

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

2908040

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



Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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

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

2908040

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



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	III
Pollution degree	3

Data management status

Date of last data management	05.09.2025
------------------------------	------------

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)

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

2908040

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



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
-------------------	-----

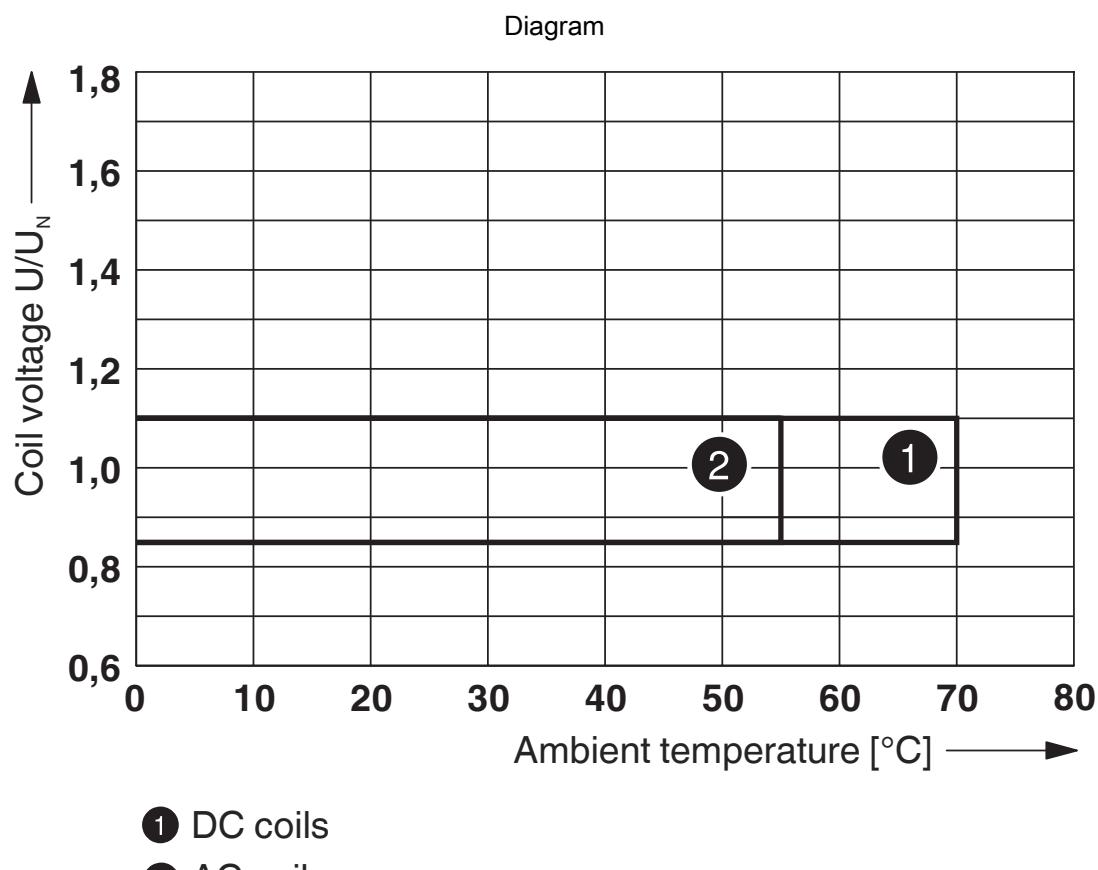
REL-PR1-24DC/1/MB - Single relay

2908040

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



Drawings



Operating voltage range

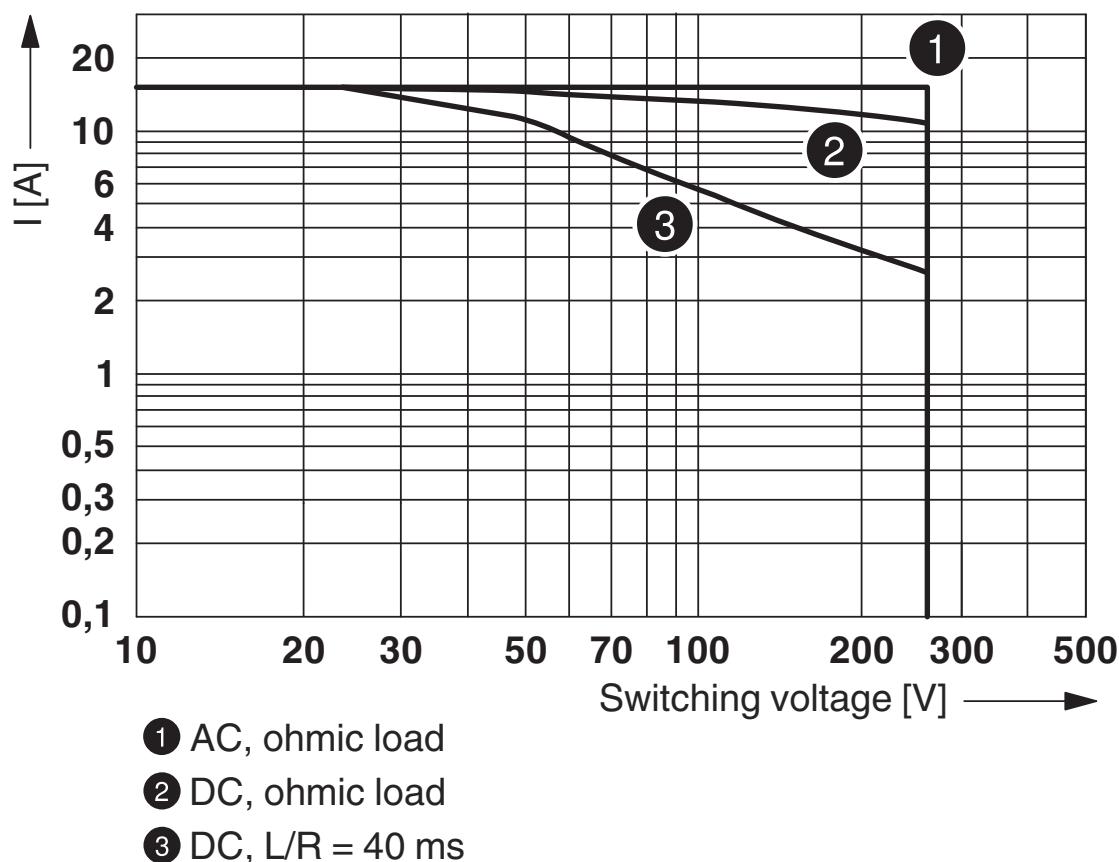
REL-PR1-24DC/1/MB - Single relay

2908040

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



Diagram



Interrupting rating

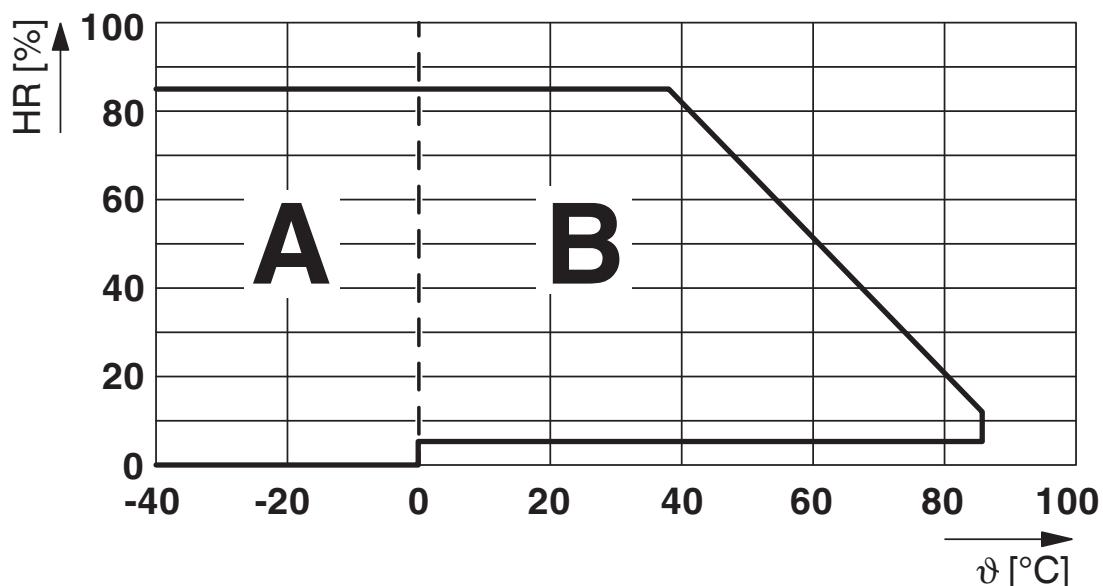
REL-PR1-24DC/1/MB - Single relay

2908040

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



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 $\leq 0^\circ\text{C}$ 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 $\leq 25^\circ\text{C}$.

