

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

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Pre-assembled relay module with screw connection, consisting of: relay base, power contact relay, plug-in display/interference suppression module, and retaining bracket. Contact type: 2 changeover contacts. Input voltage: 120 V AC



Key Commercial Data

| | |
|----------------------|----------|
| Packing unit | 1 STK |
| Custom tariff number | 85364900 |
| 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 ... 40 °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 |
| Mains frequency | 50/60 Hz |
| Typical input current at U_N | 24 mA |
| Typical response time | 5 ms ... 25 ms |

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Technical data

Coil side

| | |
|----------------------------|----------------|
| Typical release time range | 5 ms ... 20 ms |
| Coil voltage | 120 V AC |
| Protective circuit | Varistor |
| Operating voltage display | Yellow LED |

Contact side

| | |
|--|--|
| Contact type | 2 PDT |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 440 V AC |
| | 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 | 9 A (see diagram) |
| Interrupting rating (ohmic load) max. | 216 W (at 24 V DC) |
| | 124 W (at 48 V DC) |
| | 108 W (at 60 V DC) |
| | 52 W (at 110 V DC) |
| | 70 W (at 220 V DC) |
| | 2250 VA (for 250 V AC) |
| | 4000 VA (at 440 V AC) |
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 24 V, DC13) |
| | 0.22 A (at 120 V, DC13) |
| | 0.11 A (at 250 V, DC13) |
| | 3 A (at 120 V, AC15) |
| | 1.5 A (at 240 V, AC15) |
| Single-phase motor load | 800 W |
| Motor load according to UL 508 | 1/3 HP, 120 V AC (single-phase AC motor) |
| | 1/2 HP, 240 V AC (single-phase AC motor) |

Connection data input side

| | |
|--|---|
| Connection name | Input side |
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.5 mm ² ... 4 mm ² |
| Conductor cross-section solid (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.5 mm ² ... 4 mm ² |

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Technical data

Connection data input side

| | |
|---|--|
| | 0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve) |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| | 0.5 mm ² ... 1.5 mm ² (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 ² ... 4 mm ² |
| Conductor cross-section solid (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.5 mm ² ... 4 mm ² |
| | 0.5 mm ² ... 4 mm ² (Ferrule with plastic sleeve) |
| Conductor cross section flexible (2 conductors with same cross section) | 0.5 mm ² ... 2.5 mm ² |
| | 0.5 mm ² ... 1.5 mm ² (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 _{rms} (50 Hz, 1 min.) |
| Test voltage relay contact/relay contact | 2.5 kV _{rms} (50 Hz, 1 min.) |
| Operating mode | 100% operating factor |
| Degree of protection | IP20 (Relay base) |
| | RT I (Relay) |
| Mechanical service life | Approx. 10 ⁷ 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 |

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

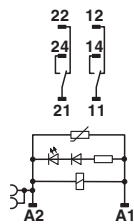
Technical data

Environmental Product Compliance

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

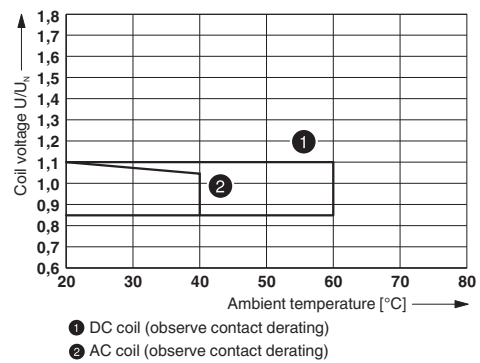
Drawings

Circuit diagram



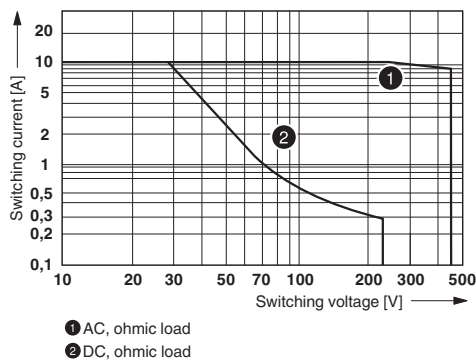
AC coils

Diagram



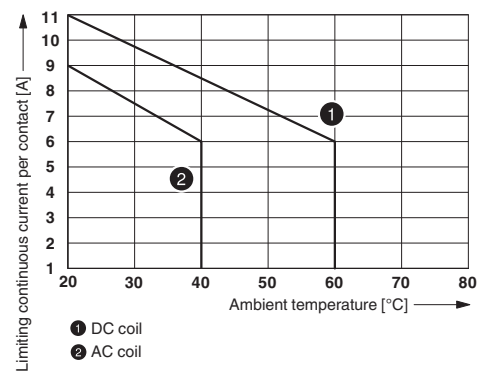
Operating voltage range

Diagram



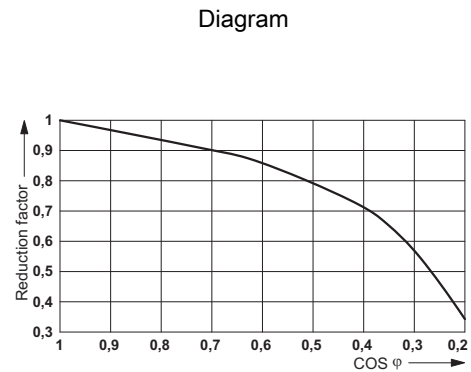
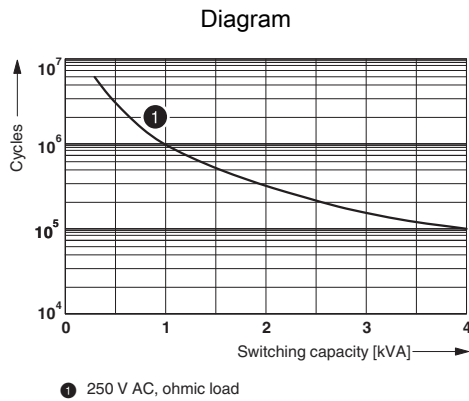
Interrupting rating

Diagram



Contact derating

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290



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-PR2-120AC/2X21 - 2903700



Plug-in high-power relay with power contacts, 2 PDTs, coil voltage: 120 V AC

Plug-in module - RIF-LV-120-230 AC/110 DC - 2900944



Plug-in module, for mounting on RIF-1, RIF-2, RIF-3, and RIF-4, with varistor and yellow LED, input voltage: 120 ... 230 V AC/110 V DC $\pm 20\%$

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

Articles in set

Retaining bracket - RIF-RH-4 - 2900956



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

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.0 | 27371601 |
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |
| 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

Approvals

DNV GL / CSA / EAC

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

Approvals

Ex Approvals

Approval details

| | | | |
|--------|---|---|--------------------------|
| DNV GL | | http://exchange.dnv.com/tari/ | TAA000018V |
| CSA |  | http://www.csagroup.org/services-industries/product-listing/ | 2607057 |
| EAC |  | | RU C- 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

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



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Accessories

Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



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



Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

Accessories

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

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

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

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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Accessories

Terminal marking

Zack marker strip - ZB 5 :UNBEDRUCKT - 1050004



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

Zack marker strip - ZB 15:UNBEDRUCKT - 0811972



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

Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, 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 CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, 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

Relay Module - RIF-4-RSC-LV-120AC/2X21 - 2903290

Accessories

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: silver

Spare parts

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



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Retaining bracket - RIF-RH-4 - 2900956



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