# REL-MR-BL-230AC/21HC - Single relay

2906288

https://www.phoenixcontact.com/us/products/2906288

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Plug-in miniature power relay in basic design, with power contact for high continuous currents, 1 changeover contact, input voltage 230 V AC

## Commercial data

| | |
|---|---|
| Item number | 2906288 |
| Packing unit | 20 pc |
| Minimum order quantity | 20 pc |
| Sales key | C460 |
| Product key | DKF921 |
| GTIN | 4055626066912 |
| Weight per piece (including packing) | 14.5 g |
| Weight per piece (excluding packing) | 14.5 g |
| Customs tariff number | 85364900 |
| Country of origin | AT |

# Technical data

## Product properties

| | |
|---|---|
| Product type | Single relay |
| Product family | ESSENTIAL edition |
| Operating mode | 100% operating factor |
| Mechanical service life | 1x $10^7$ cycles |

### Insulation characteristics

| | |
|---|---|
| Insulation | Basic insulation |
| Overvoltage category | III |
| Pollution degree | 3 |

### Data management status

| | |
|---|---|
| Date of last data management | 03.07.2025 |

## Electrical properties

| | |
|---|---|
| Service life electrical | see diagram |
| Maximum power dissipation for nominal condition | 0.4 W |
| Rated insulation voltage | 250 V AC |
| Rated surge voltage | 4 kV |

## Input data

### Coil side

| | |
|---|---|
| Nominal input voltage $U_N$ | 230 V AC |
| Input voltage range | 184 V AC ... 333.5 V AC |
| Mains frequency | 50/60 Hz |
| Drive and function | monostable |
| Drive (polarity) | non-polarized |
| Typical input current at $U_N$ | 3 mA |
| Typical response time | 3 ms ... 12 ms (depending on phase relation) |
| Typical release time range | 2 ms ... 9 ms (depending on phase relation) |

## Output data

### Switching

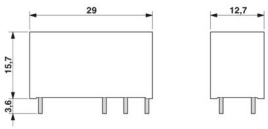
| | |
|---|---|
| Contact switching type | 1 changeover contact |
| Type of switch contact | Single contact |
| Contact material | AgNi |
| Maximum switching voltage | 250 V AC/DC |
| Minimum switching voltage | 5 V (At 24 mA) |
| Limiting continuous current | 16 A |
| Maximum inrush current | 30 A (300 ms) |
| Min. switching current | 10 mA (at 12 V) |

| | |
|---|---|
| Interrupting rating (ohmic load) max. | 384 W (at 24 V DC) |
| | 58 W (at 48 V DC) |
| | 48 W (at 60 V DC) |
| | 50 W (at 110 V DC) |
| | 80 W (at 220 V DC) |
| | 4000 VA (for 250 V AC) |
| Switching capacity | 2 A (at 24 V, DC13) |
| | 1.5 A (at 230 V, AC15) |

## Connection data

| | |
|---|---|
| Connection method | Solder connection |

## Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Width | 12.7 mm |
| Height | 29 mm |
| Depth | 15.7 mm |