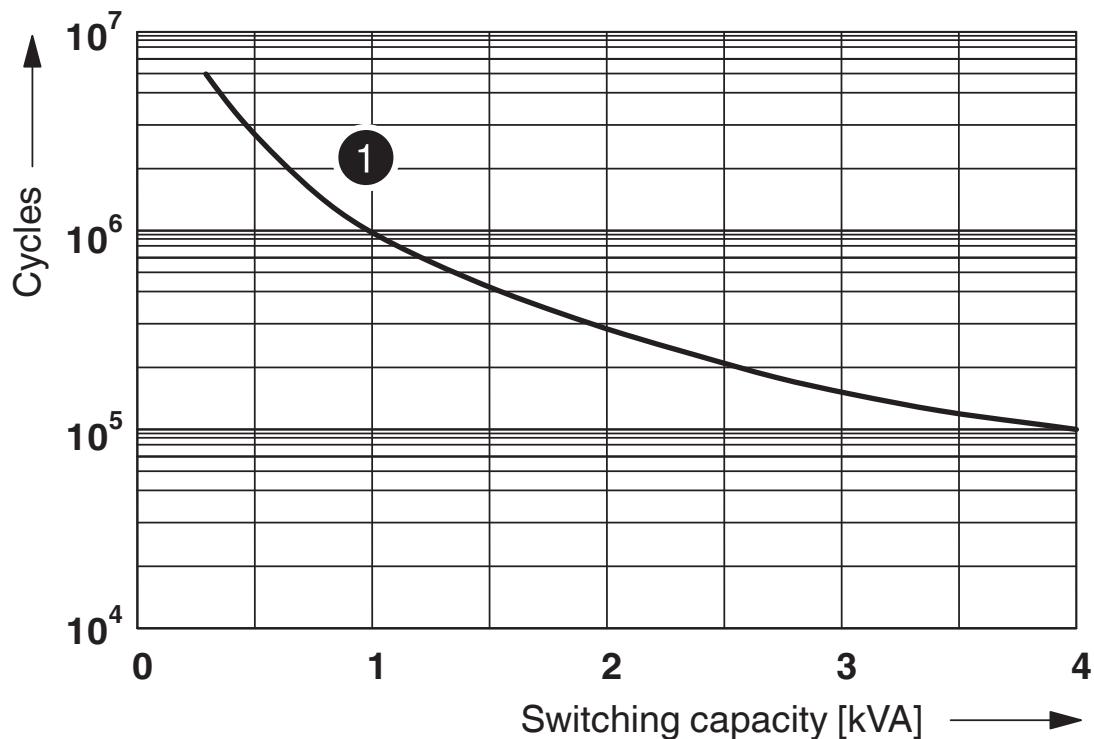
REL-PR1-24DC/1/MB - Single relay

2908040

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



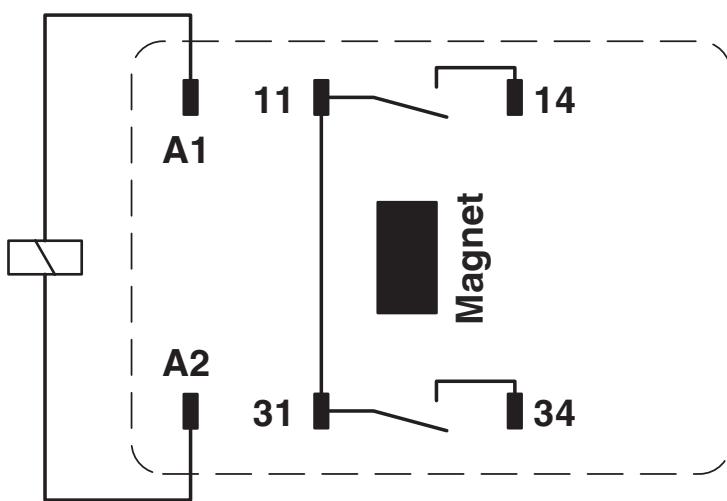
Diagram



① 250 V AC, Ohmic load

Electrical service life

Circuit diagram



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

2908040

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



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

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

2908040

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



Classifications

ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

ETIM

ETIM 9.0	EC001437
----------	----------

UNSPSC

UNSPSC 21.0	39122300
-------------	----------

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

2908040

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



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%
-------------------------------------	----------------------------

EF3.0 Climate Change

CO2e kg	1.531 kg CO2e
---------	---------------

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA

586 Fulling Mill Road

Middletown, PA 17057, United States

(+717) 944-1300

info@phoenixcon.com