

# REL-PR3-48DC/3X21 - Single relay



2908894

<https://www.phoenixcontact.com/us/products/2908894>

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Plug-in high-power relay with power contacts, 3 N/O contacts, coil voltage: 48 V DC



## Commercial data

Item number	2908894
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK6965
GTIN	4055626353920
Weight per piece (including packing)	85.1 g
Weight per piece (excluding packing)	85.1 g
Customs tariff number	85364190
Country of origin	PL

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## Technical data

### Notes

Notes on operation	The outputs are not suitable for switching different outer conductors.
Notes on operation	Do not use to separate SELV / PELV circuits from other circuits, because safe isolation is not guaranteed.

### Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	approx. $10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	1.5 W
Test voltage (Winding/contact)	2.5 kV <sub>rms</sub> (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV <sub>rms</sub> (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 $U_N$	48 V DC
Input voltage range	40.8 V DC ... 52.8 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	28 mA
Input power dissipation for $U_N$	1.32 W
Typical response time	20 ms
Typical release time	15 ms
Coil resistance	1750 $\Omega$ $\pm$ 10 %

### Output data

#### Switching

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Contact switching type	3 changeover contacts
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)
Limiting continuous current	16 A
Maximum inrush current	50 A (20 ms, N/O contacts)
Min. switching current	10 mA (at 24 V)
Interrupting rating (ohmic load) max.	384 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) 4000 VA (for 250 V AC) 4000 VA (at 440 V AC)
3-phase motor load	1500 W (at 400 V, AC3)
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

Connection method	Plug-in connection
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## Dimensions

### Item dimensions

Width	38.6 mm
Height	36.1 mm
Depth	45.5 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	RT I
Degree of protection (Installation location)	≥ IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

### Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group EN 60068-2-60
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## Standards and regulations

Standards/regulations	IEC 60664
	IEC 61810

## Mounting

Mounting position	any
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## Drawings

Diagram



- ① DC coils
- ② AC coils

Operating voltage range

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

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Diagram



① 250 V AC, Ohmic load

Electrical service life

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Diagram



Service life reduction factor

Diagram



Permissible humidity for operation and storage.

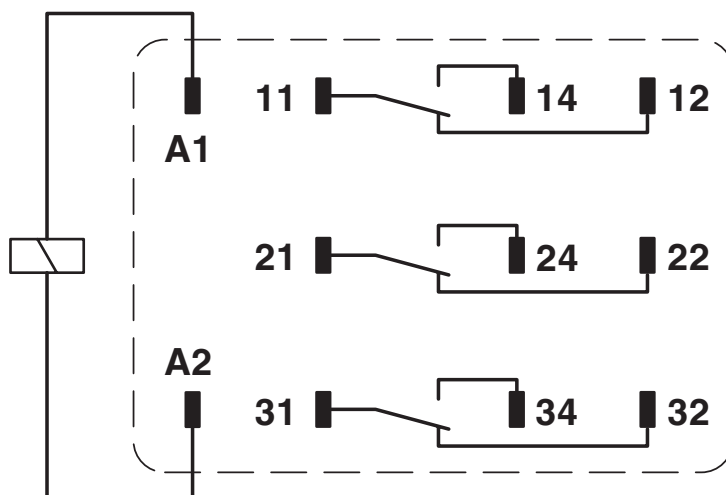
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^{\circ}\text{C}$  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  $\leq 25^{\circ}\text{C}$ .

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908894>



**CSA**

Approval ID: 256725



**EAC**

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



**cULus Recognized**

Approval ID: E172140

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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 10.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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