

REL-IR4/24DC/4X21/EX - Single relay



2909738

<https://www.phoenixcontact.com/us/products/2909738>

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Pluggable industrial relay, RT III sealed with power contacts, 4x changeover contacts, mechanical switch position indicator, polarity: non-polarized, input voltage: 24 V DC, in connection with RIF-2.../EX bases approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2909738 |
| Packing unit | 10 pc |
| Minimum order quantity | 10 pc |
| Sales key | C460 |
| Product key | CK694H |
| Catalog page | Page 345 (C-5-2019) |
| GTIN | 4055626379685 |
| Weight per piece (including packing) | 35.43 g |
| Weight per piece (excluding packing) | 35.43 g |
| Customs tariff number | 85364190 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-------------------------|--|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | 1x 10 ⁷ cycles, approximately |

Insulation characteristics

| | |
|------------|------------------|
| Insulation | Basic insulation |
|------------|------------------|

Insulation characteristics

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

Electrical properties

| | |
|--|--|
| Maximum power dissipation for nominal condition | 0.91 W |
| Test voltage (Winding/contact) | 2.5 kV _{rms} (50 Hz, 1 min., winding/contact) |
| Test voltage (Changeover contact/changeover contact) | 2.5 kV _{rms} (50 Hz, 1 min., changeover contact/changeover contact) |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 2.5 kV |

Input data

Coil side

| | |
|--|-------------------------|
| Nominal input voltage U _N | 24 V DC |
| Input voltage range | 18.7 V DC ... 46.8 V DC |
| Input voltage range in reference to U _N | see diagram |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at U _N | 38 mA |
| Typical response time | 13 ms |
| Typical release time | 3 ms |

Output data

Switching

| | |
|-----------------------------|--|
| Contact switching type | 4 changeover contacts |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (At 24 mA) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 16 A (20 ms, N/O contacts) 12 A (4 s, N/O contacts) |

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| | |
|---------------------------------------|------------------------|
| Min. switching current | 5 mA (at 24 V) |
| Interrupting rating (ohmic load) max. | 144 W (at 24 V DC) |
| | 124 W (at 48 V DC) |
| | 108 W (at 60 V DC) |
| | 52 W (at 110 V DC) |
| | 48 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |
| Switching capacity min. | 0.12 W |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 1 A (at 230 V, AC15) |
| Motor load according to UL 508 | 1/3 HP, 240 V AC |

Connection data

| | |
|-------------------|--------------------|
| Connection method | Plug-in connection |
|-------------------|--------------------|

Dimensions

| | |
|--------|---------|
| Width | 21.2 mm |
| Height | 27.5 mm |
| Depth | 35.6 mm |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Degree of protection | RT III |
| Ambient temperature (operation) | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

