

Single relay - REL-IR4/120AC/4X21/EX



2909744

<https://www.phoenixcontact.com/us/products/2909744>

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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: 120 V AC, in connection with RIF-2.../EX bases approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

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Commercial Data

Item number	2909744
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	C05
Product Key	CK6193
Catalog Page	Page 345 (C-5-2019)
GTIN	4055626379937
Weight per Piece (including packing)	34.8 g
Weight per Piece (excluding packing)	34.8 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

Overvoltage category	II
Pollution degree	2
Insulation	Basic insulation

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	1.56 W
Test voltage	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	120 V AC
Input voltage range	93.6 V AC ... 165.6 V AC
Input voltage range in reference to U_N	see diagram
Mains frequency	50/60 Hz
Typical input current at U_N	13 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 type	4 changeover contacts
Type of switch contact	Single contact
Drive and function	monostable
Drive (polarity)	bipolar
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (At 24 mA)
Limiting continuous current	6 A
Maximum inrush current	16 A (20 ms, N/O contacts)
Min. switching current	5 mA (at 24 V)

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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

Approval data

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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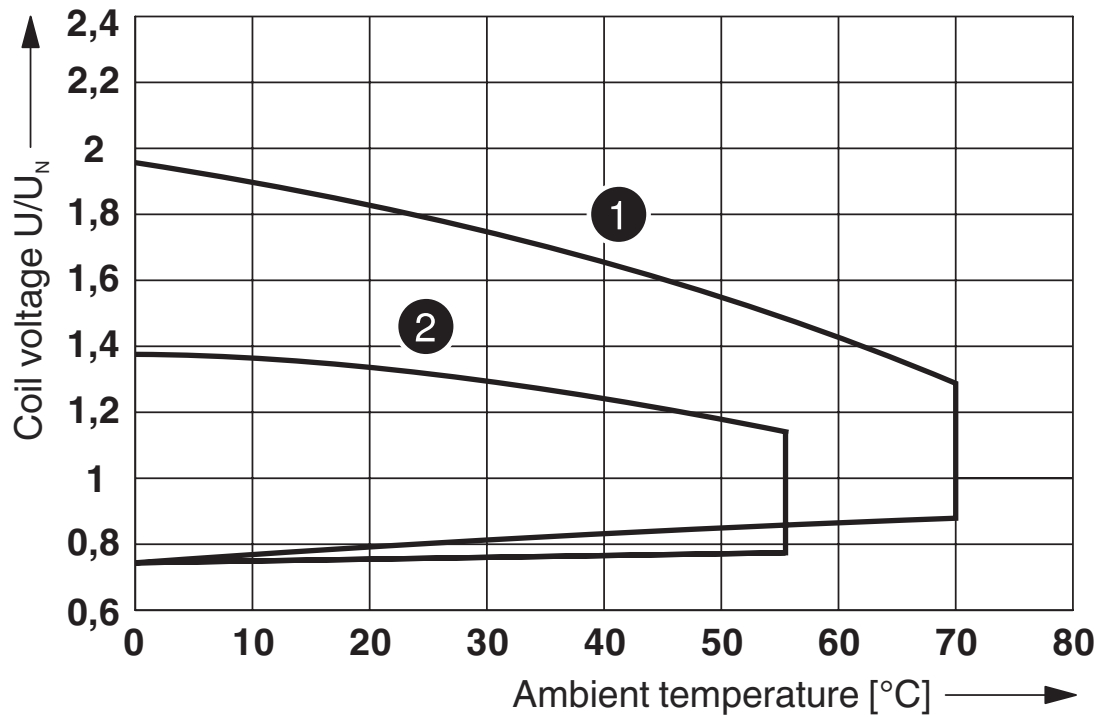
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Drawings

