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

2908180

https://www.phoenixcontact.com/us/products/2908180

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Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switch position indicator, polarity: bipolar, input voltage: 24 V DC

Commercial data

Item number	2908180
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C460
Product key	CKF923
Catalog page	Page 294 (C-5-2019)
GTIN	4055626277899
Weight per piece (including packing)	19.652 g
Weight per piece (excluding packing)	18 g
Customs tariff number	85364190
Country of origin	CN

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 (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/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	1 changeover contact
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	16 A
Maximum inrush current	32 A (20 ms)
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	62 W (at 48 V DC)
	48 W (at 60 V DC)
	53 W (at 110 V DC)
	66 W (at 220 V DC)

Connection data

Connection method	Plug / solder connection

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

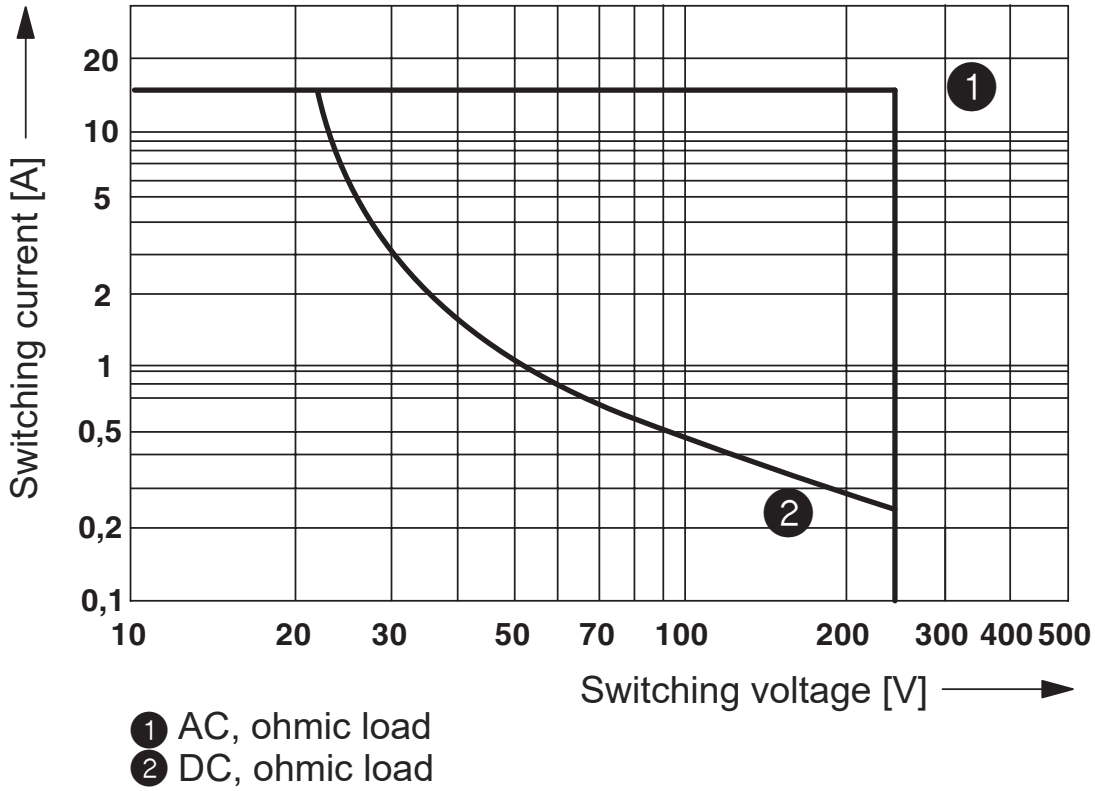
Standards/regulations	IEC 61810
	IEC 60664