## Material specifications

| | |
|---|---|
| Color | white (RAL 9010) |

## Environmental and real-life conditions

Ambient conditions

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

## Standards and regulations

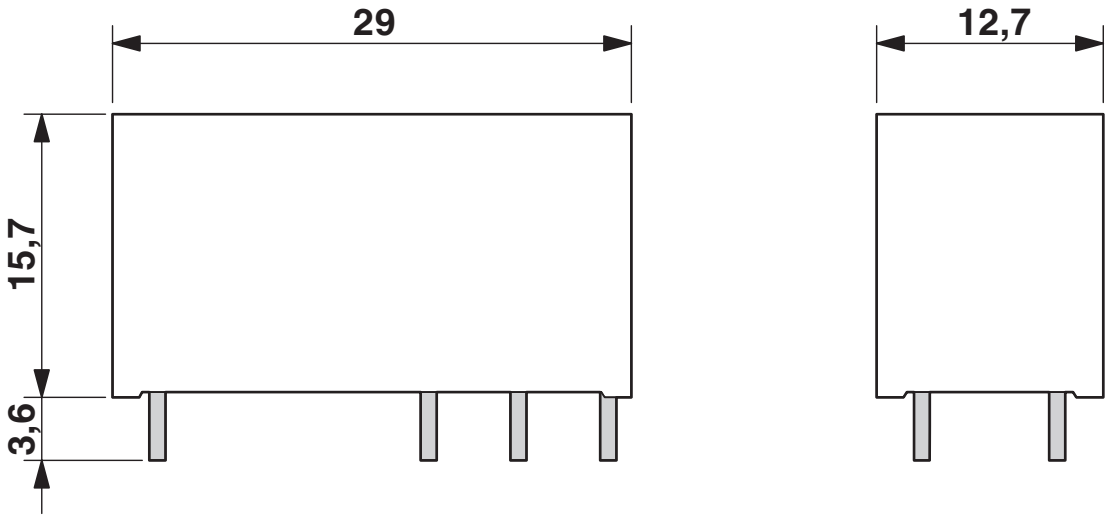
| | |
|---|---|
| Standards/regulations | IEC 60664 |
| | EN 61810-1 |

## Mounting

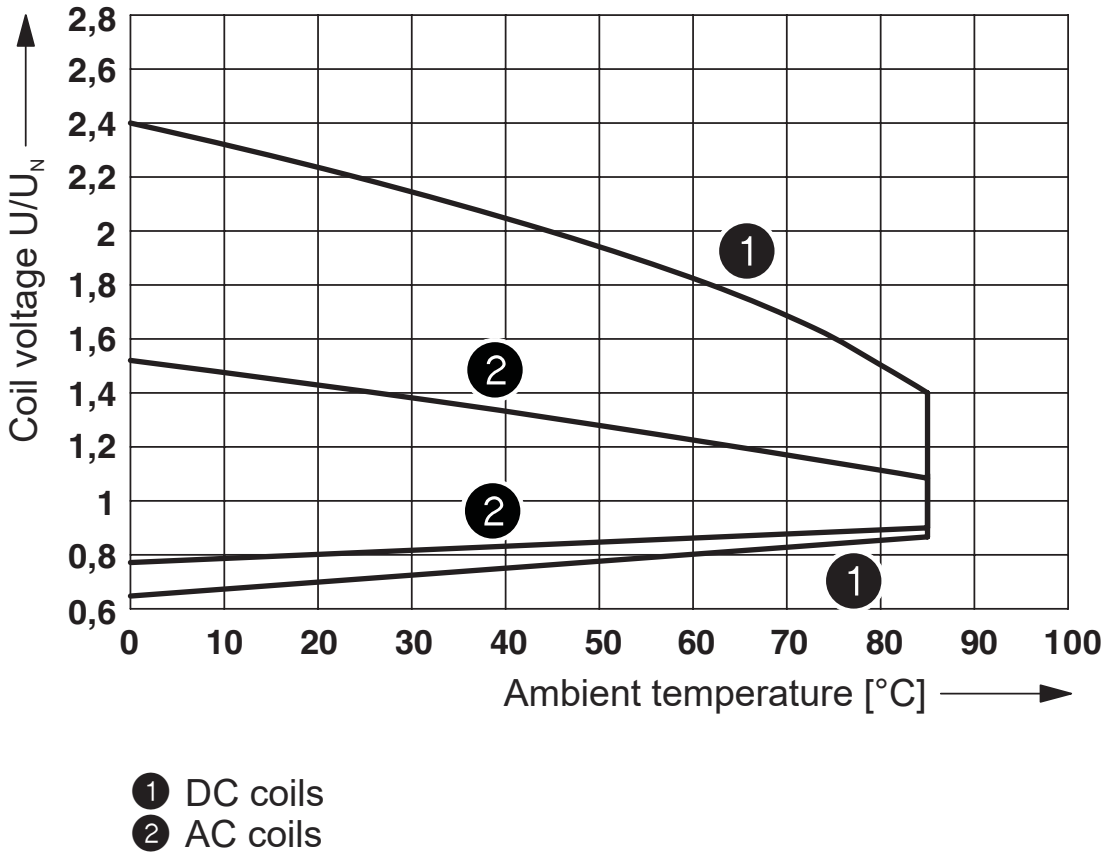
| | |
|---|---|
| Mounting type | Plug-in mounting |
| Mounting position | any |

