

REL-MR-BL-24DC/21-21/MS - Single relay



2908181
<https://www.phoenixcontact.com/pc/products/2908181>

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Plug-in miniature relay, with power contact, 2 changeover contacts, test button, mechanical switch position indicator, polarity: bipolar, input voltage: 24 V DC

Commercial data

Item number	2908181
Packing unit	10 pc
Minimum order quantity	10 pc
Product key	CK6195
Catalog page	Page 294 (C-5-2019)
GTIN	4055626279404
Weight per piece (including packing)	19.1 g
Weight per piece (excluding packing)	18 g
Customs tariff number	85364190
Country of origin	CN

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Technical data

Product properties

Product type	Single relay
Operating mode	100% operating factor
Mechanical service life	5x 10 ⁶ cycles

Data management status

Date of last data management	06.02.2024
Article revision	02

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.41 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Test voltage (Changeover contact/changeover contact)	2.5 kV AC (50 Hz, 1 min., changeover contact/changeover contact)
Rated insulation voltage	250 V AC

Input data

Coil side

Nominal input voltage U_N	24 V DC
Input voltage range	19.2 V DC ... 52.8 V DC
Input voltage range in reference to U_N	0.8 ... 2.2 (see diagram)
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U_N	17 mA
Typical response time	9 ms
Typical release time	6 ms

Output data

Switching

Contact switching type	2 changeover contacts
Type of switch contact	Single contact
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	16 A (20 ms)
Min. switching current	10 mA (at 12 V)

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Interrupting rating (ohmic load) max.	192 W (at 24 V DC)
	62 W (at 48 V DC)
	42 W (at 60 V DC)
	55 W (at 110 V DC)
	66 W (at 220 V DC)

Connection data

Connection method	Plug / solder connection
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Dimensions

Width	13 mm
Height	29 mm
Depth	25.5 mm

Environmental and real-life conditions

Ambient conditions

Degree of protection	RT II
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Standards and regulations

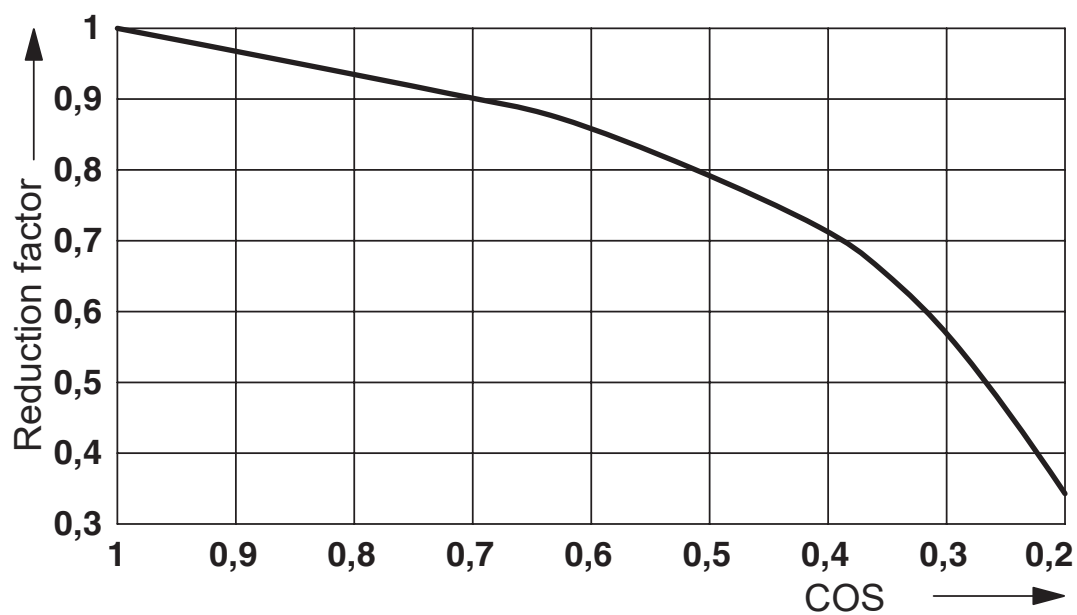
Standards/regulations	IEC 61810
	IEC 60664

