

# Relay Module - RIF-1-RPT-LDP-24DC/1X21AU - 2903338

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Pre-assembled relay modules with push-in connection, consisting of: relay base, multi-layer contact relay, plug-in display/suppressor module, and retaining bracket. Input voltage: 24 V DC, 1 PDT

The figure shows the 24 V DC version

## Key commercial data

|                         |               |
|-------------------------|---------------|
| <b>package_quantity</b> | 10            |
| <b>GTIN</b>             | 4046356732703 |

## Technical data

### Dimensions

|               |       |
|---------------|-------|
| <b>Width</b>  | 16 mm |
| <b>Height</b> | 96 mm |
| <b>Depth</b>  | 75 mm |

### Ambient conditions

|  |                  |
|--|------------------|
| <b>Ambient temperature (operation)</b>         | -40 °C ... 70 °C |
| <b>Ambient temperature (storage/transport)</b> | -40 °C ... 85 °C |

### Coil side

|   |                           |
|---|---------------------------|
| <b>Nominal input voltage <math>U_N</math></b>               | 24 V DC                   |
| <b>Input voltage range in reference to <math>U_N</math></b> | (refer to the diagram)    |
| <b>Nominal input current at <math>U_{IN}</math></b>         | 18 mA                     |
| <b>Typical response time</b>                                | 8 ms                      |
| <b>Typical release time</b>                                 | 10 ms                     |
| <b>Operating voltage display</b>                            | Yellow LED                |
| <b>Protective circuit</b>                                   | Damping diode             |
| <b>Protective circuit</b>                                   | Polarity protection diode |

### Contact side

|                                  |                        |
|----------------------------------|------------------------|
| <b>Contact type</b>              | 1 PDT                  |
| <b>Contact material</b>          | AgNi, hard gold-plated |
| <b>Maximum switching voltage</b> | 30 V AC                |
| <b>Maximum switching voltage</b> | 36 V DC                |
| <b>Minimum switching voltage</b> | 100 mV (at 10 mA)      |
| <b>Maximum inrush current</b>    | 50 mA                  |

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## Technical data

### Contact side

|  |  |
|--|--|
| Min. switching current                                 | 1 mA (at 24 V)   |
| Limiting continuous current                            | 50 mA  |
| Interrupting rating (ohmic load) max.                  | 1.2 W (at 24 V DC)   |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (24 V (DC13))  |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 6 A (230 V (AC 15))  |
| Note   | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage                              | 250 V AC/DC  |
| Minimum switching voltage                              | 12 V (at 10 mA)  |
| Limiting continuous current                            | 50 A (20 ms, N/O contact)  |
| Min. switching current                                 | 10 mA (at 12 V)  |
| Interrupting rating (ohmic load) max.                  | 264 W (at 24 V DC)   |
| Interrupting rating (ohmic load) max.                  | 58 W (at 48 V DC)  |
| Interrupting rating (ohmic load) max.                  | 48 W (at 60 V DC)  |
| Interrupting rating (ohmic load) max.                  | 50 W (at 110 V DC)   |
| Interrupting rating (ohmic load) max.                  | 80 W (at 220 V DC)   |
| Interrupting rating (ohmic load) max.                  | 2750 VA (for 250 V AC)   |

### Connection data

|  |                      |
|--|----------------------|
| Connection method  | Push-in connection   |
| Conductor cross section solid min.   | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.   | 1.5 mm <sup>2</sup>  |
| Conductor cross section stranded min.                                      | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded max.                                      | 1.5 mm <sup>2</sup>  |
| Conductor cross section stranded, with ferrule with plastic sleeve min.    | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, with ferrule with plastic sleeve max.    | 1.5 mm <sup>2</sup>  |
| Conductor cross section stranded, with ferrule without plastic sleeve min. | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded, with ferrule without plastic sleeve max. | 1.5 mm <sup>2</sup>  |
| Conductor cross section AWG/kcmil min.                                     | 26                   |
| Conductor cross section AWG/kcmil max                                      | 16                   |
| Stripping length   | 8 mm                 |

