

## Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

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Pre-assembled relay module with screw connection, consisting of: relay base, power contact relay, and retaining bracket. Contact type: 3 N/O contacts. Input voltage: 24 V DC



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 5 pc  |
| GTIN                                 | <br>4 046356 732833 |
| GTIN                                 | 4046356732833   |
| Weight per Piece (excluding packing) | 99.990 g  |
| Custom tariff number                 | 85364110  |
| Country of origin                    | China   |

### Technical data

#### Note

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

#### Dimensions

|        |       |
|--------|-------|
| Width  | 44 mm |
| Height | 96 mm |
| Depth  | 91 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 $U_N$            | 70 mA       |

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## Technical data

### Coil side

|   |               |
|---|---------------|
| Typical response time                   | 20 ms         |
| Typical release time                    | 20 ms         |
| Coil voltage                            | 24 V DC       |
| Protective circuit                      | Damping diode |
| Operating voltage display               | Yellow LED    |
| Power dissipation for nominal condition | 1.68 W        |

### Contact side

|                                       |   |
|---------------------------------------|---|
| Contact type                          | 3 N/O contacts  |
| Type of switch contact                | Single contact  |
| Contact material                      | AgNi  |
| Maximum switching voltage             | 440 V AC<br>250 V DC  |
| Minimum switching voltage             | 10 V (At 24 mA)   |
| Min. switching current                | 10 mA (at 24 V)   |
| Maximum inrush current                | 50 A (20 ms, N/O contact)   |
| Limiting continuous current           | 10 A (see diagram)  |
| Interrupting rating (ohmic load) max. | 240 W (at 24 V DC)<br>480 W (at 48 V DC)<br>600 W (at 60 V DC)<br>660 W (at 110 V DC)<br>183 W (at 220 V DC)<br>2500 VA (for 250 V AC)<br>4000 VA (at 440 V AC) |
| Switching capacity                    | 1 A (at 24 V, DC13)<br>1 A (at 120 V, DC13)<br>1 A (at 220 V, DC13)<br>1.5 A (at 24 V, AC15)<br>1.5 A (at 120 V, AC15)<br>1.5 A (at 240 V, AC15)                |
| Motor load according to UL 508        | 1/3 HP, 120 V AC (single-phase AC motor)<br>1/2 HP, 240 V AC (single-phase AC motor)<br>1/2 HP, 240 V AC (three-phase induction motor)                          |

### Connection data input side

|  |   |
|--|---|
| Connection name  | Input side  |
| Connection method  | Screw connection  |
| Stripping length   | 8 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> ... 2.5 mm <sup>2</sup>                             |
| Conductor cross section flexible                                     | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>                               |
|  | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve) |

# Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

## Technical data

### Connection data input side

|   |  |
|---|--|
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                    |
|   | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve) |
| Conductor cross section AWG   | 20 ... 10 (solid)  |
|   | 20 ... 12 (flexible)   |
| Torque  | 0.5 Nm ... 0.6 Nm  |

### Connection data output side

| Connection name   | Contact side   |
|---|--|
| Connection method   | Screw connection   |
| Stripping length  | 8 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> ... 2.5 mm <sup>2</sup>                                    |
| Conductor cross section flexible  | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>                                      |
|   | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> (Ferrule with plastic sleeve)        |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                    |
|   | 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (TWIN ferrule with plastic sleeve) |
| Conductor cross section AWG   | 20 ... 10 (solid)  |
|   | 20 ... 12 (flexible)   |
| Torque  | 0.5 Nm ... 0.6 Nm  |

### 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 base)                     |
|  | RT I (Relay)                          |
| Mechanical service life                  | approx. 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                    | 4 kV             |
| Insulation                             | Basic insulation |
| Degree of pollution                    | 2                |
| Overvoltage category                   | III              |
| Flammability rating according to UL 94 | V2               |

### Environmental Product Compliance

|            |  |
|------------|--|
| China RoHS | Environmentally Friendly Use Period = 50 |
|------------|--|

# Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

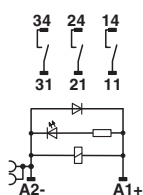
## Technical data

### Environmental Product Compliance

|  |   |
|--|---|
|  | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |
|--|---|

