

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



2908181

<https://www.phoenixcontact.com/us/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

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Commercial Data

Item number	2908181
Packing unit	1 pc
Minimum order quantity	10 pc
Sales Key	C05
Product Key	CK6195
Catalog Page	Page 294 (C-5-2019)
GTIN	4055626279404
Weight per Piece (including packing)	18.56 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

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	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)
Typical input current at U_N	17 mA
Typical response time	9 ms
Typical release time	6 ms

Output data

Switching

Contact type	2 changeover contacts
Type of switch contact	Single contact
Drive and function	monostable
Drive (polarity)	bipolar
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)
Interrupting rating (ohmic load) max.	192 W (at 24 V DC) 62 W (at 48 V DC) 42 W (at 60 V DC)

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	55 W (at 110 V DC)
	66 W (at 220 V DC)

Connection data

Connection method	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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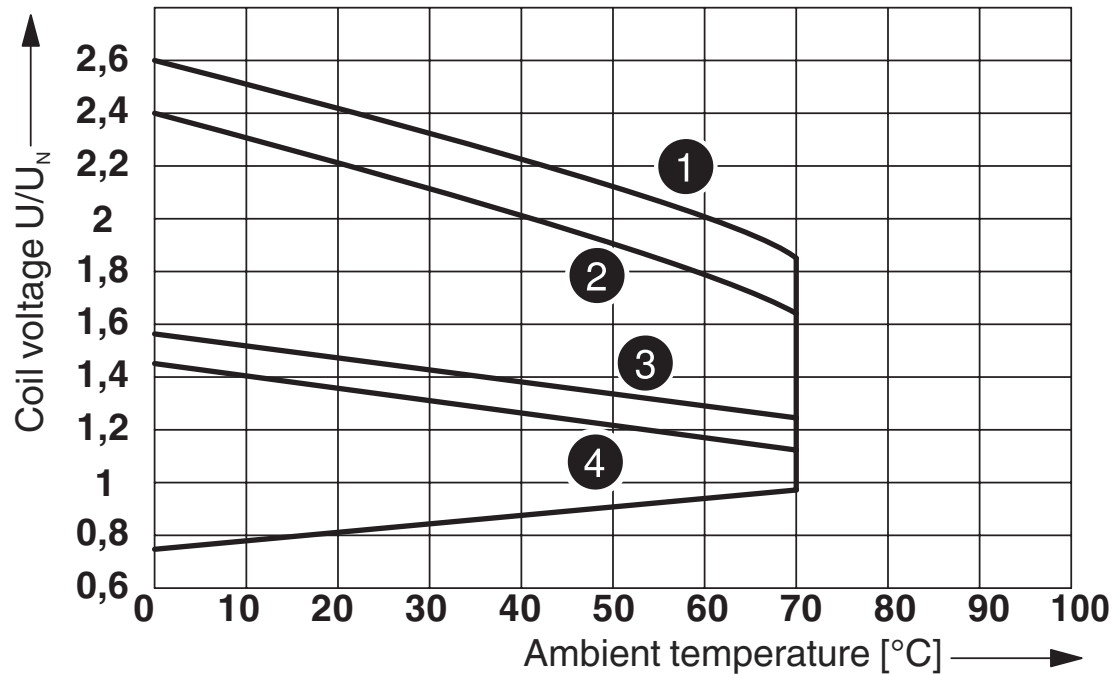
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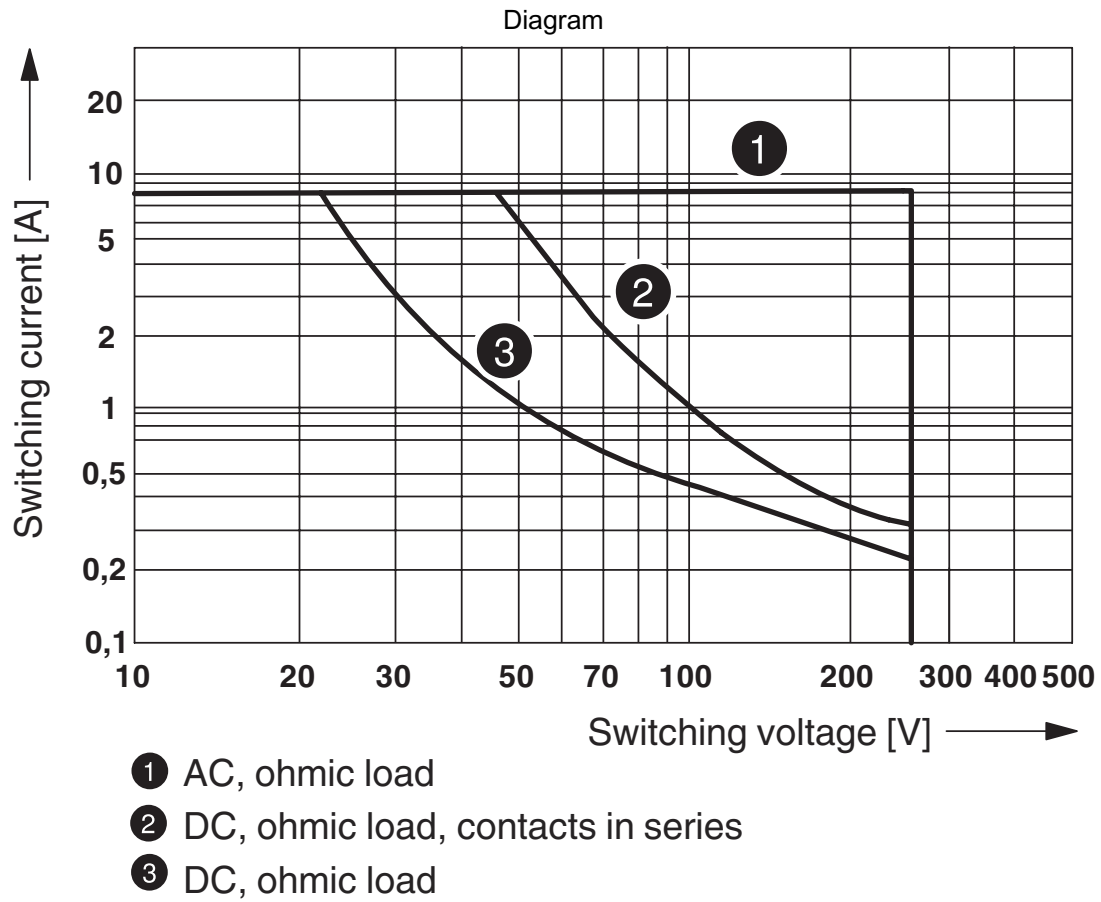
Drawings

