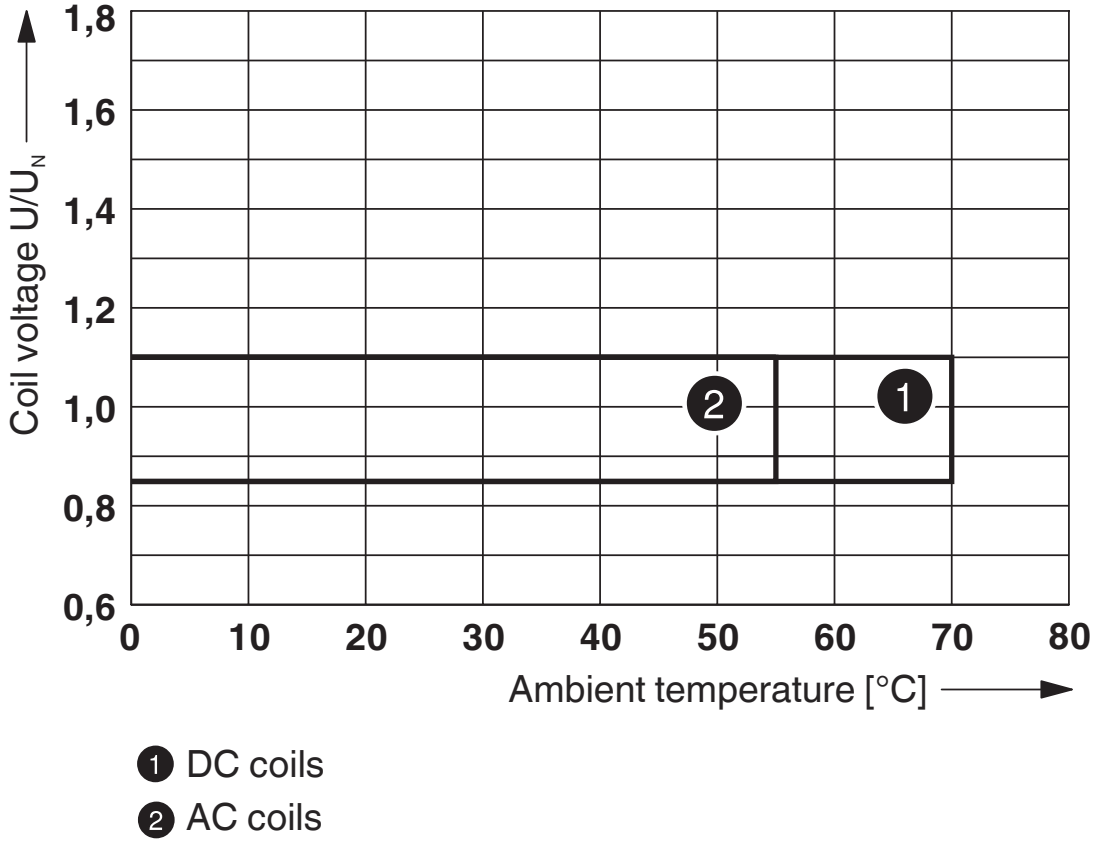
| | |
|---|---|
| Standards/regulations | IEC 60664 |
| | IEC 61810 |

