

# Relay Module - RIF-0-RSC-24DC/21AU - 2903372

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Pre-assembled relay module with screw connection, consisting of: relay base with ejector and multi-layer gold contact relay. Contact type: 1 changeover contact. Input voltage: 24 V DC



## Key Commercial Data

|              |               |
|--------------|---------------|
| Packing unit | 10 STK        |
| GTIN         |               |
| GTIN         | 4046356731911 |

## Technical data

### Note

|                         |   |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

### Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 84 mm  |
| Depth  | 82 mm  |

### Ambient conditions

|   |                  |
|---|------------------|
| Ambient temperature (operation)         | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

### Coil side

|   |             |
|---|-------------|
| Nominal input voltage $U_N$               | 24 V DC     |
| Input voltage range in reference to $U_N$ | see diagram |
| Typical input current at $U_N$            | 9 mA        |
| Typical response time                     | 5 ms        |
| Typical release time                      | 8 ms        |
| Coil voltage                              | 24 V DC     |

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## Technical data

### Coil side

|   |               |
|---|---------------|
| Protective circuit                      | Damping diode |
| Operating voltage display               | Yellow LED    |
| Power dissipation for nominal condition | 0.22 W        |

### Contact side

|  |                         |
|--|-------------------------|
| Contact type   | 1 PDT                   |
| Type of switch contact                                 | Single contact          |
| Contact material                                       | AgSnO, hard gold-plated |
| Maximum switching voltage                              | 30 V AC                 |
|  | 36 V DC                 |
| Minimum switching voltage                              | 100 mV (at 10 mA)       |
| Min. switching current                                 | 1 mA                    |
| Maximum inrush current                                 | 50 mA                   |
| 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 | 1 A (24 V (DC13))       |
|  | 3 A (230 V (AC 15))     |

### Contact side (with destroyed gold layer)

|  |  |
|--|--|
| Contact material                                       | AgSnO  |
| Note   | the following values are applicable if a gold layer is destroyed |
| Maximum switching voltage                              | 250 V AC/DC  |
| Minimum switching voltage                              | 5 V (at 100 mA)  |
| Limiting continuous current                            | 6 A  |
| Min. switching current                                 | 10 mA (at 12 V)  |
| Interrupting rating (ohmic load) max.                  | 140 W (at 24 V DC)   |
|  | 20 W (at 48 V DC)  |
|  | 18 W (at 60 V DC)  |
|  | 23 W (at 110 V DC)   |
|  | 40 W (at 220 V DC)   |
|  | 1500 VA (for 250 V AC)   |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13)  |
|  | 0.2 A (at 110 V, DC13)   |
|  | 0.1 A (at 220 V, DC13)   |
|  | 3 A (at 24 V, AC15)  |
|  | 3 A (at 120 V, AC15)   |
|  | 3 A (at 230 V, AC15)   |

### Connection data input side

|                   |                  |
|-------------------|------------------|
| Connection name   | Coil side        |
| Connection method | Screw connection |
| Stripping length  | 7 mm             |

# Relay Module - RIF-0-RSC-24DC/21AU - 2903372

## Technical data

### Connection data input side

|   |   |
|---|---|
| Conductor cross section solid   | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>                                     |
| Conductor cross-section solid (2 conductors with same cross section)    | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
| Conductor cross section flexible  | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                   |
|   | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Ferrules without plastic sleeve) |
|   | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)     |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
|   | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)  |
| Conductor cross section AWG   | 20 ... 12 (solid)   |
|   | 20 ... 14 (flexible)  |
| Torque  | 0.5 Nm ... 0.6 Nm   |

### Connection data output side

|   |   |
|---|---|
| Connection name   | Contact side  |
| Connection method   | Screw connection  |
| Stripping length  | 7 mm  |
| Conductor cross section solid   | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>                                     |
| Conductor cross-section solid (2 conductors with same cross section)    | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
| Conductor cross section flexible  | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                   |
|   | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Ferrules without plastic sleeve) |
|   | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (Ferrule with plastic sleeve)     |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>                                   |
|   | 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule with plastic sleeve)  |
| Conductor cross section AWG   | 20 ... 12 (solid)   |
|   | 20 ... 14 (flexible)  |
| Torque  | 0.5 Nm ... 0.6 Nm   |

