

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	CK6193
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

General	The outputs are not suitable for switching different outer conductors.
General	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
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Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	1.5 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	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 Ω \pm 10 %

Output data

Switching

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



2908894

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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

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
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2908894

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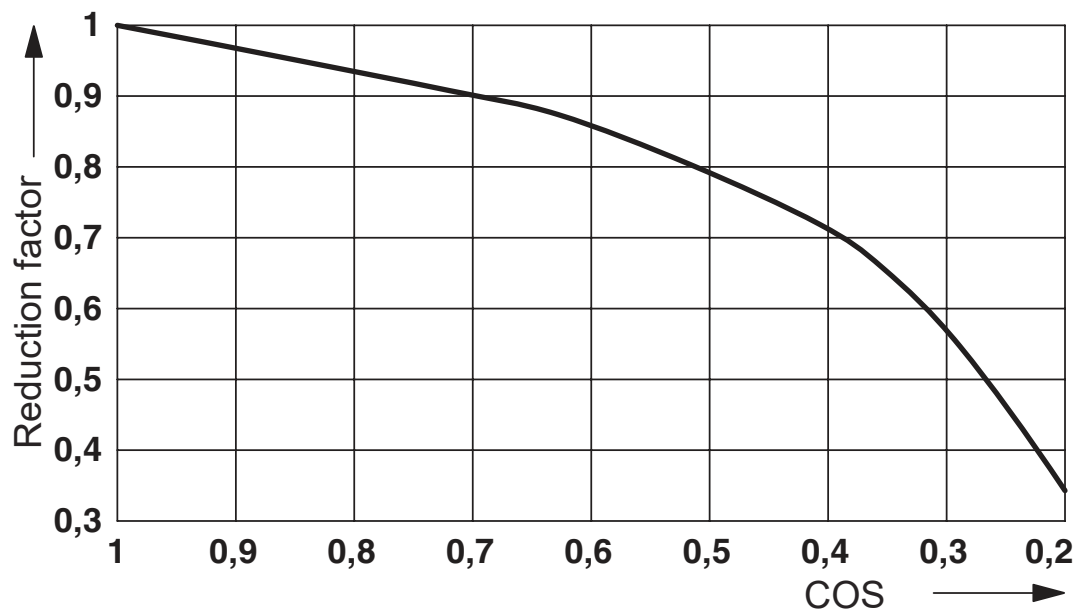
	IEC 61810
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Mounting

Mounting position	any
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Drawings

Diagram



Service life reduction factor

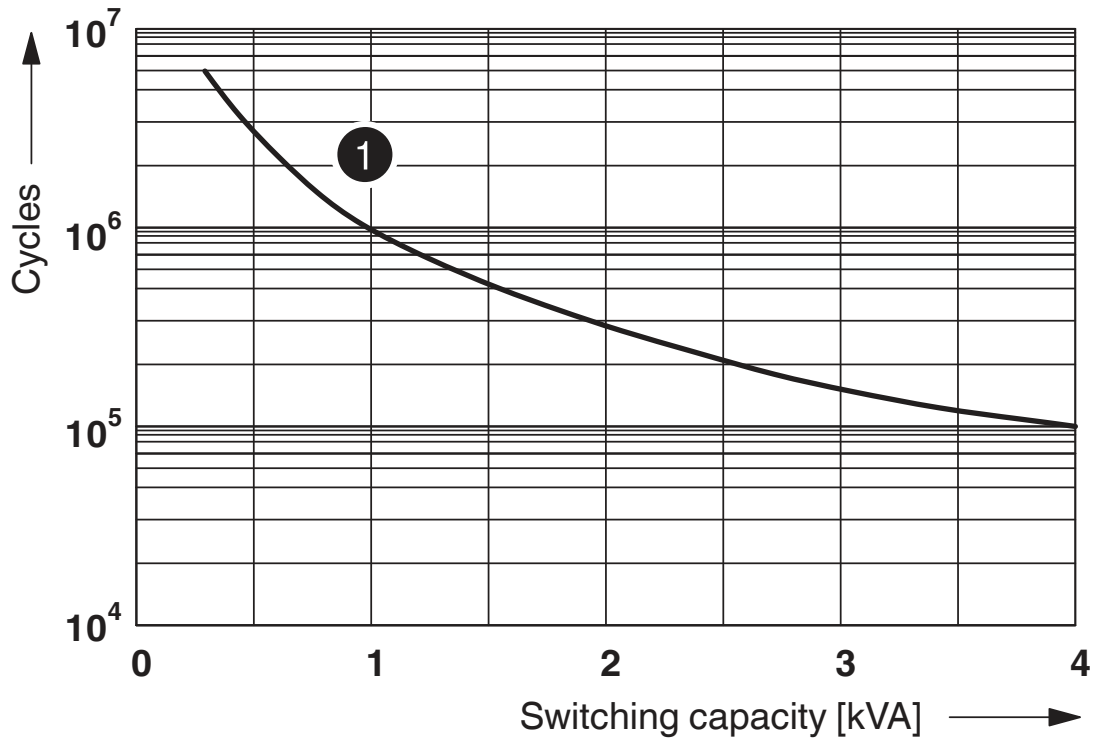
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2908894

