

# Single relay - REL-OR2/L-120AC/2X21 - 2903691


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Pluggable octal relay with power contacts, 2 PDT, test button, mechanical switching position indication, coil voltage 120 V AC



## Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 10 pc   |
| Minimum order quantity | 10 pc   |
| GTIN                   | <br>4 046356 759045 |
| GTIN                   | 4046356759045   |

## Technical data

### Dimensions

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

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -40 °C ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Degree of protection                    | RT I             |

### Coil side

|   |  |
|---|--|
| Nominal input voltage $U_N$               | 120 V AC                                     |
| Input voltage range in reference to $U_N$ | see diagram                                  |
| Mains frequency                           | 50/60 Hz                                     |
| Typical input current at $U_N$            | 23 mA  |
| 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                                   |

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## Technical data

### Coil side

|   |        |
|---|--------|
| Power dissipation for nominal condition | 2.76 W |
|---|--------|

### Contact side

|                                       |                                |
|---------------------------------------|--------------------------------|
| Contact type                          | 2 PDT                          |
| Type of switch contact                | Single contact                 |
| Contact material                      | AgNi                           |
| Maximum switching voltage             | 250 V AC/DC                    |
| Minimum switching voltage             | 10 V (At 24 mA)                |
| Min. switching current                | 10 mA (at 24 V)                |
| Maximum inrush current                | 30 A (20 ms, N/O contacts)     |
| Limiting continuous current           | 10 A                           |
| Interrupting rating (ohmic load) max. | 240 W (at 24 V DC)             |
|                                       | 124 W (at 48 V DC)             |
|                                       | 108 W (at 60 V DC)             |
|                                       | 52 W (at 110 V DC)             |
|                                       | 48 W (at 220 V DC)             |
|                                       | 2500 VA (for 250 V AC)         |
| Switching capacity min.               | 0.24 W                         |
| Switching capacity                    | 2 A (at 24 V, DC13)            |
|                                       | 0.22 A (at 120 V, DC13)        |
|                                       | 0.11 A (at 250 V, DC13)        |
|                                       | 3 A (at 24 V, AC15)            |
|                                       | 3 A (at 120 V, AC15)           |
|                                       | 1.5 A (at 240 V, AC15)         |
| Motor load according to UL 508        | 1/2 HP, 240 V AC (N/O contact) |

### General

|  |                                       |
|--|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2 kV <sub>rms</sub> (50 Hz, 1 min.)   |
| Test voltage PDT/PDT                     | 2 kV <sub>rms</sub> (50 Hz, 1 min.)   |
| Operating mode                           | 100% operating factor                 |
| Mechanical service life                  | approx. 2x 10 <sup>7</sup> cycles     |
| Mounting position                        | any                                   |

### Connection data

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

### Standards and Regulations

|                                  |           |
|----------------------------------|-----------|
| Connection in acc. with standard | CSA       |
| Standards/regulations            | IEC 60664 |
|                                  | IEC 61810 |
| Rated insulation voltage         | 250 V AC  |
| Rated surge voltage              | 4 kV      |

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## Technical data

### Standards and Regulations

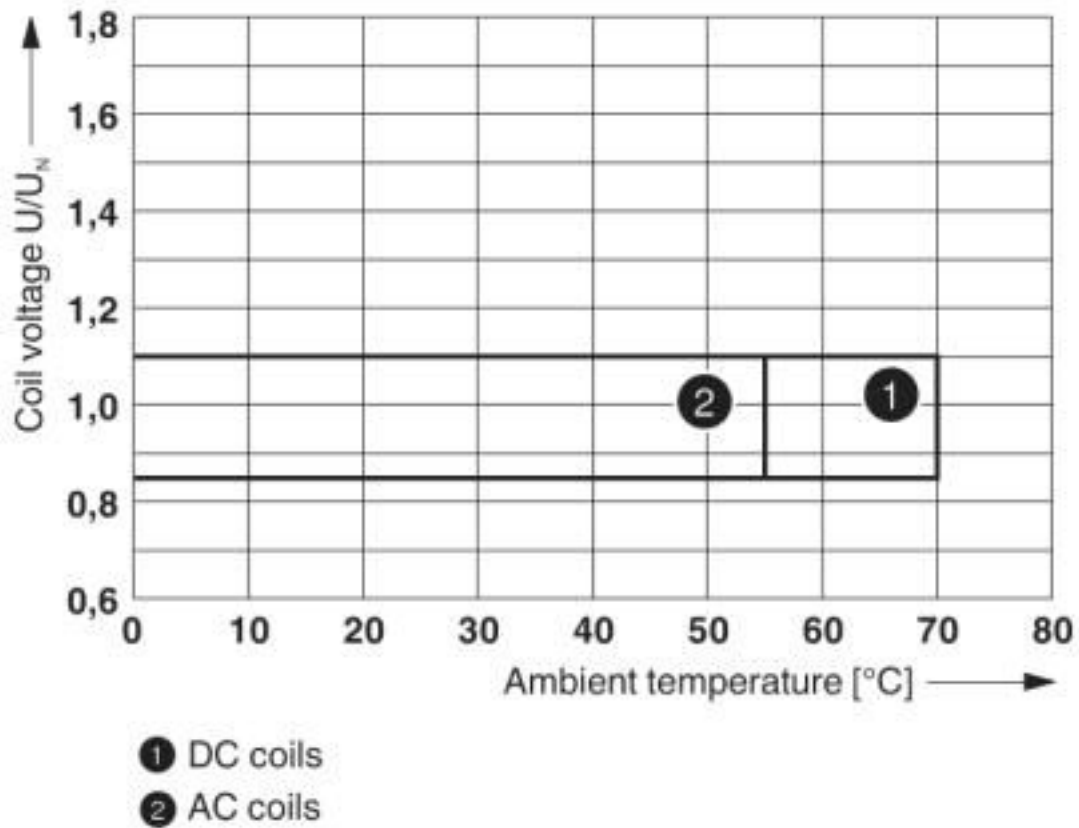
|                      |                  |
|----------------------|------------------|
| Insulation           | Basic insulation |
| Pollution degree     | 3                |
| Overvoltage category | III              |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 years  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