Corrosive gas test

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

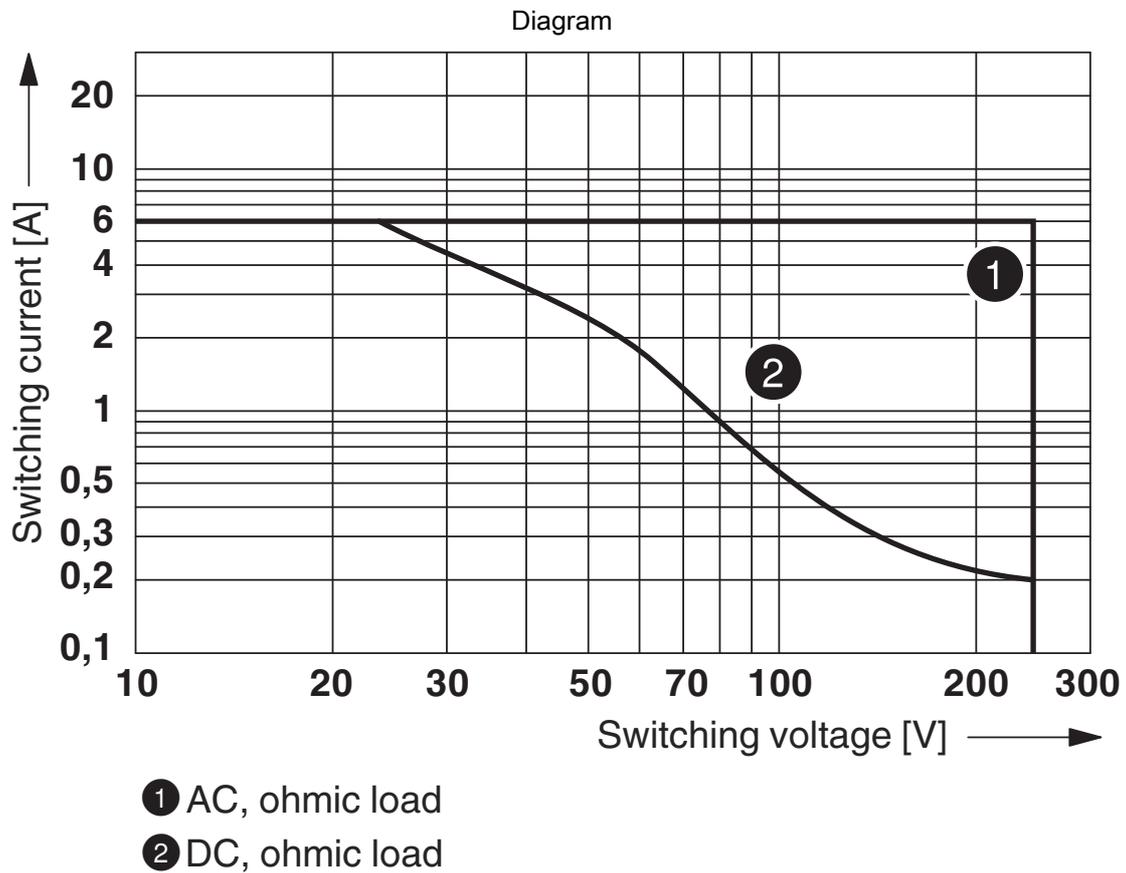
Standards and regulations

| | |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
| | IEC 61810 |

Mounting

| | |
|-------------------|-----|
| Mounting position | any |
|-------------------|-----|

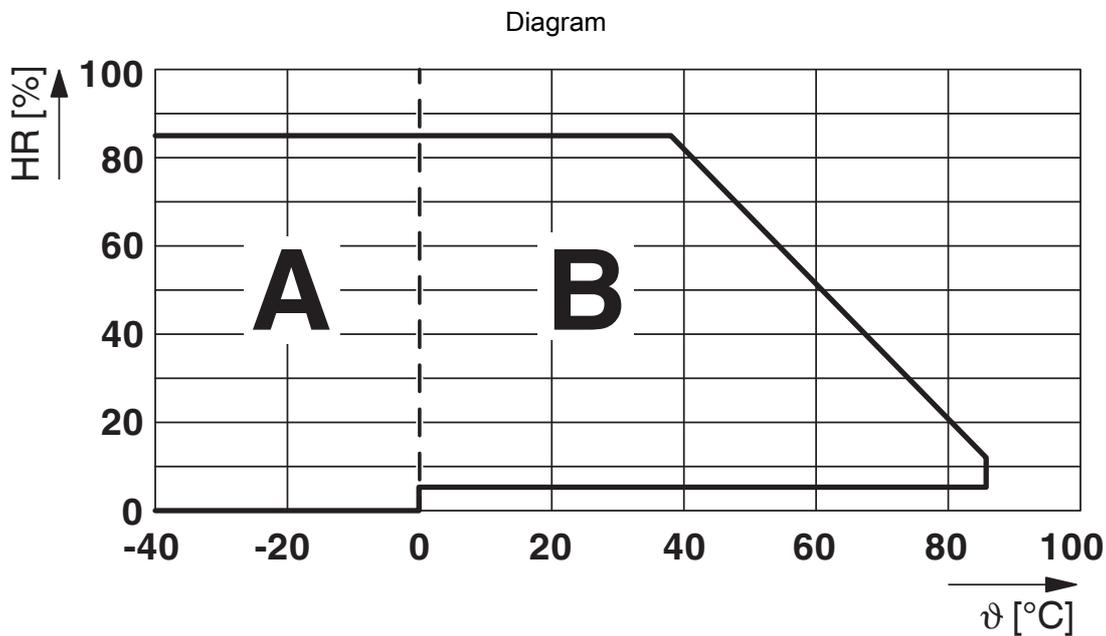
Drawings



Interrupting rating

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Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.