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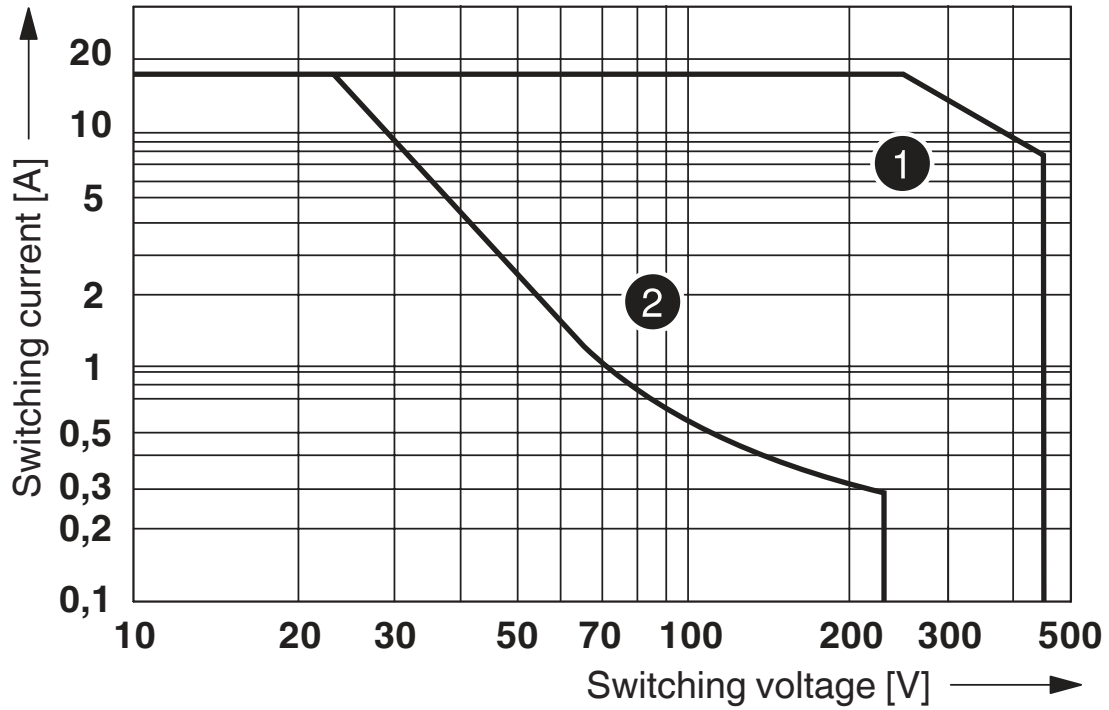
Diagram



