

Relay Module - RIF-4-RSC-LV-120AC/3X21 - 2903287


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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: 3 changeover contacts. Input voltage: 120 V AC



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 5 STK |
| GTIN |  4 046356 731898 |
| GTIN | 4046356731898 |

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 |
| Typical release time range | 5 ms ... 20 ms |

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Technical data

Coil side

| | |
|---------------------------|------------|
| Coil voltage | 120 V AC |
| Protective circuit | Varistor |
| Operating voltage display | Yellow LED |

Contact side

| | |
|--|--|
| Contact type | 3 PDTs |
| 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 | 8 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 24 V, AC15) |
| | 3 A (at 120 V, AC15) |
| | 1.5 A (at 240 V, AC15) |
| 3-phase motor load | 1500 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) |
| | 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 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) |

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Connection data input side

| | |
|-----------------------------|----------------------|
| 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 |

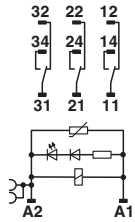
Environmental Product Compliance

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

Drawings

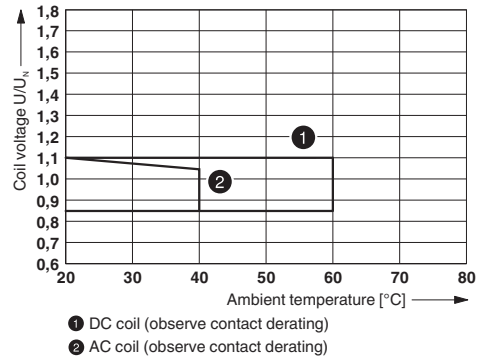
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Circuit diagram



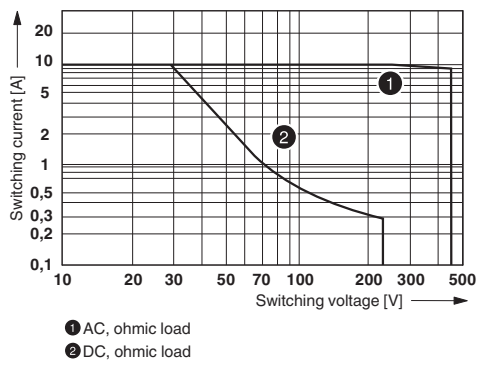
AC coils

Diagram

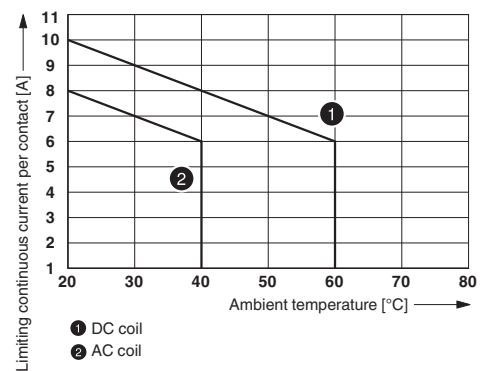


Operating voltage range

Diagram

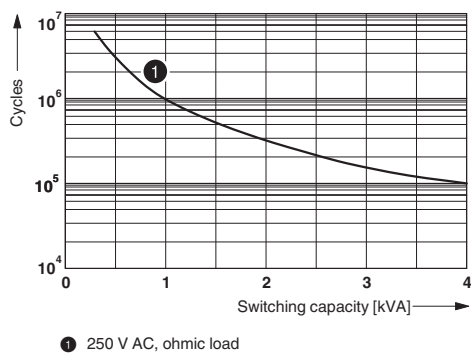


Diagram



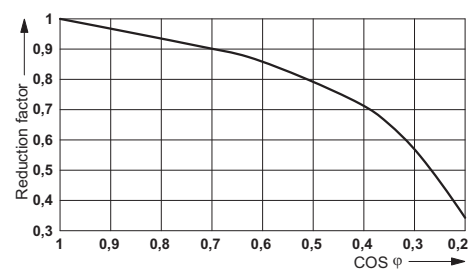
Interrupting rating

Diagram



Contact derating

Diagram



Electrical service life

Service life reduction factor

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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-PR3-120AC/3X21 - 2903704



Plug-in high-power relay with power contacts, 3 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 $\pm 20\%$

Retaining bracket - RIF-RH-4 - 2900956



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

Approvals

Approvals

Approvals

DNV GL / CSA / EAC

Ex Approvals

Approval details

Relay Module - RIF-4-RSC-LV-120AC/3X21 - 2903287

Approvals

| | | | |
|--------|---|---|--------------------------|
| 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 |

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