

# REL-PR1-24DC/1/MB - Single relay



2908040

<https://www.phoenixcontact.com/us/products/2908040>

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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: 24 V DC

## Commercial data

Item number	2908040
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C460
Product key	DK6961
GTIN	4055626266473
Weight per piece (including packing)	83.4 g
Weight per piece (excluding packing)	83.1 g
Customs tariff number	85364190
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. $2 \times 10^7$ cycles

### Insulation characteristics

Overvoltage category	III
Pollution degree	3

### Data management status

Date of last data management	01.04.2026
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### Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	1.68 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 $U_N$	24 V DC
Input voltage range	20.4 V DC ... 26.4 V DC
Input voltage range in reference to $U_N$	see diagram
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at $U_N$	70 mA
Typical response time	20 ms
Typical release time	15 ms

### 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)
Min. switching current	5 mA (at 24 V)

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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 power 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
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## Dimensions

### Item 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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## Drawings

Diagram



- ① DC coils
- ② AC coils

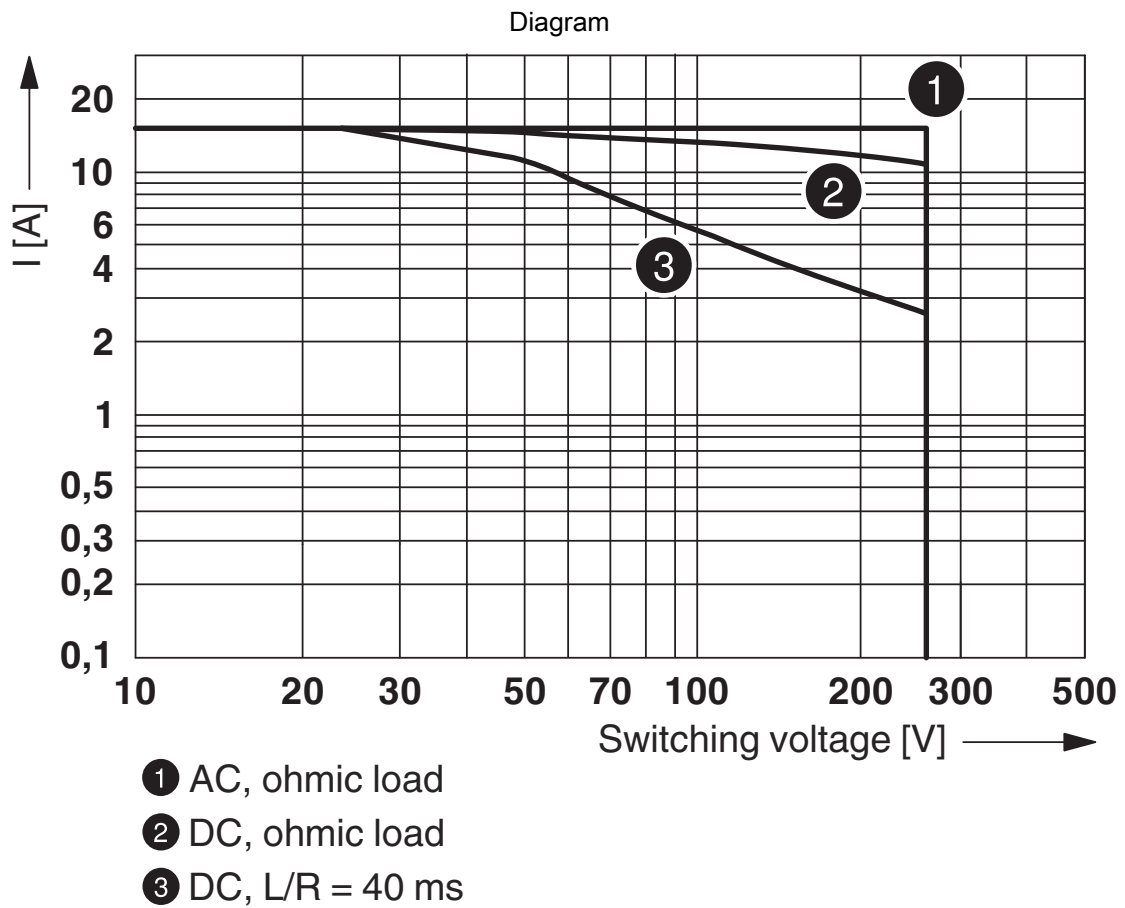
Operating voltage range

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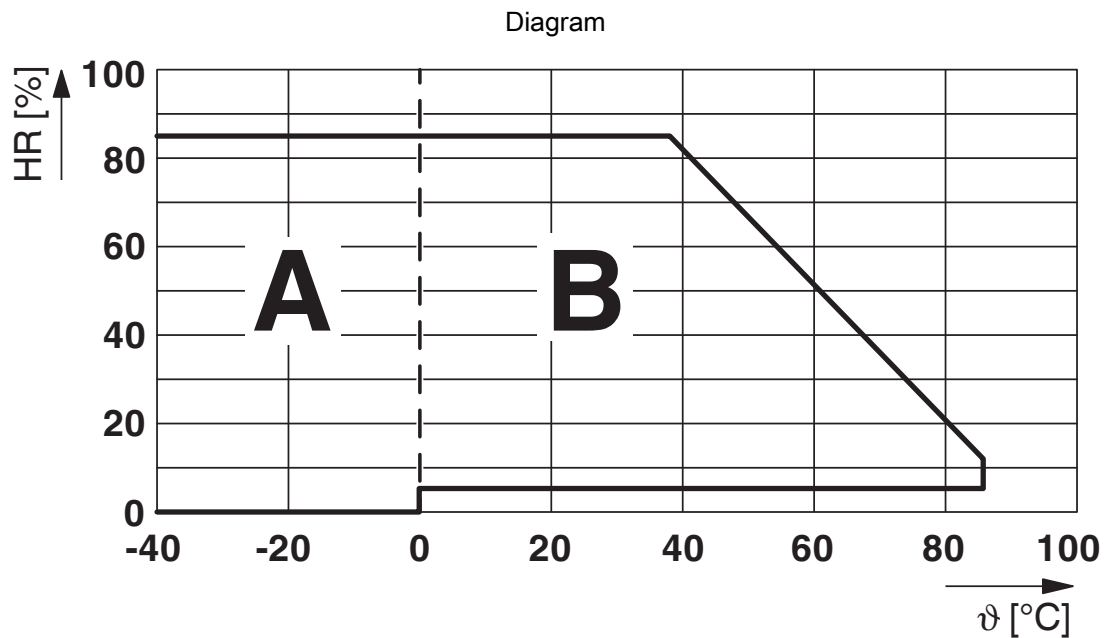


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Interrupting rating



Permissible humidity for operation and storage.

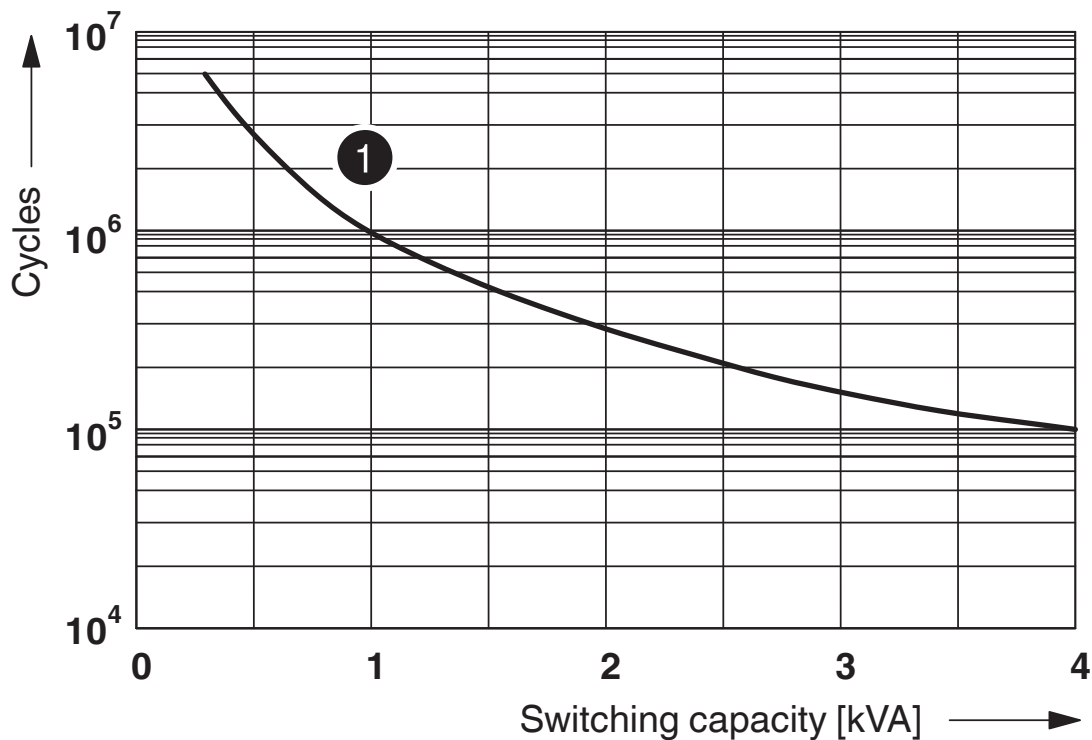
The maximum permissible ambient temperature as specified in the data sheet must be observed.

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

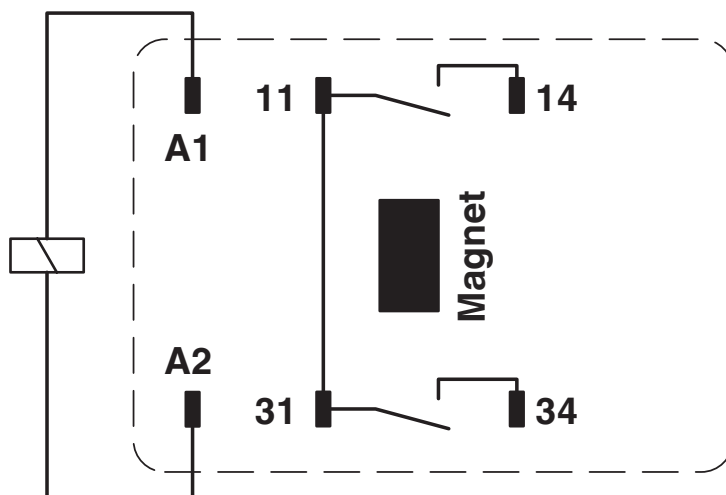
Diagram



① 250 V AC, Ohmic load

Electrical service life

Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2908040>



**CSA**

Approval ID: 256725



**EAC**

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



**cULus Recognized**

Approval ID: E172140

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## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 10.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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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### EF3.1 Climate Change

CO2e kg	1.531 kg CO2e
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