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## Relay Module - RIF-2-RPT-LV-120AC/2X21 - 2903311

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The figure shows the 24 V DC version

Pre-assembled relay module with push-in connection, consisting of: relay base, power contact relay, plug-in display/suppressor module, and retaining bracket. Contact type: 2 PDTs. Input voltage: 120 V AC



### Key commercial data

|                                      |           |
|--------------------------------------|-----------|
| Packing unit                         | 1 pc      |
| Weight per Piece (excluding packing) | 110.0 GRM |
| Custom tariff number                 | 85364900  |
| Country of origin                    | Germany   |

### Technical data

#### Dimensions

|        |       |
|--------|-------|
| Width  | 31 mm |
| Height | 96 mm |
| Depth  | 75 mm |

#### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient temperature (operation)         | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

#### Coil side

|                                           |                |
|-------------------------------------------|----------------|
| Nominal input voltage $U_N$               | 120 V AC       |
| Input voltage range in reference to $U_N$ | (see diagram)  |
| Nominal input current at $U_{IN}$         | 13 mA          |
| Typical response time                     | 5 ms ... 15 ms |
| Typical release time range                | 5 ms ... 20 ms |
| Operating voltage display                 | Yellow LED     |

# Relay Module - RIF-2-RPT-LV-120AC/2X21 - 2903311

## Technical data

### Coil side

|                    |          |
|--------------------|----------|
| Protective circuit | Varistor |
|--------------------|----------|

### Contact side

|                                                        |                           |
|--------------------------------------------------------|---------------------------|
| Contact type                                           | 2 PDT                     |
| Contact material                                       | AgNi                      |
| Maximum switching voltage                              | 250 V AC/DC               |
| Minimum switching voltage                              | 5 V (At 24 mA)            |
| Maximum inrush current                                 | 30 A (20 ms, N/O contact) |
| Min. switching current                                 | 5 mA (at 24 V)            |
| Limiting continuous current                            | 8.5 A (see diagram)       |
| Interrupting rating (ohmic load) max.                  | 204 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)        |
|                                                        | 2125 VA (for 250 V AC)    |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (24 V (DC13))         |
|                                                        | 1.5 A (230 V (AC 15))     |

### 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

|                                          |                                       |
|------------------------------------------|---------------------------------------|
| Test voltage relay winding/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 100% operating factor                 |
| Degree of protection                     | IP20 (Relay socket)                   |
|                                          | RT I (Relay)                          |

## Relay Module - RIF-2-RPT-LV-120AC/2X21 - 2903311

### Technical data

#### General

|                          |                                |
|--------------------------|--------------------------------|
| Mechanical service life  | Approx. $2 \times 10^7$ cycles |
| Standards/regulations    | DIN EN 50178                   |
|                          | IEC 62103                      |
| Rated insulation voltage | 250 V AC                       |
| Pollution degree         | 2                              |
| Surge voltage category   | III                            |
| Mounting position        | any                            |
| Assembly instructions    | In rows with zero spacing      |

### Articles in set

Relay socket - 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

Single relay - REL-IR2/L-120AC/2X21 - 2903667



Plug-in industrial relay with power contacts, 2 PDTs, test key, status LED, mechanical switch position indicator, input voltage: 120 V AC

Plug-in module - RIF-V-120-230 UC - 2900948



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor, input voltage: 120 - 230 V AC/DC  $\pm 20\%$

## Relay Module - RIF-2-RPT-LV-120AC/2X21 - 2903311

### Articles in set

Retaining bracket - RIF-RH-2 - 2900954



Relay retaining bracket, with ejector function and holder for marking material, suitable for RIF-2 relay base, for industrial relay

### 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 |

### Approvals

#### Approvals

Approvals

CSA

Ex Approvals

Relay Module - RIF-2-RPT-LV-120AC/2X21 - 2903311

Approvals

Approvals submitted

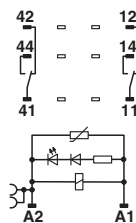
Approval details

CSA



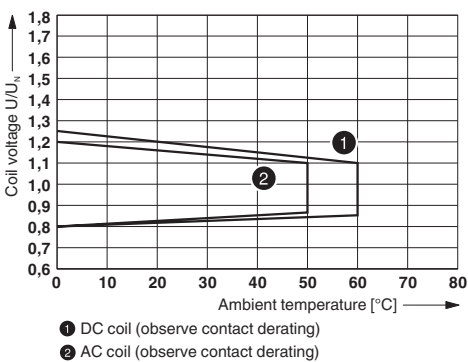
Drawings

Circuit diagram



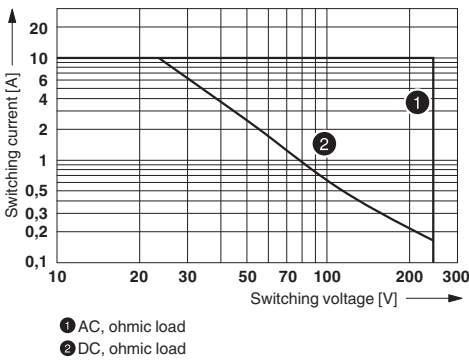
AC coils

Diagram



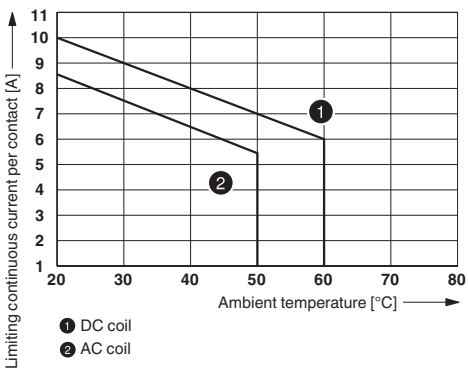
Operating voltage range

Diagram



Interrupting rating

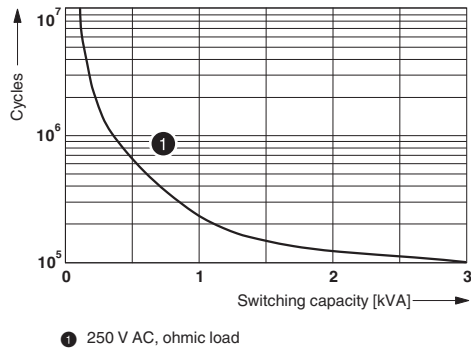
Diagram



Contact derating

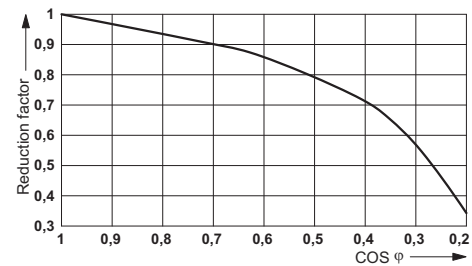
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Diagram



Electrical service life

Diagram



Service life reduction factor