

REL-IR2/LDP-110DC/2X21 - Single relay



2903663

<https://www.phoenixcontact.com/us/products/2903663>

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Plug-in industrial relay with power contacts, 2 changeover contacts, test button, status LED, freewheeling diode, mechanical switching position indicator, polarity: A1+, A2-, input voltage: 110 V DC

Commercial data

| | |
|--------------------------------------|---------------------|
| Item number | 2903663 |
| Packing unit | 1 pc |
| Minimum order quantity | 10 pc |
| Sales key | C460 |
| Product key | CK6193 |
| Catalog page | Page 300 (C-5-2019) |
| GTIN | 4046356758161 |
| Weight per piece (including packing) | 35.25 g |
| Weight per piece (excluding packing) | 34.11 g |
| Customs tariff number | 85364900 |
| Country of origin | PL |

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Technical data

Product properties

| | |
|-------------------------|--------------------------------|
| Product type | Single relay |
| Operating mode | 100% operating factor |
| Mechanical service life | approx. 2×10^7 cycles |

Insulation characteristics

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

Insulation characteristics

| | |
|----------------------|--|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 3 (Rated voltage of 230 V) 2 (Rated voltage of 400 V) |

Electrical properties

| | |
|--|--|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 0.88 W |
| Test voltage (Winding/contact) | 2.5 kV _{rms} (50 Hz, 1 min., winding/contact) |
| Test voltage (Contact/contact) | 2.5 kV _{rms} (50 Hz, 1 min., contact/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 | 4 kV |

Input data

Coil side

| | |
|---|--------------------------|
| Nominal input voltage U_N | 110 V DC |
| Input voltage range | 85.8 V DC ... 214.5 V DC |
| Input voltage range in reference to U_N | see diagram |
| Drive and function | monostable |
| Drive (polarity) | polarized |
| Typical input current at U_N | 8 mA |
| Typical response time | 13 ms |
| Typical release time | 14 ms |
| Protective circuit | Freewheeling diode |
| Status 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 | 5 V (At 24 mA) |
| Limiting continuous current | 12 A |
| Maximum inrush current | 30 A (20 ms, N/O contacts) |
| Min. switching current | 5 mA (at 24 V) |
| Interrupting rating (ohmic load) max. | 288 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) |
| | 3000 VA (for 250 V AC) |
| Switching capacity min. | 0.12 W |
| Motor load according to UL 508 | 1/2 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 I |
| 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

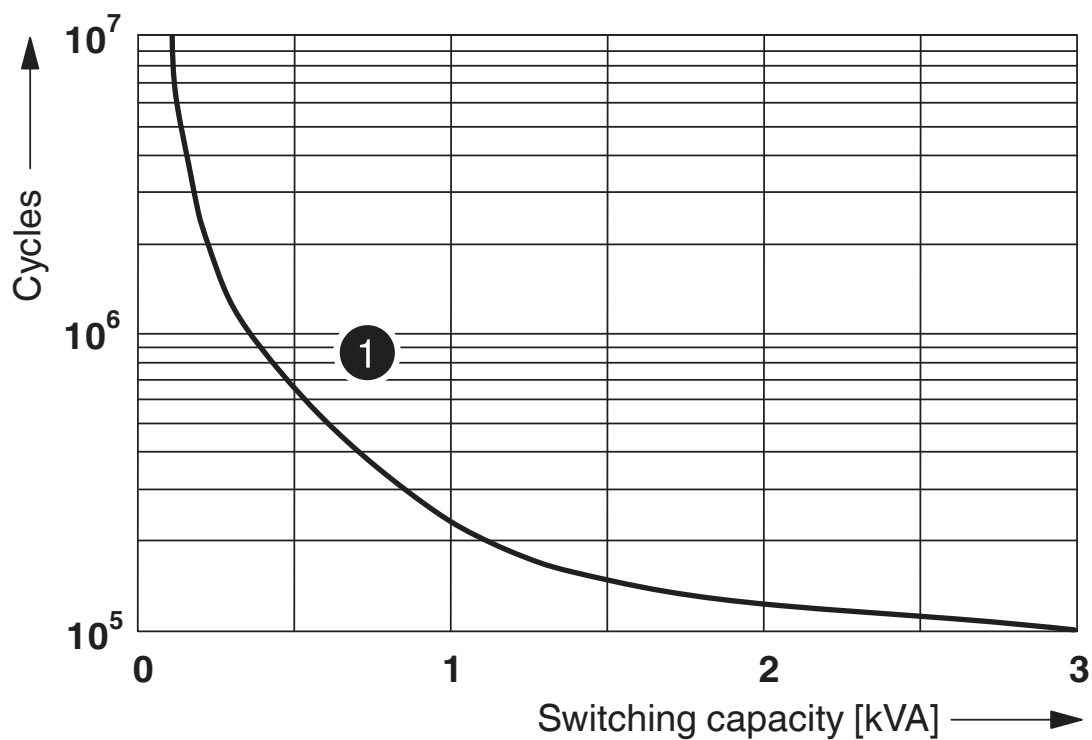
| | |
|-----------------------|-----------|
| Standards/regulations | IEC 60664 |
| | IEC 61810 |

