

# REL-OR3/LDP-24DC/3X21 - Single relay



2903693

<https://www.phoenixcontact.com/us/products/2903693>

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Plug-in octal relays with power contacts, 3 changeover contacts, test button, freewheeling diode, mechanical switching position indicator, polarity: A1+, A2-, input voltage: 24 V DC

## Commercial data

Item number	2903693
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	DK6953
GTIN	4046356759069
Weight per piece (including packing)	90.29 g
Weight per piece (excluding packing)	90.29 g
Customs tariff number	85364190
Country of origin	PL

## 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
Set comprises	2903294 RIF-3-RPT-LDP-24DC/3X21
Operating mode	100% operating factor
Mechanical service life	approx. $2 \times 10^7$ cycles

### Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

### Data management status

Date of last data management	20.04.2026
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### Electrical properties

Maximum power dissipation for nominal condition	1.44 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 $U_N$	24 V DC
Input voltage range	20.4 V DC ... 26.4 V DC (20 °C)
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	60 mA
Input power dissipation for $U_N$	1.44 W
Typical response time	18 ms
Typical release time	20 ms
Protective circuit	Freewheeling diode
Status display	LED (yellow)
Coil resistance	430 $\Omega$ $\pm$ 10 %

### Output data

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## Switching

Contact switching type	3 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V DC 440 V AC
Minimum switching voltage	10 V (At 24 mA)
Limiting continuous current	10 A
Maximum inrush current	30 A (20 ms, N/O contacts)
Min. switching current	10 mA (at 24 V)
Interrupting rating (ohmic load) max.	240 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) 2500 VA (for 250 V AC)
Motor load according to UL 508	1/2 HP, 240 V AC (N/O contact)

## Connection data

Connection method	Plug-in connection
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## Dimensions

Width	35 mm
Height	35 mm
Depth	54.4 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
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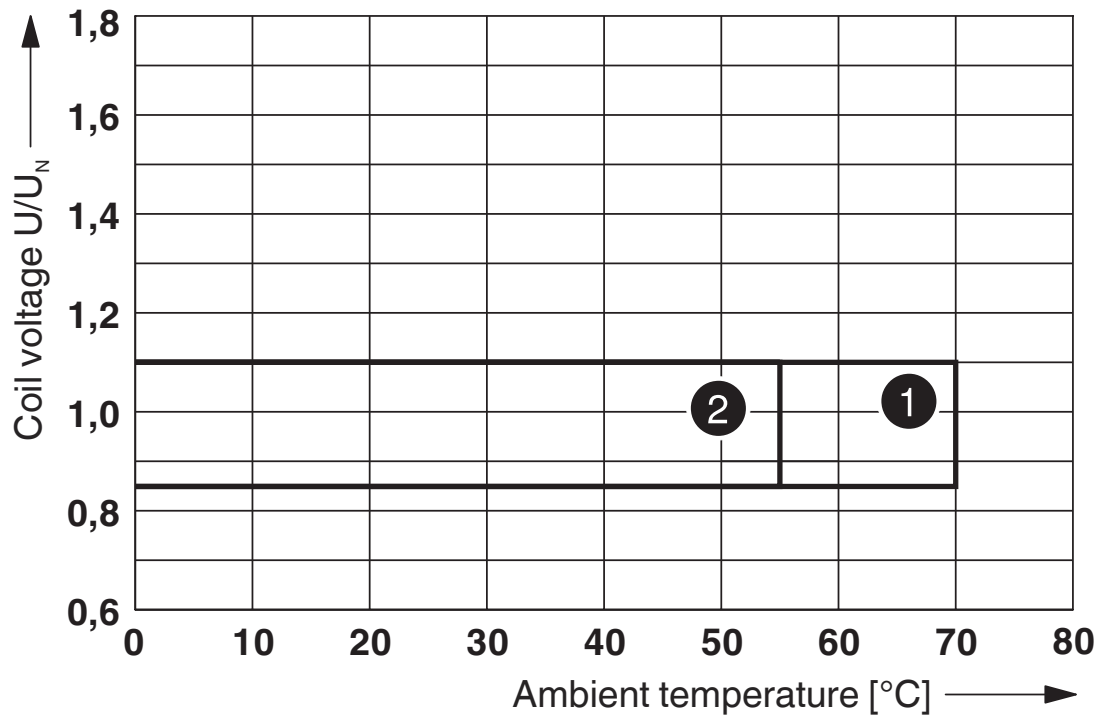
## Mounting