### General

|  |   |
|--|---|
| Type of note                             | Notes on operation  |
| Note                                     | FBS 2-6... plug-in bridge for the input side (A2) and FBS-2-8... plug-in bridge for the output side (11/21) |
| Test voltage relay winding/relay contact | 4 kV <sub>rms</sub> (50 Hz, 1 min.)   |
| Operating mode                           | 100% operating factor   |
| Degree of protection                     | IP20 (Relaissockel)   |
| Degree of protection                     | RT II (Relais)  |
| Mechanical service life                  | Approx. 3 x 10 <sup>7</sup> cycles  |

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## Technical data

### General

|                                  |                           |
|----------------------------------|---------------------------|
| Standards/regulations            | DIN EN 50178              |
| Standards/regulations            | IEC 62103                 |
| Rated surge voltage / insulation | 6 kV/safe isolation       |
| Rated insulation voltage         | 250 V AC                  |
| Pollution degree                 | 2                         |
| Surge voltage category           | III                       |
| Mounting position                | Any                       |
| Assembly instructions            | In rows with zero spacing |

## classifications

### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371603 |
| eCl@ss 5.1 | 27371603 |
| eCl@ss 6.0 | 27371603 |
| eCl@ss 7.0 | 27371603 |
| eCl@ss 8.0 | 27371603 |

### ETIM

|          |          |
|----------|----------|
| ETIM 3.0 | EC001456 |
| ETIM 4.0 | EC001456 |
| ETIM 5.0 | EC001437 |

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211917 |
| UNSPSC 7.0901 | 39121516 |
| UNSPSC 11     | 39121516 |
| UNSPSC 12.01  | 39121516 |
| UNSPSC 13.2   | 39121516 |

