

RIF-3-RPT-LV-120AC/2X21 - Relay module



2903296

<https://www.phoenixcontact.com/us/products/2903296>

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

Product description

The pluggable electromechanical and solid-state relays in the RIFLINE complete product range and the base are recognized and approved in accordance with UL 508. The relevant approvals can be called up at the individual components in question.

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2903296 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C465 |
| Product key | DK652B |
| GTIN | 4046356732000 |
| Weight per piece (including packing) | 165 g |
| Weight per piece (excluding packing) | 165 g |
| Customs tariff number | 85364900 |
| Country of origin | CN |

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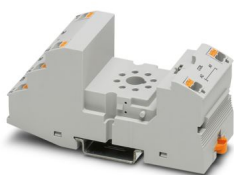
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Set consists of

RIF-3-BPT/2X21 - Relay base

2900937

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Relay base RIF-3..., for octal relays with 2 changeover contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

REL-OR2/L-120AC/2X21 - Single relay

2903691

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Plug-in octal relays with power contacts, 2 changeover contacts, test button, mechanical switching position indicator, coil voltage: 120 V AC

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RIF-V-120-230 UC - Plug-in module

2900948

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

RIF-RH-3 - Retaining bracket

2900955

<https://www.phoenixcontact.com/us/products/2900955>



Relay retaining bracket, with holder for marking material, suitable for RIF-3 relay base, for octal relay

Technical data

Product properties

| | |
|-------------------------|--------------------------------|
| Product type | Relay Module |
| Product family | RIFLINE complete |
| Application | Universal |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 2×10^7 cycles |

Insulation characteristics

| | |
|----------------------|------------------|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 2 |

Data management status

| | |
|------------------------------|------------|
| Date of last data management | 01.04.2026 |
|------------------------------|------------|

Electrical properties

| | |
|---|--|
| Maximum power dissipation for nominal condition | 2.76 W |
| Test voltage (Winding/contact) | 2.5 kV _{rms} (50 Hz, 1 min., winding/contact) |
| Test voltage (Contact/contact) | 2 kV _{rms} (50 Hz, 1 min., contact/contact) |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |

Input data

Coil side

| | |
|---|-------------------------------|
| Nominal input voltage U_N | 120 V AC |
| Input voltage range | 102 V AC ... 132 V AC (20 °C) |
| Input voltage range in reference to U_N | see diagram |
| Mains frequency | 50/60 Hz |
| Drive and function | monostable |
| Typical input current at U_N | 23 mA |
| Typical response time | 5 ms ... 15 ms |
| Typical release time range | 5 ms ... 20 ms |
| Coil voltage | 120 V AC |
| Protective circuit | Varistor |
| Operating voltage display | Yellow LED |

Output data

Switching

| | |
|------------------------|-----------------------|
| Contact switching type | 2 changeover contacts |
| Type of switch contact | Single contact |
| Contact material | AgNi |

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| | |
|--|---------------------------------|
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 10 V (24 mA) |
| Limiting continuous current | 7 A (see diagram) |
| Maximum inrush current | 30 A (20 ms, N/O contacts) |
| Min. switching current | 10 mA (24 V) |
| Interrupting rating (ohmic load) max. | 168 W (24 V DC) |
| | 124 W (48 V DC) |
| | 108 W (60 V DC) |
| | 52 W (110 V DC) |
| | 48 W (220 V DC) |
| | 1750 VA (250 V AC) |
| Utilization category CB Scheme (IEC 60947-5-1) | AC15, 1.5 A/240 V (N/O contact) |
| | DC13, 2 A/240 V (N/O contact) |

Connection data

| | |
|----------------------------------|---|
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross-section rigid | 0.14 mm ² ... 1.5 mm ² |
| Conductor cross-section flexible | 0.14 mm ² ... 1.5 mm ² |
| | 0.14 mm ² ... 1.5 mm ² (Ferrule with plastic sleeve) |
| | 0.14 mm ² ... 1 mm ² (Ferrule with plastic sleeve, two conductors on double terminal block) |
| Conductor cross-section AWG | 26 ... 16 (solid) |
| | 26 ... 16 (flexible) |

Dimensions

Item dimensions

| | |
|--------|--------|
| Width | 40 mm |
| Height | 103 mm |
| Depth | 90 mm |

Drill hole

| | |
|----------|--------|
| Diameter | 3.2 mm |
|----------|--------|

Material specifications

| | |
|--|-----------------|
| Color | gray (RAL 7042) |
| Flammability rating according to UL 94 (Housing) | V2 (Housing) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|-------------------|
| Degree of protection (Relay base) | IP20 (Relay base) |
| Degree of protection (Relay) | RT I (Relay) |
| Ambient temperature (operation) | -40 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

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Approvals

Corrosive gas test

| | |
|----------------|----------------------------|
| Identification | ISA-S71.04. G3 Harsh Group |
| | EN 60068-2-60 |

Standards and regulations

| | |
|-----------------------|--------------|
| Standards/regulations | DIN EN 50178 |
|-----------------------|--------------|

Mounting

| | |
|-------------------|---------------------------|
| Mounting type | DIN rail mounting |
| Assembly note | in rows with zero spacing |
| Mounting position | any |

Drawings

Diagram



- ① DC coil (observe contact derating)
- ② AC coil (observe contact derating)

Operating voltage range

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Diagram



Contact derating

Diagram



250 V AC, ohmic load

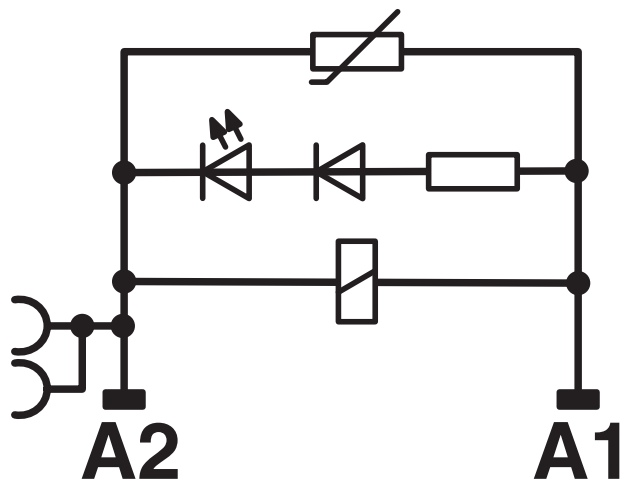
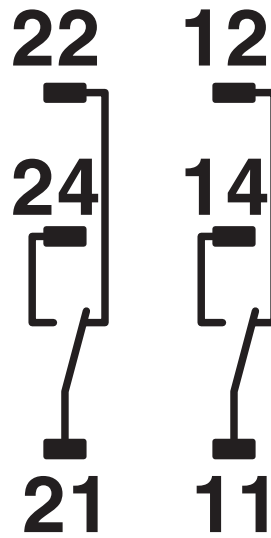
Electrical service life

Diagram



Service life reduction factor

Circuit diagram



AC coils

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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com