

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

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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. 2×10^7 cycles

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	05.09.2025
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Electrical properties

Maximum power dissipation for nominal condition	1.44 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	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

Standards and regulations

Standards/regulations	IEC 60664
	IEC 61810

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2903693

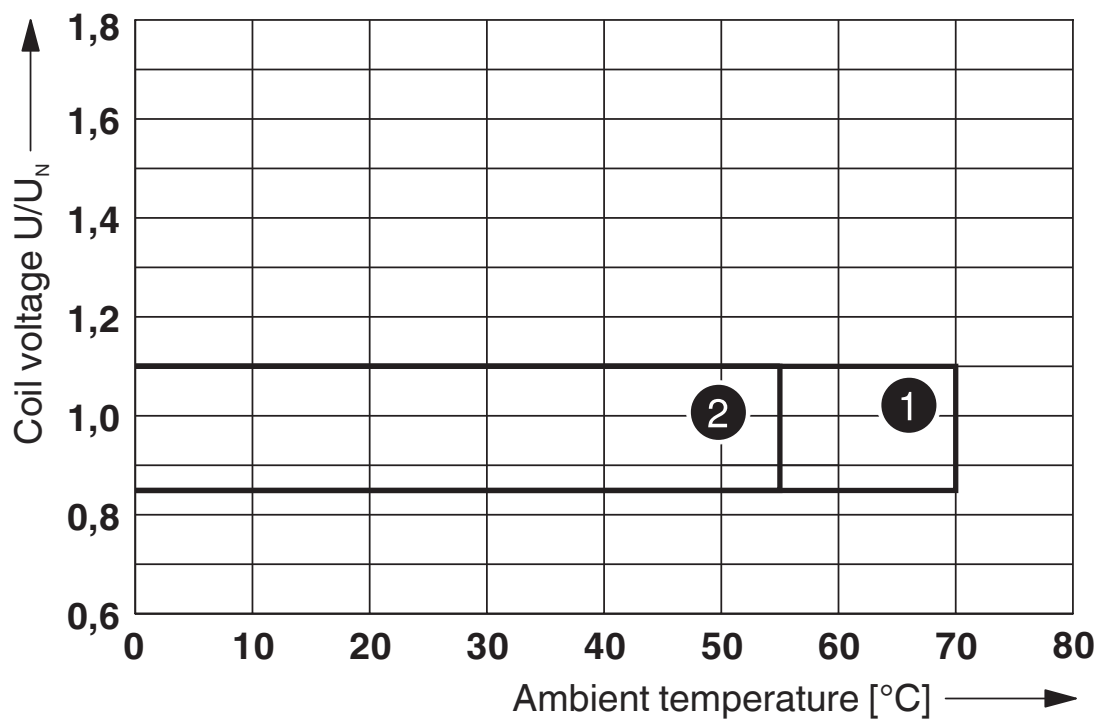
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Mounting

Mounting position	any
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Drawings

