

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



2987943

<https://www.phoenixcontact.com/de/produkte/2987943>

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Plug-in miniature relay, with power contact, 2 changeover contacts, test button, mechanical switching position indicator, status LED, freewheeling diode, polarity A1+, A2, input voltage 24 V DC

Your advantages

- With detectable manual operation
- DC types with integrated freewheeling diode
- Integrated status LED
- Mechanical switch position indicator

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Commercial Data

Item number	2987943
Packing unit	10 pc
Minimum order quantity	10 pc
Sales Key	G1 - Relais
Product Key	CK6195
Catalog Page	Page 292 (C-5-2019)
GTIN	4046356480659
Weight per Piece (including packing)	19,576 g
Weight per Piece (excluding packing)	18,64 g
Customs tariff number	85364190
Country of origin	CN

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Technical Data

Product properties

Product type	Single relay
Set comprises	2905291 RIF-1-RPT-LDP-24DC/2X21MS
	2905660 RIF-1-RSC-LDP-24DC/2X21MS
	2910502 PLC-RSC- 24DC/21-21/MS
	2910519 PLC-RPT- 24DC/21-21/MS
	2910503 PLC-RSC- 24UC/21-21/MS
	2910520 PLC-RPT- 24UC/21-21/MS
	2910504 PLC-RSC- 48DC/21-21/MS
	2910521 PLC-RPT- 48DC/21-21/MS
Mechanical service life	5x 10 ⁶ cycles

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.43 W
Test voltage	5 kV AC (50 Hz, 1 min., winding/contact)
Test voltage Contact/contact	5 kV AC (50 Hz, 1 min., contact/contact)
Test voltage Changeover contact/changeover contact	5 kV AC (50 Hz, 1 min., changeover contact/changeover contact)

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	see diagram
Typical input current at U_N	18 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
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.	2000 VA (for 250 V AC)

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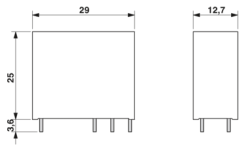
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Switching capacity	1 A (at 24 V, DC13)
	1.5 A (at 24 V, AC15)
	1.5 A (at 120 V, AC15)
	1.5 A (at 240 V, AC15)
Motor load according to UL 508	1/4 HP, 120 V AC (N/O contact)
	1/2 HP, 240 V AC (N/O contact)
	1/4 HP, 120 V AC (N/C contact)
	1/3 HP, 240 V AC (N/C contact)

Connection data

Connection method	Solder connection
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Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	25 mm

