# REL-PR3- 24DC/3X1 - Single relay

2903706

https://www.phoenixcontact.com/us/products/2903706

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Plug-in high-power relay with power contacts, 3 N/O contacts, coil voltage: 24 V DC

## Commercial data

| | |
|---|---|
| Item number | 2903706 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C460 |
| Product key | DK6965 |
| GTIN | 4046356759182 |
| Weight per piece (including packing) | 85.22 g |
| Weight per piece (excluding packing) | 85 g |
| Customs tariff number | 85364190 |
| Country of origin | PL |

# Technical data

## Product properties

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

### Insulation characteristics

| | |
|---|---|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 3 |

### Data management status

| | |
|---|---|
| Date of last data management | 09.07.2026 |

## Electrical properties

| | |
|---|---|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 1.68 W |
| Test voltage (Winding/contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., winding/contact) |
| Test voltage (Contact/contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., contact/contact) |
| Test voltage (N/O contact / N/O contact) | 2.5 $kV_{rms}$ (50 Hz, 1 min., N/O contact / N/O contact) |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |

## Input data

### Coil side

| | |
|---|---|
| Nominal input voltage $U_N$ | 24 V DC |
| Input voltage range | 20.4 V DC ... 26.4 V DC (20 °C) |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at $U_N$ | 70 mA |
| Typical response time | 20 ms |
| Typical release time | 15 ms |

## Output data

### Switching

| | |
|---|---|
| Contact switching type | 3 N/O contacts |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 440 V AC |
| | 250 V DC |
| Minimum switching voltage | 10 V (At 24 mA) |
| Limiting continuous current | 16 A |

| | |
|---|---|
| Maximum inrush current | 50 A (20 ms, N/O contacts) |
| Min. switching current | 10 mA (at 24 V) |
| Interrupting rating (ohmic load) max. | 384 W (at 24 V DC) |
| | 720 W (at 48 V DC) |
| | 600 W (at 60 V DC) |
| | 660 W (at 110 V DC) |
| | 183 W (at 220 V DC) |
| | 4000 VA (for 250 V AC) |
| | 4000 VA (at 440 V AC) |
| Switching capacity | 1 A (at 24 V, DC13) |
| | 1 A (at 120 V, DC13) |
| | 1 A (at 220 V, DC13) |
| | 1.5 A (at 24 V, AC15) |
| | 1.5 A (at 120 V, AC15) |
| | 1.5 A (at 240 V, AC15) |
| 3-phase motor load | 1500 W (at 400 V, AC3) |
| Motor load according to UL 508 | 1/3 HP, 120 V AC (N/O contact) |
| | 1/2 HP, 240 V AC (N/O contact) |

## Connection data

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

## Dimensions

Item 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

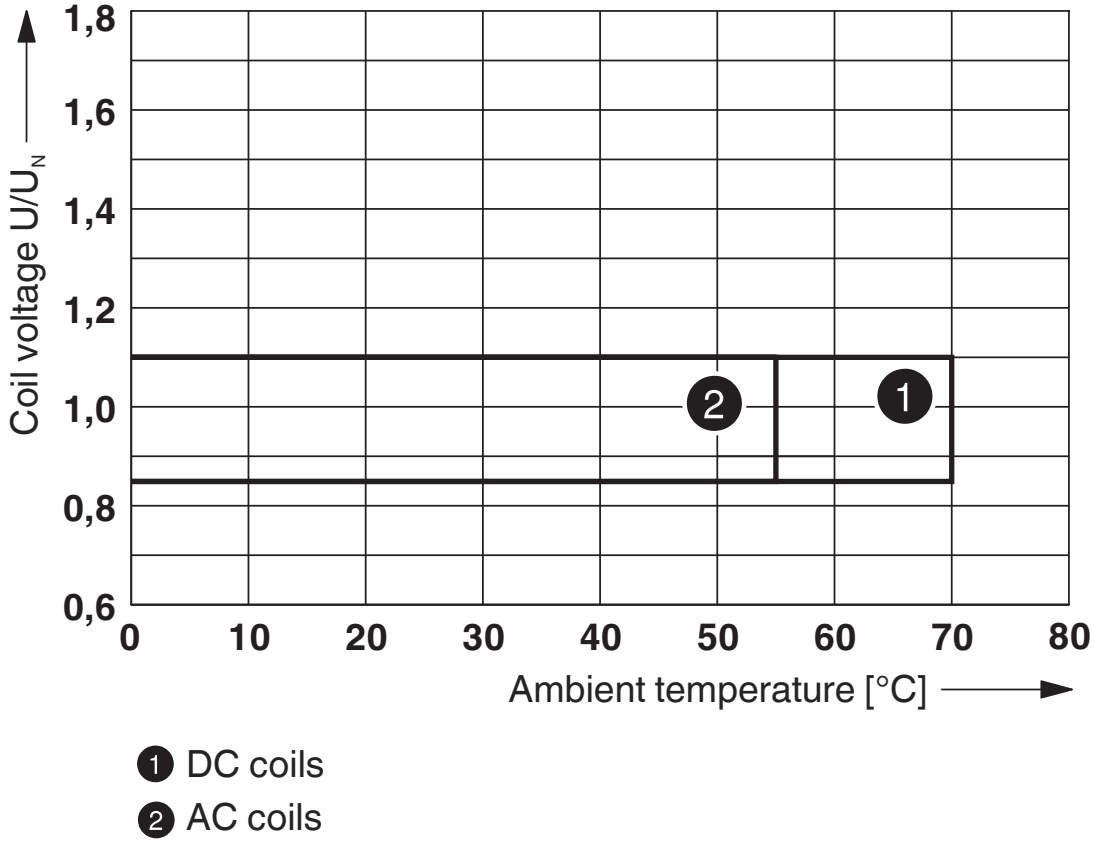
| | |
|---|---|
| Standards/regulations | IEC 60664 |
| | IEC 61810 |