Mounting

Mounting position	any
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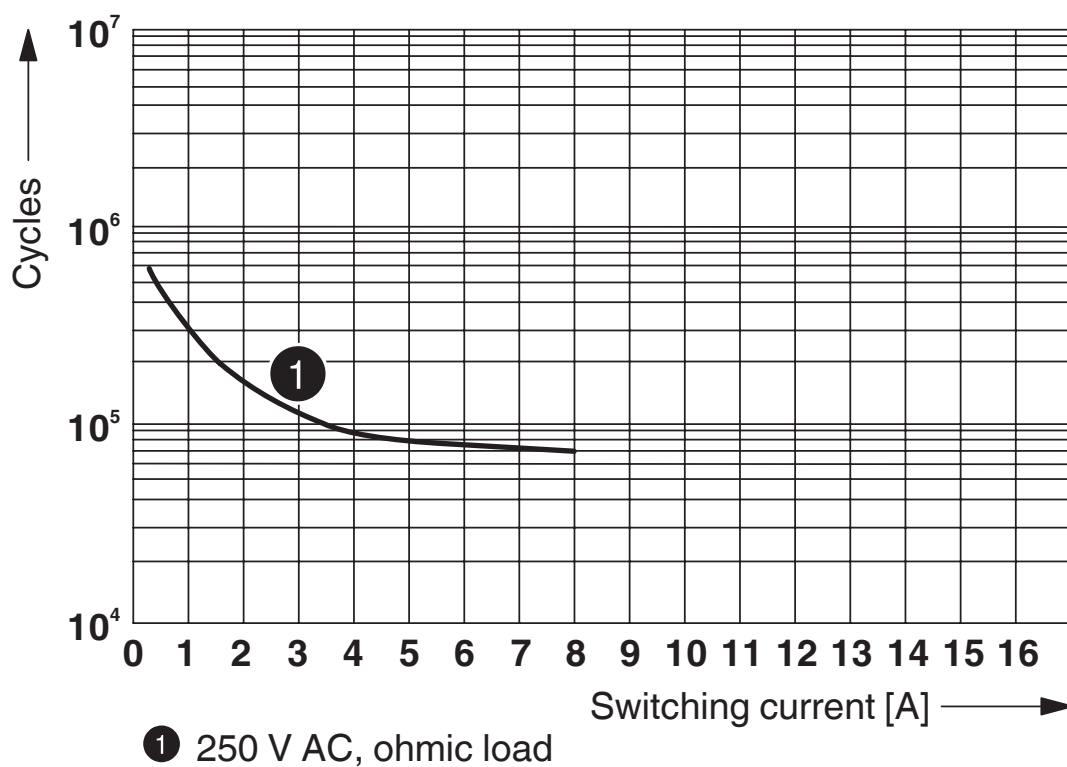
Drawings

Diagram



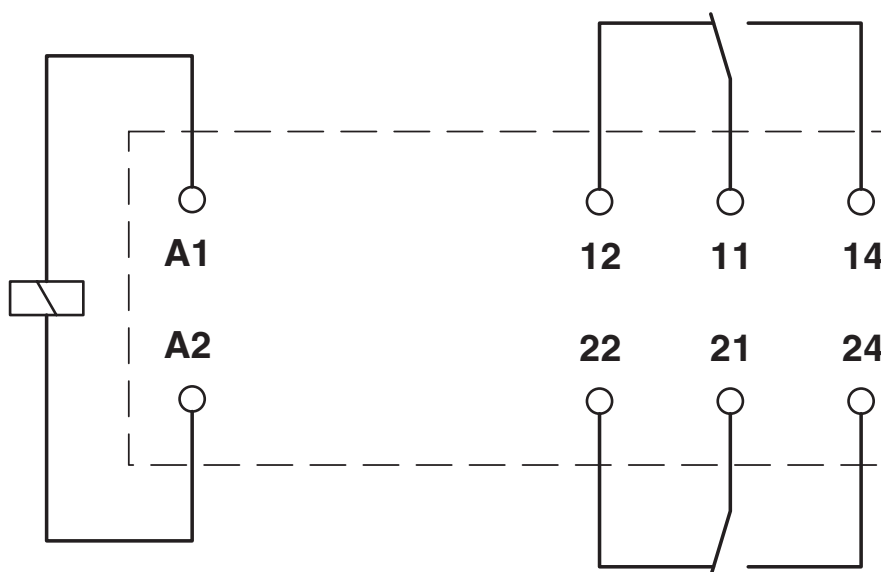
Service life reduction factor with various cos phi