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approval data

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

Standards/regulations	EN 61810-1
	VDE 0435-201
	EN 50178

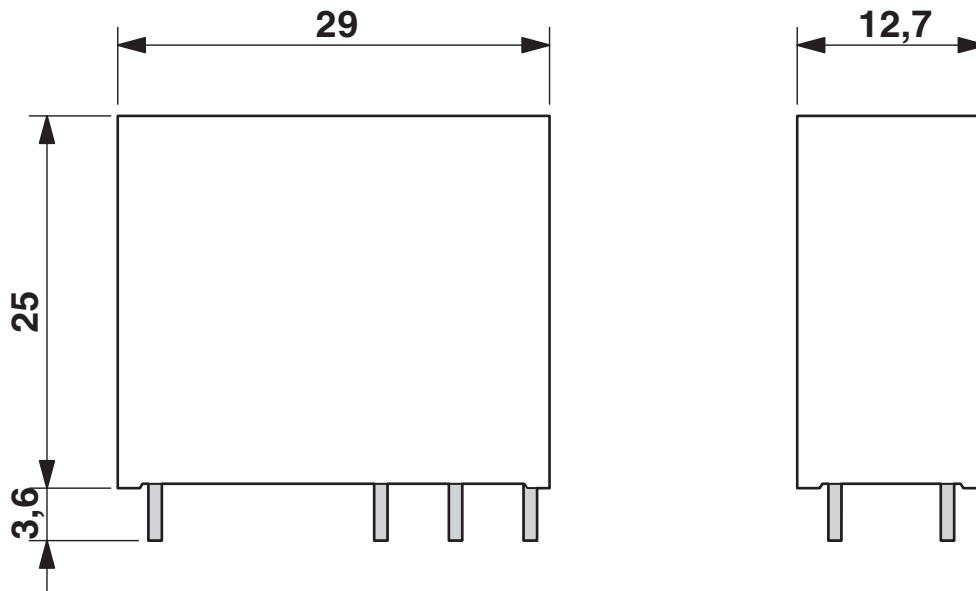
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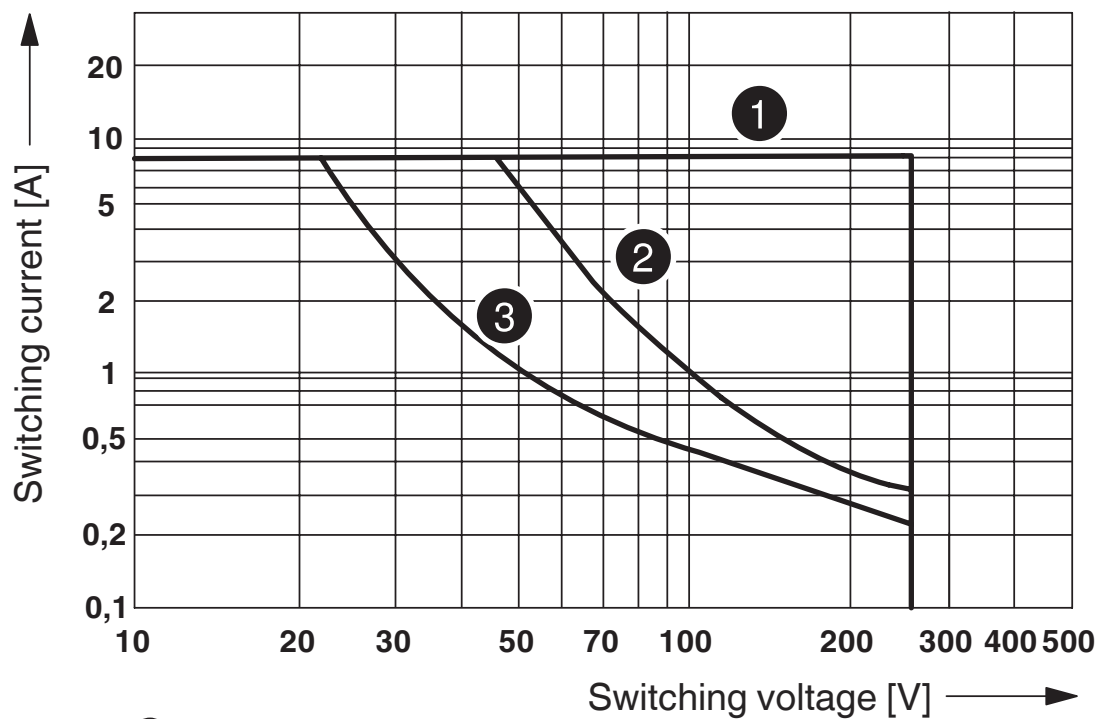
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Drawings