## accessories

### Bridge

FBS 2-6 - 3030336



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## accessories

FBS 2-6 BU - 3036932



FBS 2-6 GY - 3032237



FBS 5-6 - 3030349



FBS 10-6 - 3030271



FBS 20-6 - 3030365



FBS 50-6 - 3032224



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## accessories

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FBS 2-8 - 3030284



FBS 2-8 BU - 3032567



FBS 2-8 GY 7042 - 3032541



## End block

CLIPFIX 35 - 3022218



## Test plug terminal block

MPS-MT - 0201744



## Insulating sleeve

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## accessories

MPS-IH WH - 0201663



MPS-IH RD - 0201676



MPS-IH BU - 0201689



MPS-IH YE - 0201692



MPS-IH GN - 0201702



MPS-IH GY - 0201728



# Relay Module - RIF-1-RPT-LDP-24DC/1X21AU - 2903338

## accessories

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MPS-IH BK - 0201731



## Terminal marking

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ZB 5 :UNBEDRUCKT - 1050004



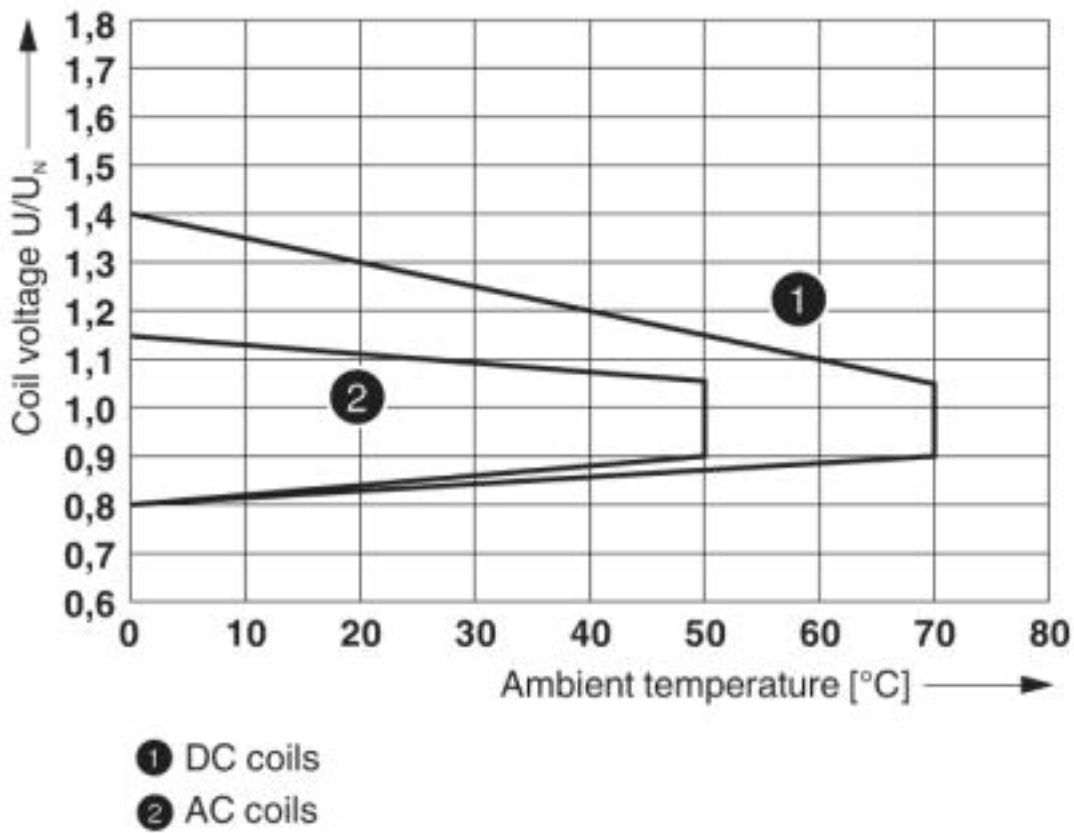
ZB 15:UNBEDRUCKT - 0811972



## Drawings

# Relay Module - RIF-1-RPT-LDP-24DC/1X21AU - 2903338

Diagram

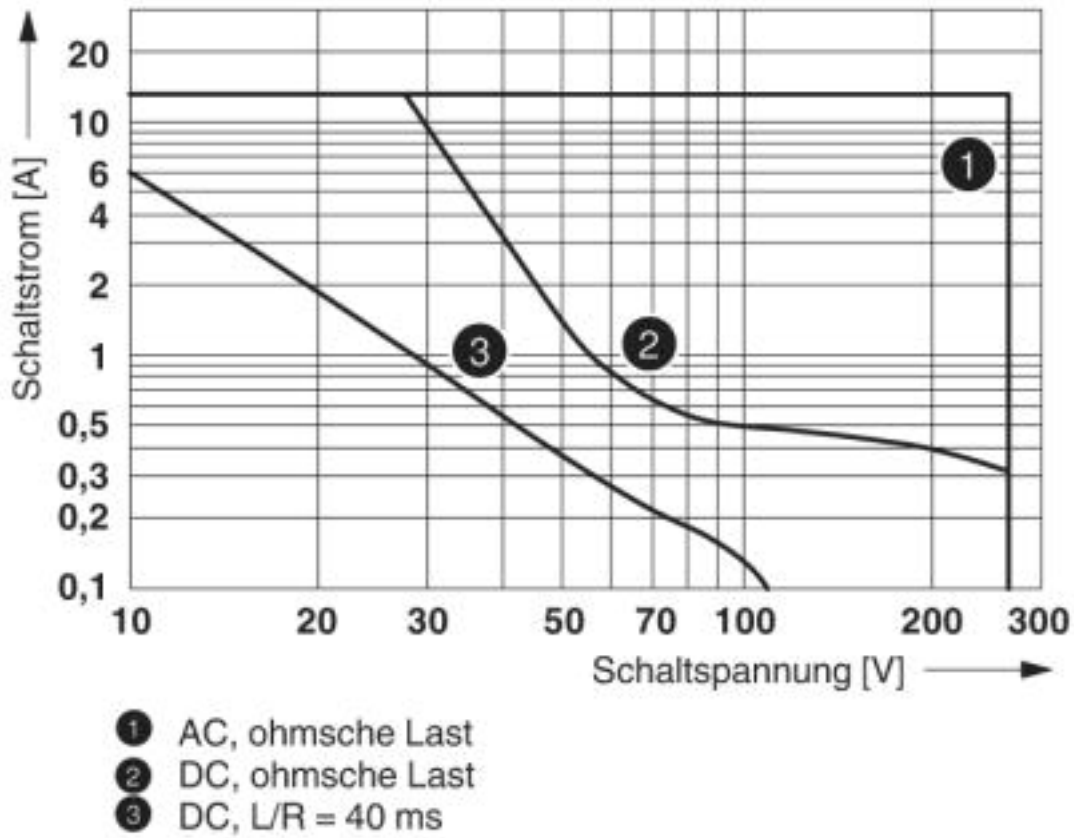


Operating voltage range



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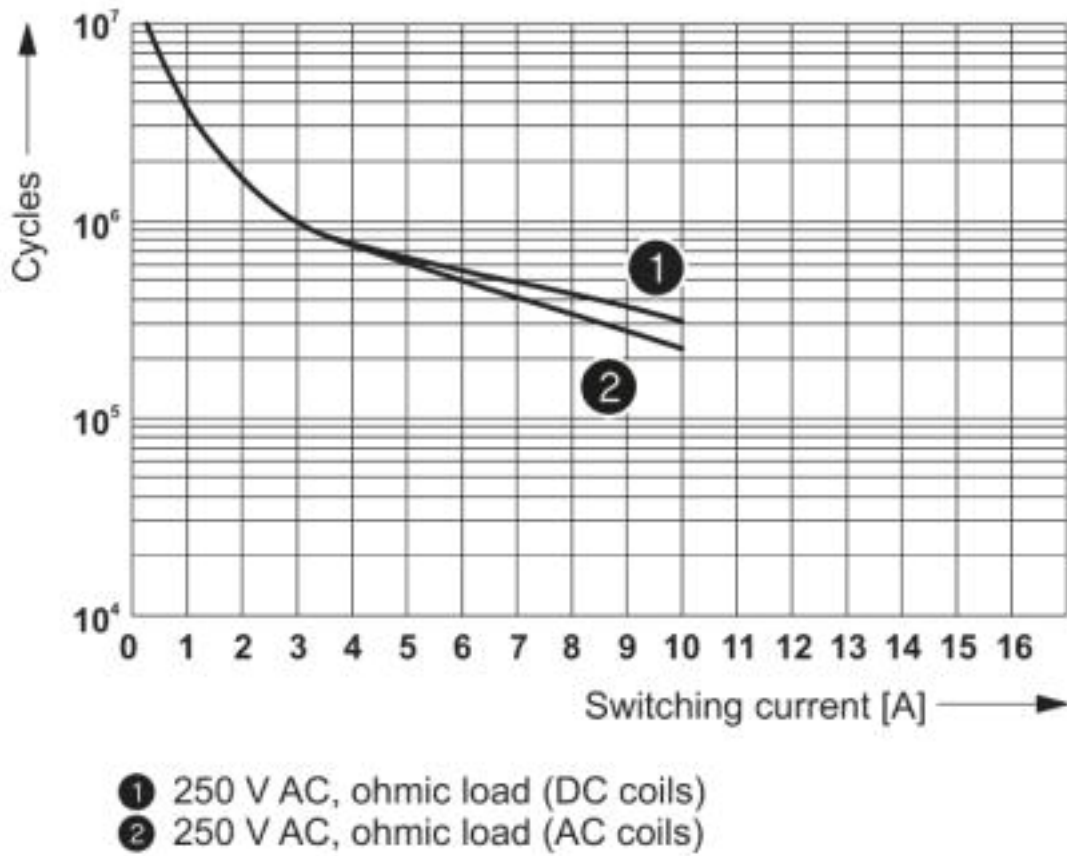
Diagram