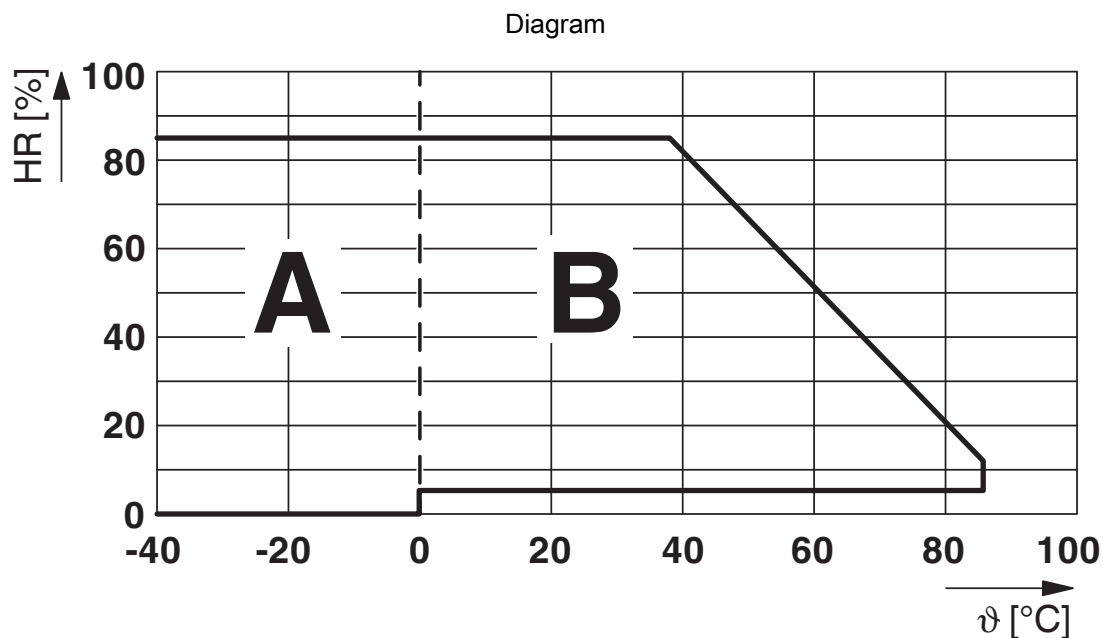
Diagram



Electrical service life

Circuit diagram





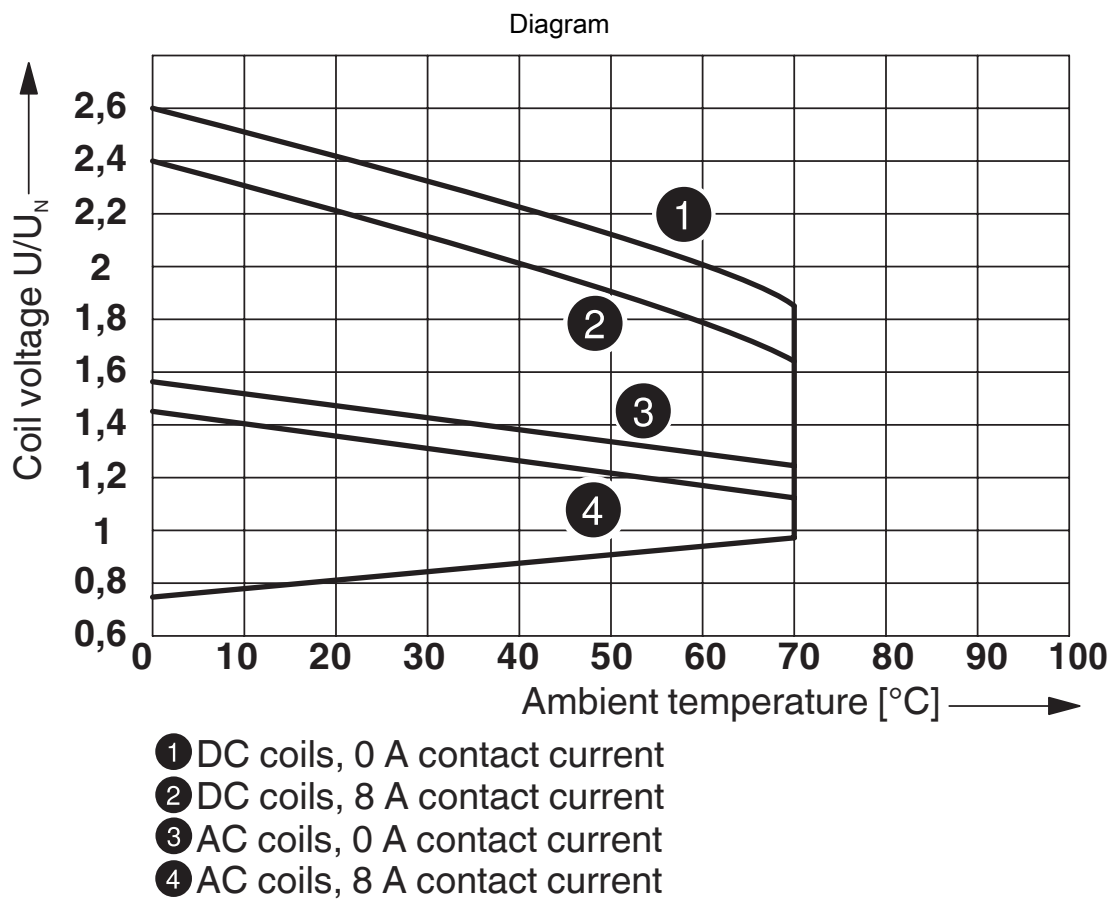
Permissible humidity for operation and storage.