Diagram



- ① DC coils
- ② AC coils

Operating voltage range

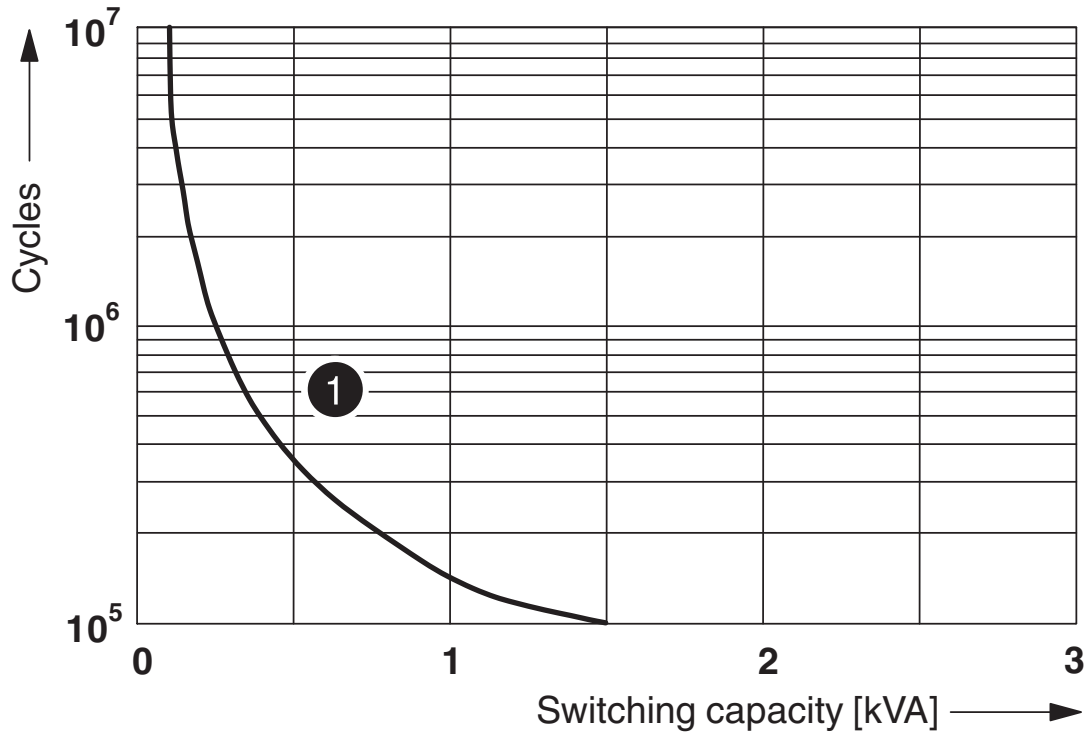
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Diagram



① 250 V AC, Ohmic load

Electrical service life

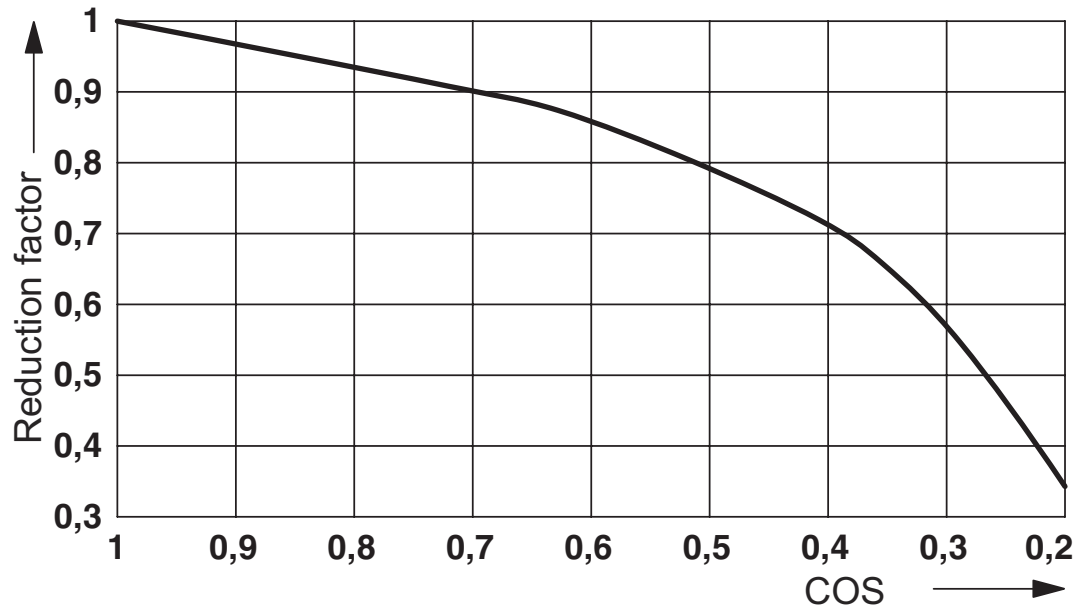
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Diagram