## Drawings

Dimensional drawing



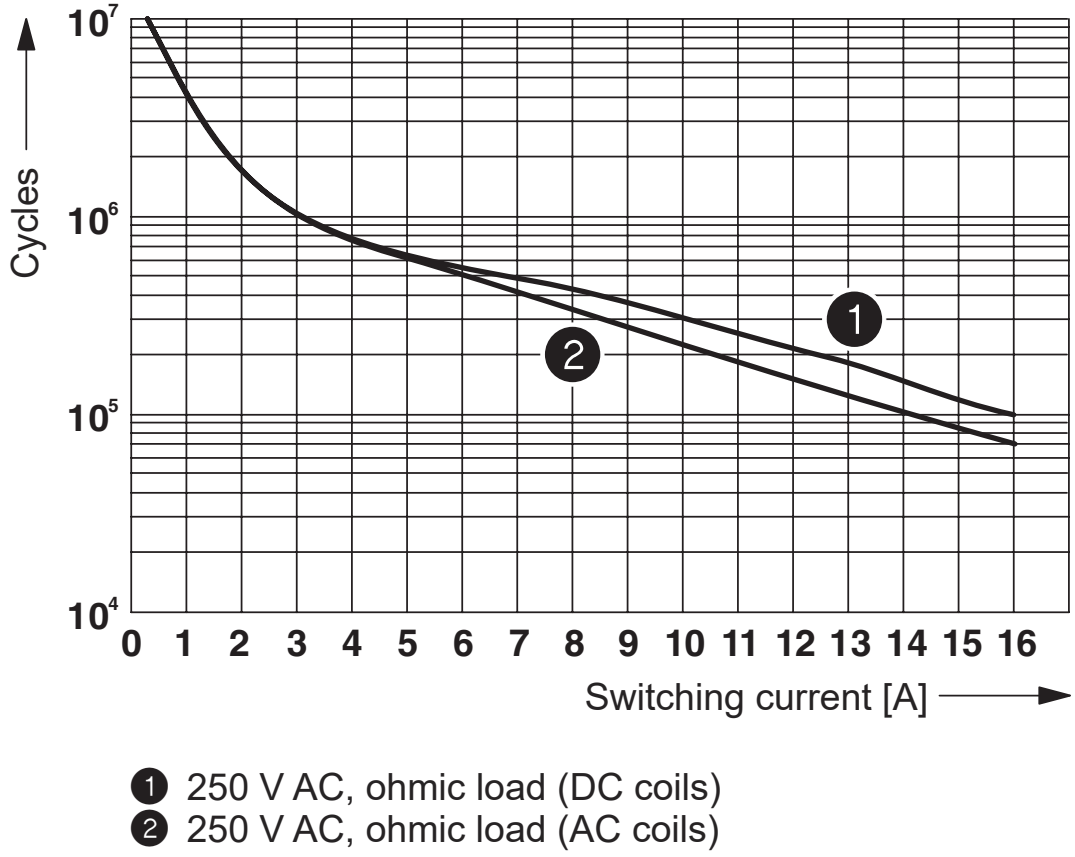

Diagram




1 DC coils
2 AC coils

Operating voltage range

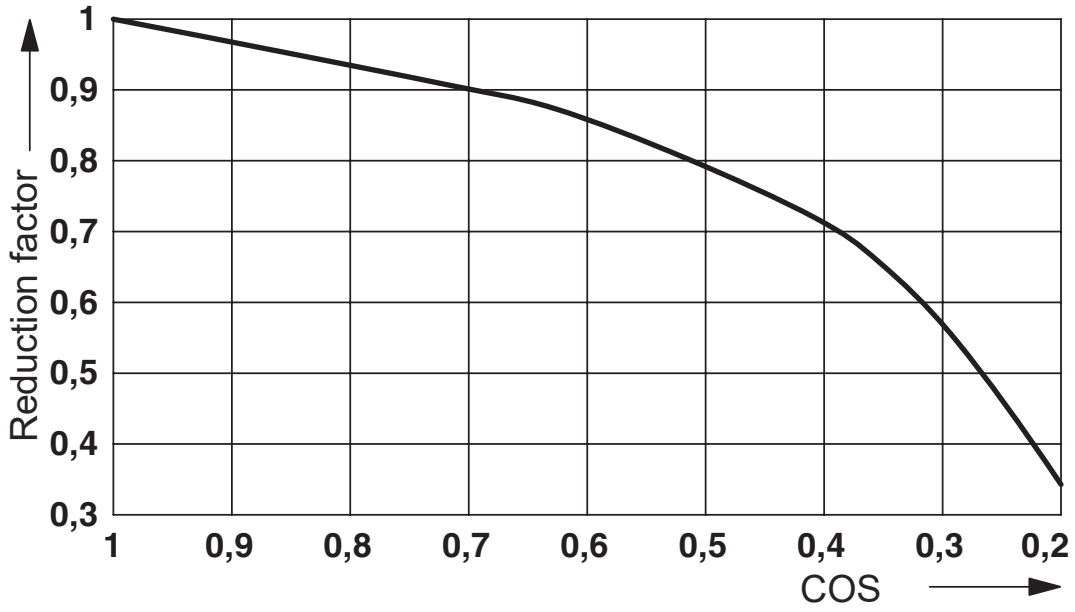
Diagram




1 250 V AC, ohmic load (DC coils)
2 250 V AC, ohmic load (AC coils)