## Mounting

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

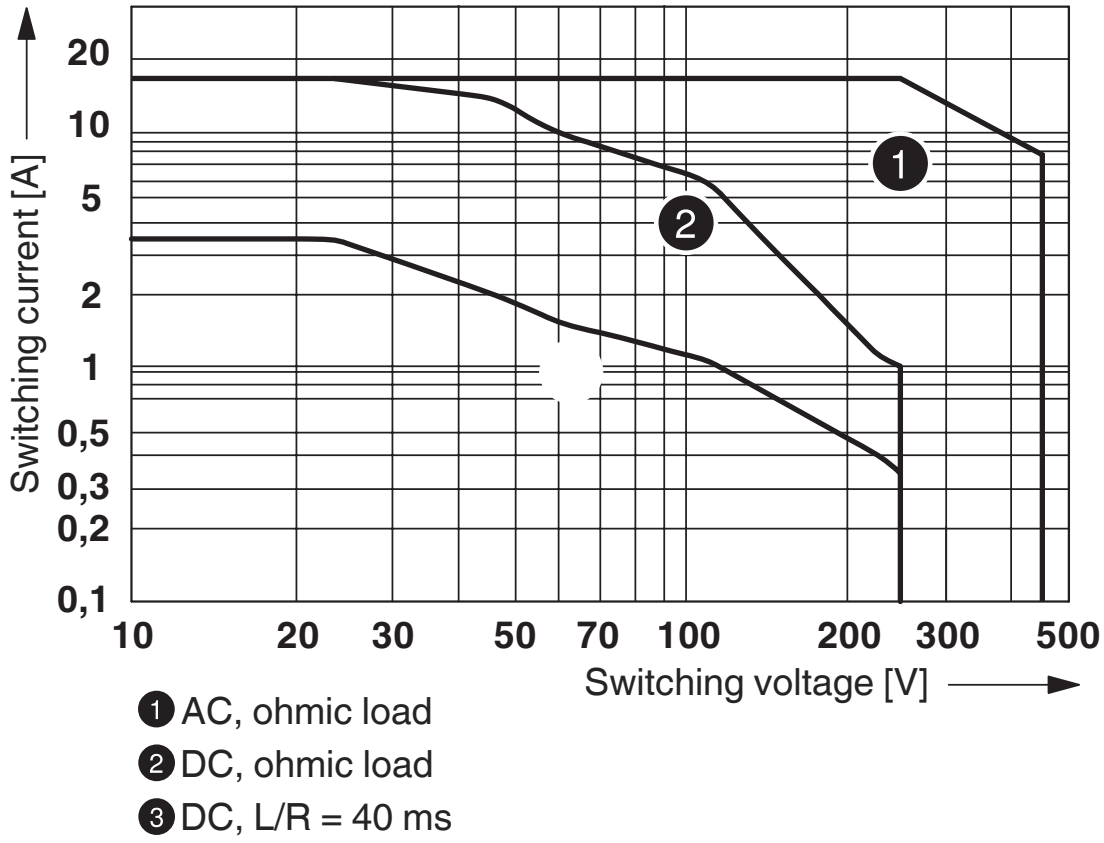
## Drawings

Diagram



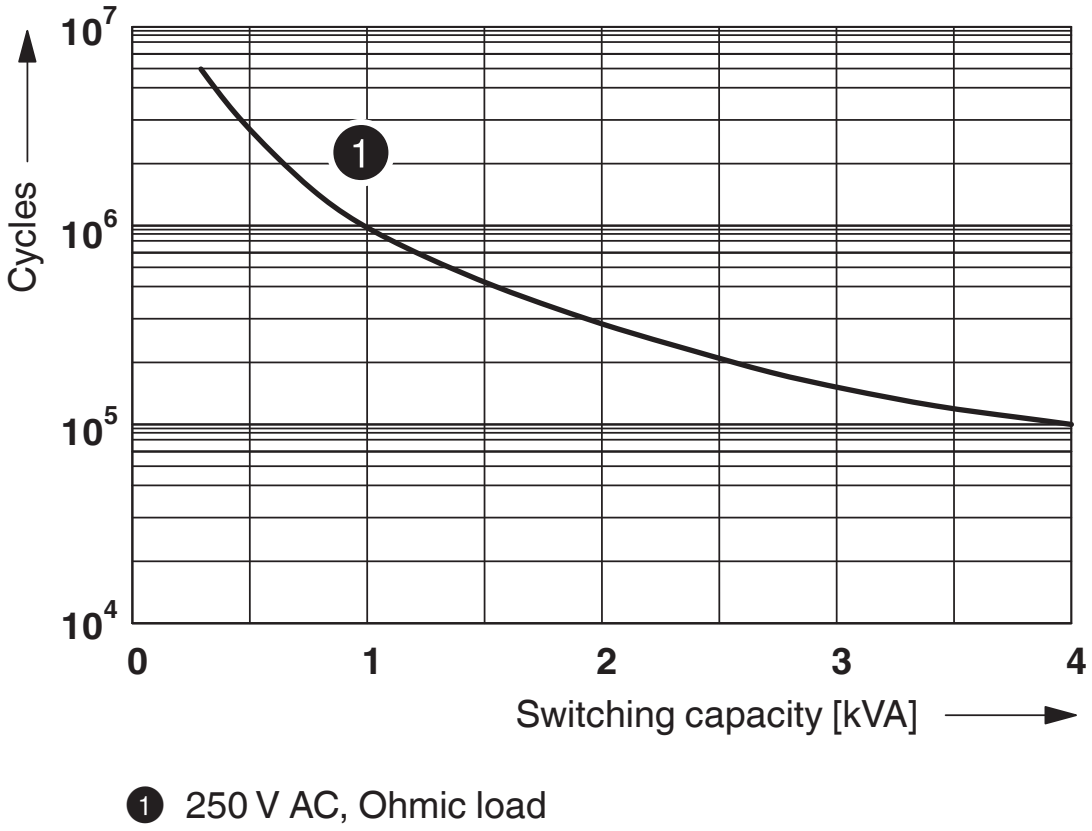

Operating voltage range

Diagram




Interrupting rating

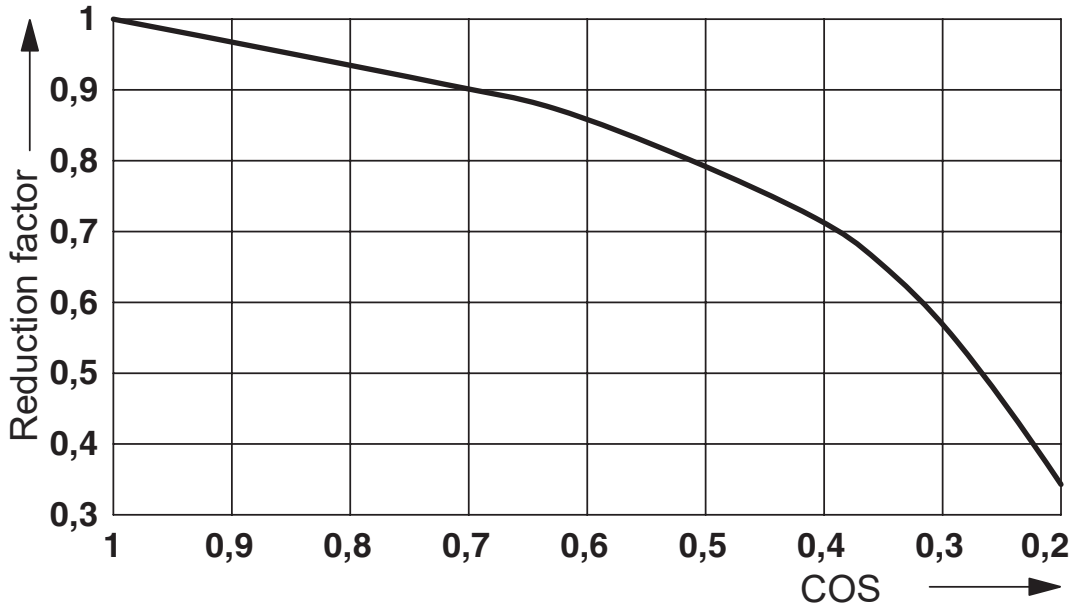
Diagram




