

REL-IR4/230AC/4X21/EX - Single relay



2909742

<https://www.phoenixcontact.com/us/products/2909742>

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Pluggable industrial relay, RT III sealed with power contacts, 4x changeover contacts, mechanical switch position indicator, polarity: non-polarized, input voltage: 230 V AC, in connection with RIF-2.../EX bases approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

Commercial data

Item number	2909742
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	CK6193
Catalog page	Page 345 (C-5-2019)
GTIN	4055626379920
Weight per piece (including packing)	32.85 g
Weight per piece (excluding packing)	32.85 g
Customs tariff number	85364900
Country of origin	PL

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Technical data

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	II
Pollution degree	2

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 kV _{rms} (50 Hz, 1 min., changeover contact/changeover contact)
Rated insulation voltage	250 V AC
Rated surge voltage	2.5 kV

Input data

Coil side

Nominal input voltage U_N	230 V AC
Input voltage range	179.4 V AC ... 317.4 V AC
Input voltage range in reference to U_N	see diagram
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	6.5 mA
Typical response time	5 ms ... 15 ms (depending on phase relation)
Typical release time range	5 ms ... 20 ms (depending on phase relation)
Status display	Yellow LED

Output data

Switching

Contact switching type	4 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (At 24 mA)

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Limiting continuous current	6 A
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	5 mA (at 24 V)
Interrupting rating (ohmic load) max.	144 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)
	1500 VA (for 250 V AC)
Switching capacity min.	0.12 W
Switching capacity	2 A (at 24 V, DC13)
	0.22 A (at 120 V, DC13)
	0.11 A (at 250 V, DC13)
	1.5 A (at 24 V, AC15)
	1.5 A (at 120 V, AC15)
	1 A (at 240 V, AC15)
Motor load according to UL 508	1/3 HP, 240 V AC

Connection data

Connection method	Plug-in connection
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Dimensions

Width	21.2 mm
Height	27.5 mm
Depth	35.6 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT III
Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

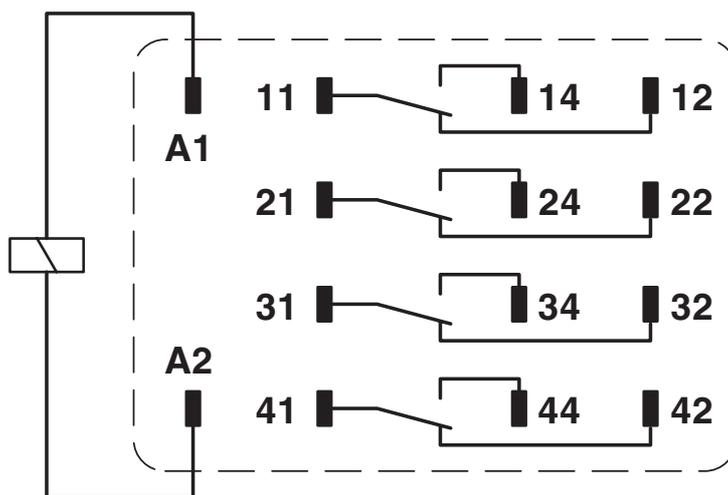
Standards/regulations	IEC 60664
	IEC 61810