Mounting

Mounting position	any

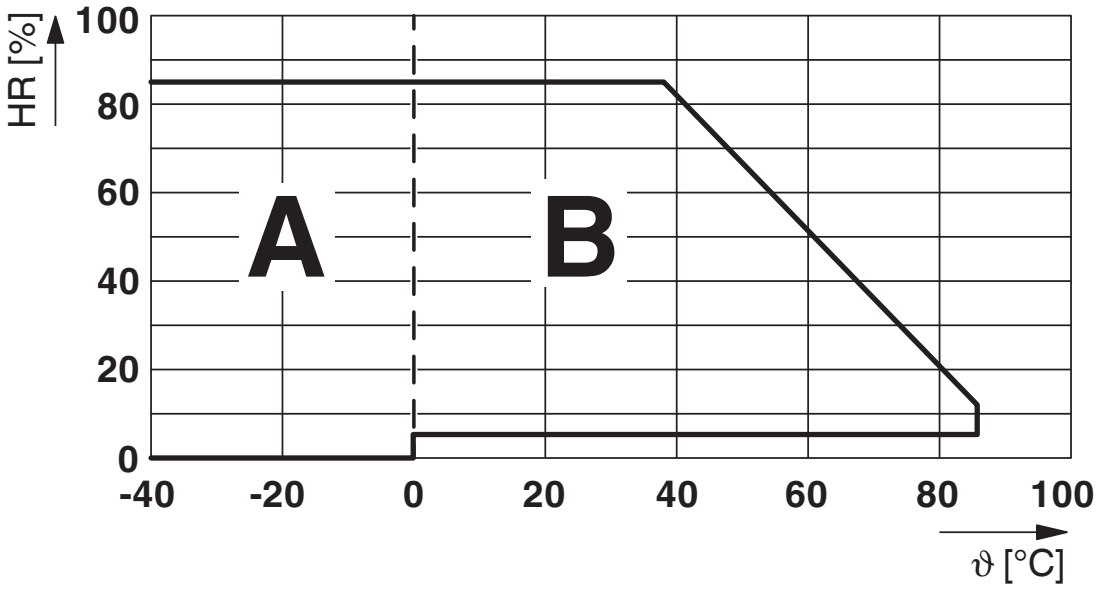
Drawings

Diagram



Interrupting rating

Diagram

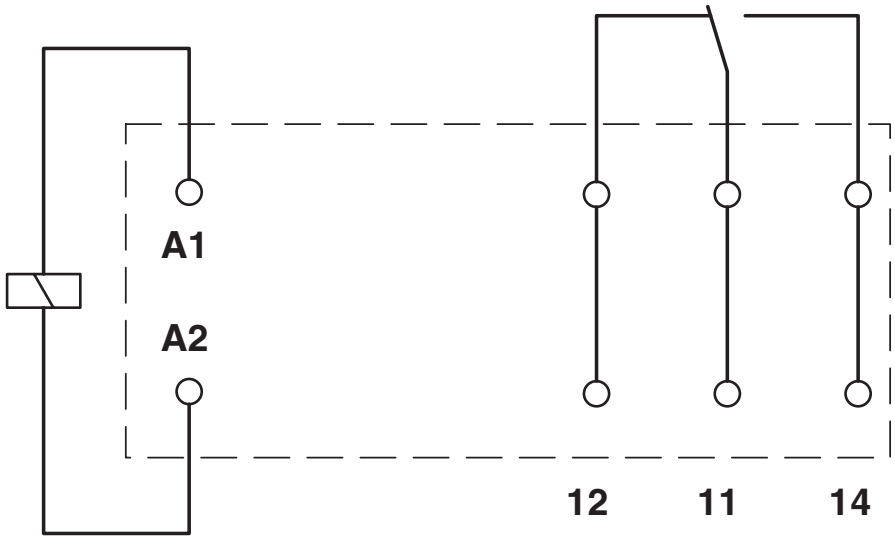


Permissible humidity for operation and storage.
The maximum permissible ambient temperature as specified in the data sheet must be observed.