1 250 V AC, Ohmic load

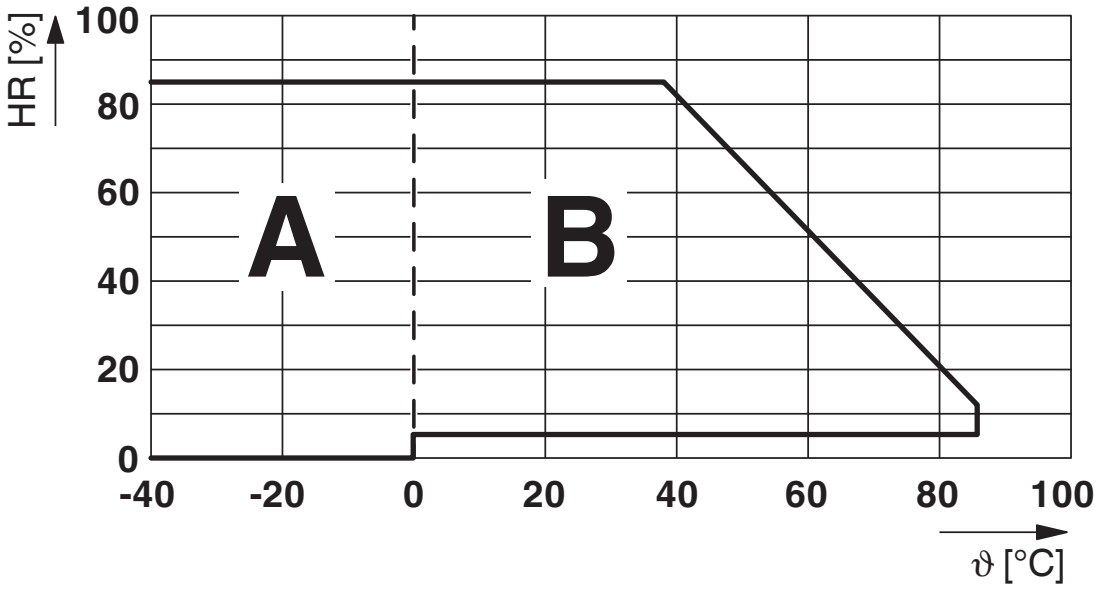
Electrical service life

Diagram




Service life reduction factor

Diagram

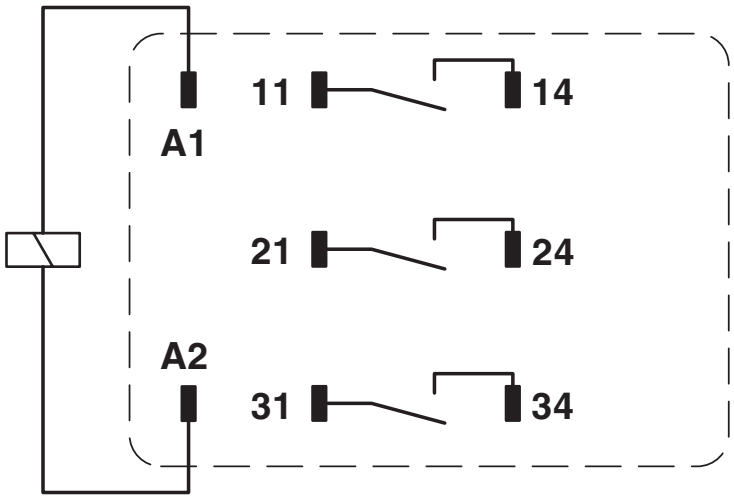



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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.

Circuit diagram



## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2903706

**CSA**
Approval ID: 256725

**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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 1.599 kg CO2e |


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