Mounting

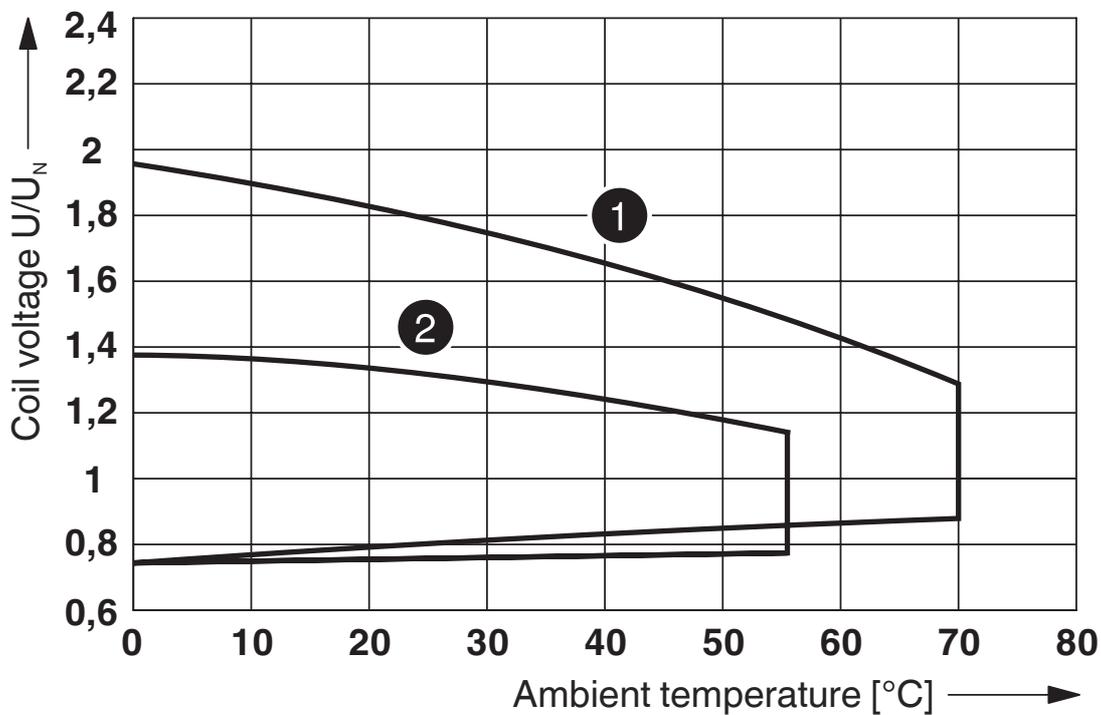
Mounting position	any
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Drawings

Circuit diagram



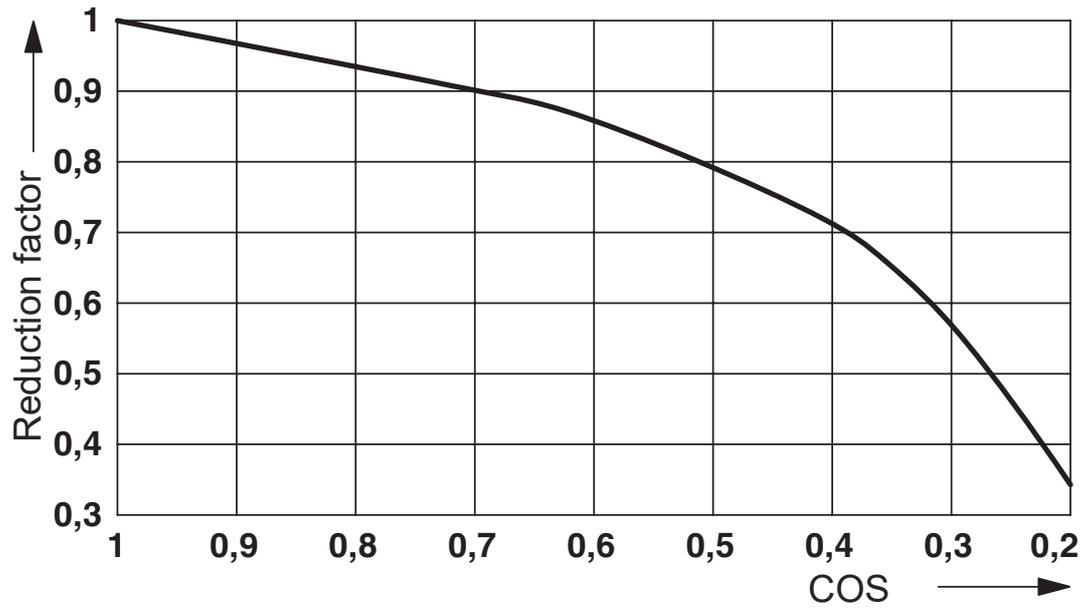
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

