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

2909744

https://www.phoenixcontact.com/pc/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.

Commercial data

Item number	2909744
Packing unit	10 pc
Minimum order quantity	10 pc
Product key	DK694H
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. 2x 10^7 cycles

Insulation characteristics

Insulation	Basic insulation
Overvoltage category	II
Pollution degree	2

Data management status

Date of last data management	02.05.2024

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	1.56 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	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
Drive and function	monostable
Drive (polarity)	non-polarized
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	LED (yellow)

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

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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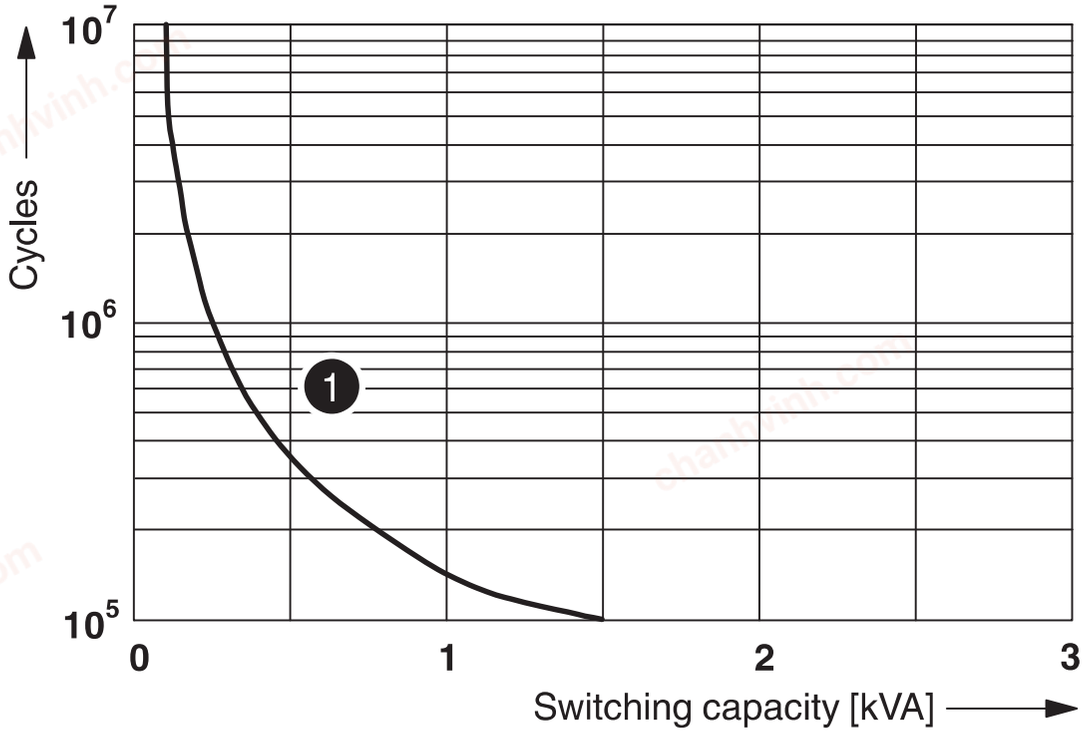
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Drawings

