

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

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 octal relays with power contacts, 3 changeover contacts, test button, mechanical switching position indicator, coil voltage: 24 V AC

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2903694             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C460                |
| Product key                          | CK6193              |
| Catalog page                         | Page 308 (C-5-2019) |
| GTIN                                 | 4046356759076       |
| Weight per piece (including packing) | 89.35 g             |
| Weight per piece (excluding packing) | 89.35 g             |
| Customs tariff number                | 85364190            |
| Country of origin                    | PL                  |

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

## Technical data

### Notes

|         |  |
|---------|--|
| General | The outputs are not suitable for switching different outer conductors.                                     |
| General | Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed. |

### Product properties

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

### Insulation characteristics

|            |                  |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

### Insulation characteristics

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

### Electrical properties

|  |  |
|--|--|
| Maximum power dissipation for nominal condition      | 2.59 W   |
| Test voltage (Winding/contact)                       | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)                       |
| Test voltage (Changeover contact/changeover contact) | 2.5 kV <sub>rms</sub> (50 Hz, 1 min., changeover contact/changeover contact) |
| Rated insulation voltage                             | 250 V AC   |
| Rated surge voltage                                  | 4 kV   |

### Input data

#### Coil side

|                                   |  |
|-----------------------------------|--|
| Nominal input voltage $U_N$       | 24 V AC                                      |
| Input voltage range               | 20.4 V AC ... 26.4 V AC (20 °C)              |
| Mains frequency                   | 50/60 Hz                                     |
| Drive and function                | monostable                                   |
| Drive (polarity)                  | non-polarized                                |
| Typical input current at $U_N$    | 108 mA                                       |
| Input power dissipation for $U_N$ | 2.6 W  |
| Typical response time             | 5 ms ... 15 ms (depending on phase relation) |
| Typical release time range        | 5 ms ... 20 ms (depending on phase relation) |
| Status display                    | Yellow LED                                   |
| Coil resistance                   | 75 $\Omega$ $\pm$ 15 %                       |

### Output data

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

## Switching

|                                       |  |
|---------------------------------------|--|
| Contact switching type                | 3 changeover contacts  |
| Type of switch contact                | Single contact   |
| Contact material                      | AgNi   |
| Maximum switching voltage             | 250 V DC<br>440 V AC   |
| Minimum switching voltage             | 10 V (At 24 mA)  |
| Limiting continuous current           | 10 A   |
| Maximum inrush current                | 30 A (20 ms, N/O contacts)   |
| Min. switching current                | 10 mA (at 24 V)  |
| Interrupting rating (ohmic load) max. | 240 W (at 24 V DC)<br>124 W (at 48 V DC)<br>108 W (at 60 V DC)<br>52 W (at 110 V DC)<br>48 W (at 220 V DC)<br>2500 VA (for 250□V□AC) |
| Motor load according to UL 508        | 1/2 HP, 240 V AC (N/O contact)   |

## Connection data

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

## Dimensions

|        |         |
|--------|---------|
| Width  | 35 mm   |
| Height | 35 mm   |
| Depth  | 54.4 mm |

## Environmental and real-life conditions

### Ambient conditions

|  |                                |
|--|--------------------------------|
| Degree of protection                         | RT I                           |
| Degree of protection (Installation location) | ≥ IP54 (Installation location) |
| Ambient temperature (operation)              | -40 °C ... 55 °C               |
| Ambient temperature (storage/transport)      | -40 °C ... 85 °C               |
| Altitude                                     | ≤ 2000 m                       |

## Approvals

### Corrosive gas test

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

## Standards and regulations

|                       |                        |
|-----------------------|------------------------|
| Standards/regulations | IEC 60664<br>IEC 61810 |
|-----------------------|------------------------|