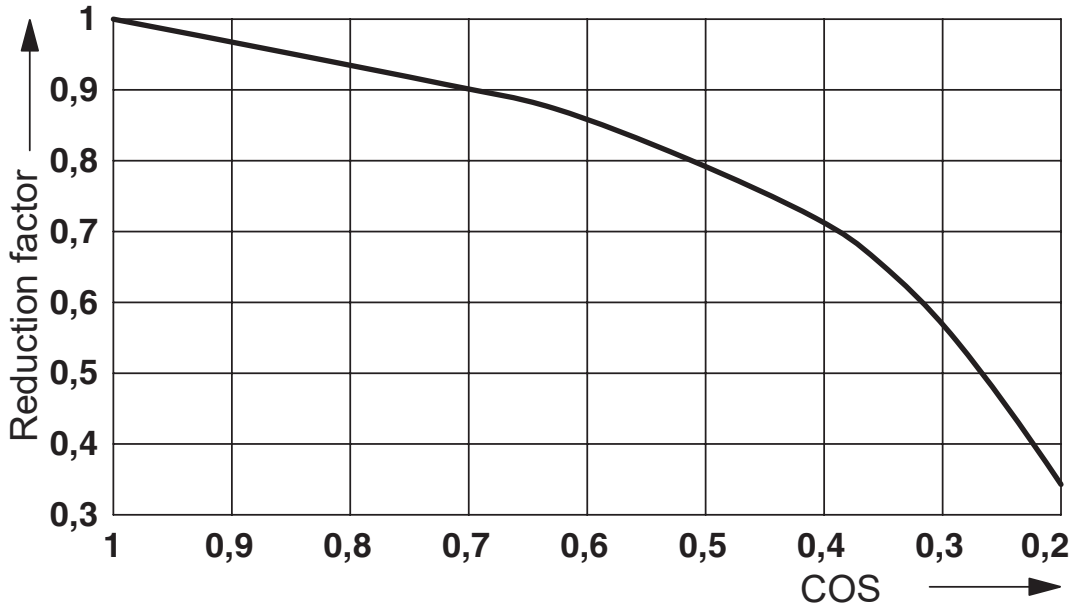
Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented
Area B: Condensation at ambient temperatures > 0°C must be prevented