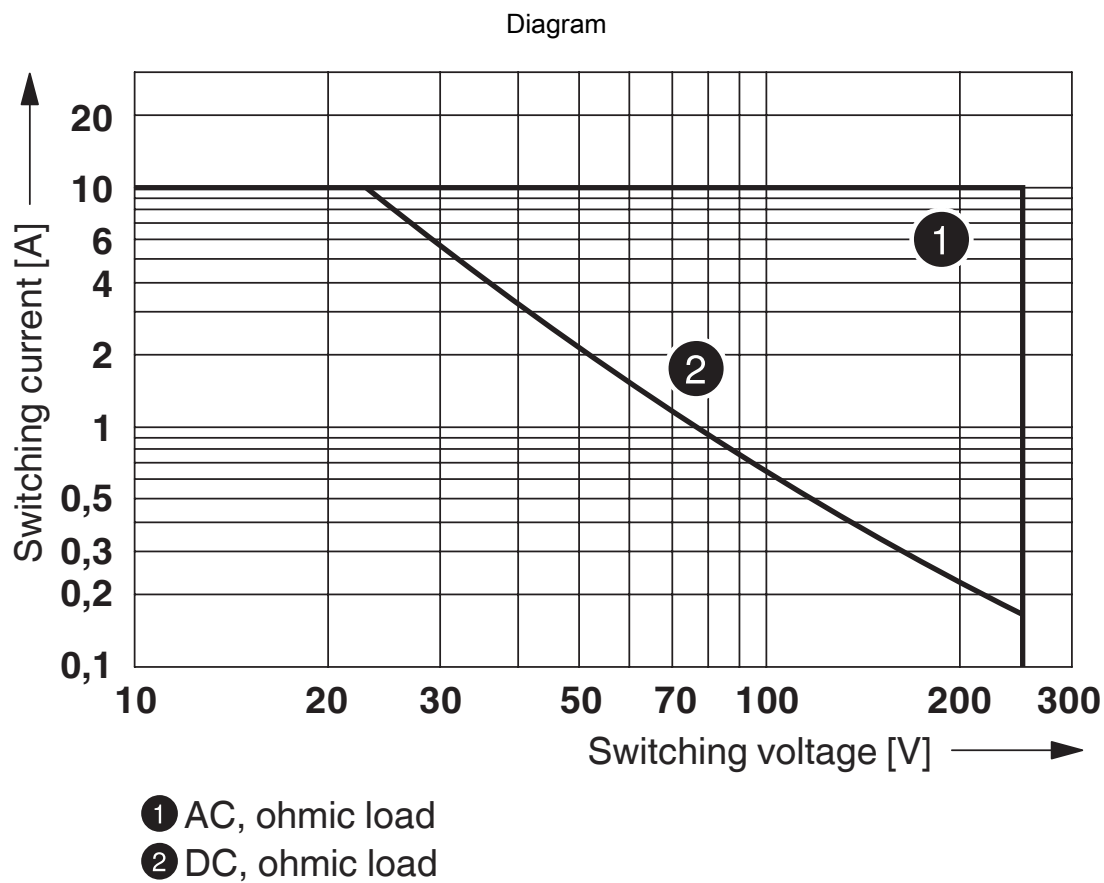
Diagram



① DC coils

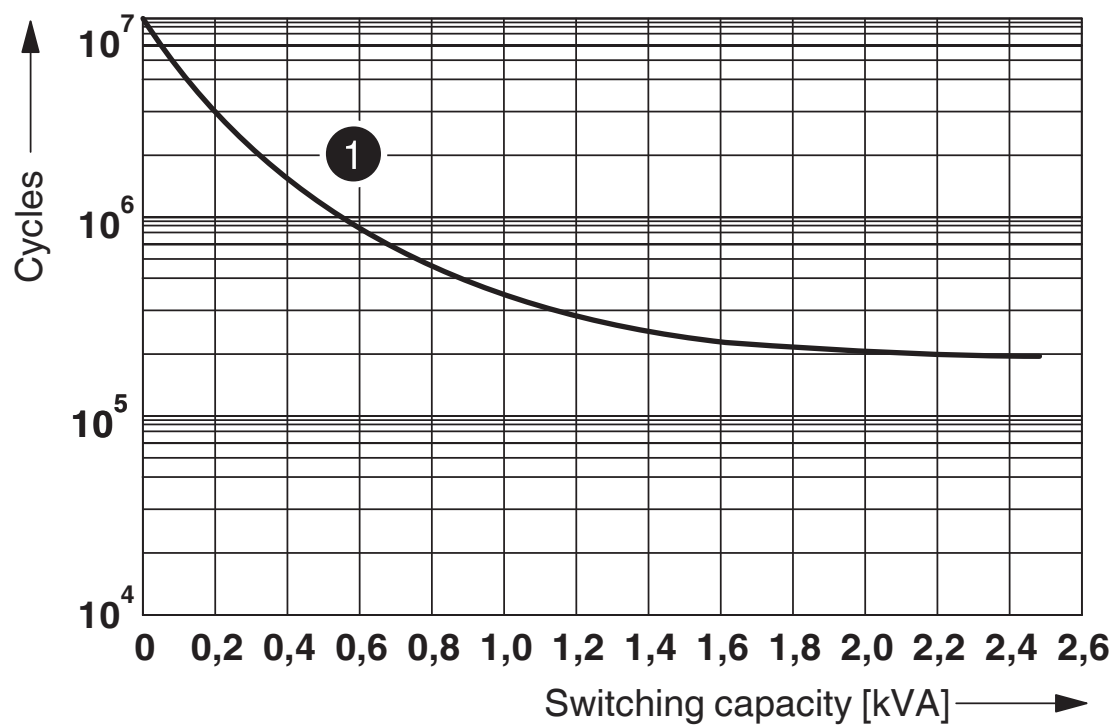
② AC coils

Operating voltage range



Interrupting rating

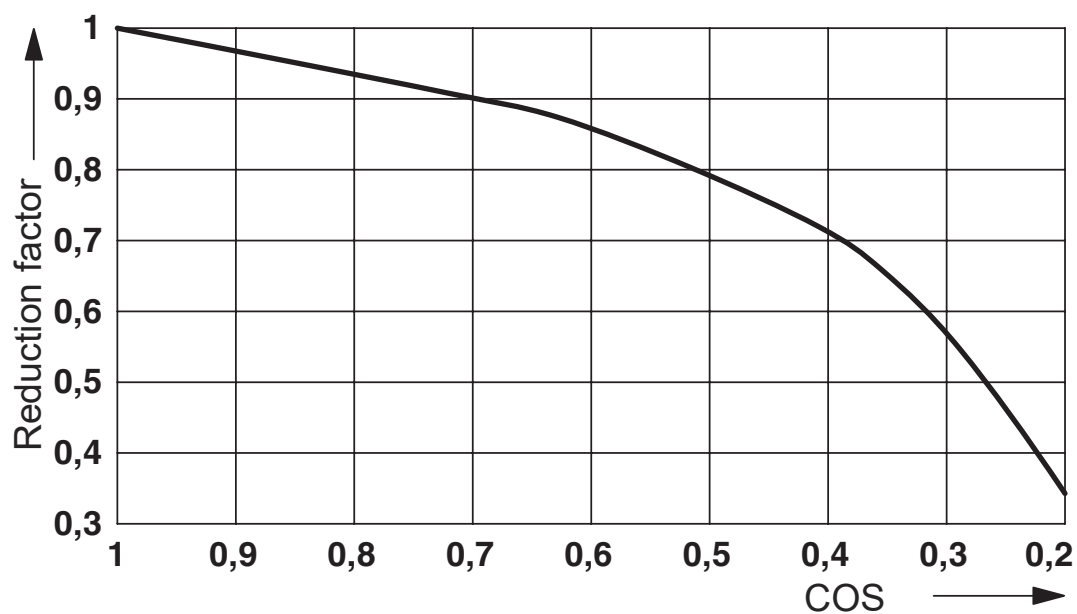
Diagram



250 V AC, ohmic load

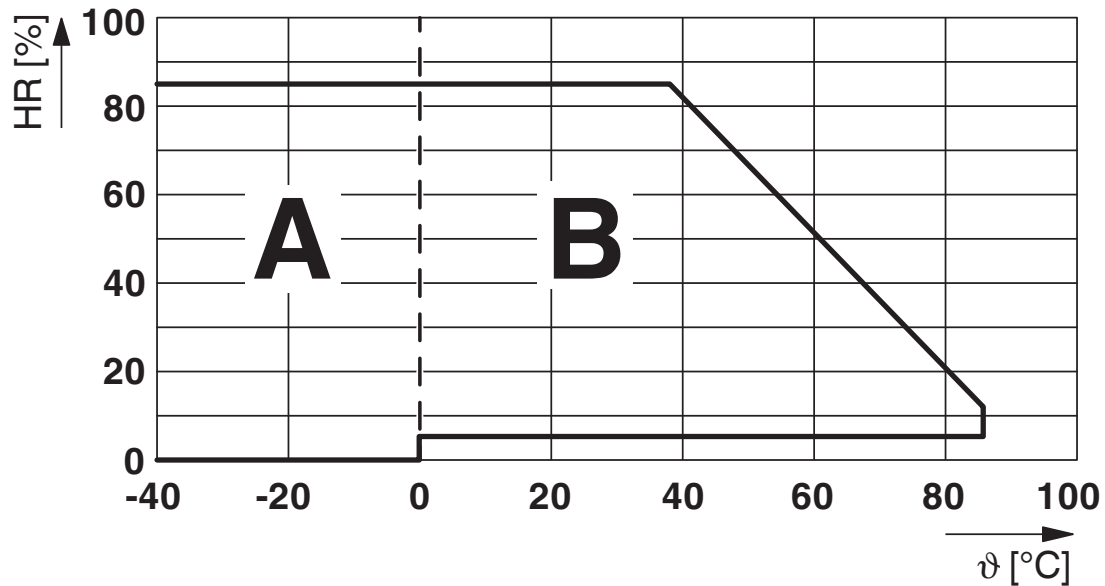
Electrical service life

Diagram



Service life reduction factor

Diagram



Permissible humidity for operation and storage.