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

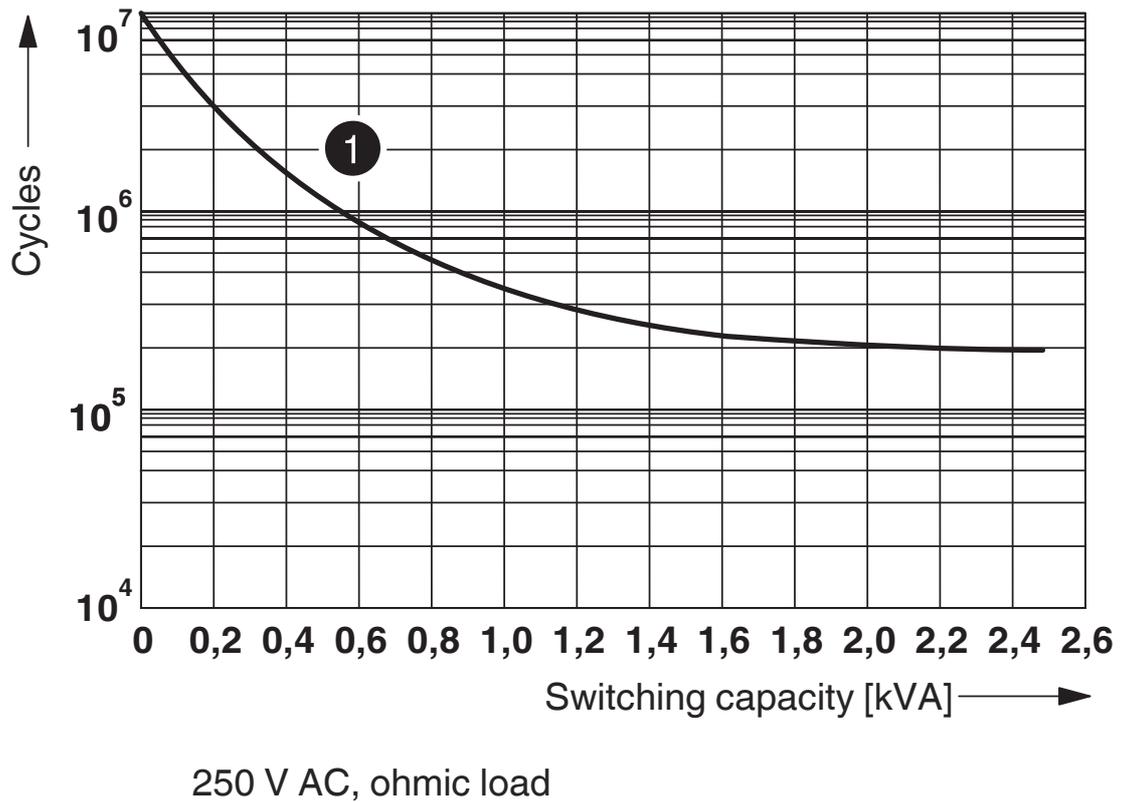
## Mounting

Mounting position

any

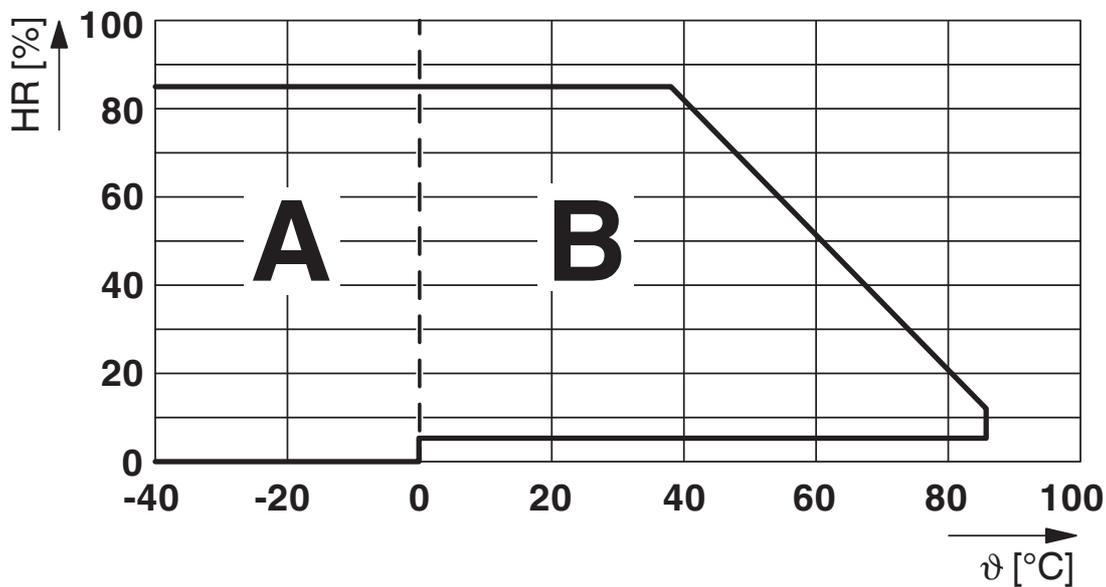
Drawings

Diagram



Electrical service life

Diagram



Permissible humidity for operation and storage.