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

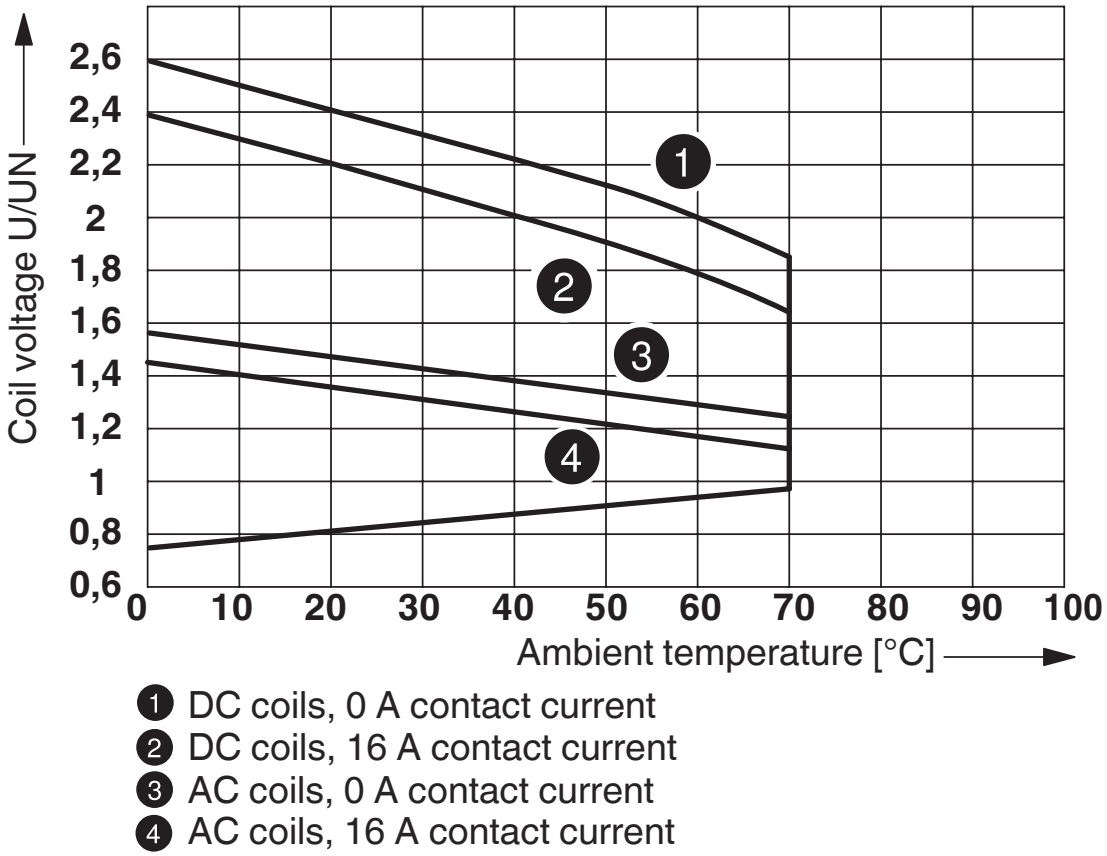


Diagram



Service life reduction factor with various cos phi

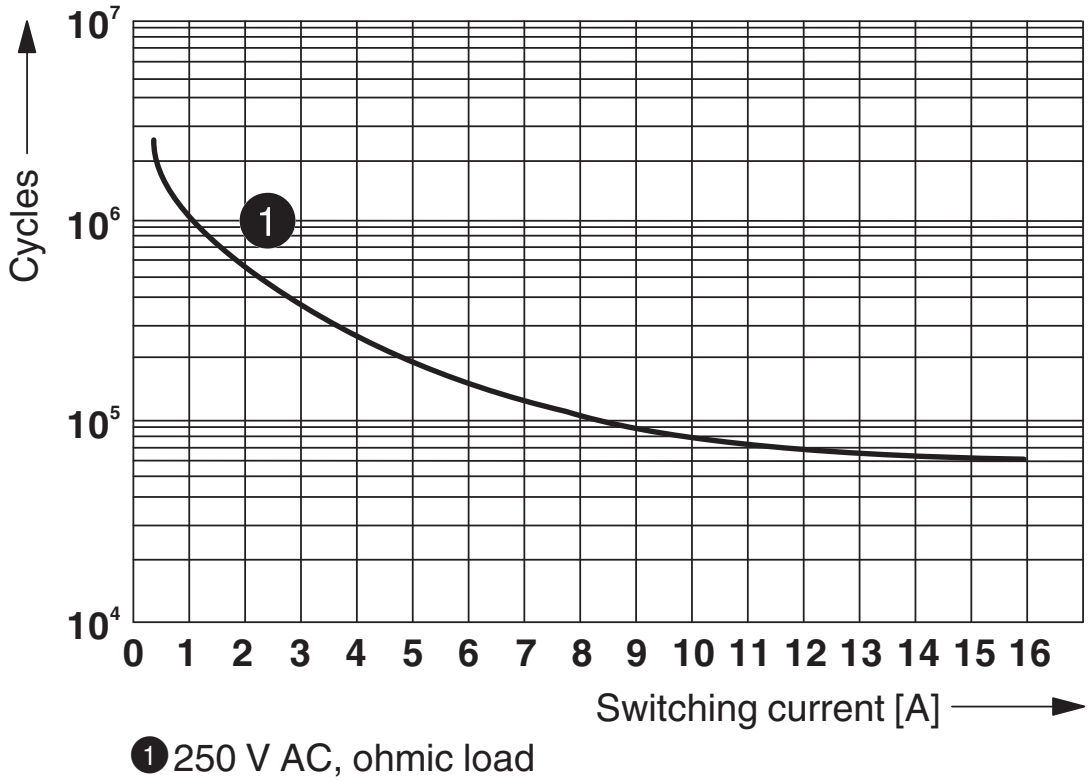
Diagram



1 DC coils, 0 A contact current
2 DC coils, 16 A contact current
3 AC coils, 0 A contact current
4 AC coils, 16 A contact current

Operating voltage range

Diagram



Electrical service life
1) 30 V DC, ohmic load
2) 250 V AC, ohmic load

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2908180

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

Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 9.0	EC001437

UNSPSC

UNSPSC 21.0	39122300

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%

Mandatory accessories

ECOR-1-BSC2-RT/2X21 - Relay base

1027546

https://www.phoenixcontact.com/us/products/1027546



ECOR-1... relay base, for miniature power relays or miniature switching relays with 1 or 2 changeover contacts, bolt connection, for mounting on NS 35/7,5.

ECOR-1-BSC3/2X21 - Relay base

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

RIF-1-BPT/2X21 - Relay base

2900931

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

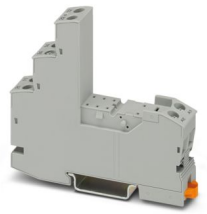


Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

RIF-1-BSC/2X21 - Relay base

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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