Diagram



Service life reduction factor

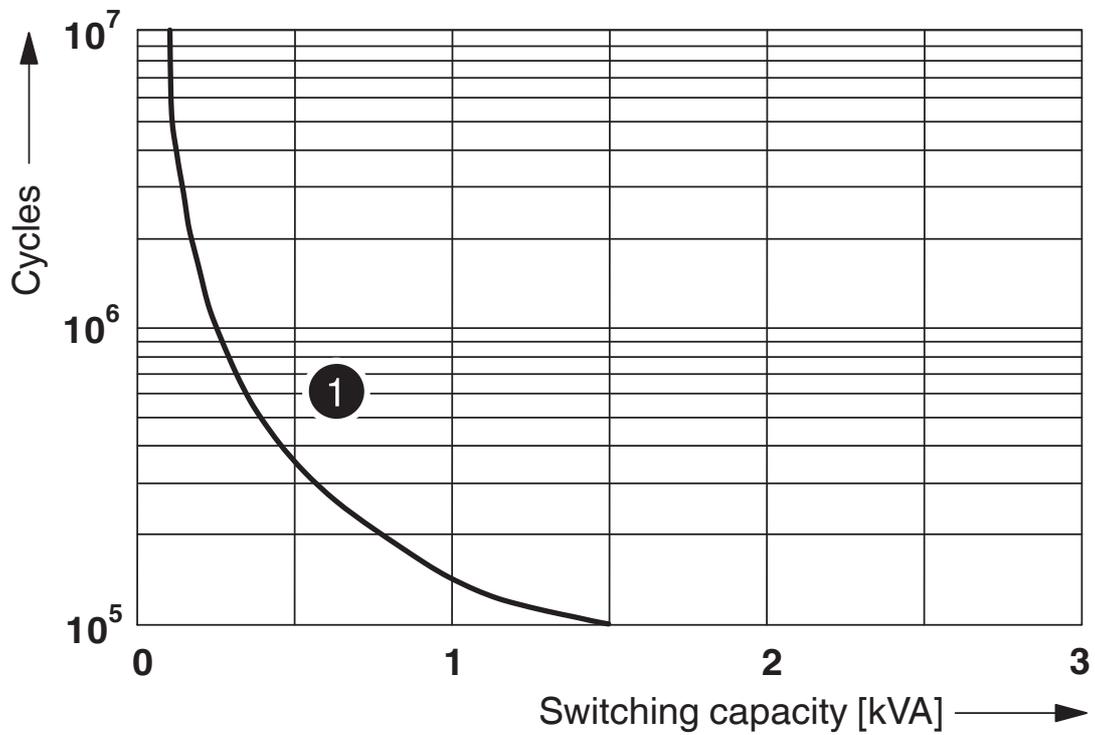
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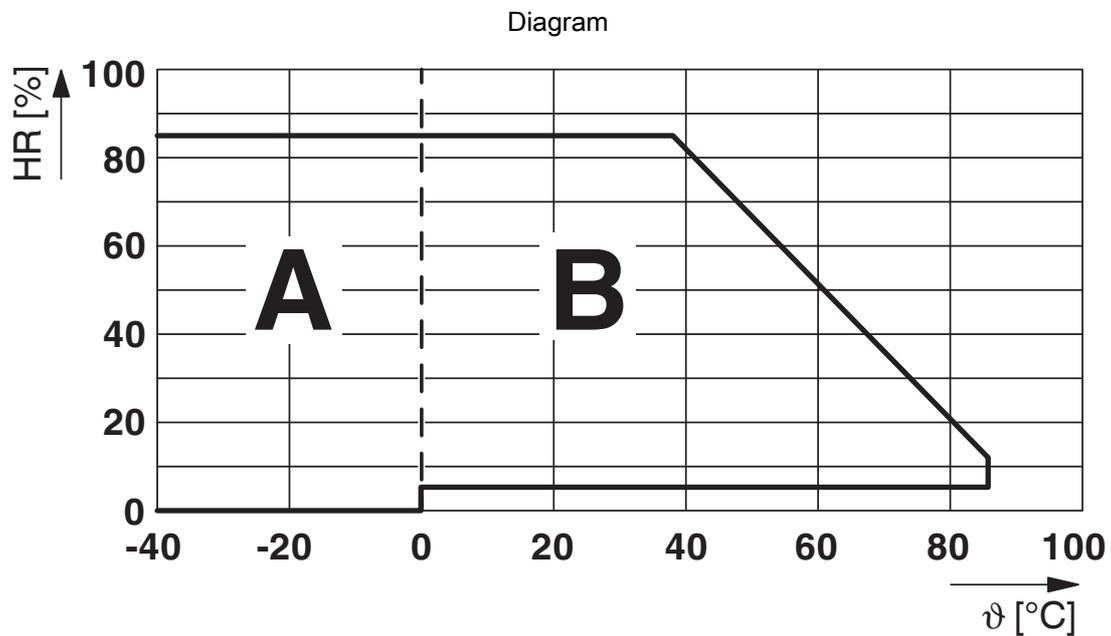
<https://www.phoenixcontact.com/us/products/2909742>