Interrupting rating

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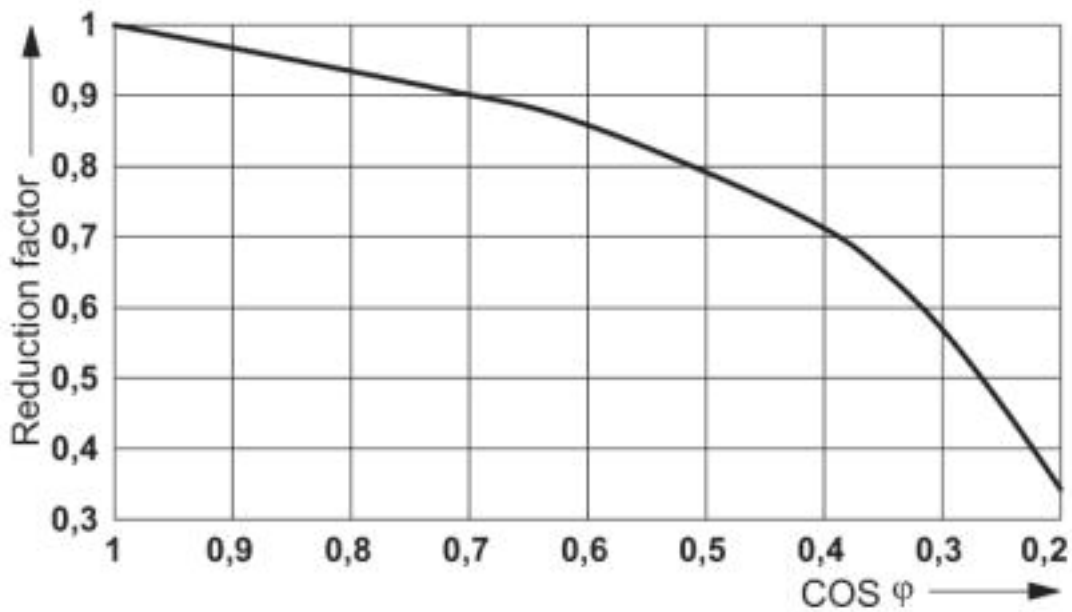
Diagram



Electrical service life

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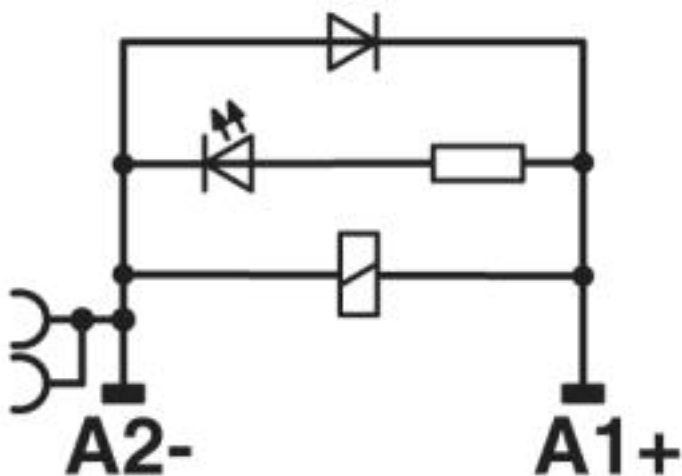
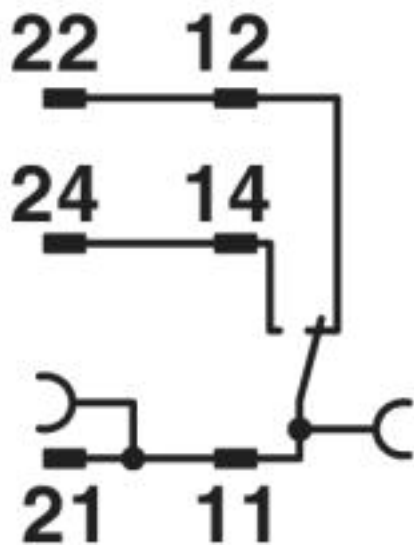
Diagram



Service life reduction factor

# Relay Module - RIF-1-RPT-LDP-24DC/1X21AU - 2903338

Circuit diagram



DC coils

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