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REL-PR1-230AC/1/MB - Single relay

2908047

https://www.phoenixcontact.com/pc/products/2908047

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Plug-in high-power relay with power contacts, specifically for switching high DC loads, 1 N/O contact, blowout magnet, coil voltage: 230 V AC

Commercial data

Item number	2908047
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	DK6961
Catalog page	Page 314 (C-5-2019)
GTIN	4055626266916
Weight per piece (including packing)	80.5 g
Weight per piece (excluding packing)	80.5 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

Overvoltage category	III
Pollution degree	3

Data management status

Date of last data management	02.05.2024

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	2.76 W
Test voltage (Winding/contact)	2.5 kV (50 Hz, 1 min., winding/contact)
Rated surge voltage	4 kV

Input data

Coil side

Nominal input voltage U_N	230 V AC
Input voltage range	195.5 V AC ... 253 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	12 mA
Typical response time	5 ms ... 25 ms (depending on phase relation)
Typical release time range	5 ms ... 18 ms (depending on phase relation)

Output data

Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	440 V AC
	250 V DC
Minimum switching voltage	5 V (At 24 mA)
Limiting continuous current	16 A
Maximum inrush current	50 A (20 ms)
	30 A (4 s)

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Min. switching current	5 mA (at 24 V)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	744 W (at 48 V DC)
	900 W (at 60 V DC)
	1540 W (at 110 V DC)
	2640 W (at 220 V DC)
	4000 VA (for 250 V AC)
Switching capacity min.	120 mW
Switching capacity	1 A (220 V, DC13)
	1.5 A (240 V, AC15)
	16 A (24 V DC, L/R = 40 ms)
	12 A (48 V DC, L/R = 40 ms)
	9.5 A (60 V DC, L/R = 40 ms)
	5.4 A (110 V DC, L/R = 40 ms)
	3 A (220 V DC, L/R = 40 ms)
	2.7 A (250 V DC, L/R = 40 ms)

Connection data

Connection method	Plug-in connection

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
Ambient temperature (operation)	-40 °C ... 70 °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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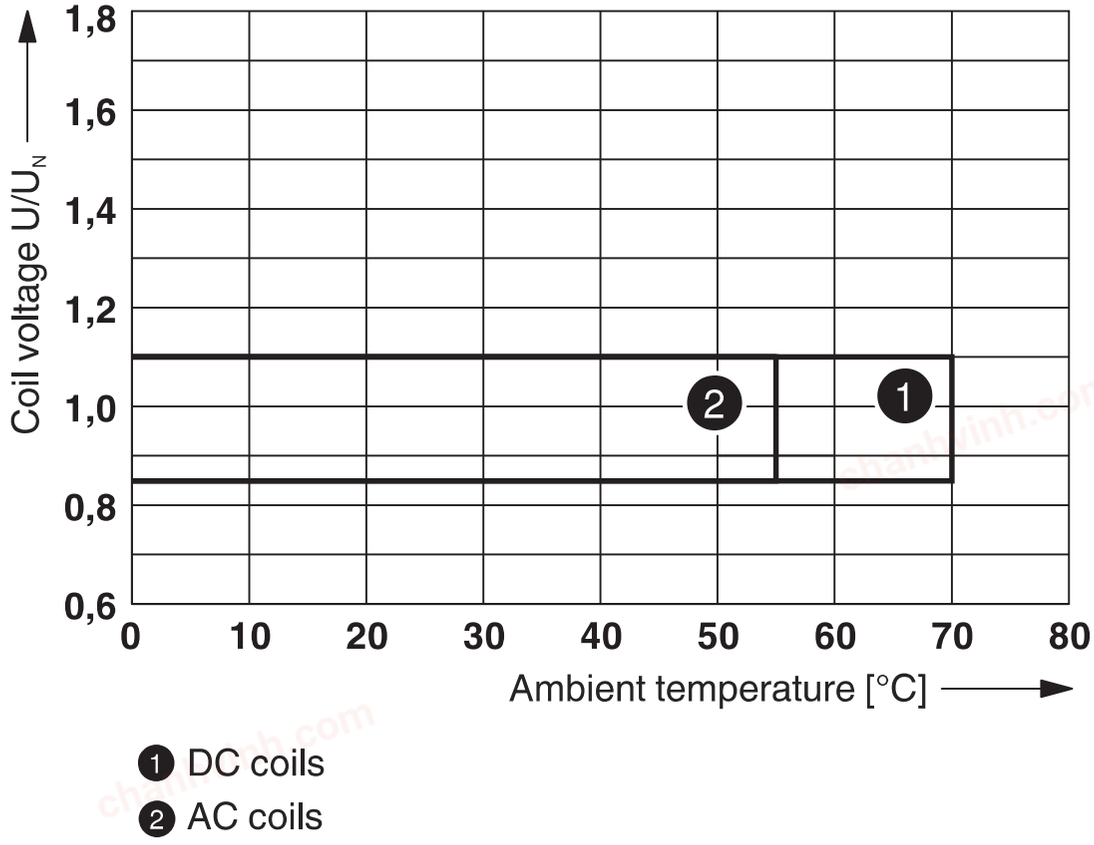
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Drawings