Dimensional drawing



Diagram



- ① AC, ohmic load
- ② DC, ohmic load, contacts in series
- ③ DC, ohmic load

Interrupting rating

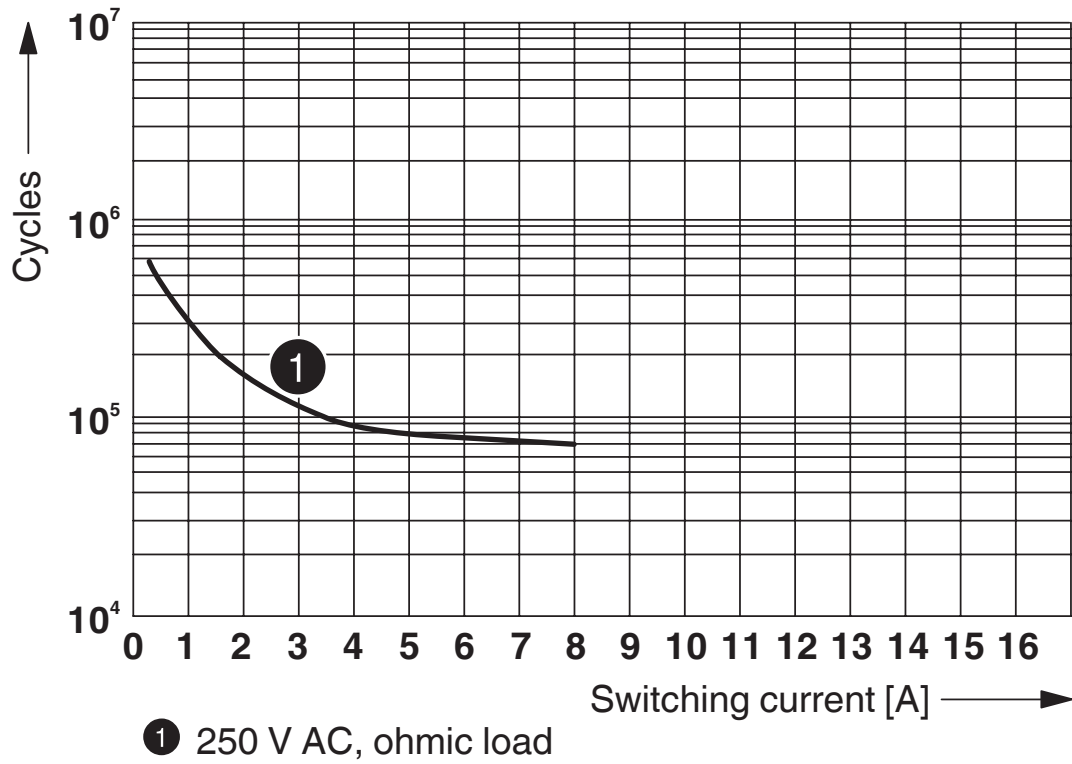
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Diagram



