

# Single relay - REL-IR2/24DC/2X21 - 2907051

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Plug-in industrial relay with power contacts, 2 changeover contacts, test key, mechanical switch position indicator, polarity: bipolar, input voltage: 24 V DC



## Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 10 pc         |
| GTIN         |               |
| GTIN         | 4055626175799 |

## Technical data

### Dimensions

|        |         |
|--------|---------|
| Width  | 21.2 mm |
| Height | 27.5 mm |
| Depth  | 35.6 mm |

### Ambient conditions

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

### Coil side

|                                           |             |
|-------------------------------------------|-------------|
| Nominal input voltage $U_N$               | 24 V DC     |
| Input voltage range in reference to $U_N$ | see diagram |
| Typical input current at $U_N$            | 38 mA       |
| Typical response time                     | 13 ms       |
| Typical release time                      | 3 ms        |
| Power dissipation for nominal condition   | 0.91 W      |

### Contact side

|              |       |
|--------------|-------|
| Contact type | 2 PDT |
|--------------|-------|

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## Technical data

### Contact side

|                                       |                            |
|---------------------------------------|----------------------------|
| Type of switch contact                | Single contact             |
| Contact material                      | AgNi                       |
| Maximum switching voltage             | 250 V AC/DC                |
| Minimum switching voltage             | 5 V (At 24 mA)             |
| Min. switching current                | 5 mA (at 24 V)             |
| Maximum inrush current                | 30 A (20 ms, N/O contacts) |
|                                       | 24 A (4 s, N/O contacts)   |
| Limiting continuous current           | 12 A                       |
| Interrupting rating (ohmic load) max. | 288 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)         |
|                                       | 3000 VA (for 250 V AC)     |
| Switching capacity min.               | 0.12 W                     |
| Switching capacity                    | 2 A (at 24 V, DC13)        |
|                                       | 1.5 A (at 230 V, AC15)     |

### General

|                                          |                                       |
|------------------------------------------|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage PDT/PDT                     | 2.5 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

|                          |                            |
|--------------------------|----------------------------|
| Standards/regulations    | IEC 60664                  |
|                          | IEC 61810                  |
| Rated insulation voltage | 250 V AC                   |
| Rated surge voltage      | 2.5 kV                     |
| Insulation               | Basic insulation           |
| Pollution degree         | 3 (Rated voltage of 230 V) |
|                          | 2 (Rated voltage of 400 V) |
| Overvoltage category     | II                         |

