

REL-PR3- 24AC/3X21 - Single relay



2903703

<https://www.phoenixcontact.com/us/products/2903703>

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Plug-in high-power relay with power contacts, 3 changeover contacts, coil voltage: 24 V AC



Commercial data

Item number	2903703
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	CK6193
Catalog page	Page 312 (C-5-2019)
GTIN	4046356759151
Weight per piece (including packing)	84.3 g
Weight per piece (excluding packing)	84.3 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	2.78 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 AC
Input voltage range	20.4 V AC ... 26.4 V AC (20 °C)
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	116 mA
Input power dissipation for U_N	2.8 W
Typical response time	5 ms ... 25 ms (depending on phase relation)
Typical release time range	5 ms ... 20 ms (depending on phase relation)
Coil resistance	75 Ω $\pm$ 15 %

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	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 ... 55 °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

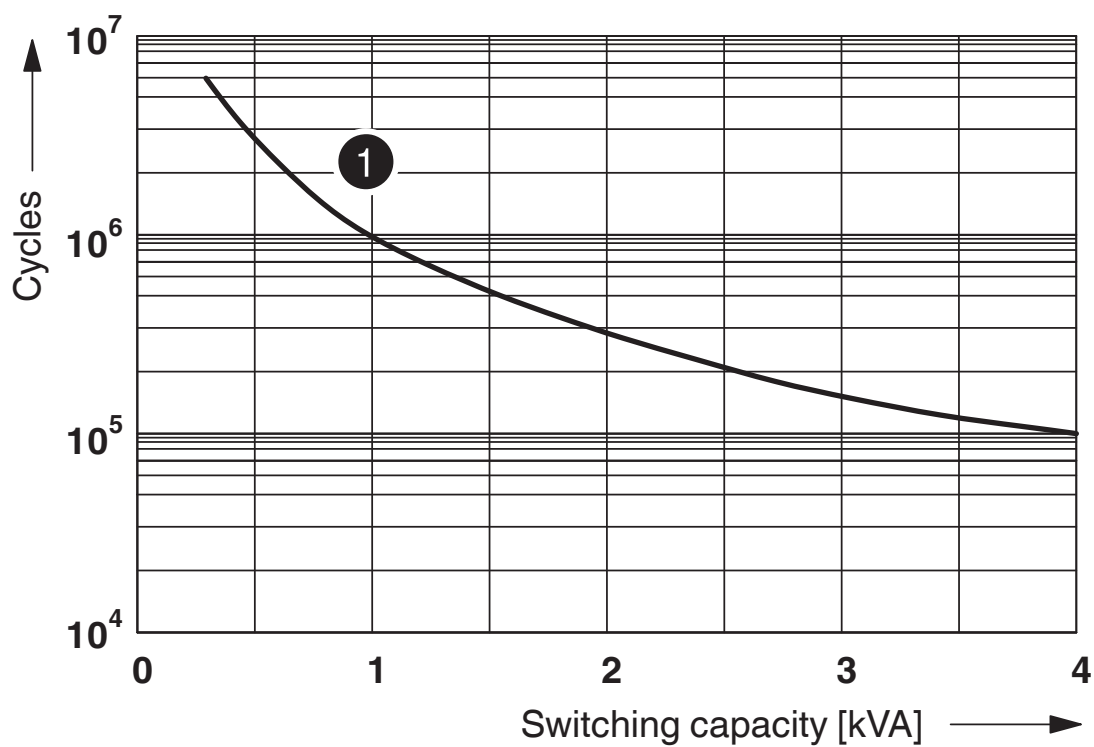
Standards/regulations	IEC 60664
	IEC 61810

Mounting

Mounting position	any
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Drawings