## Drawings

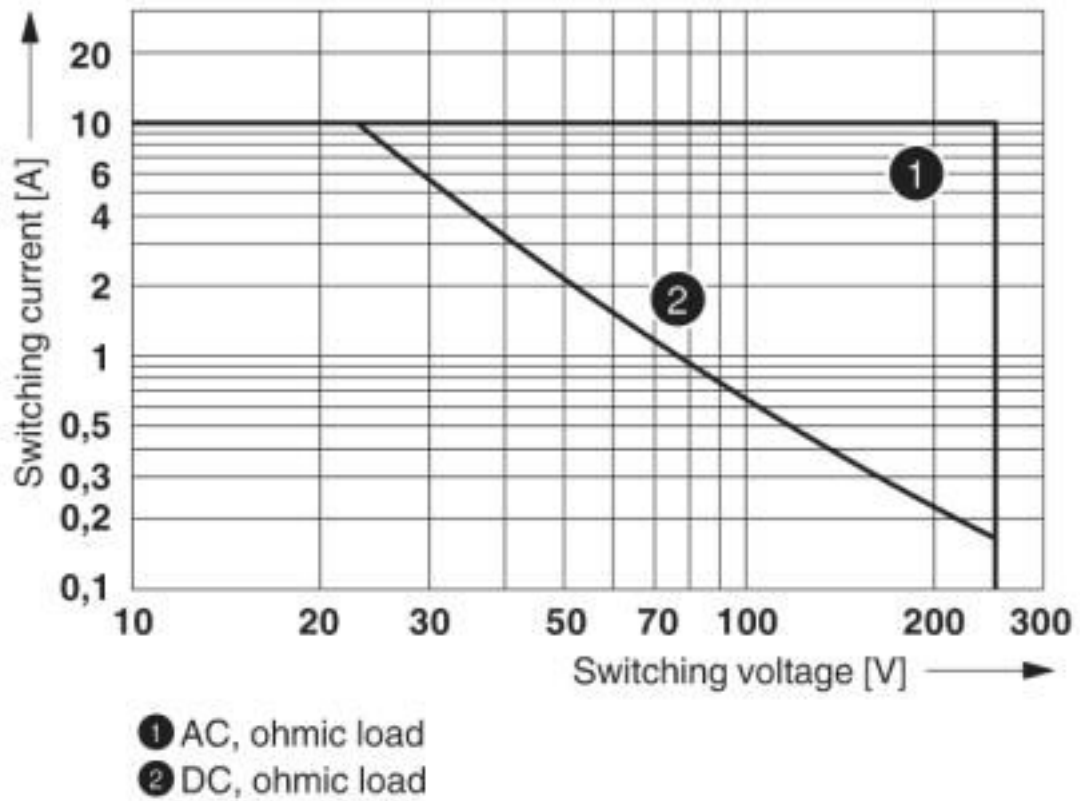
Diagram



Operating voltage range

# Single relay - REL-OR2/L-120AC/2X21 - 2903691

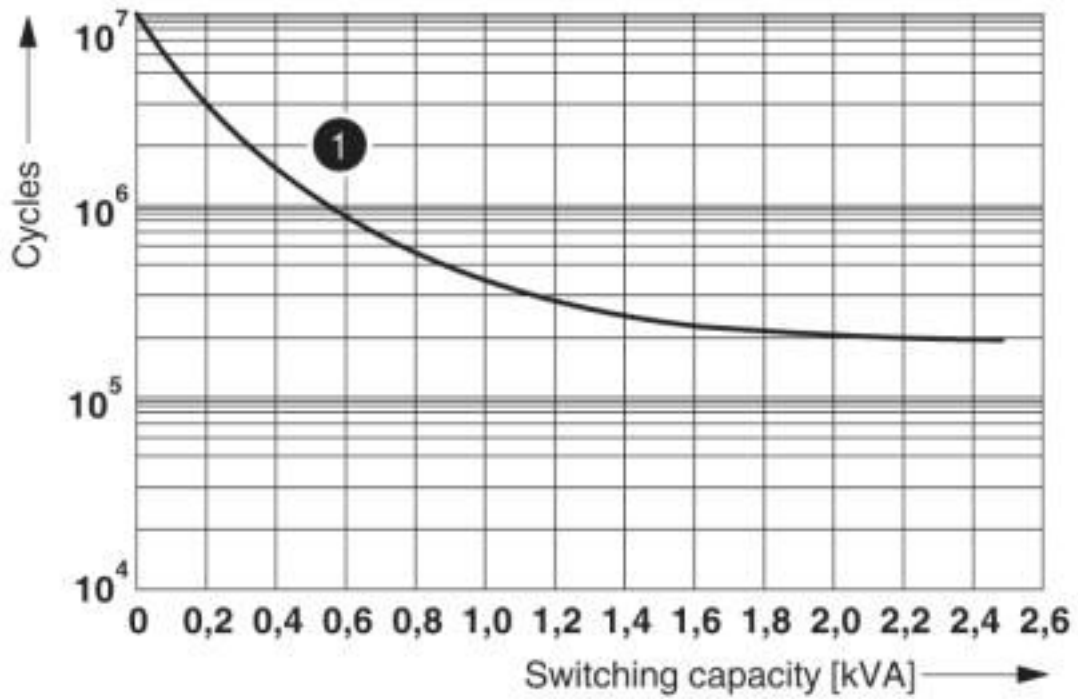
