

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

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

The figure shows the 24 V DC version

### Key commercial data

|                  |               |
|------------------|---------------|
| package_quantity | 10            |
| GTIN             | 4046356732512 |

### 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 $U_N$ | (refer to the 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             |
| 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 (refer to the diagram) |

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## Technical data

### Contact side

|                                                        |                        |
|--------------------------------------------------------|------------------------|
| Interrupting rating (ohmic load) max.                  | 204 W (at 24 V DC)     |
| Interrupting rating (ohmic load) max.                  | 124 W (at 48 V DC)     |
| Interrupting rating (ohmic load) max.                  | 108 W (at 60 V DC)     |
| Interrupting rating (ohmic load) max.                  | 52 W (at 110 V DC)     |
| Interrupting rating (ohmic load) max.                  | 48 W (at 220 V DC)     |
| Interrupting rating (ohmic load) max.                  | 2125 VA (for 250 V AC) |
| 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 | 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 (Relaissockel)                   |
| Degree of protection                     | RT I (Relais)                         |
| Mechanical service life                  | Approx. 2 x 10 <sup>7</sup> cycles    |
| Standards/regulations                    | DIN EN 50178                          |
| Standards/regulations                    | 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             |

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

### 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

CSA /

#### Approval details



### accessories

#### Bridge

FBS 2-6 - 3030336



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

## accessories

FBS 2-6 BU - 3036932



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FBS 2-6 GY - 3032237



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FBS 5-6 - 3030349



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FBS 10-6 - 3030271