Diagram



- ① DC coils, 0 A contact current
- ② DC coils, 8 A contact current
- ③ AC coils, 0 A contact current
- ④ AC coils, 8 A contact current

Operating voltage range



Interrupting rating

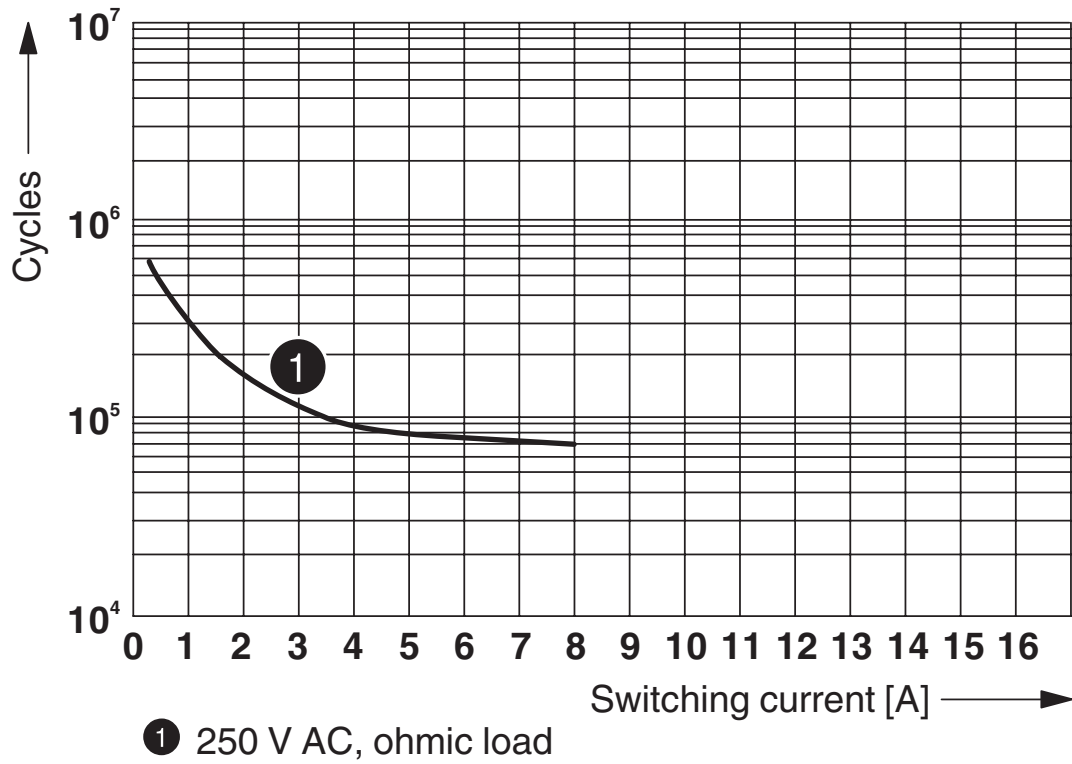
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Diagram