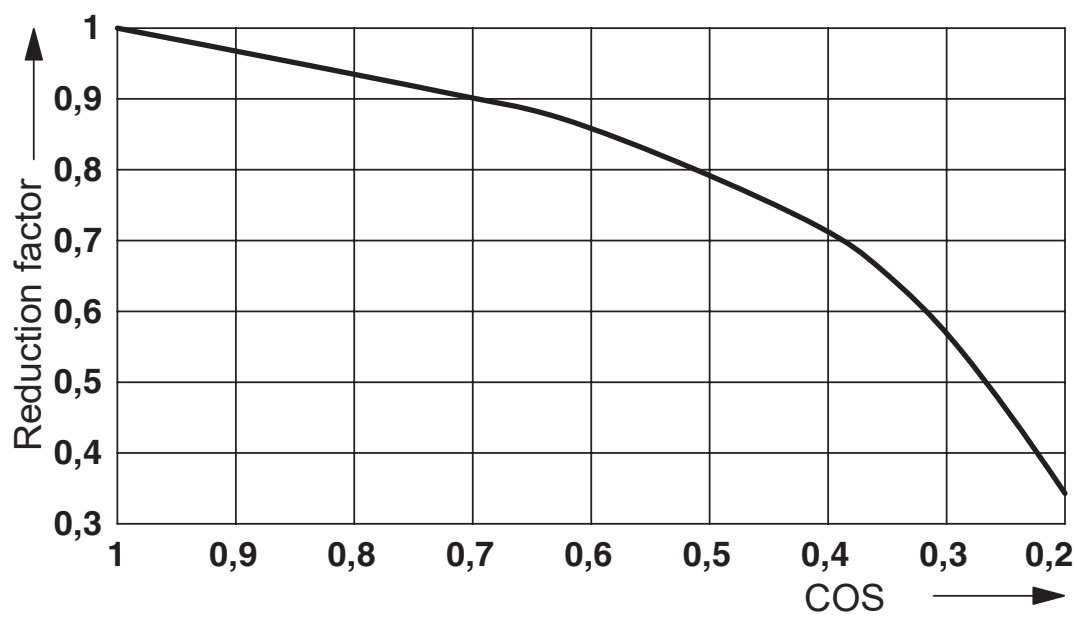
Diagram



① 250 V AC, Ohmic load

Electrical service life

Diagram



Service life reduction factor

Diagram



Permissible humidity for operation and storage.

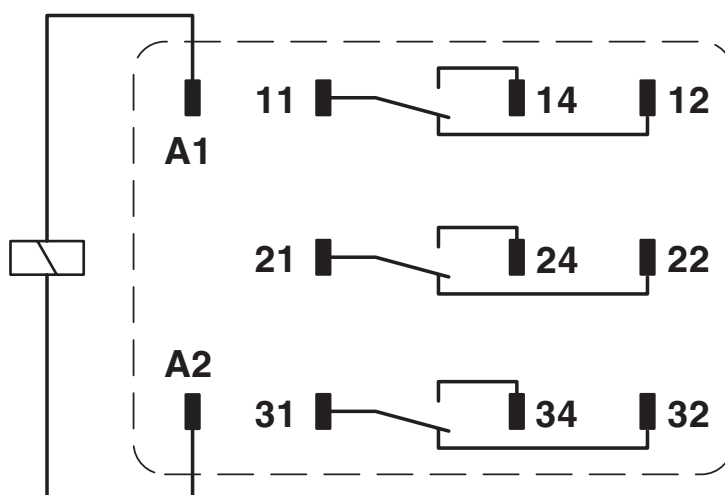
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

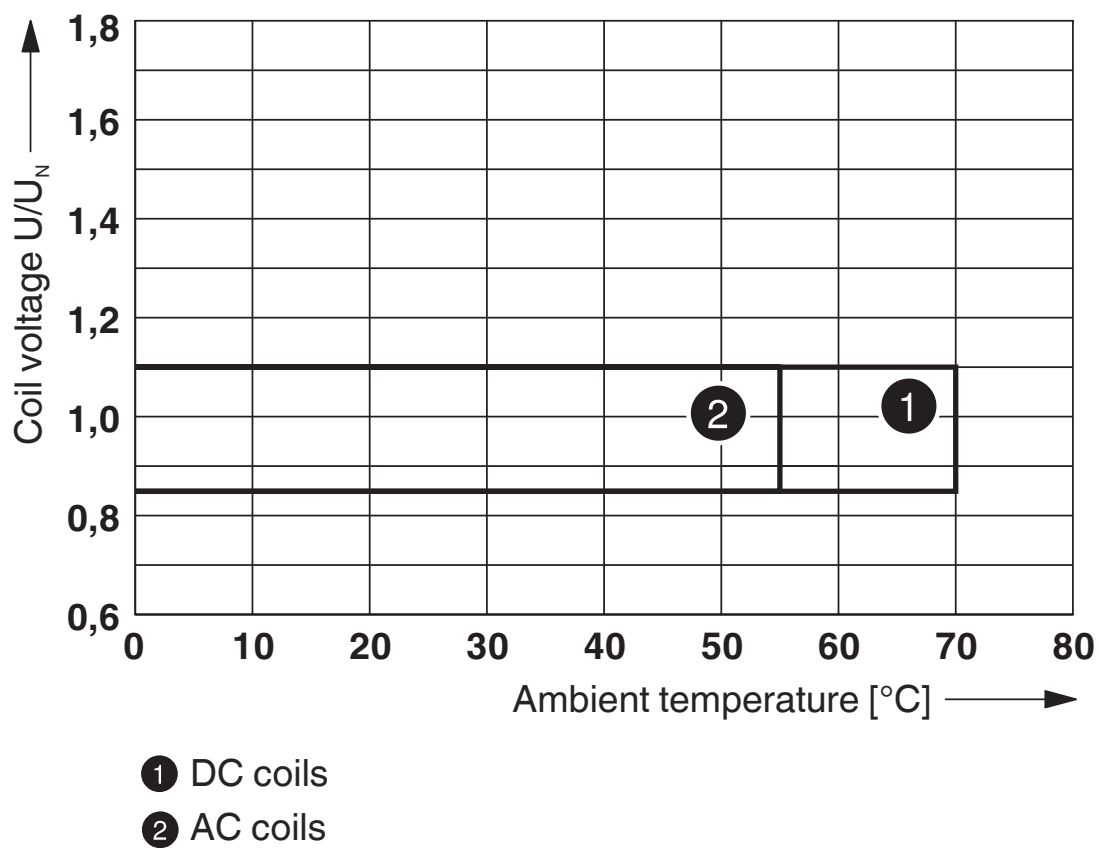
Area B: Condensation at ambient temperatures $> 0^{\circ}\text{C}$ must be prevented