① 250 V AC, Ohmic load

Electrical service life

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

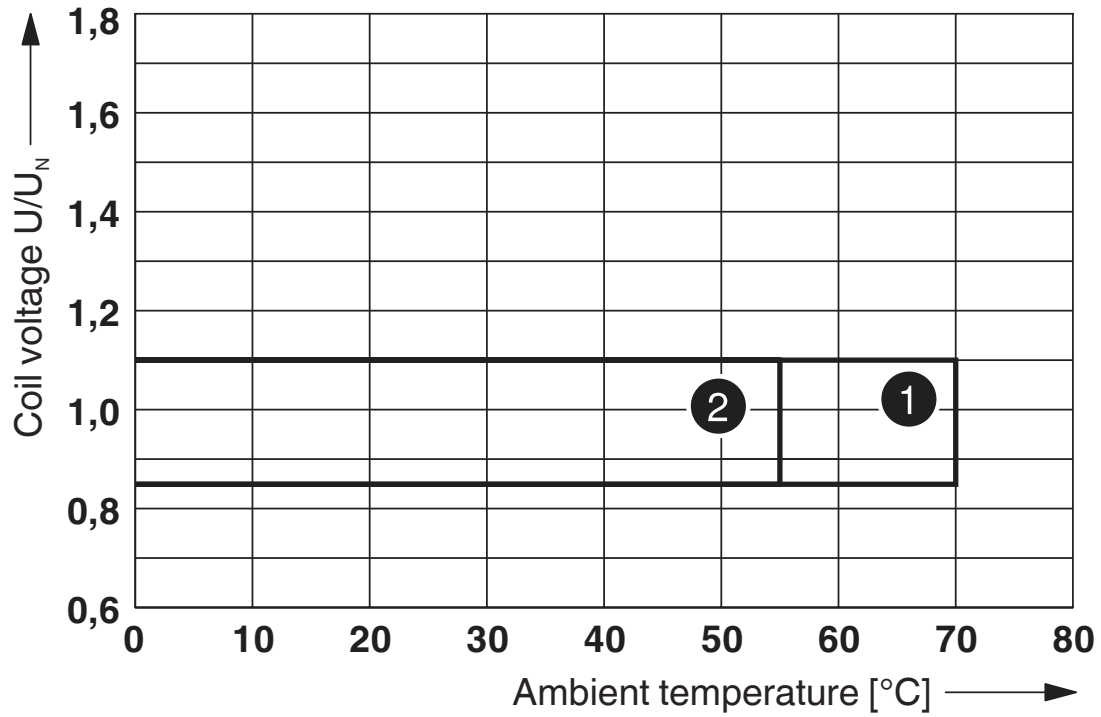
Interrupting rating

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

2908894

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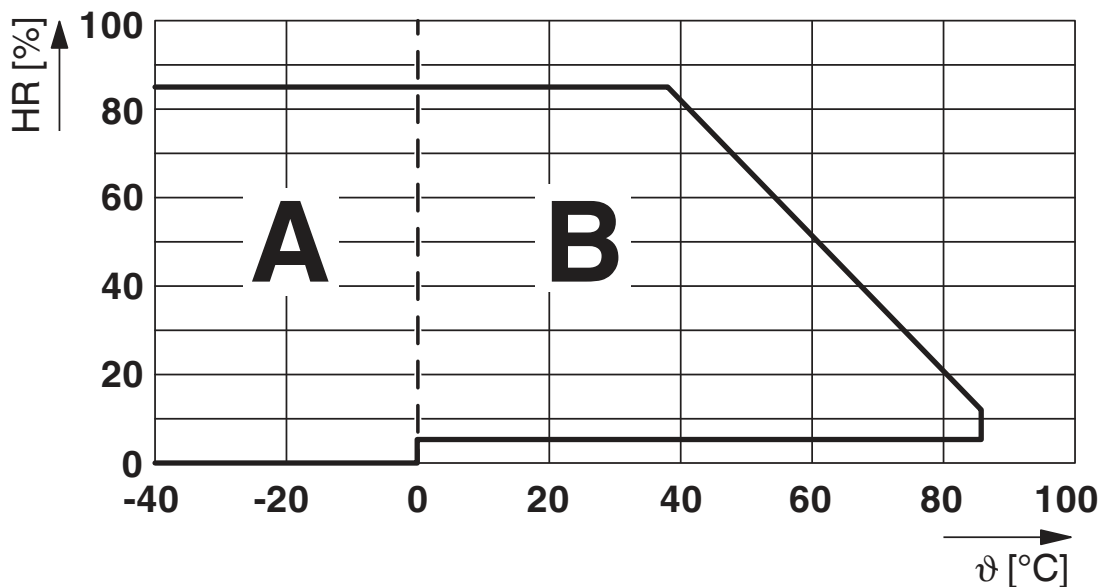
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

Diagram



Permissible humidity for operation and storage.

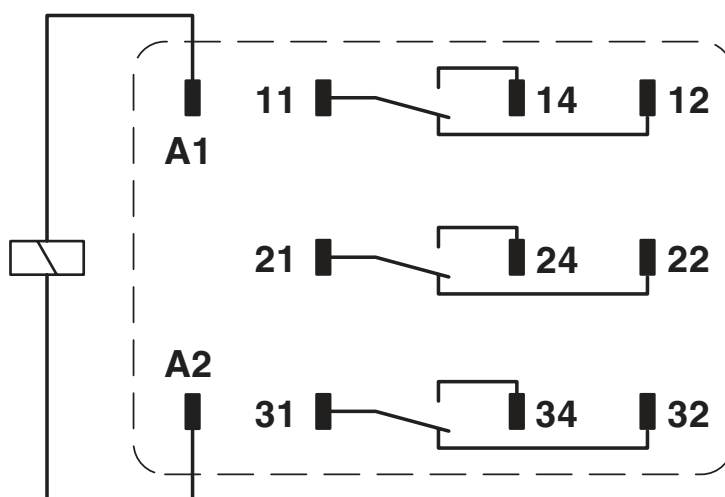
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

 **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

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
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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-4-BPT/3X21 - Relay base

2900961

<https://www.phoenixcontact.com/us/products/2900961>



Relay base RIF-4..., for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

RIF-4-BSC/3X21 - Relay base

2900960

<https://www.phoenixcontact.com/us/products/2900960>



RIF-4... relay base, for high-power relay with 2 or 3 changeover contacts or 3 N/O contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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