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FBS 20-6 - 3030365



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FBS 50-6 - 3032224



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

## accessories

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### End block

CLIPFIX 35 - 3022218



### Test plug terminal block

MPS-MT - 0201744



### Insulating sleeve

MPS-IH WH - 0201663



MPS-IH RD - 0201676



MPS-IH BU - 0201689



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

## accessories

MPS-IH YE - 0201692



MPS-IH GN - 0201702



MPS-IH GY - 0201728



MPS-IH BK - 0201731



## Terminal marking

ZB 5 :UNBEDRUCKT - 1050004



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

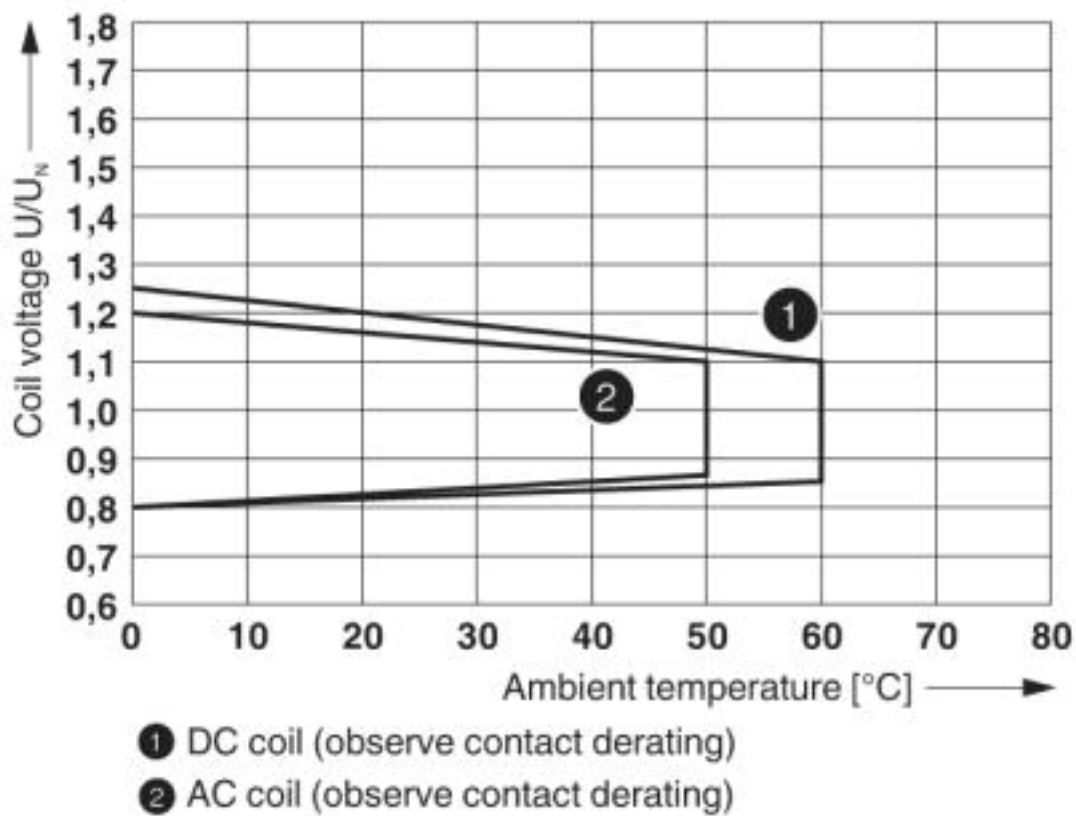
accessories

ZB 15:UNBEDRUCKT - 0811972



### Drawings

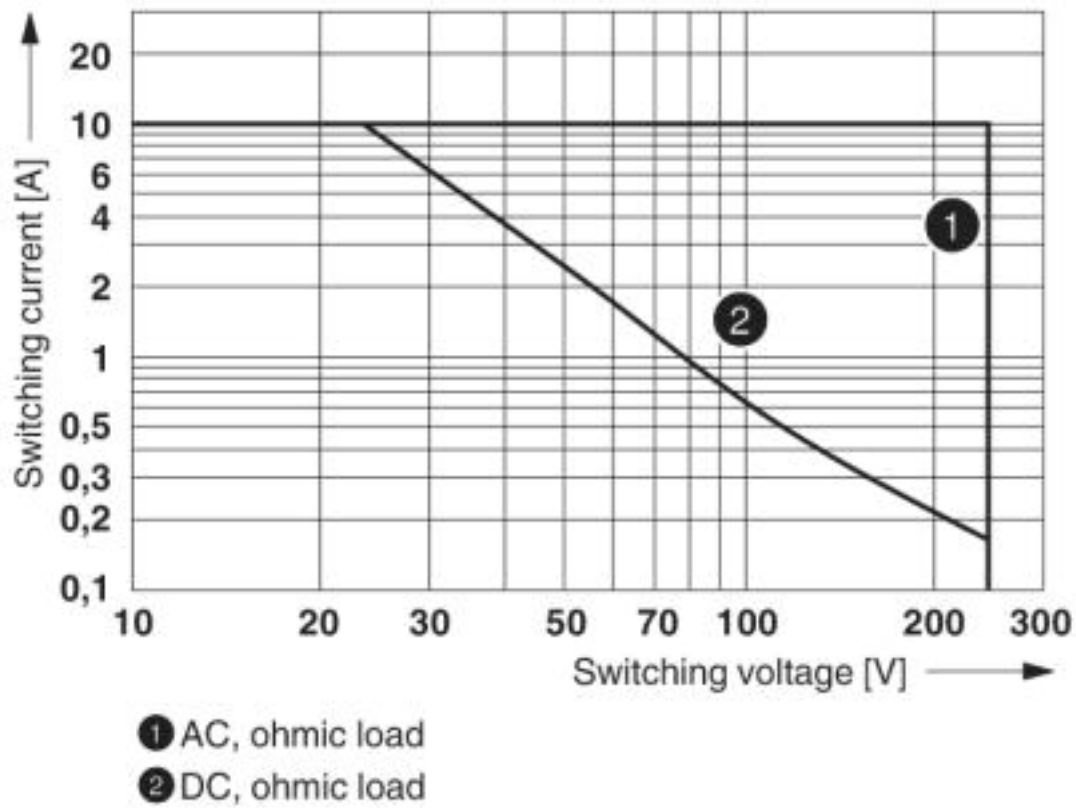
Diagram



Operating voltage range

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

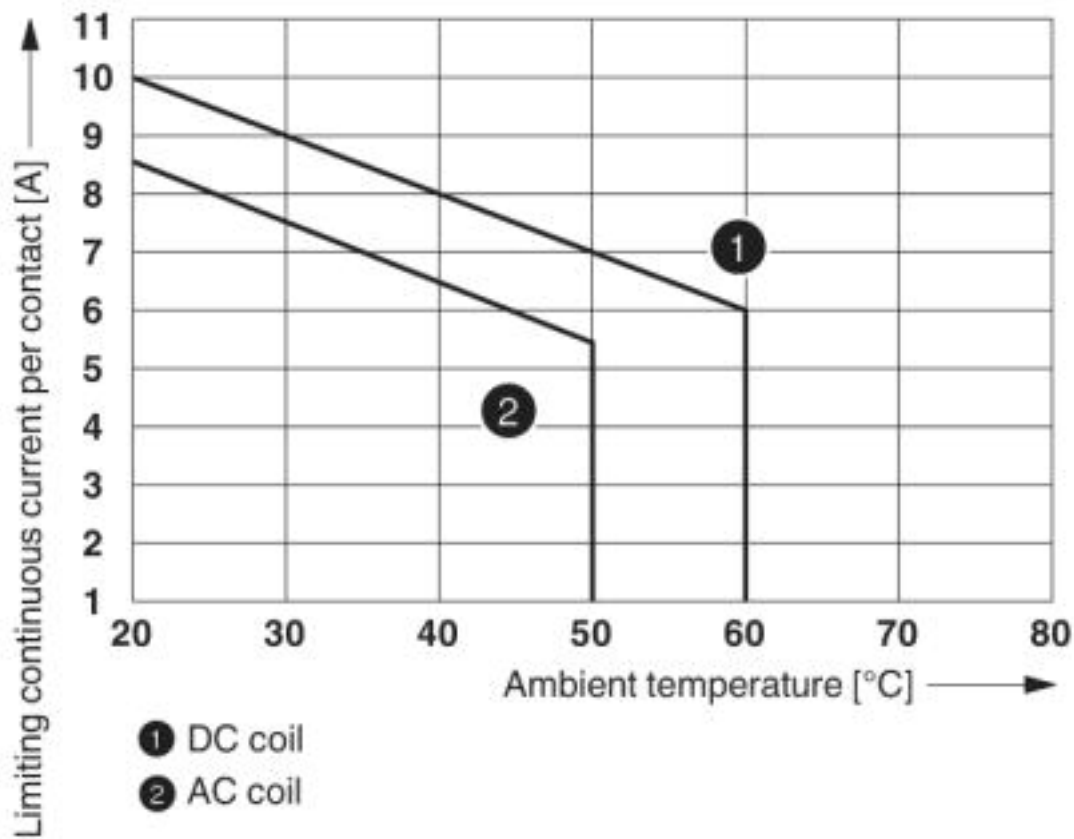
Diagram



Interrupting rating

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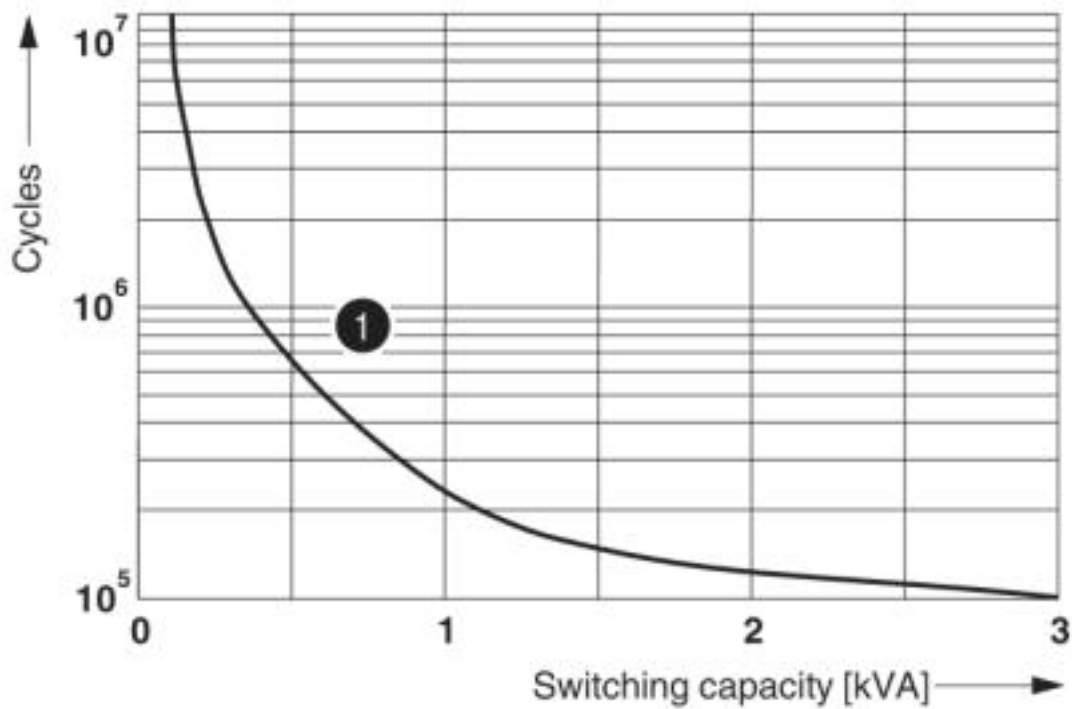
Diagram