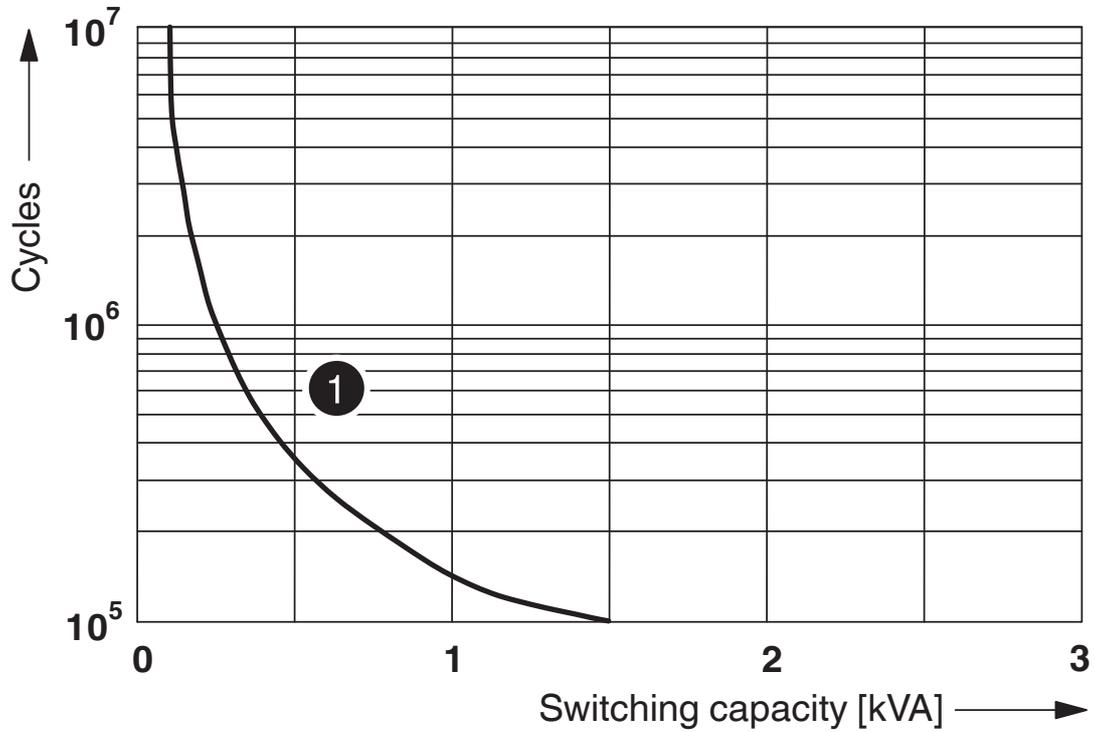
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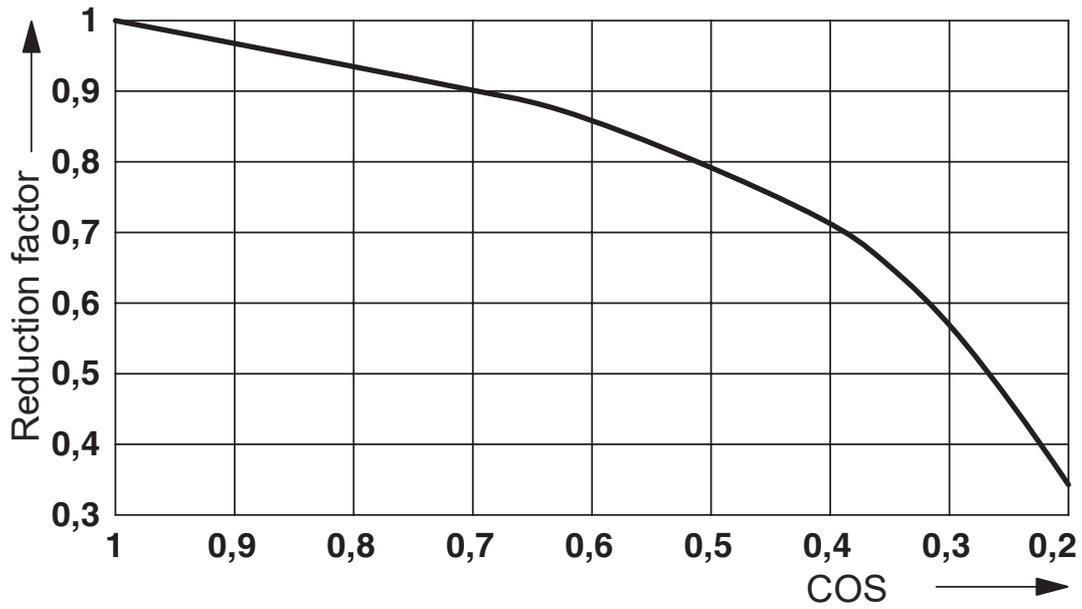
Diagram