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

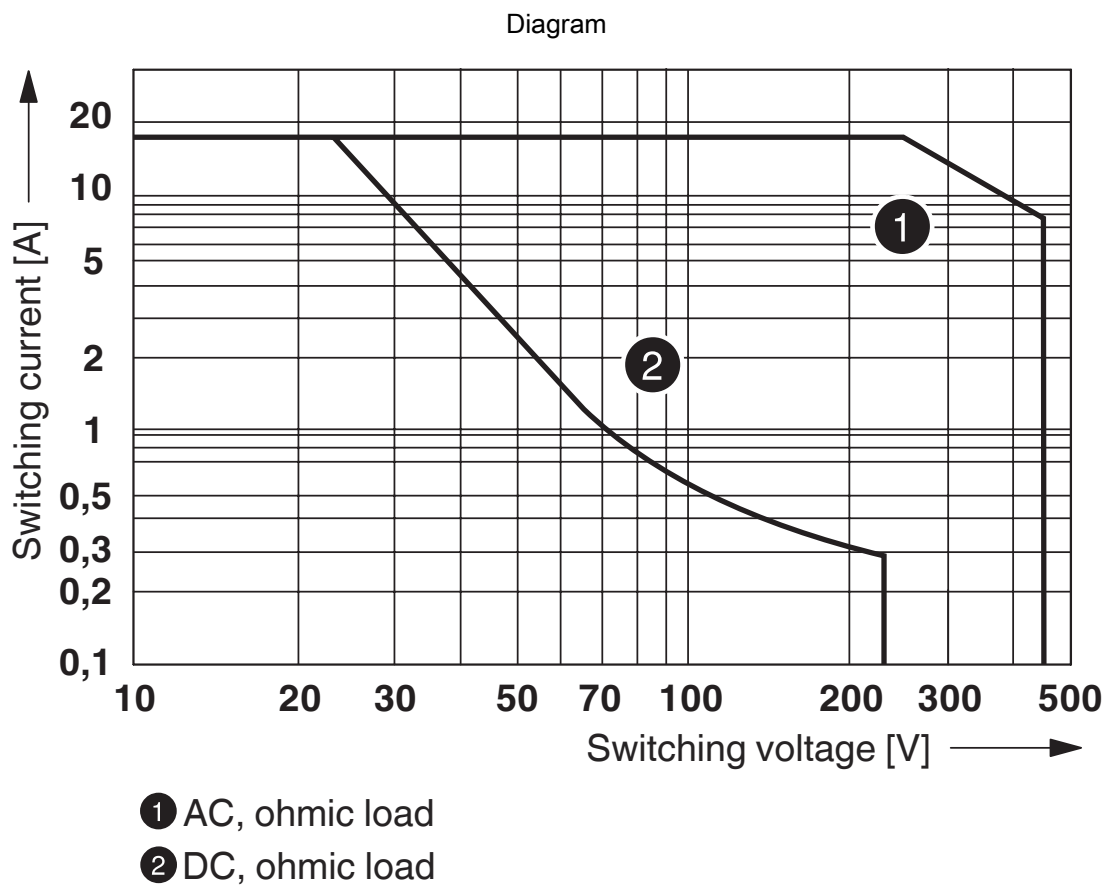
Circuit diagram



Diagram



Operating voltage range



Interrupting rating

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2903703>



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

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

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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