Diagram



① 250 V AC, Ohmic load

Electrical service life



Permissible humidity for operation and storage.

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

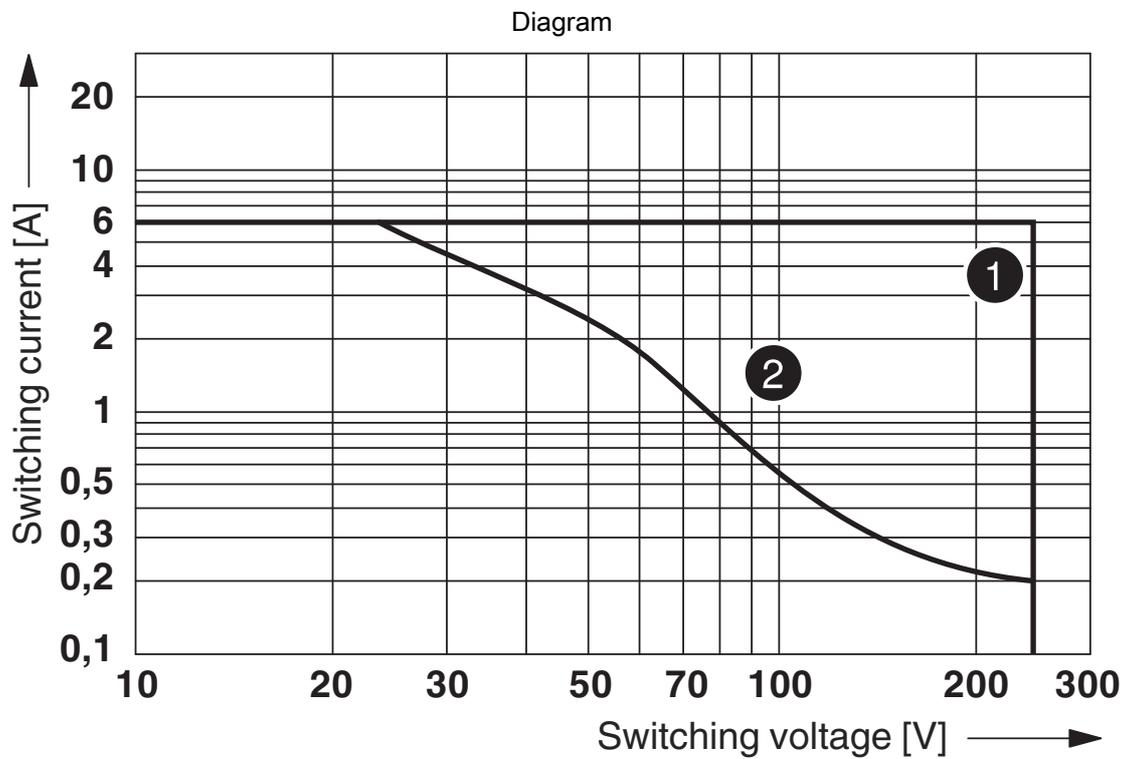
Area A: Ice buildup at ambient temperatures $\leq 0^\circ\text{C}$ must be prevented

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 $\leq 25^\circ\text{C}$.

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- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909742>



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

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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-2-BPT/4X21/EX - Relay base

1047028

<https://www.phoenixcontact.com/us/products/1047028>



RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, Push-in connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

RIF-2-BSC/4X21/EX - Relay base

1047031

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RIF-2.../EX relay base for assembling with RTIII-sealed industrial relays with 4 changeover contacts for use in zone 2, screw connection, plug-in option for input / interference suppression modules, for mounting on NS 35/7,5

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