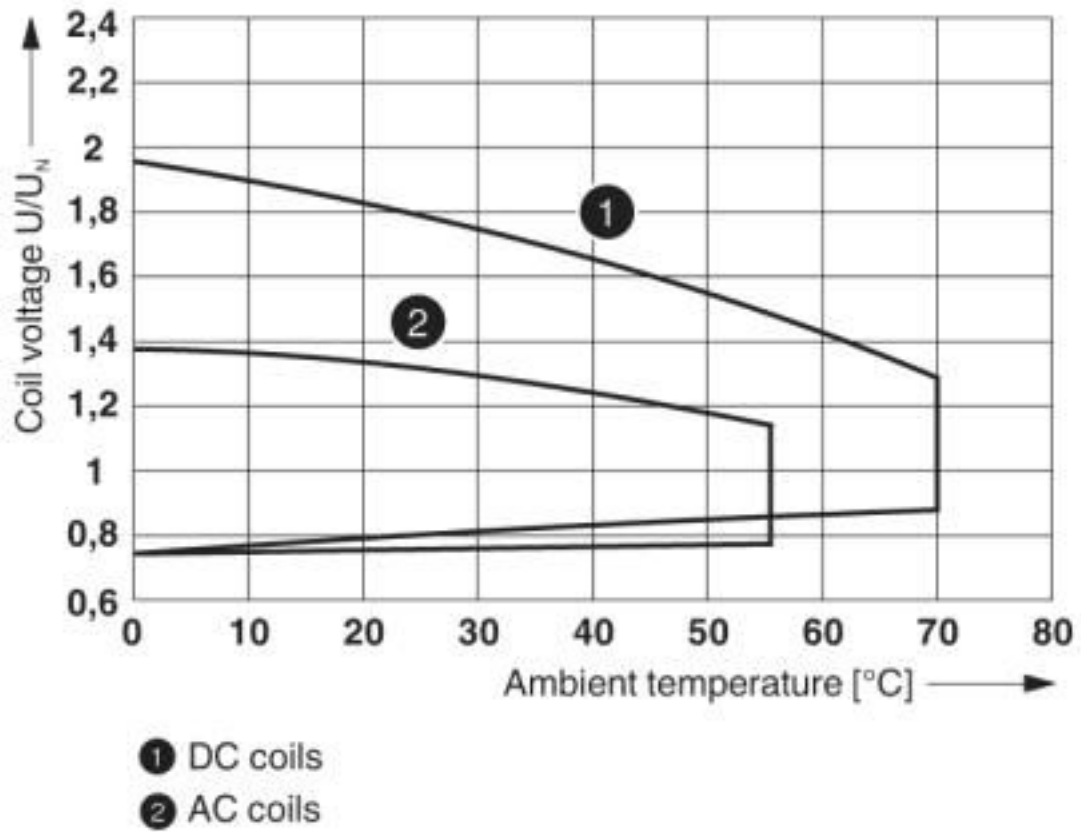
### Environmental Product Compliance

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

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## Drawings

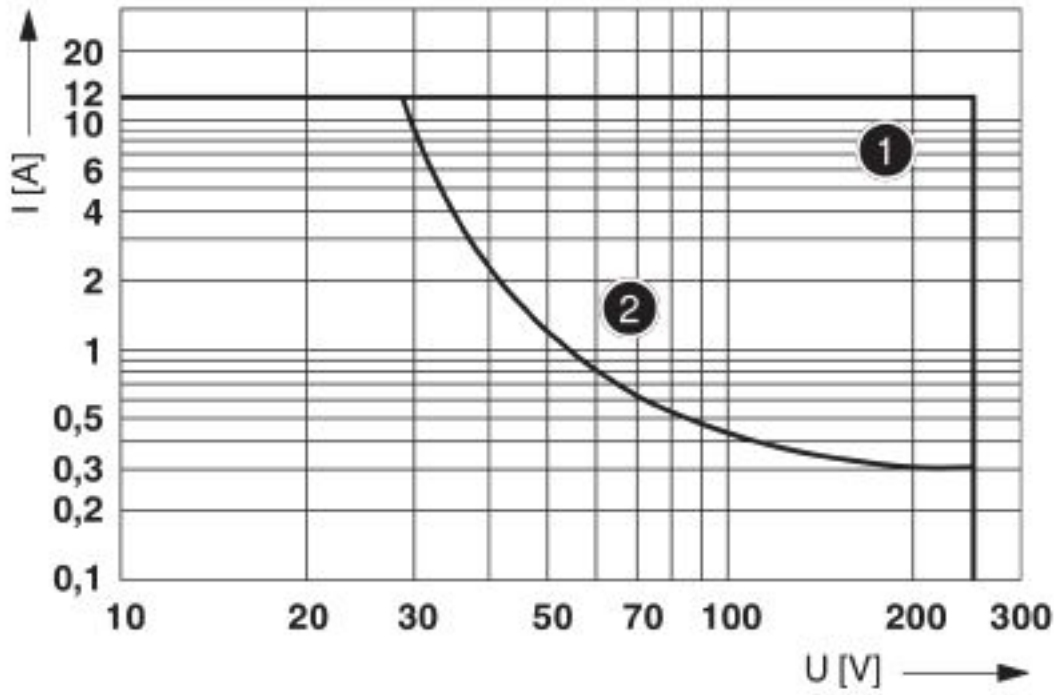
Diagram



Operating voltage range

# Single relay - REL-IR2/24DC/2X21 - 2907051

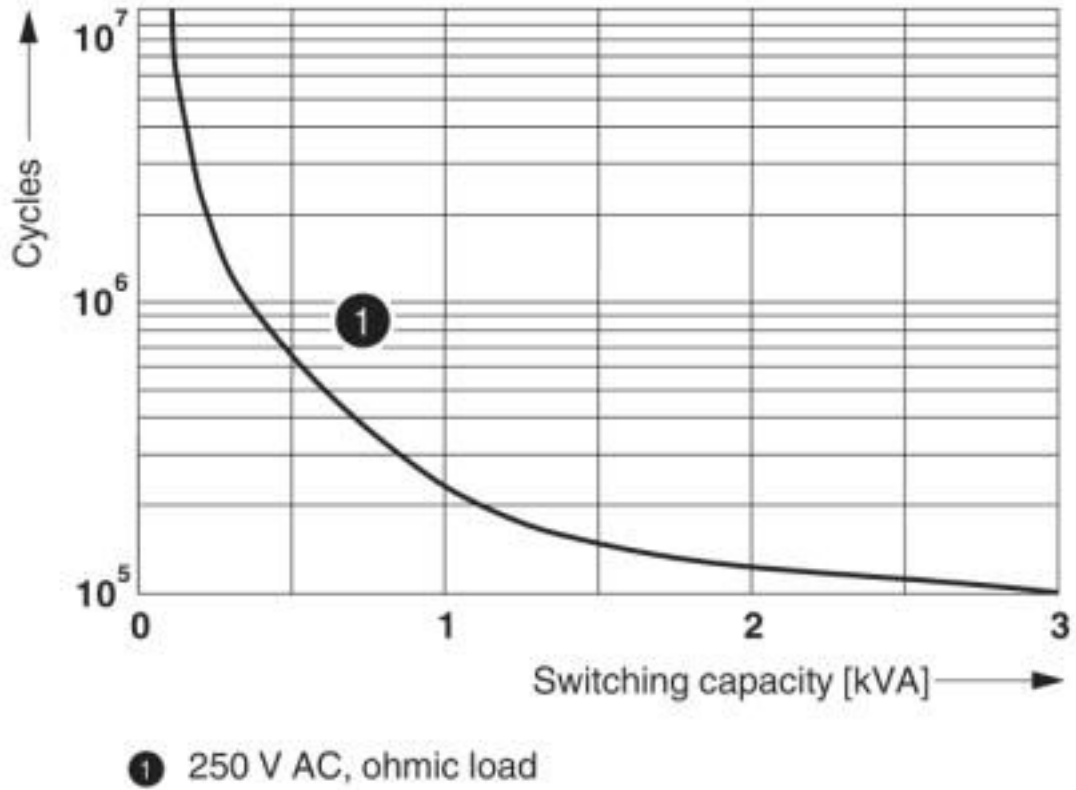
Diagram



Interrupting rating  
Curve 1: AC, ohmic load  
Curve 2: DC, ohmic load

# Single relay - REL-IR2/24DC/2X21 - 2907051

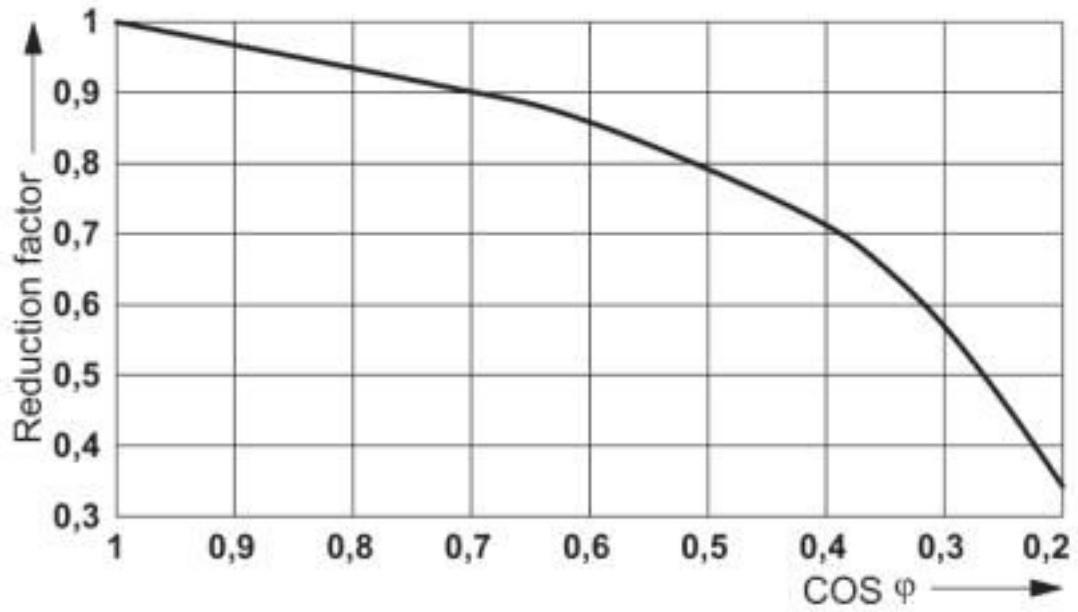
Diagram



Electrical service life

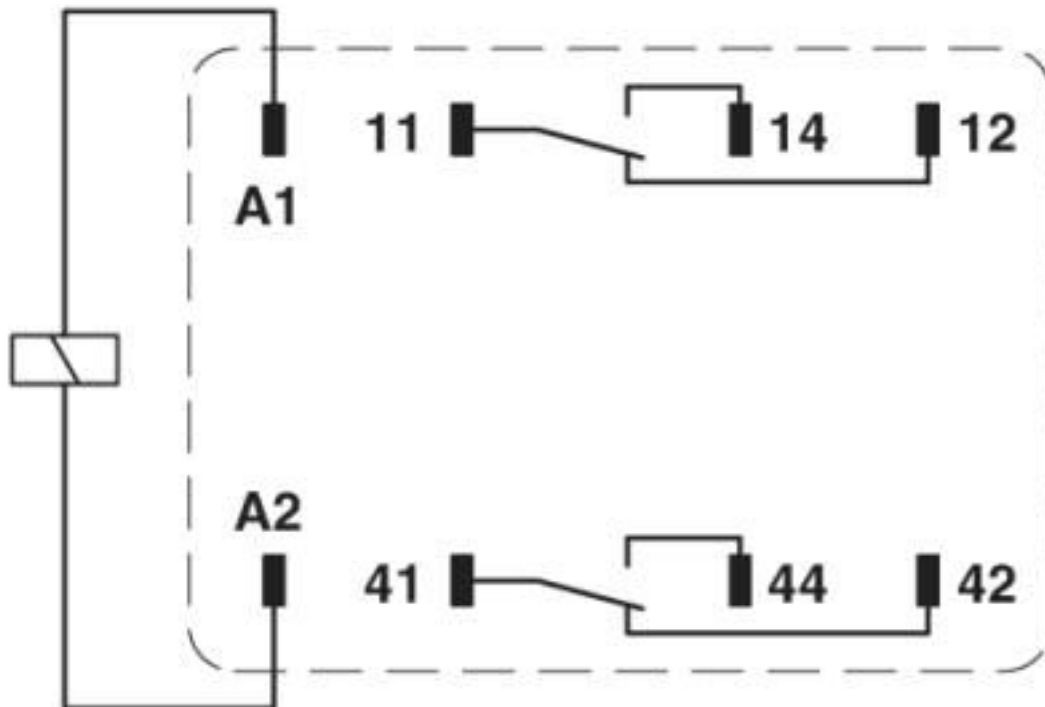
# Single relay - REL-IR2/24DC/2X21 - 2907051

Diagram



Service life reduction factor

Circuit diagram



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## 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 |

### 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

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#### Approvals

CSA / UL Recognized / cUL Recognized / EAC / EAC / cULus Recognized

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#### Ex Approvals

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### Approval details

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## Approvals

|                  |  |                                                                                                                                                       |                          |
|------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 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            |
| EAC              |  |                                                                                                                                                       | RU C-<br>DE.A*30.B.01082 |
| EAC              |  |                                                                                                                                                       | TR_TS_D_00573_c          |
| cULus Recognized |  |                                                                                                                                                       |                          |

## Accessories

### Additional products

Relay base - RIF-2-BPT/4X21 - 2900934



RIF-2... relay base, for industrial relay with 2 or 4 PDTs, push-in connection, plug-in option for input/suppressor modules, for mounting on NS 35/7,5

Relay base - RIF-2-BSC/4X21 - 2900932



RIF-2... relay base, for industrial relay with 2 or 4 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5



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