Diagram



Interrupting rating

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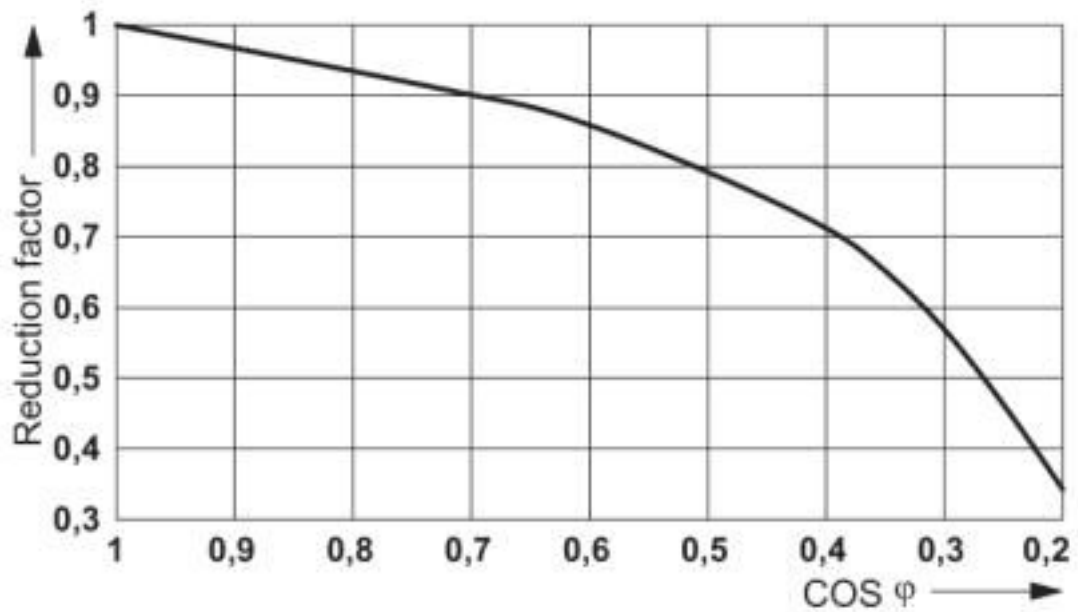
Diagram