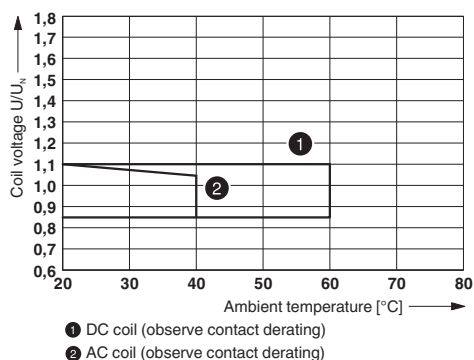
## Drawings

Circuit diagram



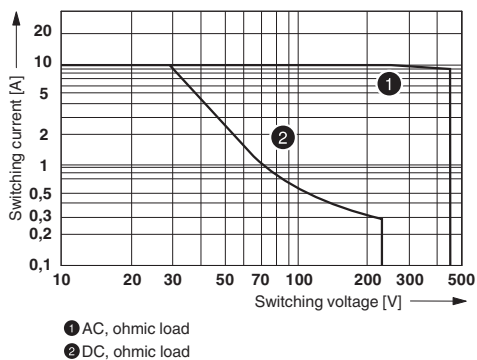
### DC coils

Diagram



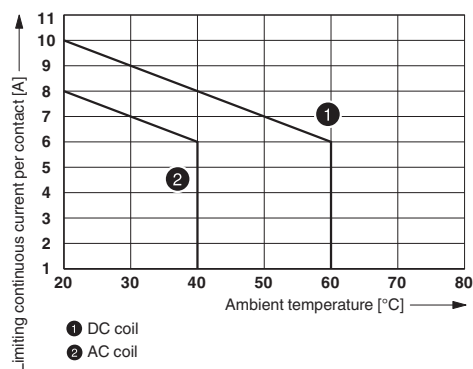
Operating voltage range

Diagram



### Interrupting rating

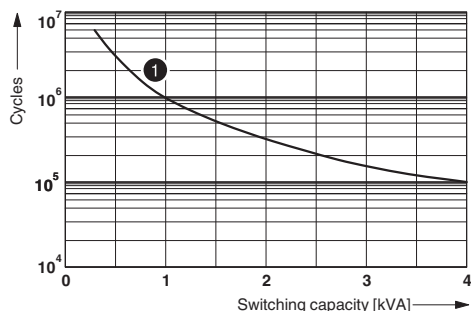
Diagram



### Contact derating

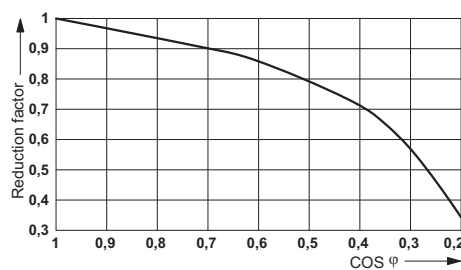
# Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

Diagram



1 250 V AC, ohmic load

Diagram



Electrical service life

Service life reduction factor

## Articles in set

Relay base - RIF-4-BSC/3X21 - 2900960



RIF-4... relay base, for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

Single relay - REL-PR3- 24DC/3X1 - 2903706



Plug-in high-power relay with power contacts, 3 N/O contacts, coil voltage: 24 V DC

Plug-in module - RIF-LDP-12-24 DC - 2900939



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 ... 24 V DC ±20 %

Retaining bracket - RIF-RH-4 - 2900956



Relay retaining bracket, with holder for marking material, suitable for RIF-4 relay base, for high-power relay

# Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

## Articles in set

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### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 5.0 | 27371601 |
| 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 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211916 |
| UNSPSC 7.0901 | 39121515 |
| UNSPSC 11     | 39121515 |
| UNSPSC 12.01  | 39121515 |
| UNSPSC 13.2   | 39122334 |

### Approvals

#### Approvals

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#### Approvals

DNV GL / CSA / EAC

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#### Ex Approvals

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#### Approval details

|        |  |   |            |
|--------|--|---|------------|
| DNV GL |  | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a> | TAA000018V |
|--------|--|---|------------|

# Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

## Approvals

|     |  |   |         |
|-----|--|---|---------|
| CSA |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 2607057 |
|-----|--|---|---------|

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

## Accessories

### Accessories

#### End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

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### Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



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Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



## Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

### Accessories

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Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

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## Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

### Accessories

Plug-in bridge - FBS 2-6 BU - 3036932



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: blue

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Plug-in bridge - FBS 2-6 GY - 3032237



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: gray

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### Marker carriers

Marker carriers - STP 5-2 - 0800967



Double marker carrier, snaps onto the double-level spring-cage terminal block STTB 2,5, STTB 4, PTTB 2,5, PTTB 4 can be marked with UC-TM 5, ZB 5 or UC-TMF 5, ZBF 5

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### Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 5.2 mm, lettering field size: 5.1 x 10.5 mm

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Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 15.2 mm, lettering field size: 10.5 x 15.1 mm

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## Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

### Accessories

#### Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm

#### Marker for terminal blocks - UC-TMF 16 - 0819262



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 5.1 mm

#### Test plug terminal block

##### Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm<sup>2</sup> conductor cross section, color: gray

### Spare parts

#### Relay base - RIF-4-BSC/3X21 - 2900960



RIF-4... relay base, for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

#### Single relay - REL-PR3- 24DC/3X1 - 2903706



Plug-in high-power relay with power contacts, 3 N/O contacts, coil voltage: 24 V DC

## Relay Module - RIF-4-RSC-LDP-24DC/3X1 - 2903284

### Accessories

Plug-in module - RIF-LDP-12-24 DC - 2900939



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with freewheeling diode and yellow LED, polarity: A1+, A2-, input voltage: 12 ... 24 V DC  $\pm 20$  %

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Retaining bracket - RIF-RH-4 - 2900956



Relay retaining bracket, with holder for marking material, suitable for RIF-4 relay base, for high-power relay