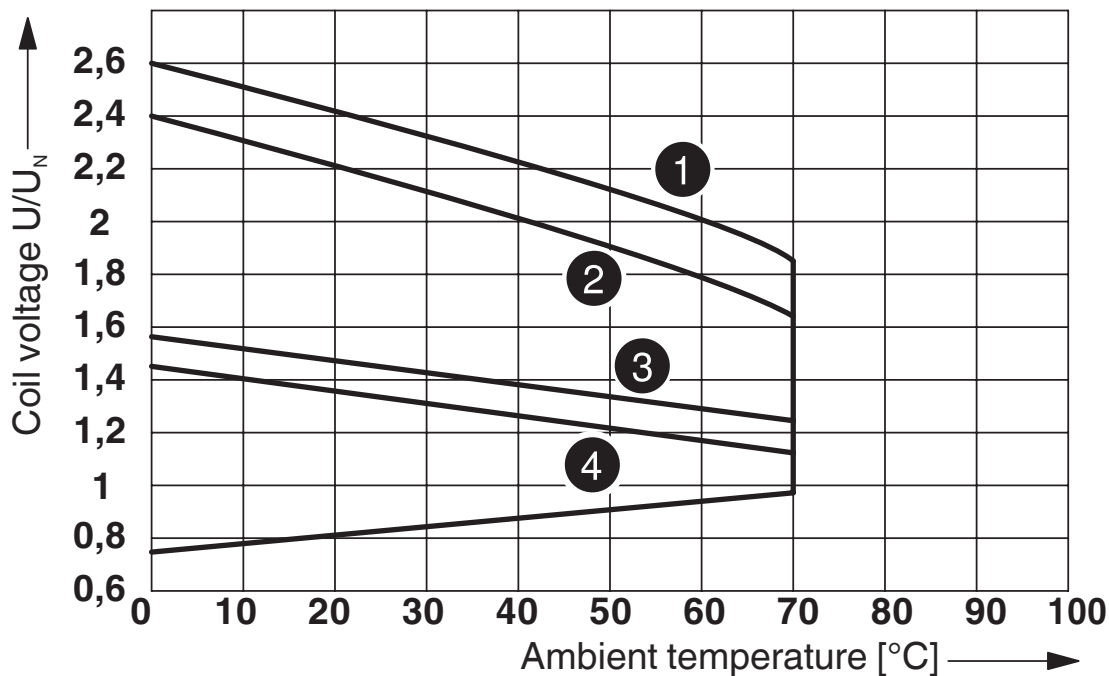
Electrical service life

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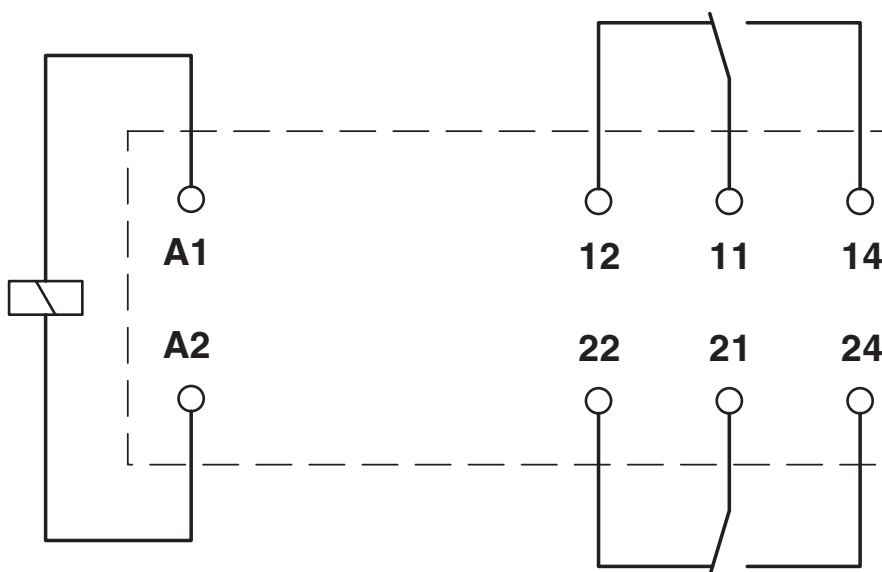
Diagram



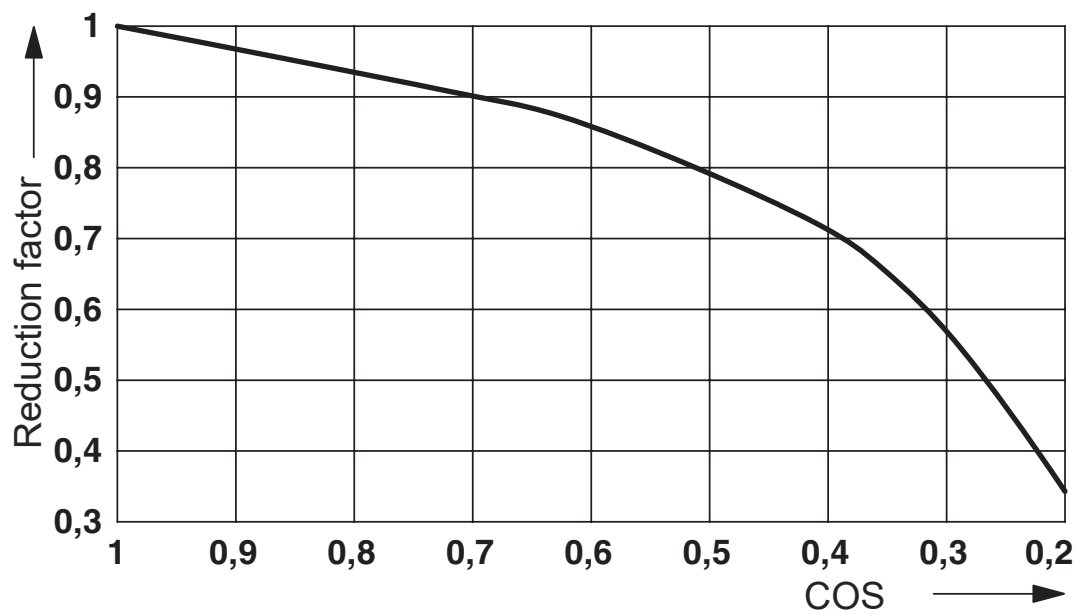
- ① DC coils, 0 A contact current
- ② DC coils, 8 A contact current
- ③ AC coils, 0 A contact current
- ④ AC coils, 8 A contact current

Operating voltage range

Circuit diagram



Diagram



Service life reduction factor with various cos phi

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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



VDE Zeichengenehmigung
Approval ID: 40027210

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Mark approval certificate			-	-

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 - RIF-1-BPT/2X21 - 2900931

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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

Relay base

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

<https://www.phoenixcontact.com/de/produkte/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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