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

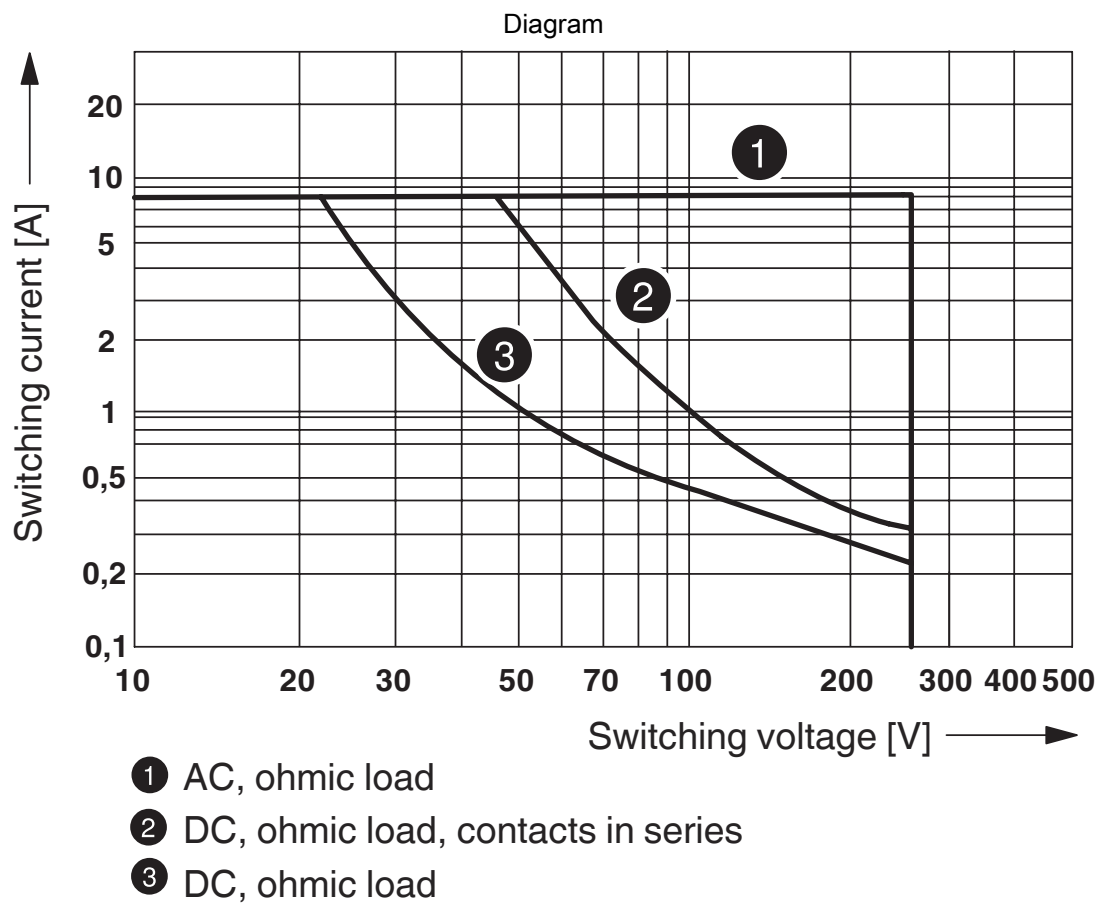
Area A: Ice buildup at ambient temperatures $\leq 0^{\circ}\text{C}$ must be prevented

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



Operating voltage range



Interrupting rating

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2908181>



cUL Recognized
Approval ID: FILE E 195083



UL Recognized
Approval ID: FILE E 195083



EAC
Approval ID: TR_TS_D_00573_c



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
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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
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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