

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	CK6953
Catalog page	Page 308 (C-5-2019)
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
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Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

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	Yellow LED
Coil resistance	430 Ω \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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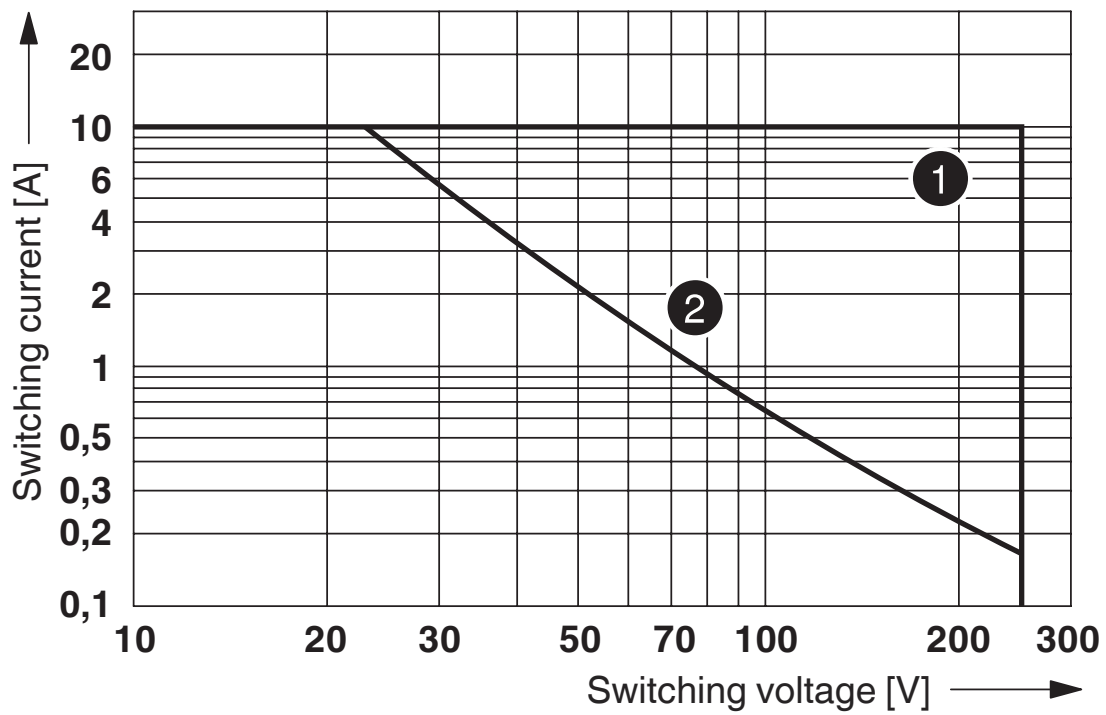
Mounting

Mounting position

any

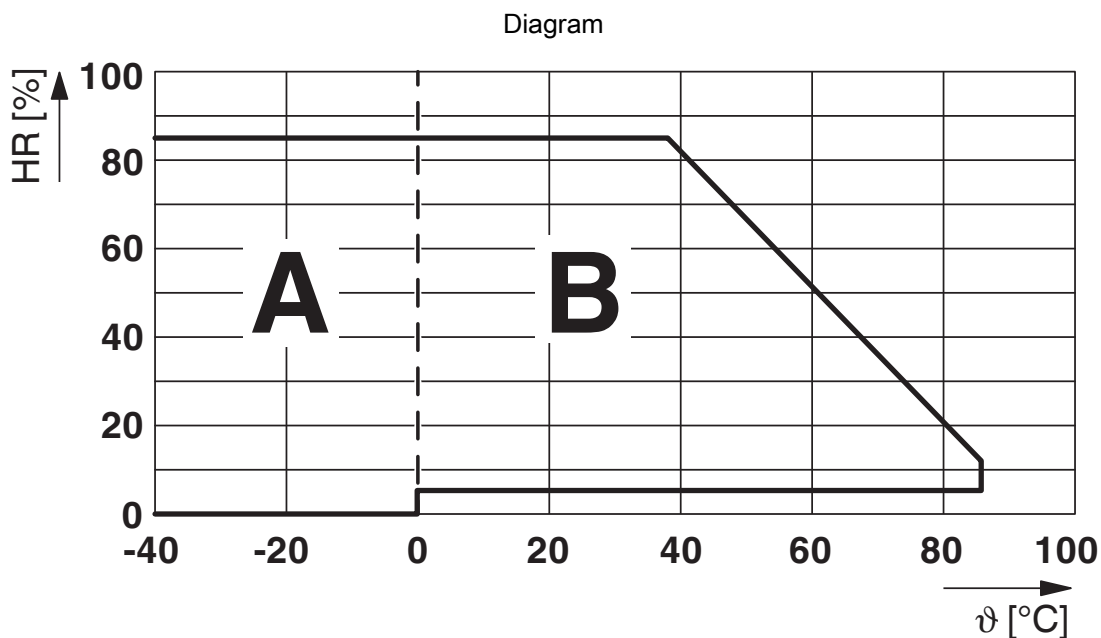
Drawings

Diagram



- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating



Permissible humidity for operation and storage.