### General

|  |                                     |
|--|-------------------------------------|
| Test voltage relay winding/relay contact | 4 kV <sub>rms</sub> (50 Hz, 1 min.) |
| Operating mode                           | 100% operating factor               |
| Degree of protection                     | IP20 (Relay base)                   |
|  | RT III (Relay)                      |
| Mechanical service life                  | approx. 2x 10 <sup>7</sup> cycles   |
| Mounting position                        | any                                 |
| Assembly instructions                    | In rows with zero spacing           |

### Standards and Regulations

|                          |                |
|--------------------------|----------------|
| Standards/regulations    | DIN EN 50178   |
| Rated insulation voltage | 250 V AC       |
| Rated surge voltage      | 6 kV           |
| Insulation               | safe isolation |
| Degree of pollution      | 2              |
| Overvoltage category     | III            |

# Relay Module - RIF-0-RSC-24DC/21AU - 2903372

## Technical data

### Standards and Regulations

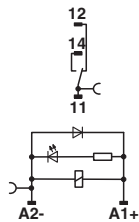
|  |    |
|--|----|
| Flammability rating according to UL 94 | V2 |
|--|----|

### Environmental Product Compliance

|            |   |
|------------|---|
| REACH SVHC | Lead 7439-92-1  |
| China RoHS | Environmentally Friendly Use Period = 50  |
|            | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

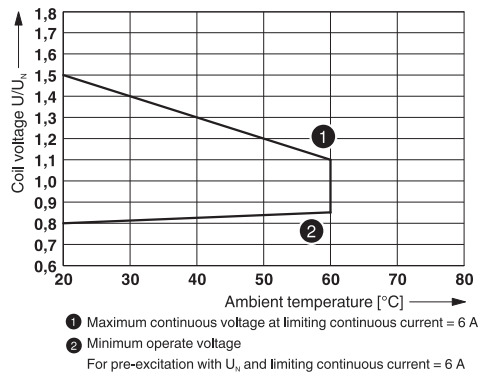
## Drawings

Circuit diagram



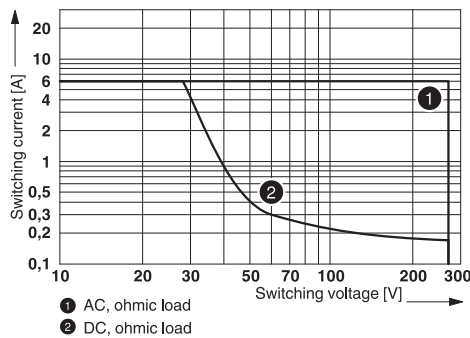
DC coils

Diagram



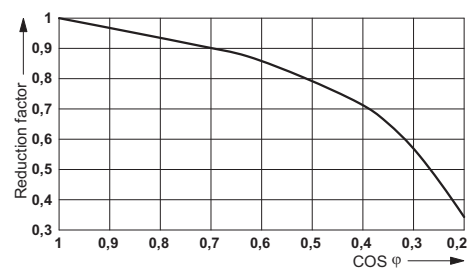
Operating voltage range

Diagram



Interrupting rating

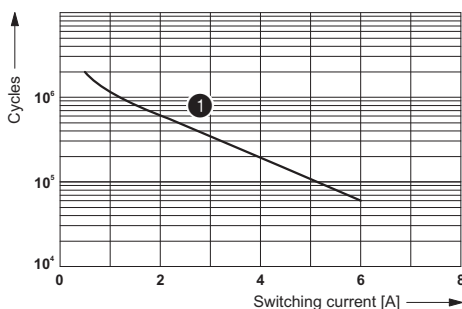
Diagram



Service life reduction factor with various cos phi

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Diagram



1 250 V AC, ohmic load

Electrical service life

## Articles in set

Single relay - REL-MR- 24DC/21AU - 2961121



Plug-in miniature power relay, with multi-layer gold contact, 1 PDT, input voltage 24 V DC

Relay base - RIF-0-BSC/21 - 2900957



RIF-0... relay base, for miniature power relay with 1 changeover contact or identical solid-state relays, screw connection, for mounting on NS 35/7,5

## Approvals

Approvals

Approvals

DNV GL / EAC

Ex Approvals

## Approval details

DNV GL

<http://exchange.dnv.com/tari/>

TAA000018V

## Relay Module - RIF-0-RSC-24DC/21AU - 2903372

### Approvals

EAC



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