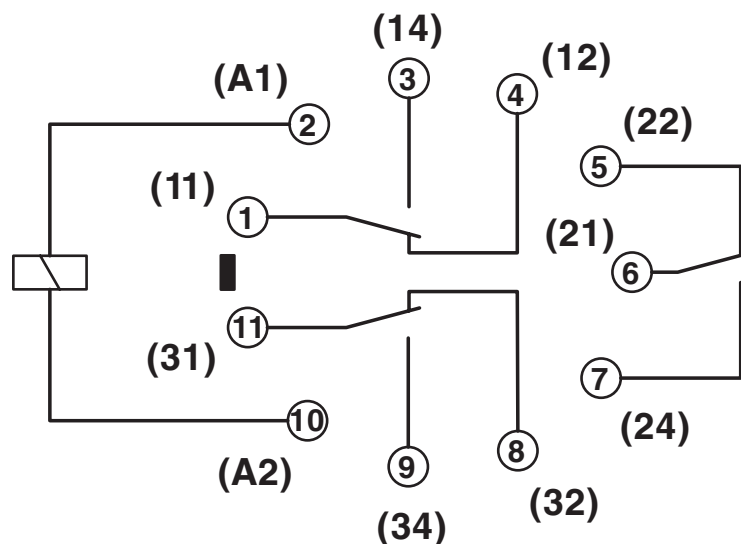
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

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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 9.0	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
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%
EF3.0 Climate Change	
CO2e kg	1.682 kg CO2e

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com