Mounting

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

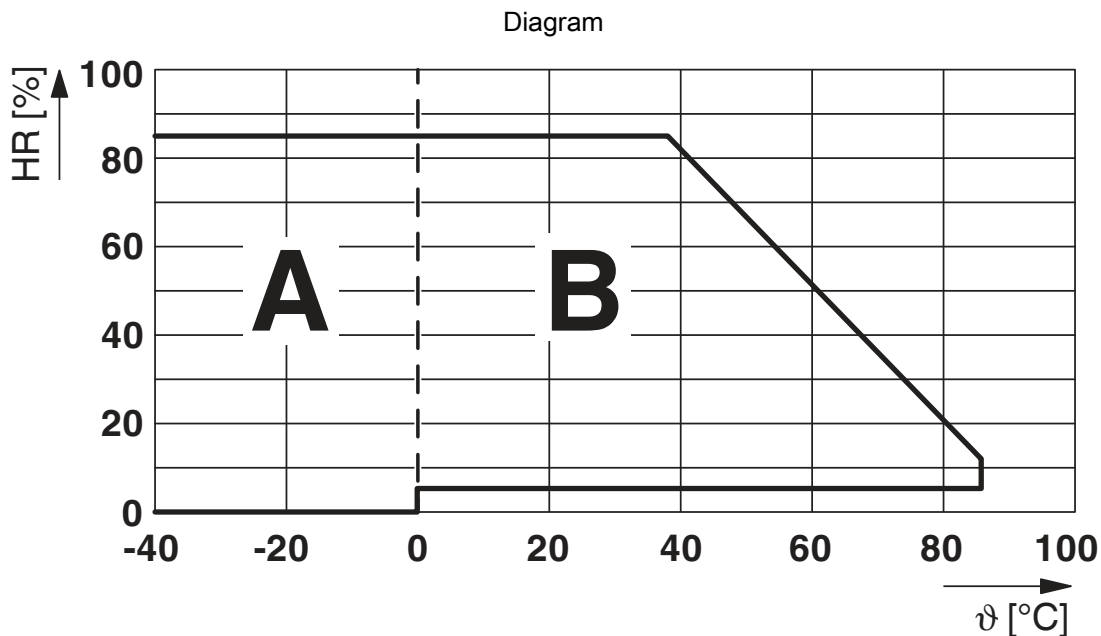
Drawings

Diagram



① 250 V AC, Ohmic load

Electrical service life



Permissible humidity for operation and storage.