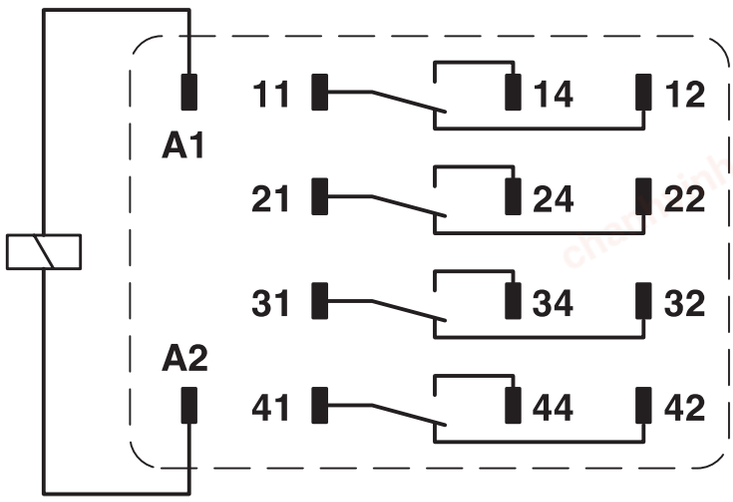
Diagram



1 250 V AC, Ohmic load

Electrical service life

Circuit diagram



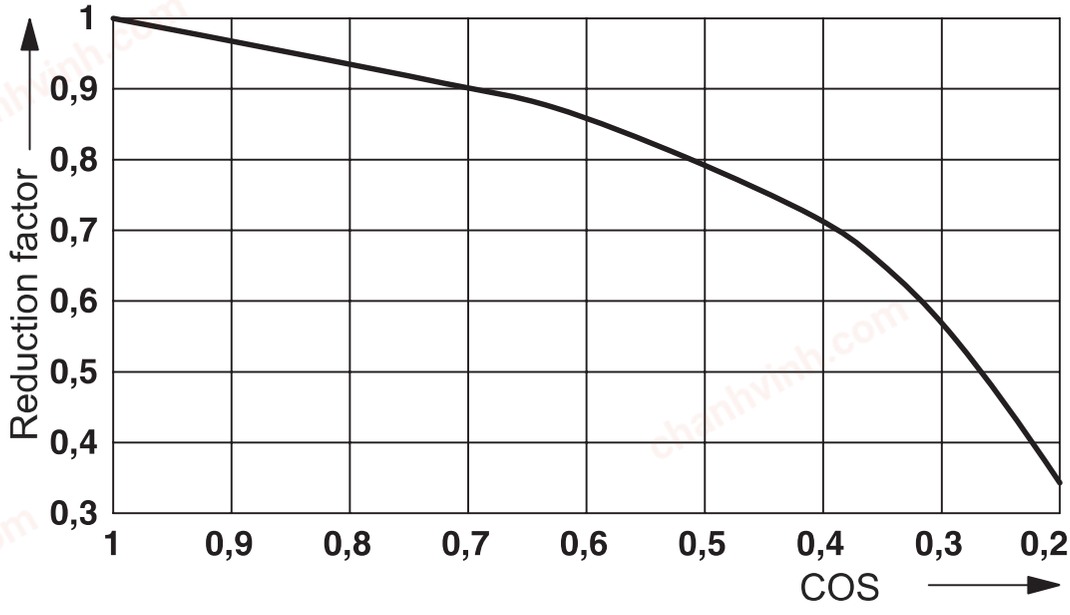
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Diagram



Service life reduction factor

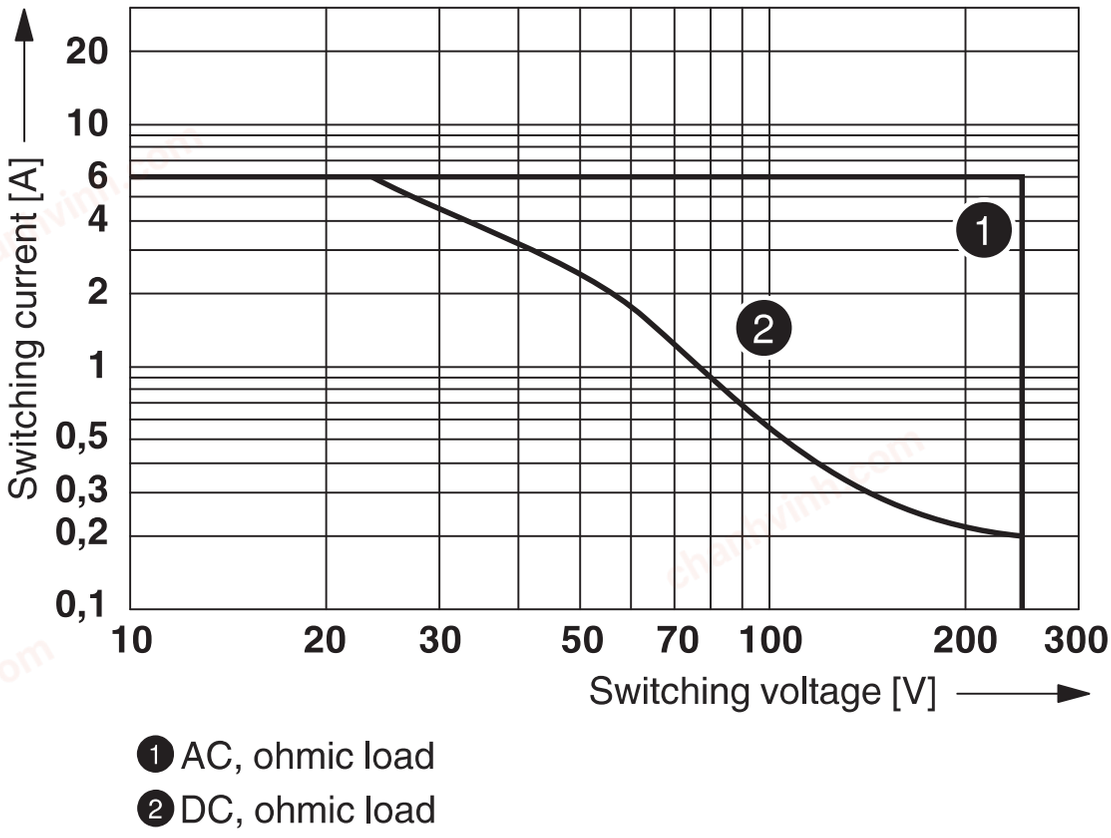
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Diagram