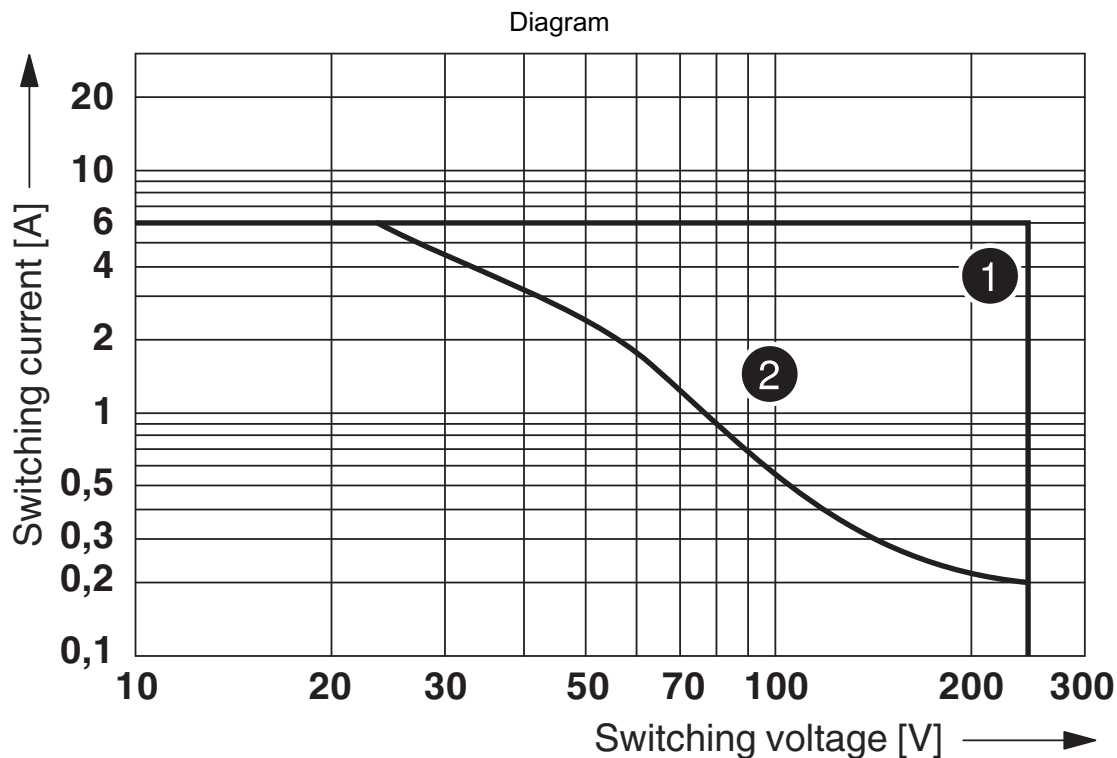


Service life reduction factor

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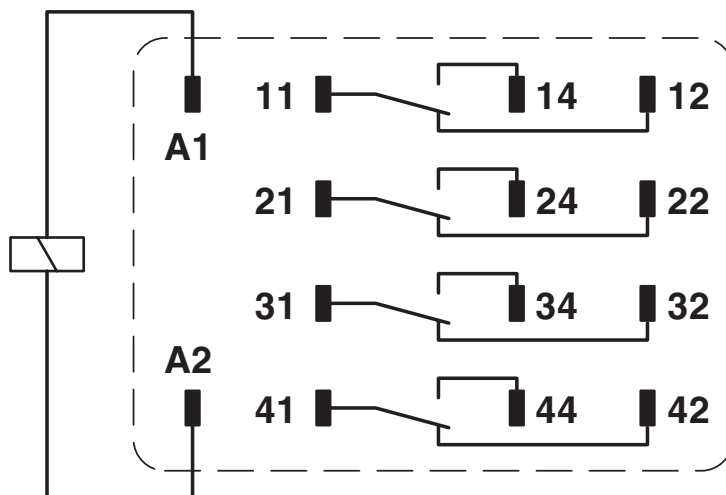
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- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Circuit diagram



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Approvals



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

cULus Recognized

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Classifications

ECLASS

ECLASS-9.0	27371601
ECLASS-10.0.1	27371601
ECLASS-11.0	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

Relay base

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

Relay base

Relay base - RIF-2-BSC/4X21/EX - 1047031

<https://www.phoenixcontact.com/us/products/1047031>



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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