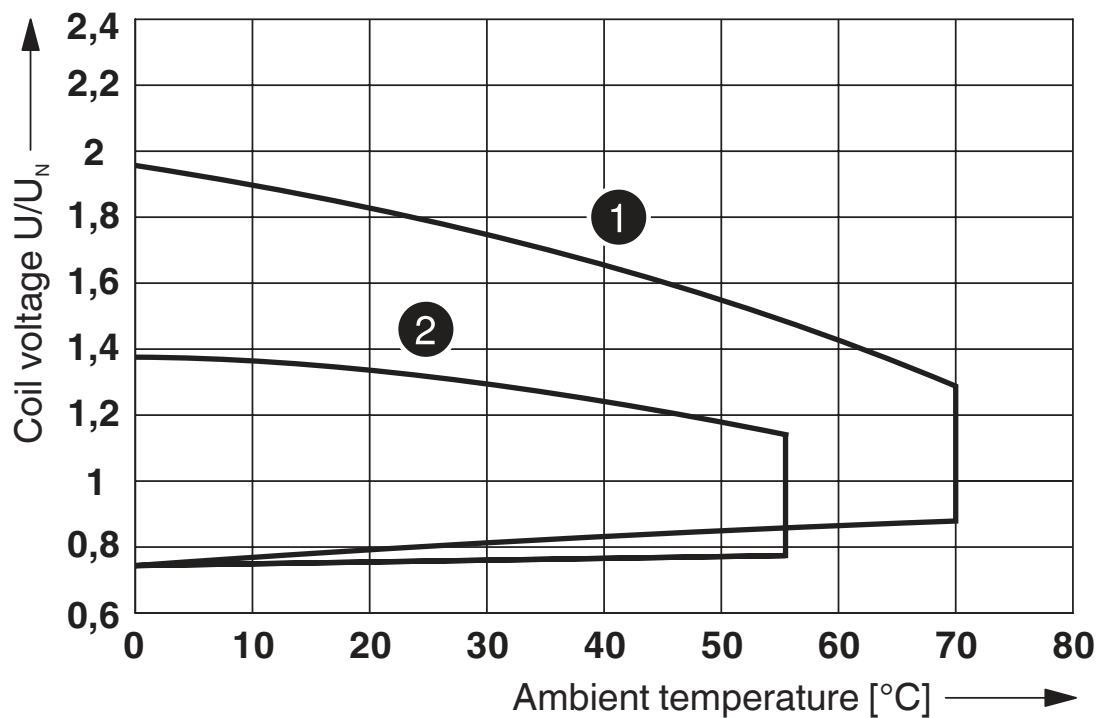
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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 $\leq 25^\circ\text{C}$.