① 250 V AC, ohmic load

## Electrical service life

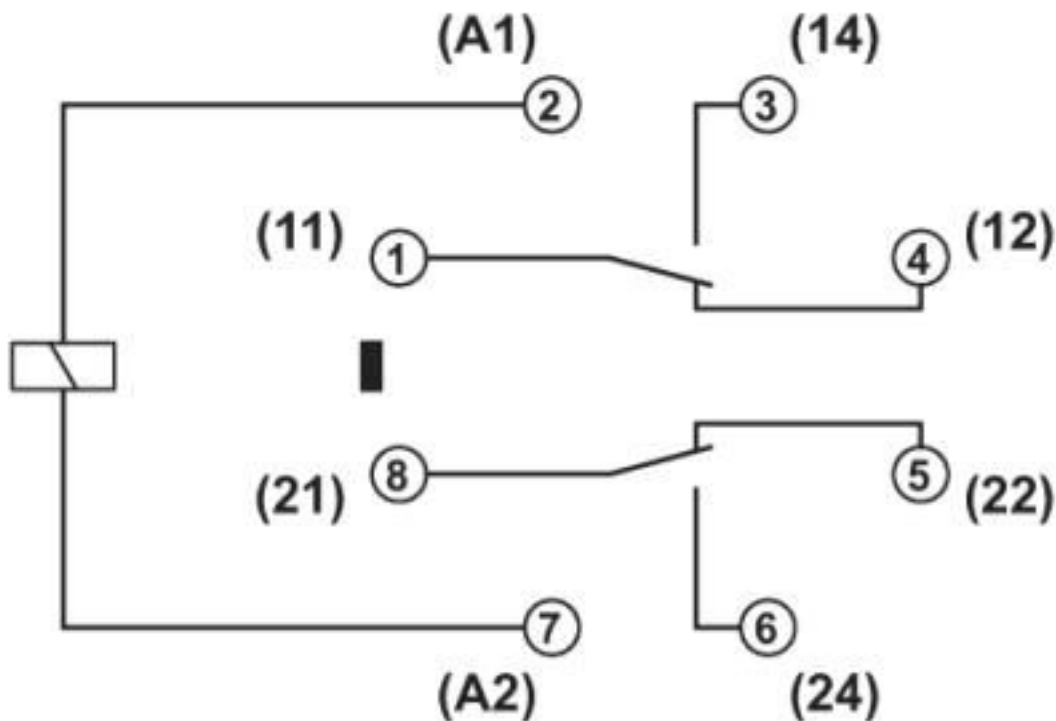
Diagram



## Service life reduction factor

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Circuit diagram



## Classifications

eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27371601 |
| eCl@ss 4.0    | 27371100 |
| eCl@ss 4.1    | 27371100 |
| eCl@ss 5.0    | 27371600 |
| eCl@ss 5.1    | 27371600 |
| eCl@ss 6.0    | 27371600 |
| eCl@ss 7.0    | 27371601 |
| eCl@ss 8.0    | 27371601 |
| eCl@ss 9.0    | 27371601 |

ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC001437 |
| ETIM 3.0 | EC001437 |
| ETIM 4.0 | EC001437 |
| ETIM 5.0 | EC001437 |
| ETIM 6.0 | EC001437 |
| ETIM 7.0 | EC001437 |

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## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39122334 |
| UNSPSC 18.0   | 39122334 |
| UNSPSC 19.0   | 39122334 |
| UNSPSC 20.0   | 39122334 |
| UNSPSC 21.0   | 39122334 |

## Approvals

### Approvals

#### Approvals

CSA / UL Recognized / cUL Recognized / VDE Zeichengenehmigung / EAC / EAC / cULus Recognized

#### Ex Approvals

### Approval details

|     |  |   |         |
|-----|--|---|---------|
| CSA |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 2554095 |
|-----|--|---|---------|

|               |  |   |               |
|---------------|--|---|---------------|
| UL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|---------------|--|---|---------------|

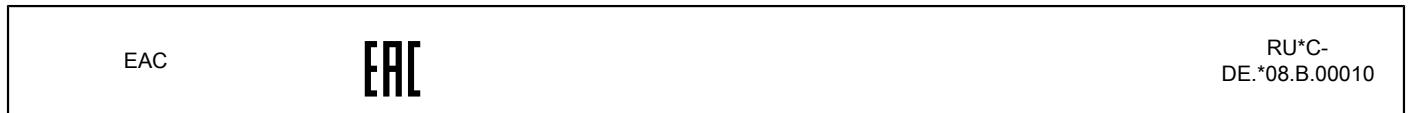
|                |  |   |               |
|----------------|--|---|---------------|
| cUL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 172140 |
|----------------|--|---|---------------|

|                        |  |   |          |
|------------------------|--|---|----------|
| VDE Zeichengenehmigung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40036588 |
|------------------------|--|---|----------|

|     |  |  |                 |
|-----|--|--|-----------------|
| EAC |  |  | TR_TS_D_00573_c |
|-----|--|--|-----------------|

# Single relay - REL-OR2/L-120AC/2X21 - 2903691

## Approvals



## Accessories

### Additional products

Relay base - RIF-3-BPT/2X21 - 2900937



RIF-3... relay base, for octal relay with 2 PDTs, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Relay base - RIF-3-BSC/2X21 - 2900935



RIF-3... relay base, for octal relay with 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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