Diagram



1 DC coils
2 AC coils

Operating voltage range

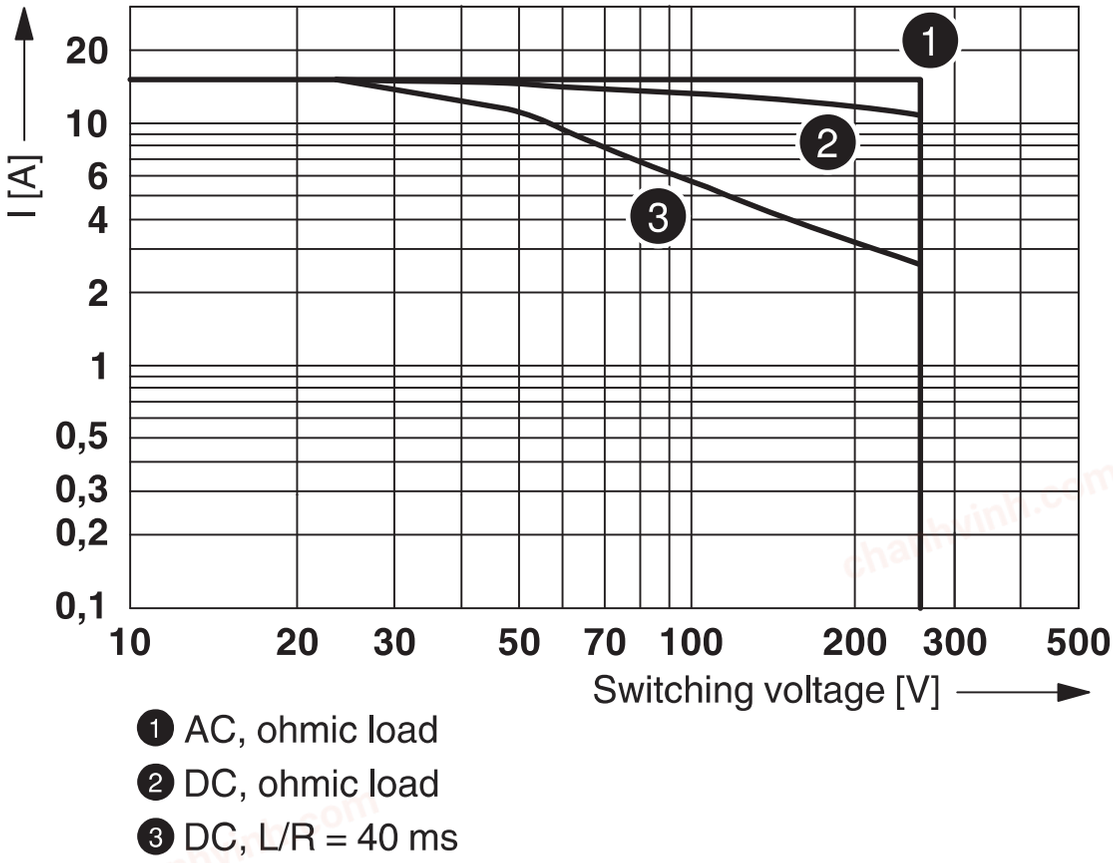
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Diagram



1 AC, ohmic load

2 DC, ohmic load

3 DC, L/R = 40 ms

Interrupting rating

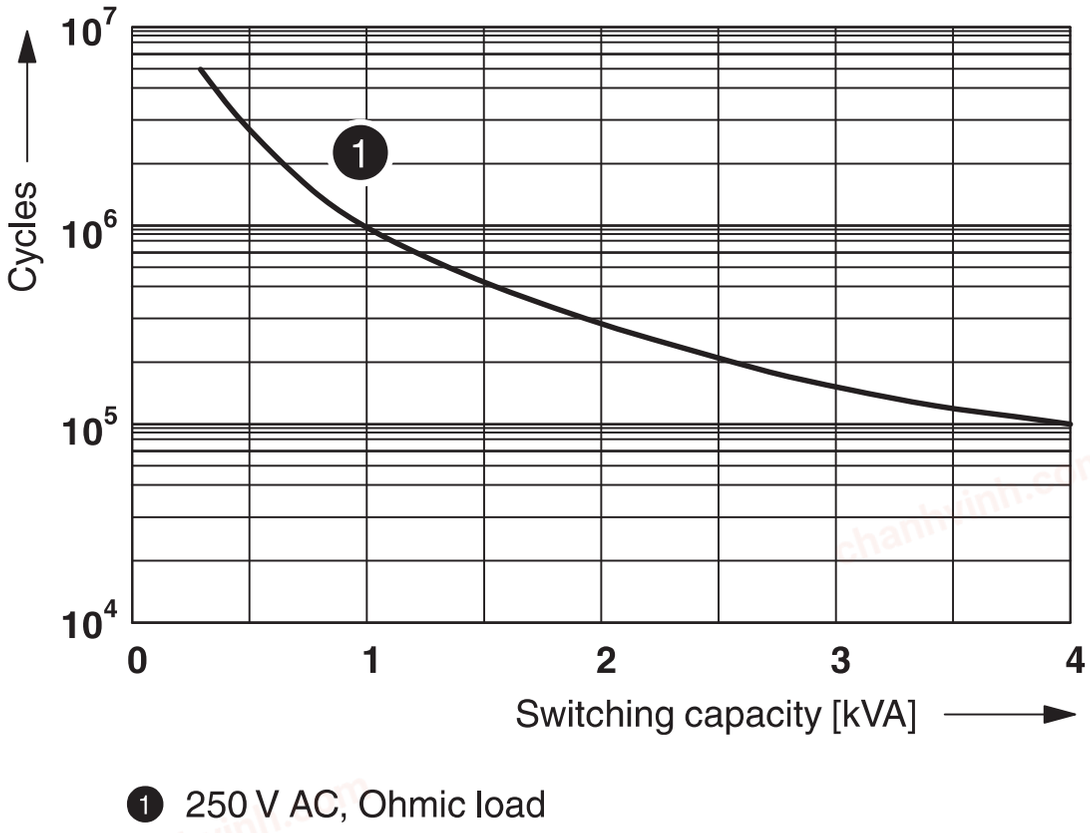
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Diagram