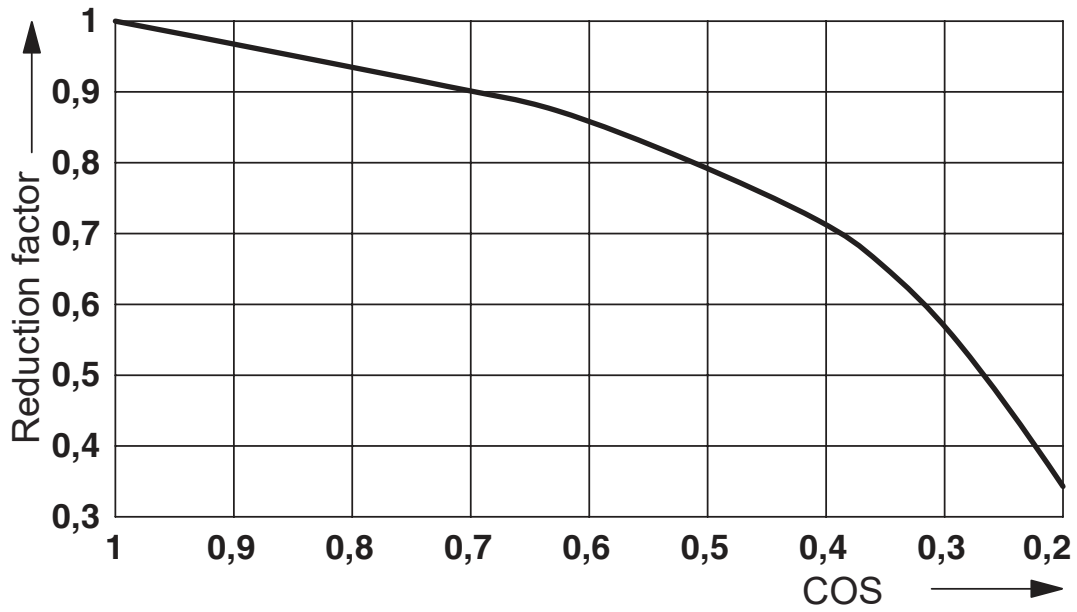
Diagram



- 1 DC coils
- 2 AC coils

Operating voltage range

Diagram

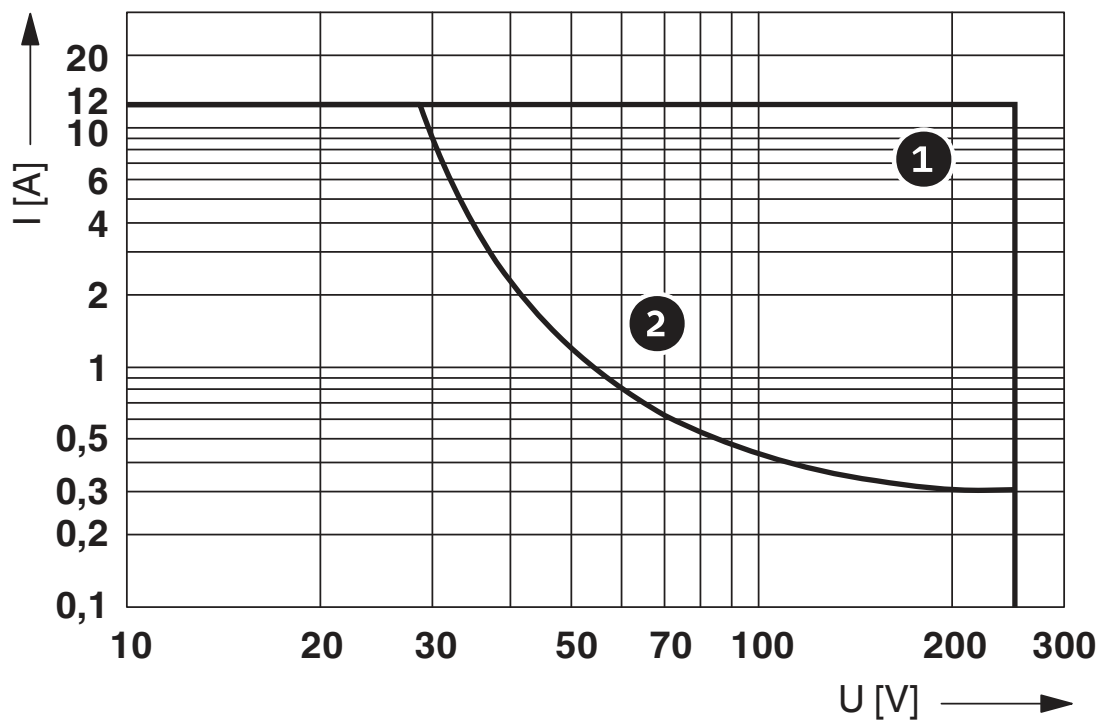


Service life reduction factor

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Diagram

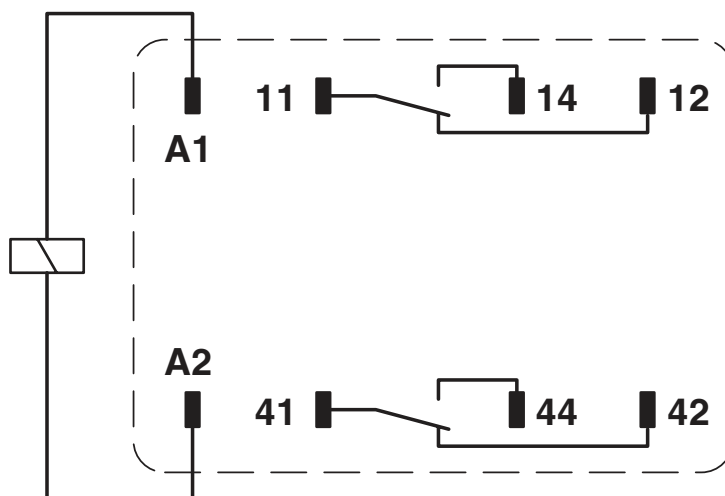


Interrupting rating

Curve 1: AC, ohmic load

Curve 2: DC, ohmic load

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903663>



CSA

Approval ID: 256725



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



VDE Zeichengenehmigung

Approval ID: 40040427

cULus Recognized

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Classifications

ECLASS

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

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC001437 |
|----------|----------|

UNSPSC

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

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Environmental product compliance

| | |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
| | No hazardous substances above threshold values |

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Mandatory accessories

RIF-2-BPT/4X21 - Relay base

2900934

<https://www.phoenixcontact.com/us/products/2900934>



Relay base RIF-2..., for industrial relay with 2 or 4 changeover contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

RIF-2-BSC/4X21 - Relay base

2900932

<https://www.phoenixcontact.com/us/products/2900932>



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

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