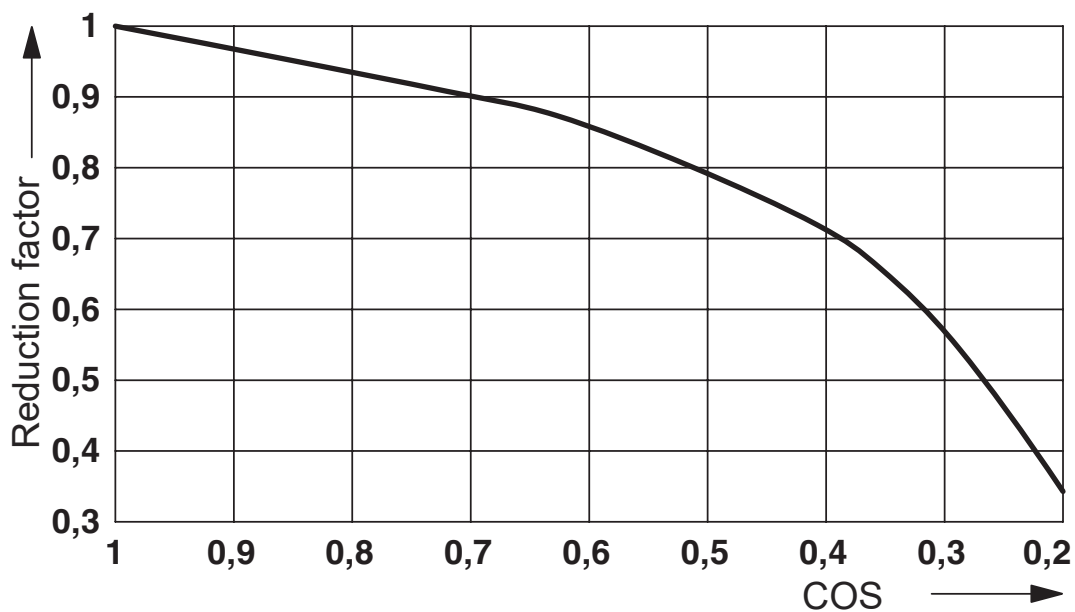
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

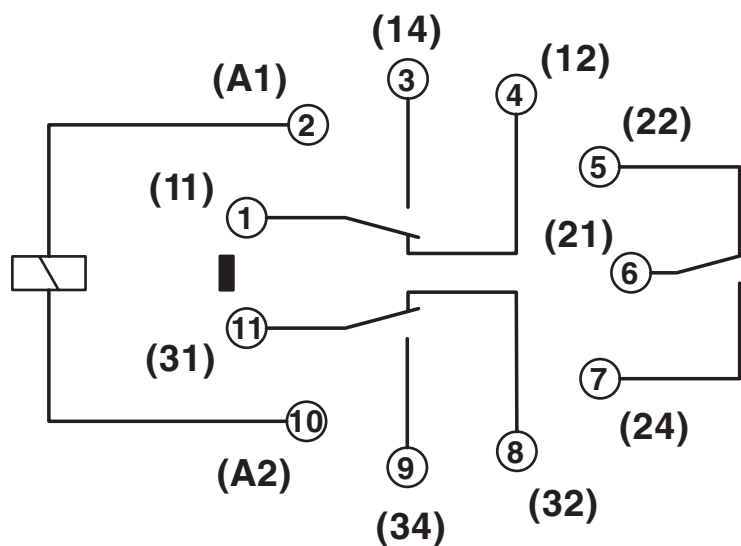
On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^{\circ}\text{C}$.