Mounting position

any

Drawings

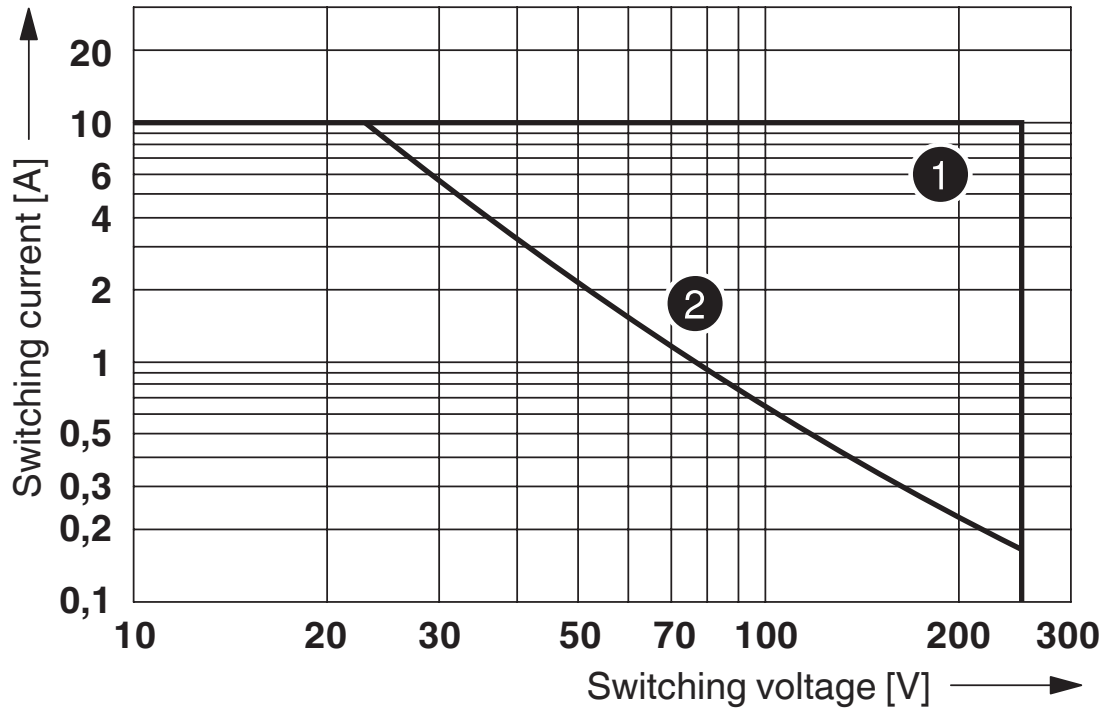
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