1 250 V AC, Ohmic load

Electrical service life

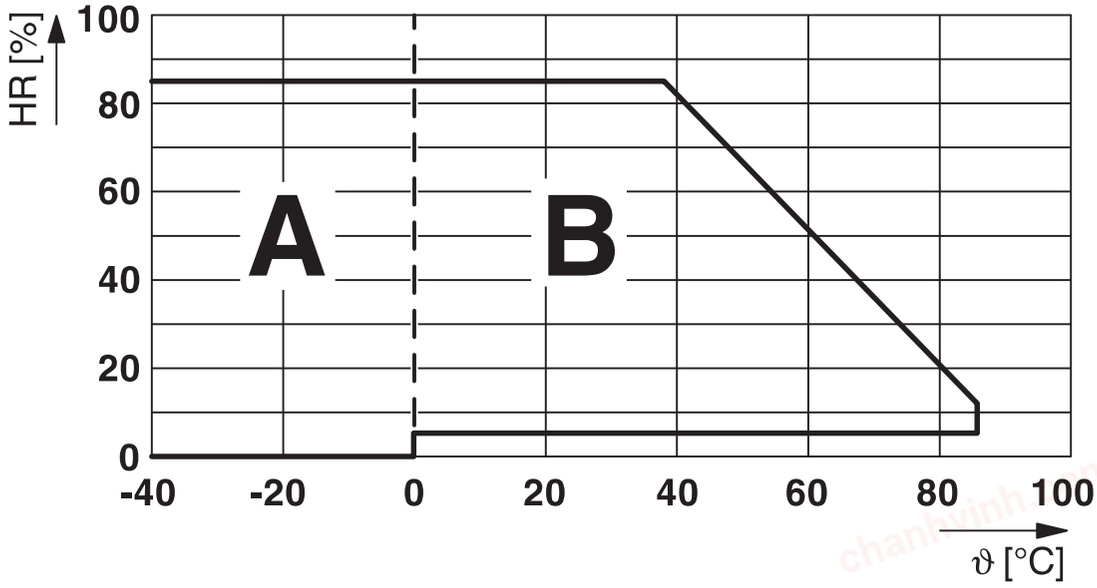
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Diagram

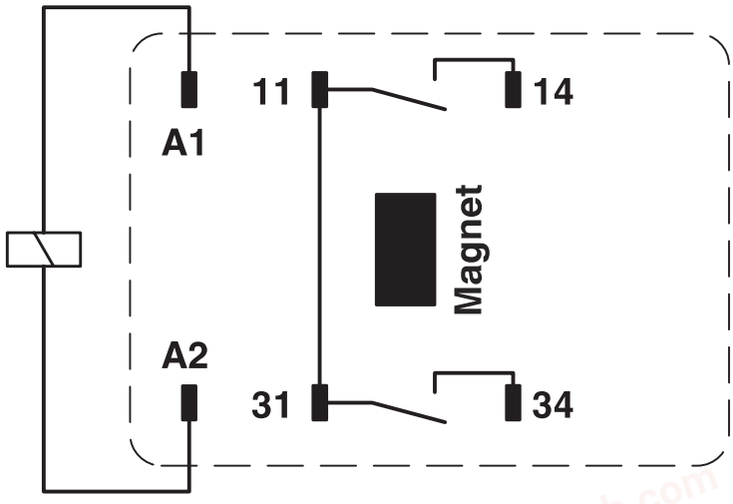


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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.

Circuit diagram



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/2908047

CSA
Approval ID: 256725

cUL Recognized
Approval ID: FILE E 172140

UL Recognized
Approval ID: FILE E 172140

EAC
Approval ID: RU*C-DE.*08.B.00010

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

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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