Diagram

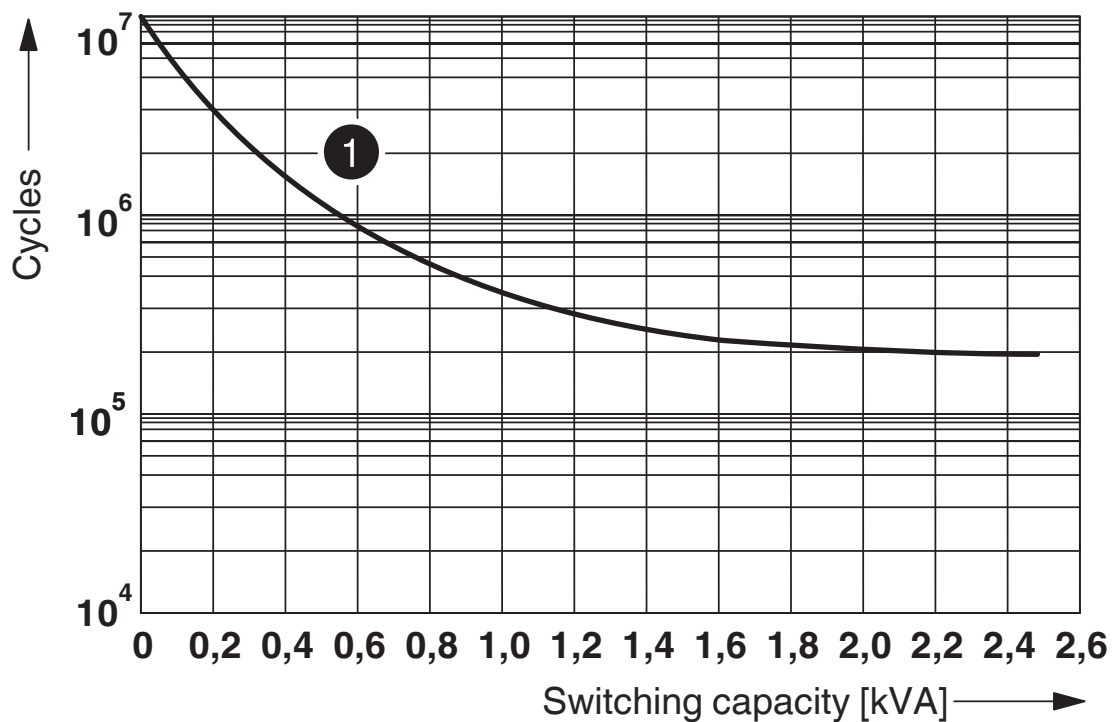


Service life reduction factor

Circuit diagram



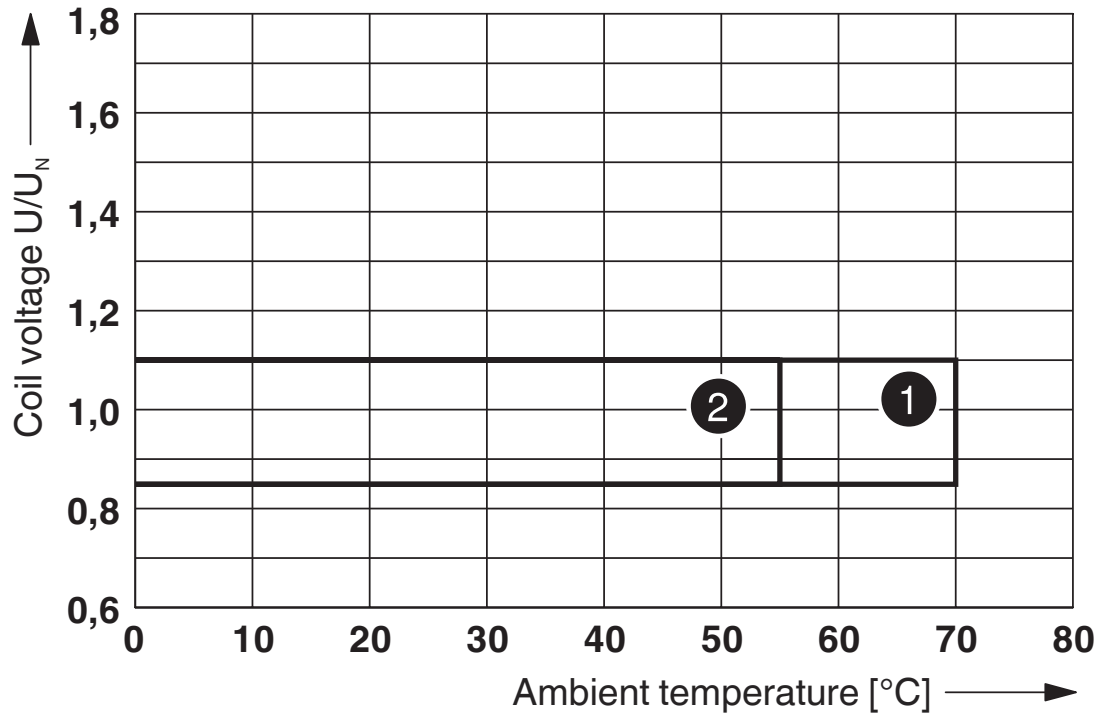
Diagram



250 V AC, ohmic load

Electrical service life

Diagram



- ① DC coils
- ② AC coils

Operating voltage range

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903693>



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



VDE Zeichengenehmigung

Approval ID: 40036588

cULus Recognized

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	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
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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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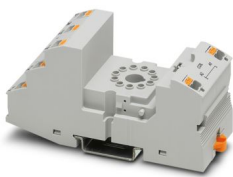
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Mandatory accessories

RIF-3-BPT/3X21 - Relay base

2900938

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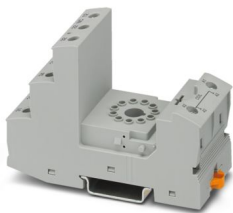


Relay base RIF-3..., for octal relays with 3 changeover contacts, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

RIF-3-BSC/3X21 - Relay base

2900936

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RIF-3... relay base, for octal relay with 3 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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