Electrical service life

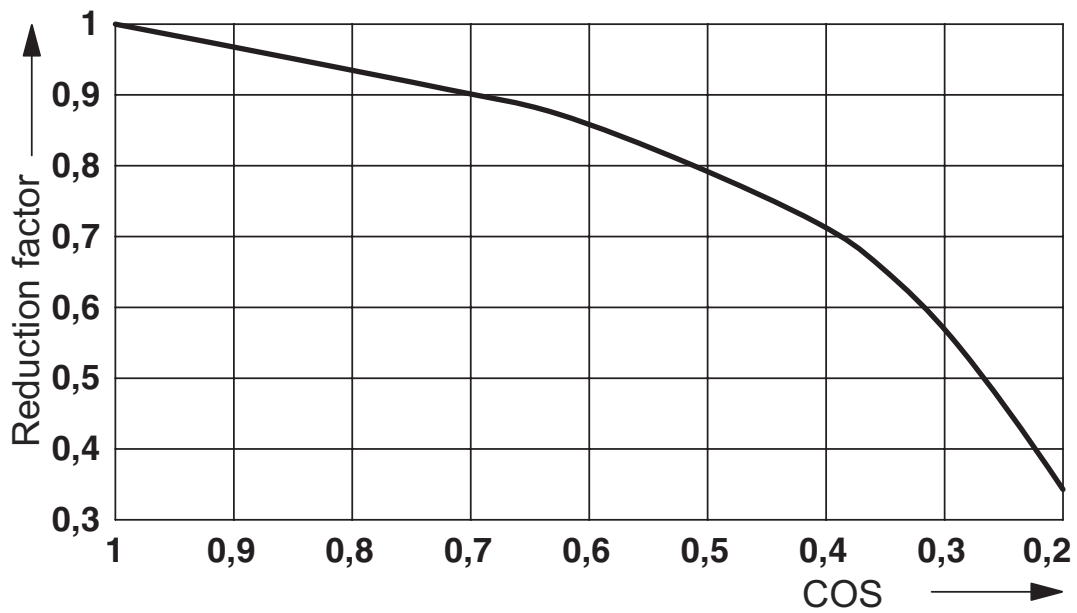
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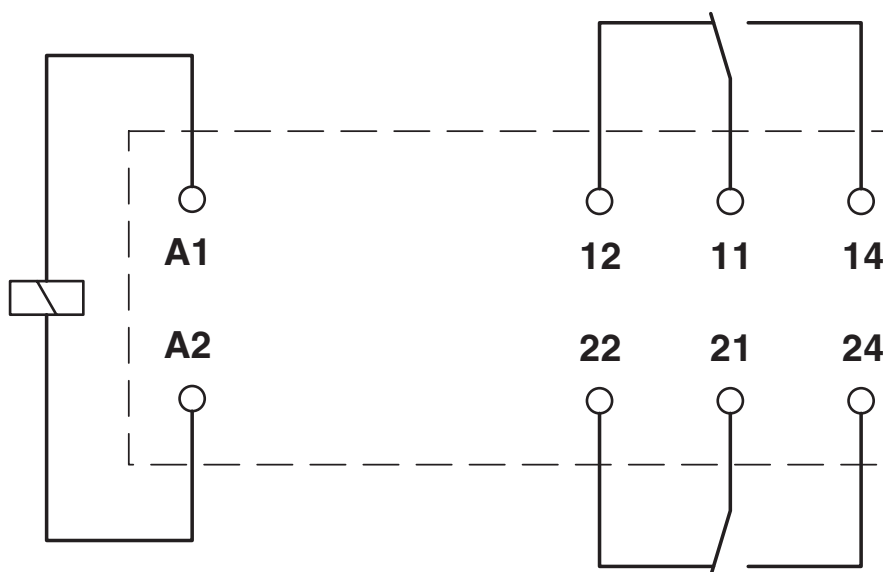
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Diagram



Service life reduction factor with various cos phi

Circuit diagram



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Approvals



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

cULus Recognized

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Classifications

ECLASS

ECLASS-9.0	27371601
ECLASS-10.0.1	27371601
ECLASS-11.0	27371601

ETIM

ETIM 8.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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Accessories

Relay base

Relay base - ECOR-1-BSC3/2X21 - 2907518

<https://www.phoenixcontact.com/us/products/2907518>



ECOR-1... relay base, for miniature power relay or miniature switching relay with 1 or 2 changeover contacts, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

Relay base

Relay base - RIF-1-BPT/2X21 - 2900931

<https://www.phoenixcontact.com/us/products/2900931>



Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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Relay base

Relay base - RIF-1-BSC/2X21 - 2900930

<https://www.phoenixcontact.com/us/products/2900930>



RIF-1... relay base, for miniature power relay with 1 or 2 changeover contacts or identical solid-state relays, screw connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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