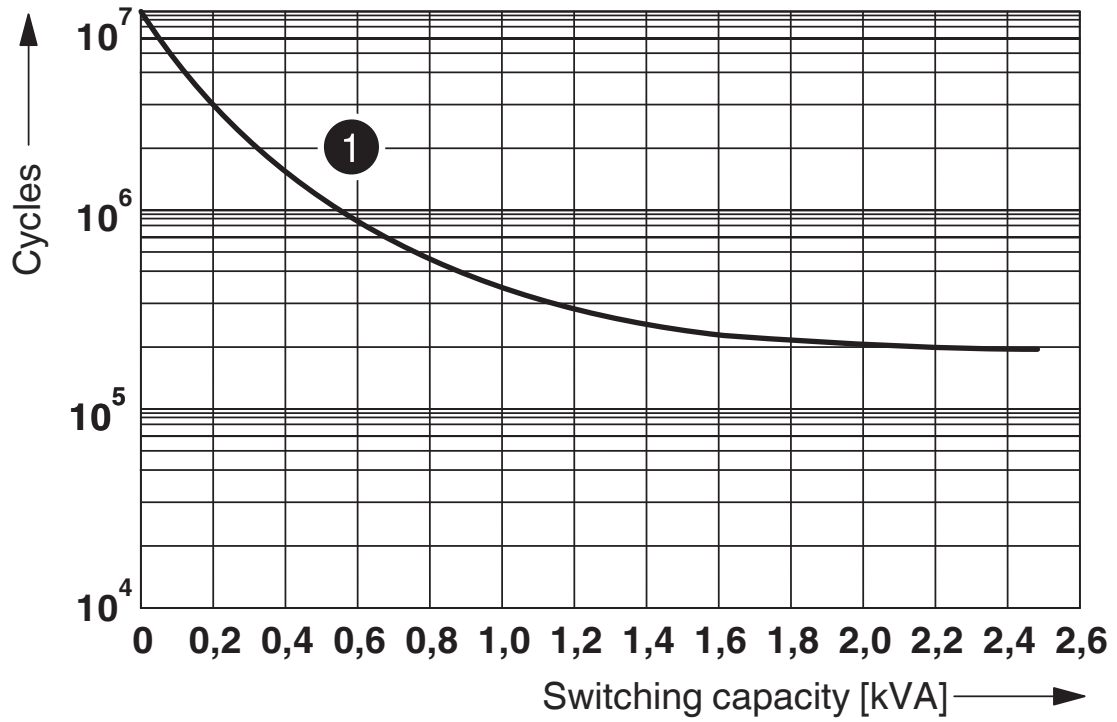
# REL-OR3/LDP-24DC/3X21 - Single relay



2903693

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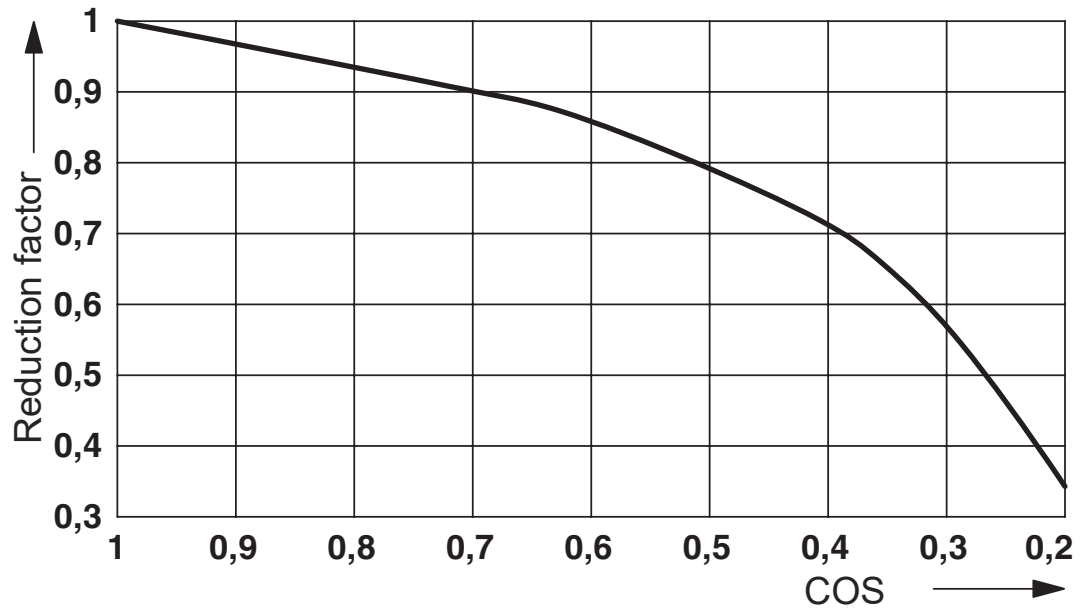
Diagram