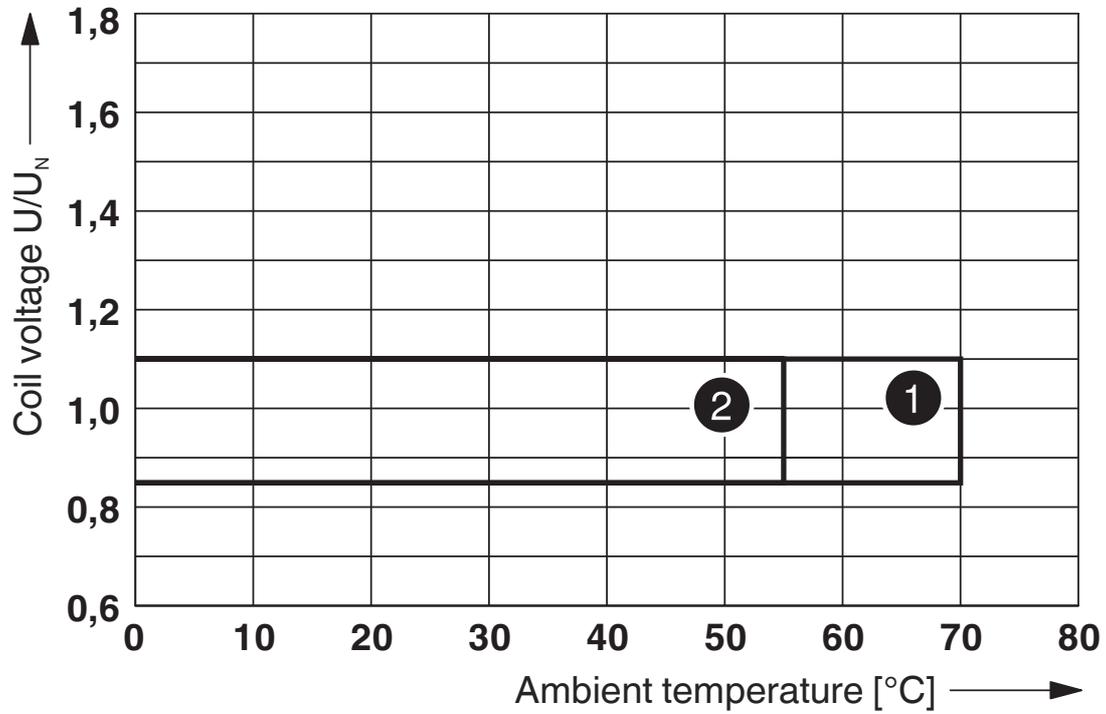
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  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  $\leq 25^\circ\text{C}$ .

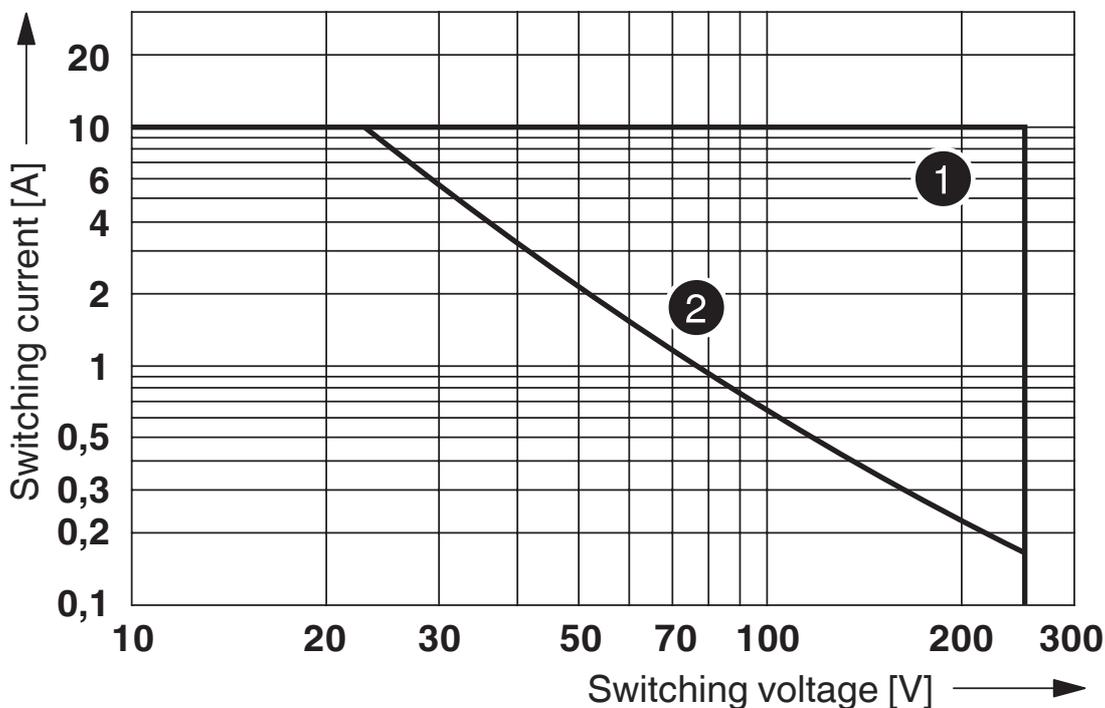
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