Contact derating

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

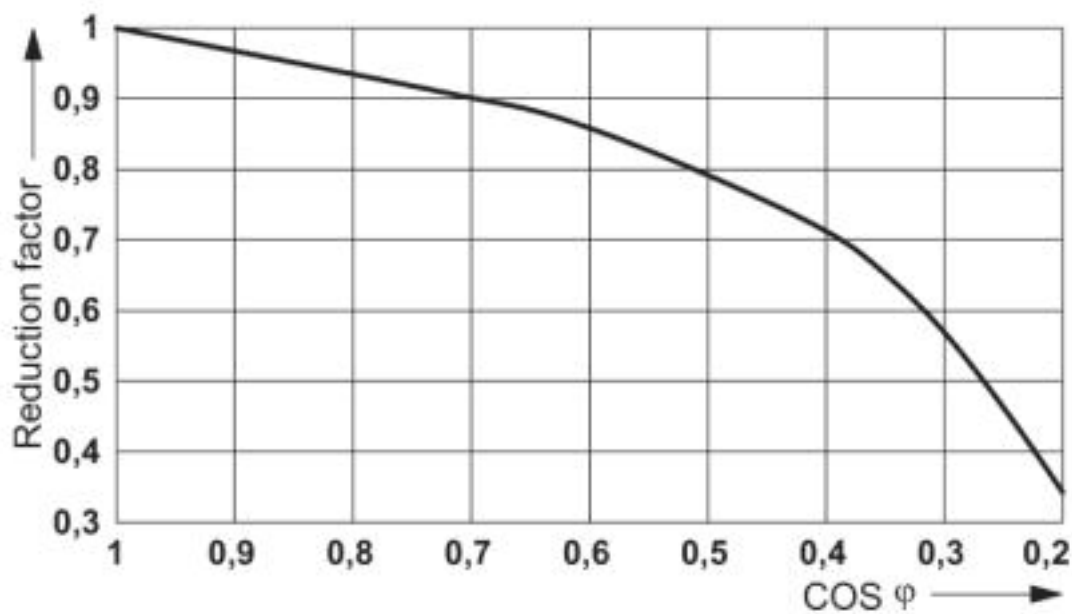
Diagram



① 250 V AC, ohmic load

Electrical service life

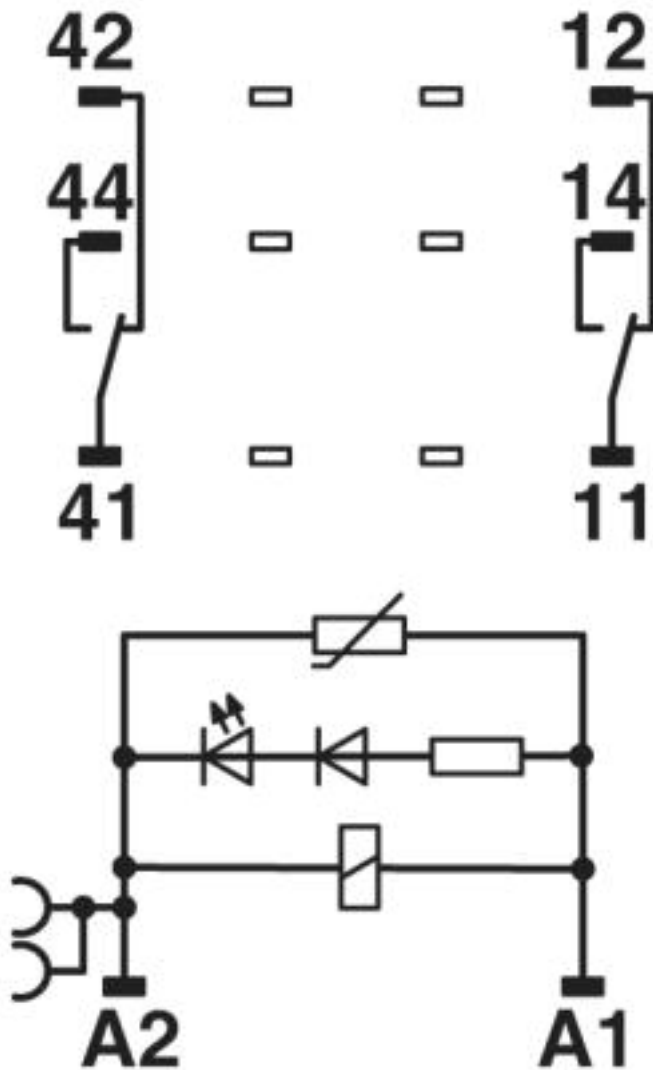
Diagram



Service life reduction factor

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

Circuit diagram



AC coils

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