① 250 V AC, Ohmic load

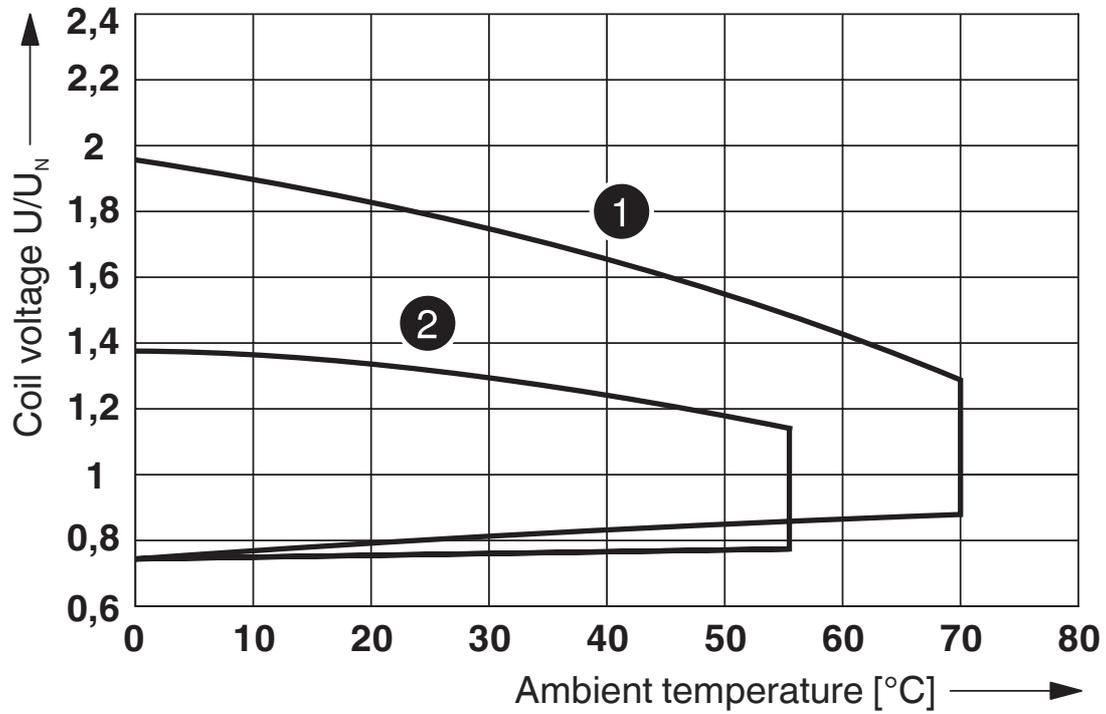
Electrical service life

Diagram



Service life reduction factor

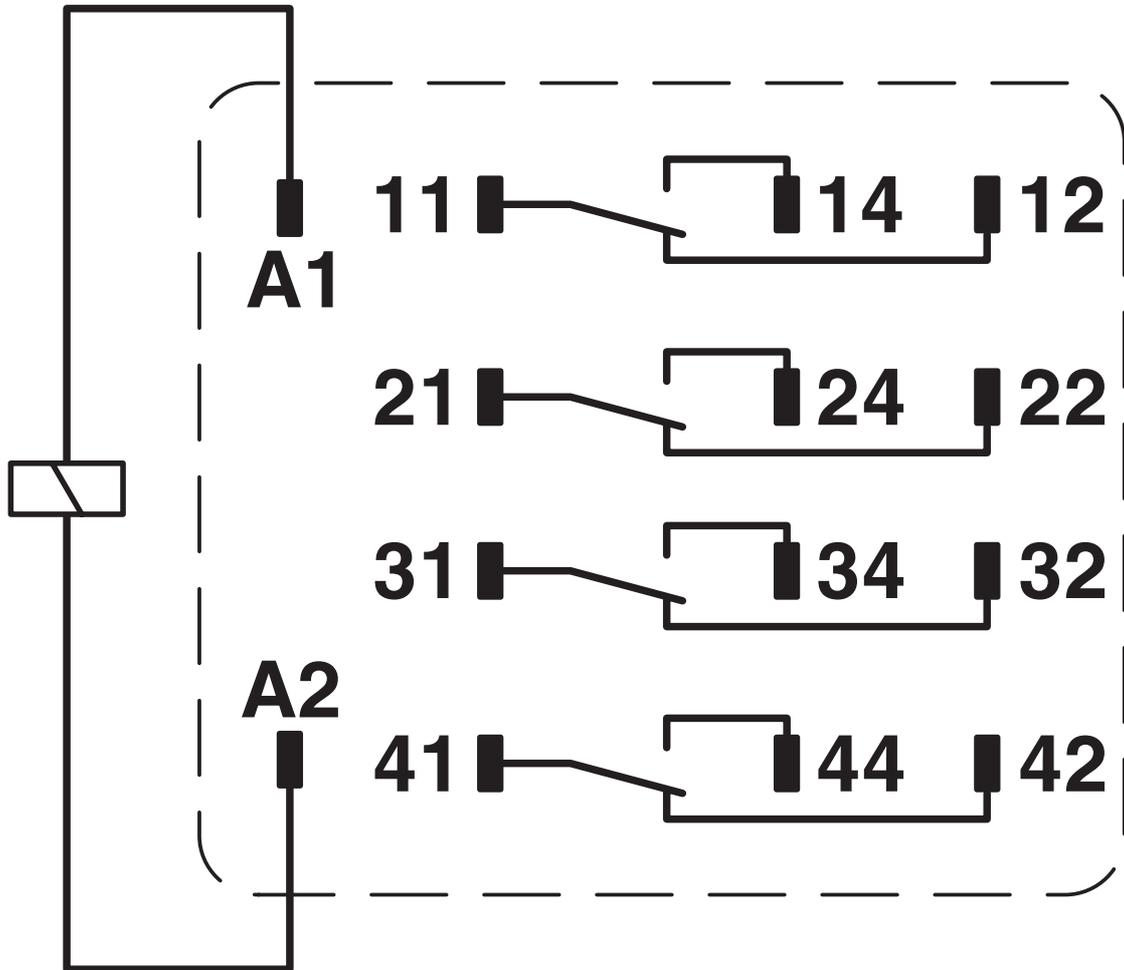
Diagram



- 1 DC coils
- 2 AC coils

Operating voltage range

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909738>



cUL Recognized

Approval ID: FILE E 172140



UL Recognized

Approval ID: FILE E 172140



EAC

Approval ID: TR_TS_D_00573_c



EAC

Approval ID: RU*C-DE.*08.B.00010

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

ETIM

| | |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

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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Mandatory accessories

RIF-2-BPT/4X21/EX - Relay base

1047028

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RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, Push-in connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

RIF-2-BSC/4X21/EX - Relay base

1047031

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RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, screw connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

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