1 AC, ohmic load

2 DC, ohmic load

Interrupting rating

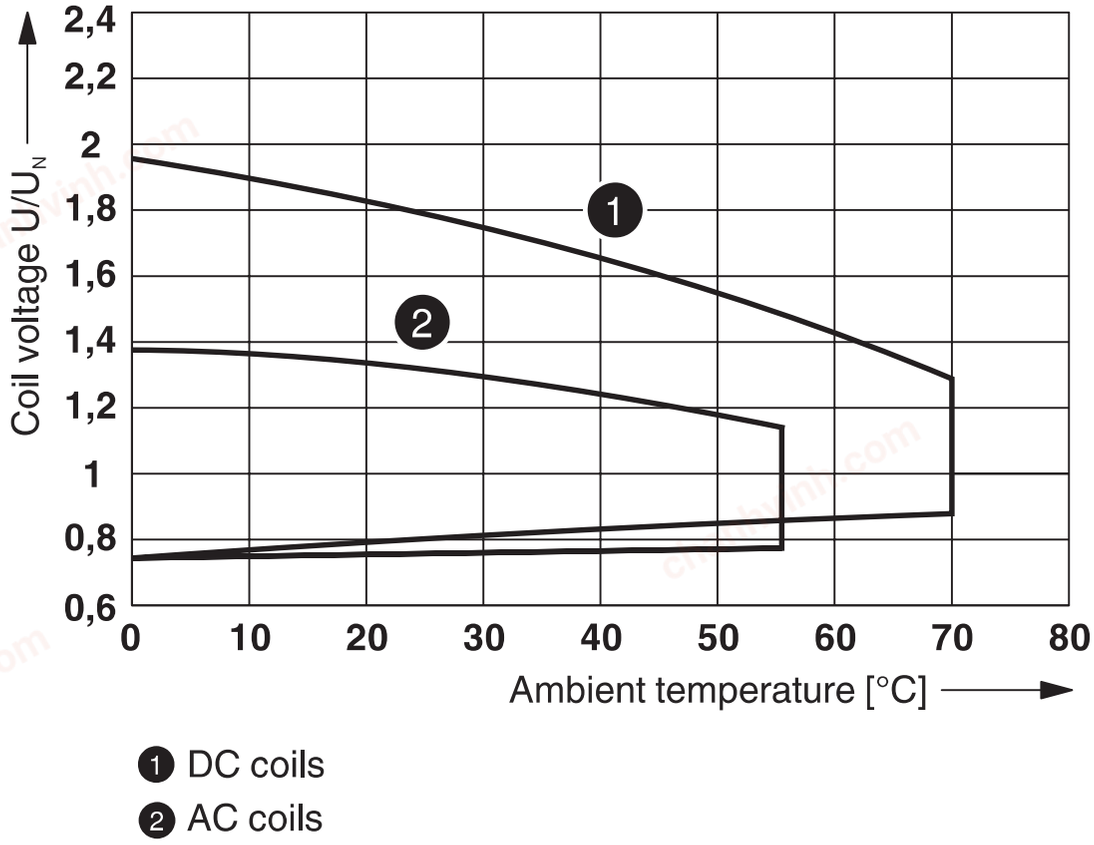
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Diagram



1 DC coils

2 AC coils

Operating voltage range

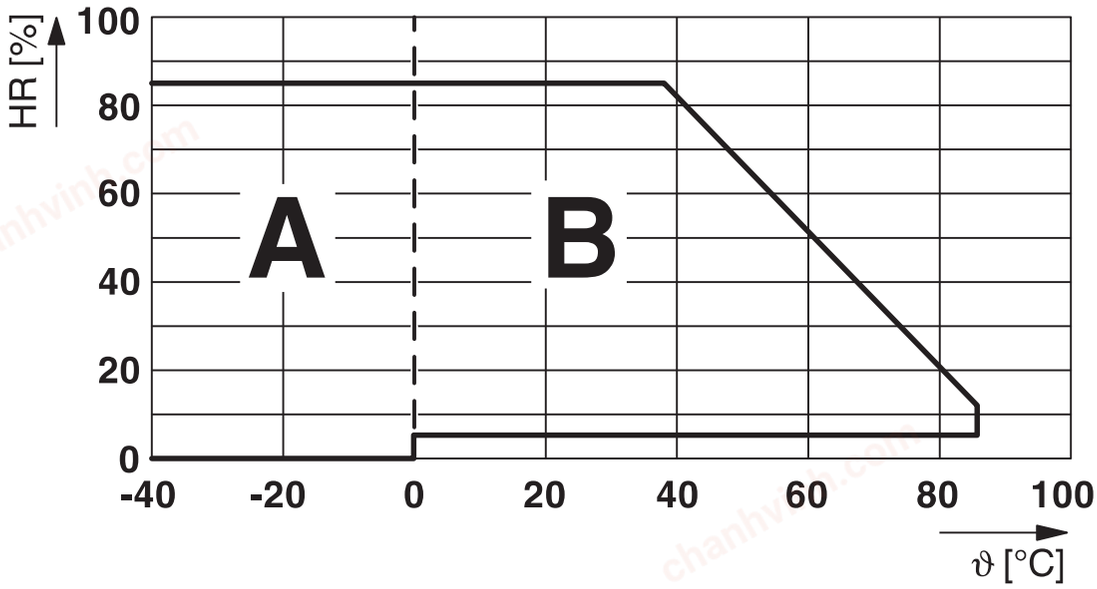
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Diagram



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 ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°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 ≤ 25°C.

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2909744

cUL Recognized
Approval ID: FILE E 172140

UL Recognized
Approval ID: FILE E 172140

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 9.0	EC001437

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%

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