250 V AC, ohmic load

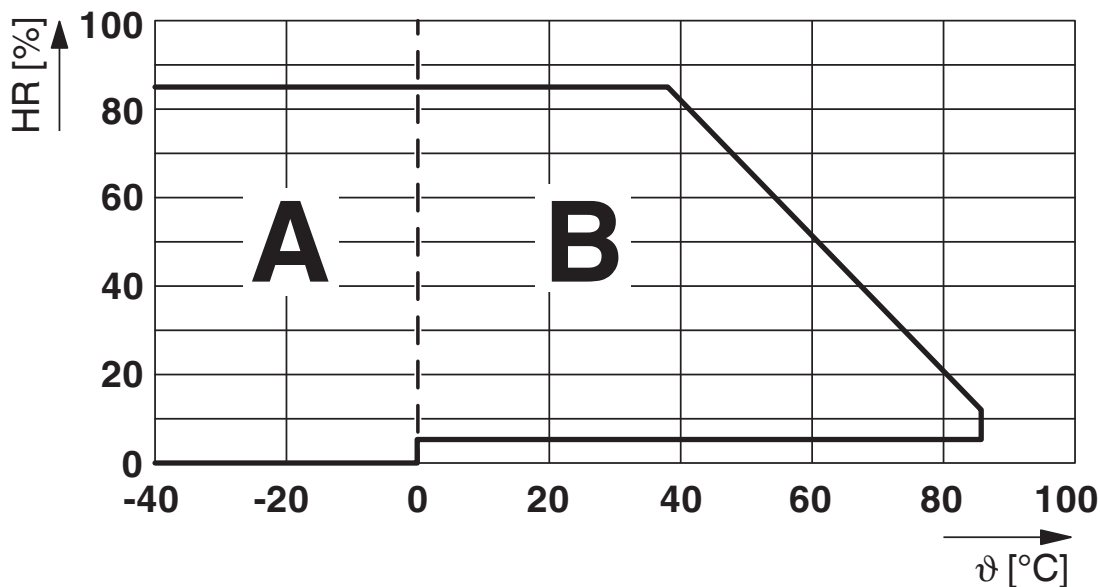
Electrical service life

Diagram



Service life reduction factor

Diagram



Permissible humidity for operation and storage.

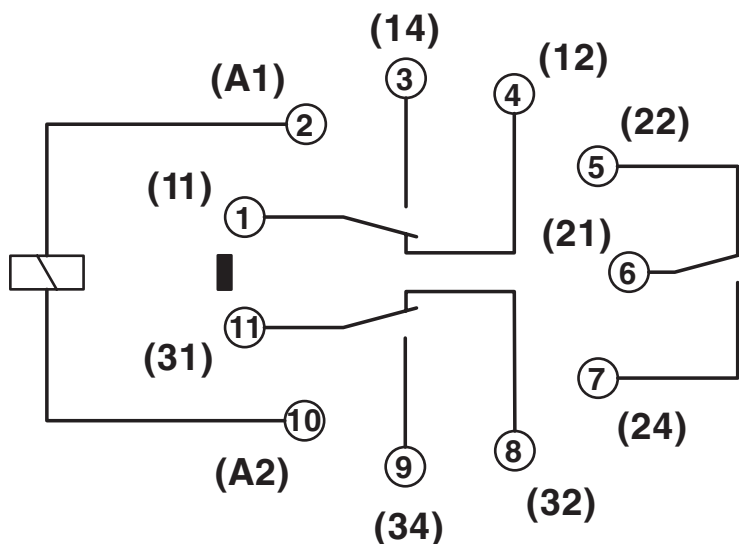
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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/2903693>



**CSA**

Approval ID: 256725



**VDE Zeichengenehmigung**

Approval ID: 40036588



**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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### EF3.1 Climate Change

CO2e kg	1.682 kg CO2e
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