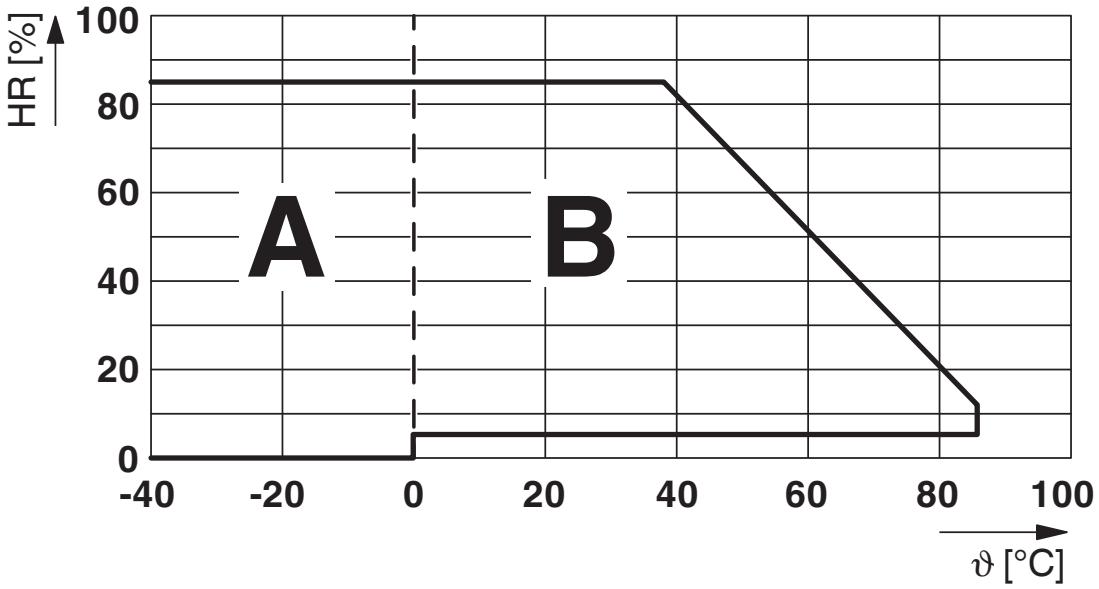
Electrical service life

Diagram




Service life reduction factor with various cos phi

Diagram

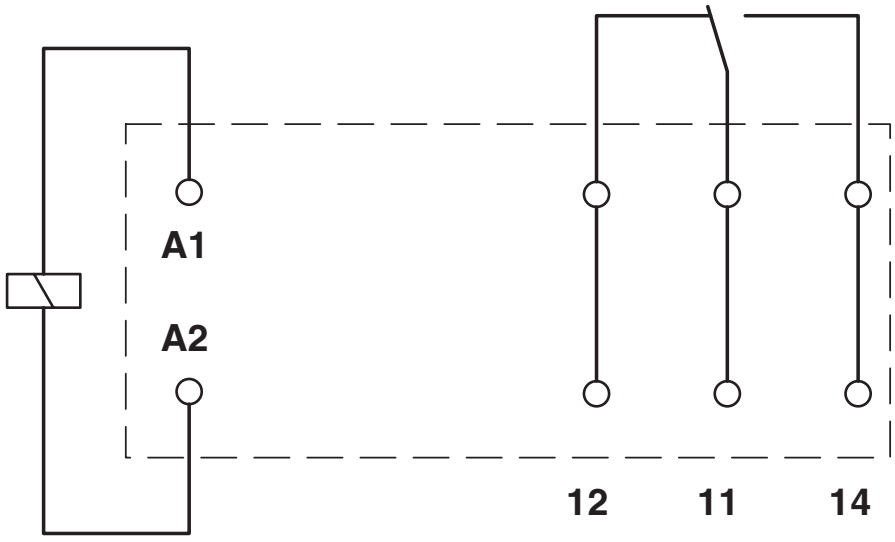



Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

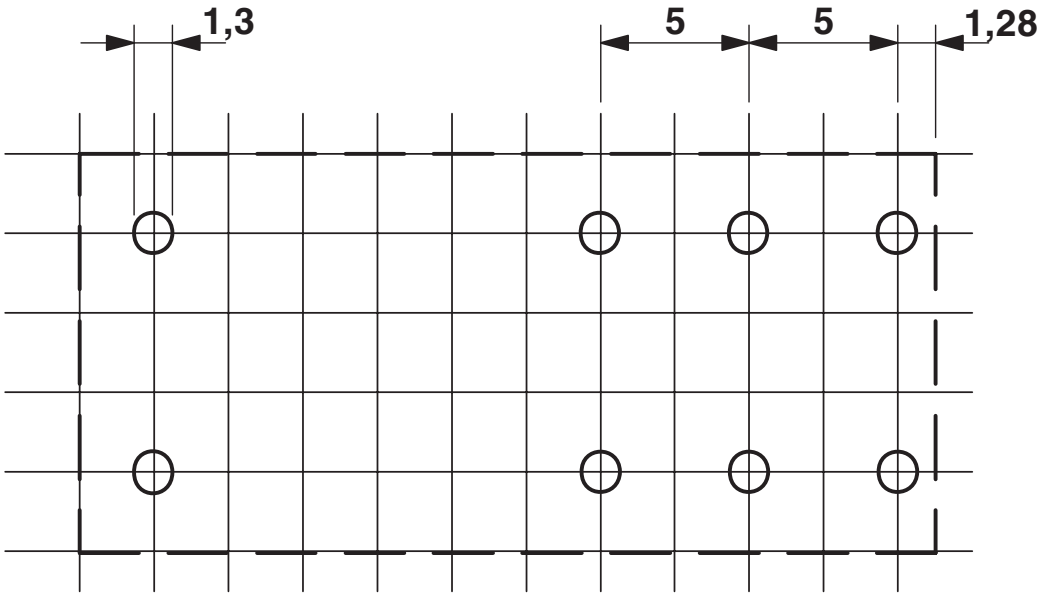
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature ≤ 25°C.

Circuit diagram



Drilling plan/solder pad geometry




Basic pitch 2.5 mm

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2906288

**cUL Recognized**
Approval ID: FILE E 228652

**UL Recognized**
Approval ID: FILE E 228652

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

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

### ETIM

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

### UNSPSC

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

## 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% |

## Mandatory accessories

### ECOR-1-BSC2-RT/2X21 - Relay base

1027546

https://www.phoenixcontact.com/us/products/1027546



ECOR-1... relay base, for miniature power relays or miniature switching relays with 1 or 2 changeover contacts, bolt connection, for mounting on NS 35/7,5.

### ECOR-1-BSC3/2X21 - Relay base

2907518

https://www.phoenixcontact.com/us/products/2907518



ECOR-1... relay base, for miniature power relay or miniature switching relay with 1 or 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5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