## Mounting

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

## Drawings

Diagram

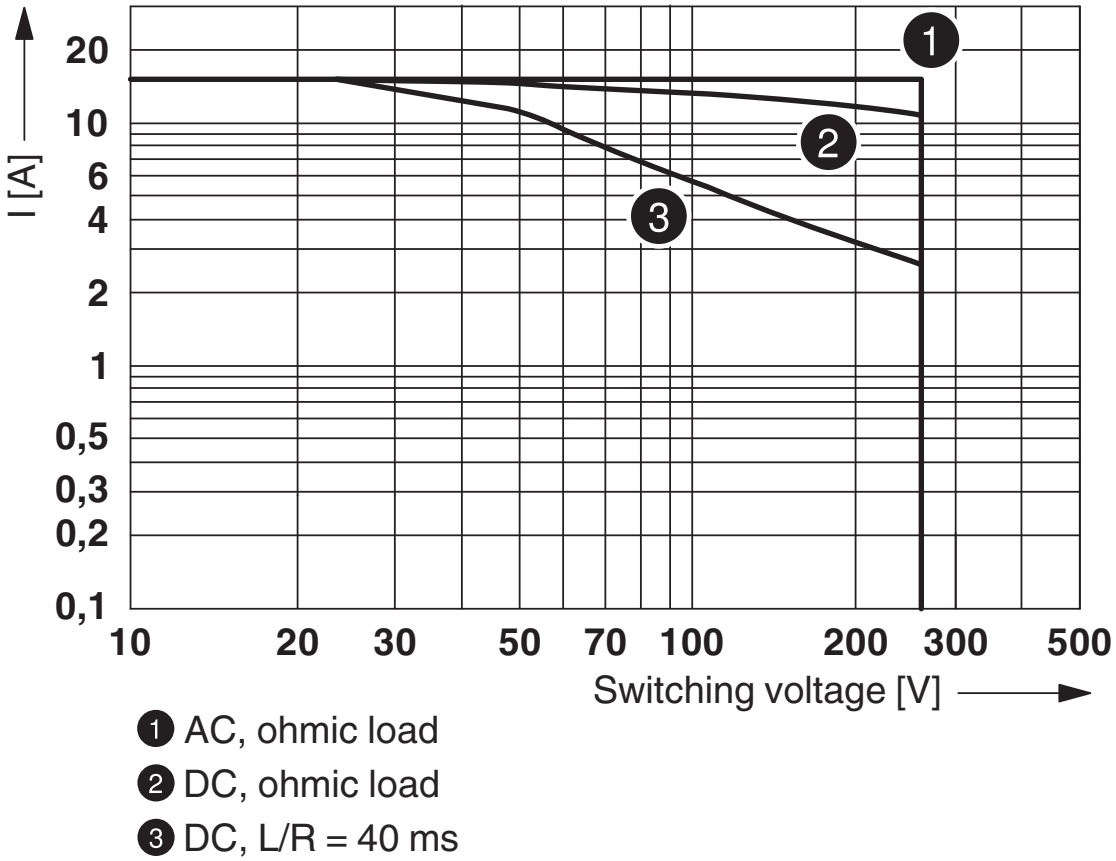



1 DC coils

2 AC coils

Operating voltage range

Diagram



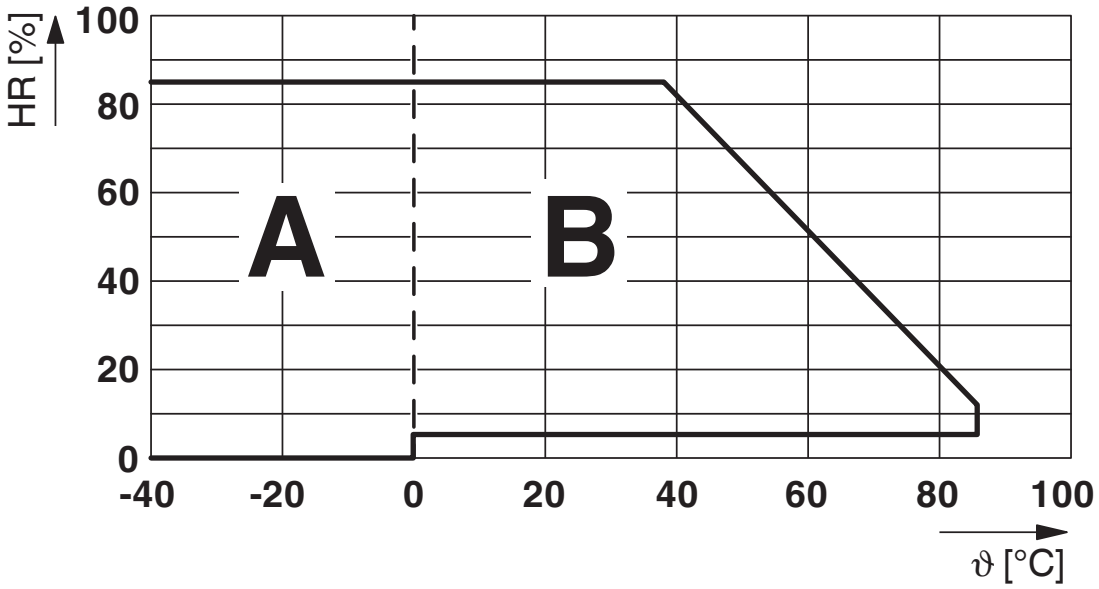

1 AC, ohmic load

2 DC, ohmic load

3 DC, L/R = 40 ms

Interrupting rating

Diagram

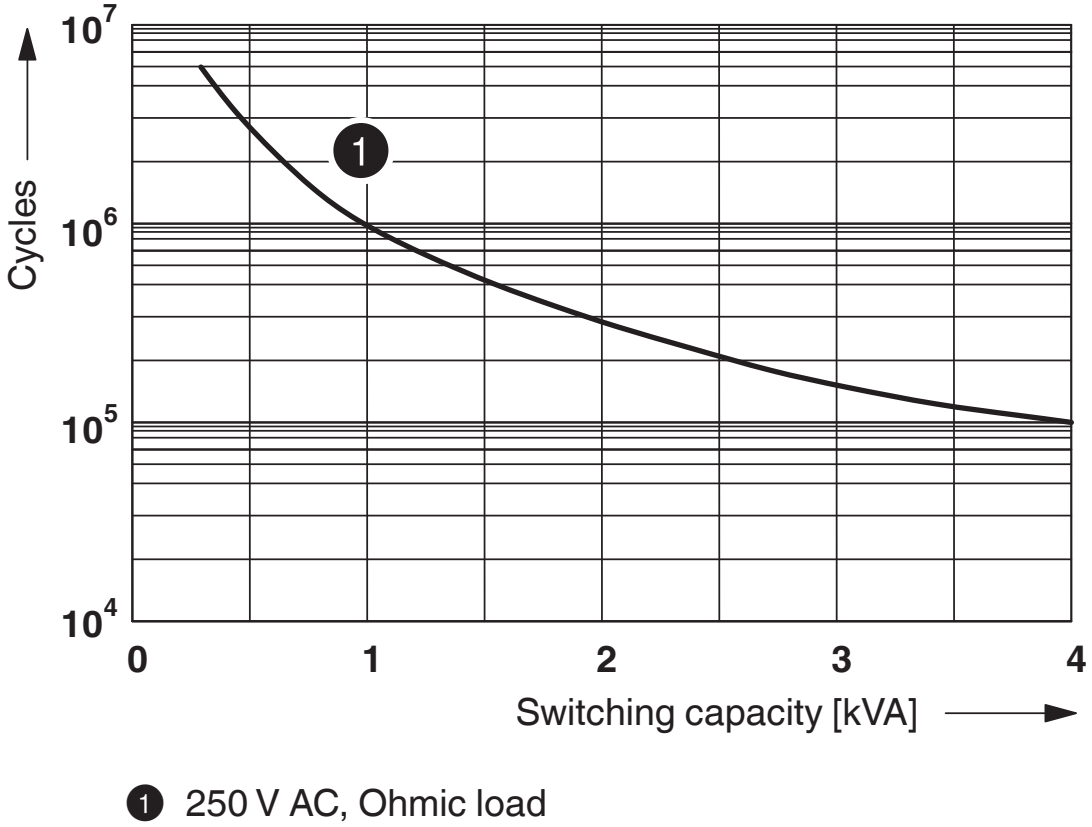



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

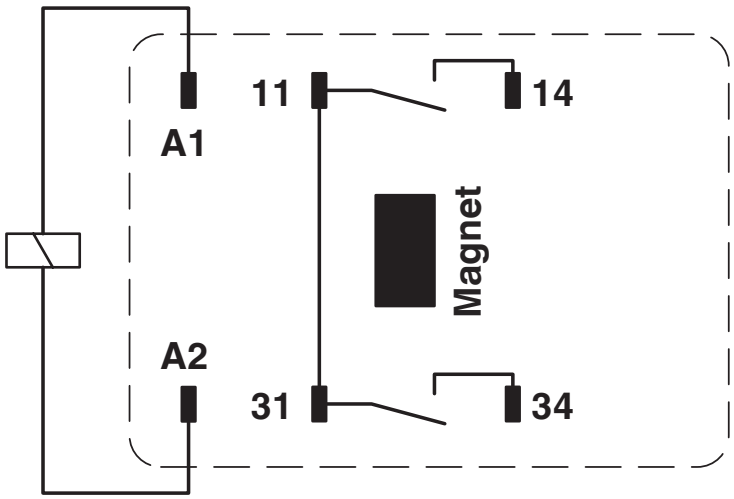
Diagram




1 250 V AC, Ohmic load

Electrical service life

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/nl/products/2908046

**CSA**
Approval ID: 256725

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

**cULus Recognized**
Approval ID: E172140

## Classifications

### ECLASS

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

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC001437 |

### UNSPSC

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

## 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% |


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