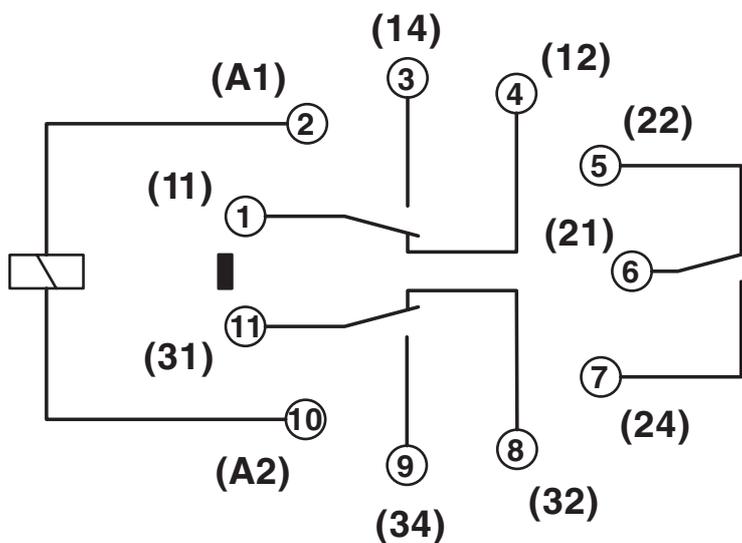
Diagram



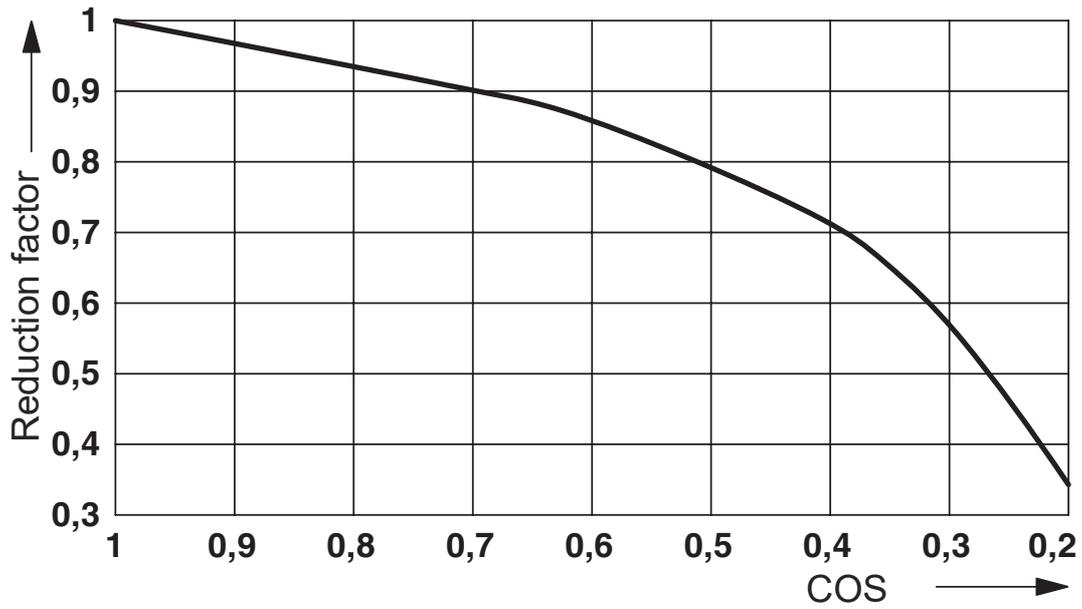
- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Circuit diagram



Diagram



Service life reduction factor

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903694>



**CSA**

Approval ID: 256725



**cUL Recognized**

Approval ID: FILE E 172140



**UL Recognized**

Approval ID: FILE E 172140



**EAC**

Approval ID: TR\_TS\_D\_00573\_c



**VDE Zeichengenehmigung**

Approval ID: 40036588

**cULus Recognized**

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

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

### UNSPSC

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

# REL-OR3/L- 24AC/3X21 - Single relay



2903694

<https://www.phoenixcontact.com/us/products/2903694>

## Environmental product compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

Phoenix Contact 2024 © - 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)