

REL-MR- 12DC/21-21 - Single relay

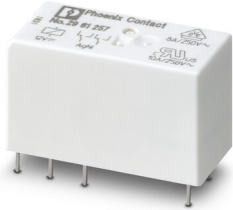


2961257

<https://www.phoenixcontact.com/in/products/2961257>

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Plug-in miniature power relay, with power contact, 2 changeover contacts, input voltage 12 V DC



Your advantages

- RT III-proof (wash-proof)
- Switching current of up to 8 A

Commercial Data

Item number	2961257
Packing unit	10 pc
Minimum order quantity	10 pc
Sales Key	CK6
Product Key	CK6195
Catalog Page	Page 290 (C-5-2019)
GTIN	4017918163525
Weight per Piece (including packing)	16.24 g
Weight per Piece (excluding packing)	15.43 g
Customs tariff number	85364900
Country of origin	AT

Technical Data

Product properties

Product type	Single relay
Set comprises	2967235 PLC-RSC- 12DC/21-21
	2912497 PLC-RSP- 12DC/21-21
	2900329 PLC-RPT- 12DC/21-21
	2987105 PLC-RSP- 24UC/21-21/RW
	2900346 PLC-RPT- 24UC/21-21/RW
	2906223 RIF-1-RPT-LDP-12DC/2X21
	2908501 RIF-1-RSC-LDP-12DC/2X21
Operating mode	100% operating factor
Mechanical service life	3x 10 ⁷ cycles

Insulation characteristics

Insulation	Basic insulation
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Insulation characteristics

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	3

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.4 W
Test voltage (Winding/contact)	5 kV AC (50 Hz, 1 min., winding/contact)
Test voltage (Contact/contact)	2.5 kV AC (50 Hz, 1 min., contact/contact)

Input data

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range	7.8 V DC ... 29.76 V DC
Input voltage range in reference to U_N	see diagram
Typical input current at U_N	33 mA
Typical response time	7 ms
Typical release time	3 ms
Coil resistance	360 Ω \pm 10 % (at 20 °C)

Output data

Switching

Contact type	2 changeover contacts
Type of switch contact	Single contact
Drive and function	monostable

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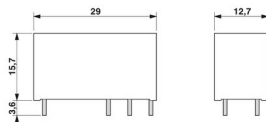
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Drive (polarity)	bipolar
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	25 A (20 ms)
Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC) 85 W (at 48 V DC) 60 W (at 60 V DC) 44 W (at 110 V DC) 60 W (at 220 V DC) 2000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13) 0.2 A (at 250 V, DC13) 3 A (at 24 V, AC15) 3 A (at 120 V, AC15) 3 A (at 250 V, AC15)
Motor load according to UL 508	1/4 HP, 120 V AC 1/2 HP, 240 V AC

Connection data

Connection method	Plug / solder connection
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Dimensions

Dimensional drawing	
Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Environmental and real-life conditions

Ambient conditions

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

Approvals

Corrosive gas test

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

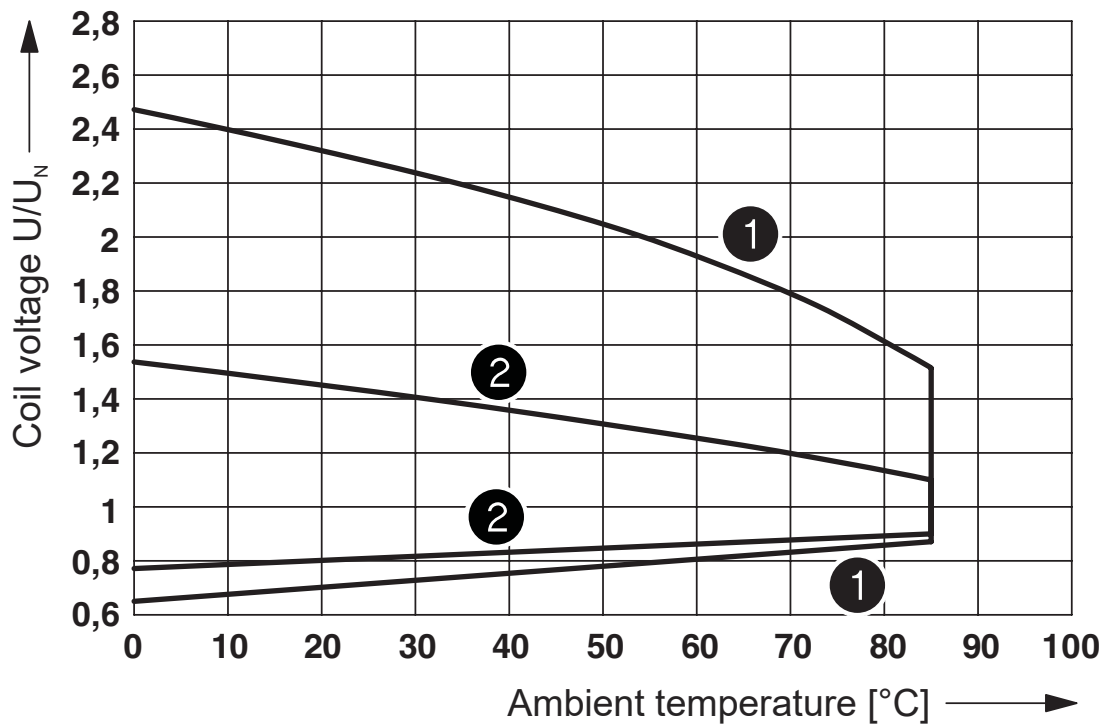
Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1

Mounting

Assembly instructions	Can be aligned without spacing ($> 70\text{ °C} \geq 2.5\text{ mm}$)
Mounting position	any

Drawings

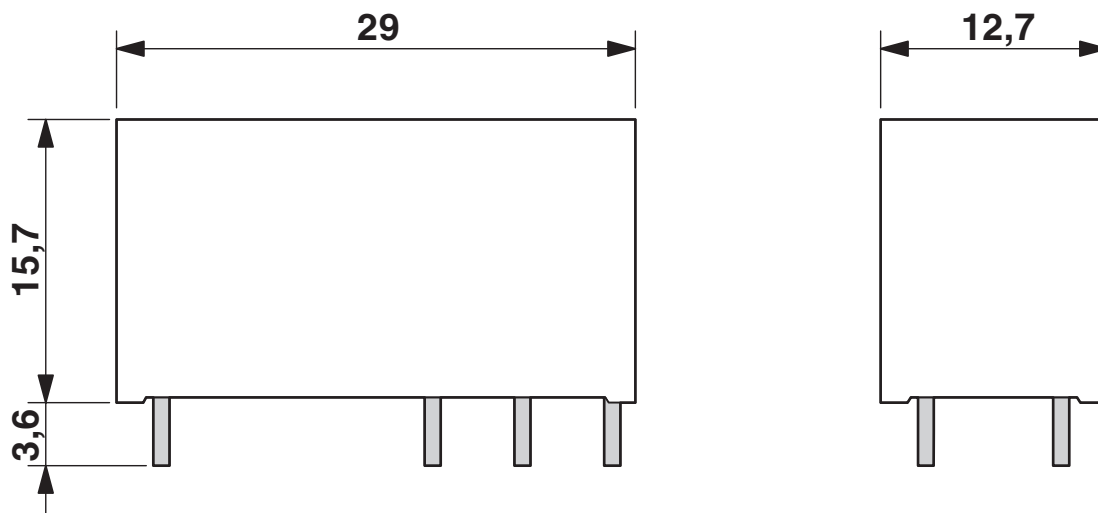
Diagram

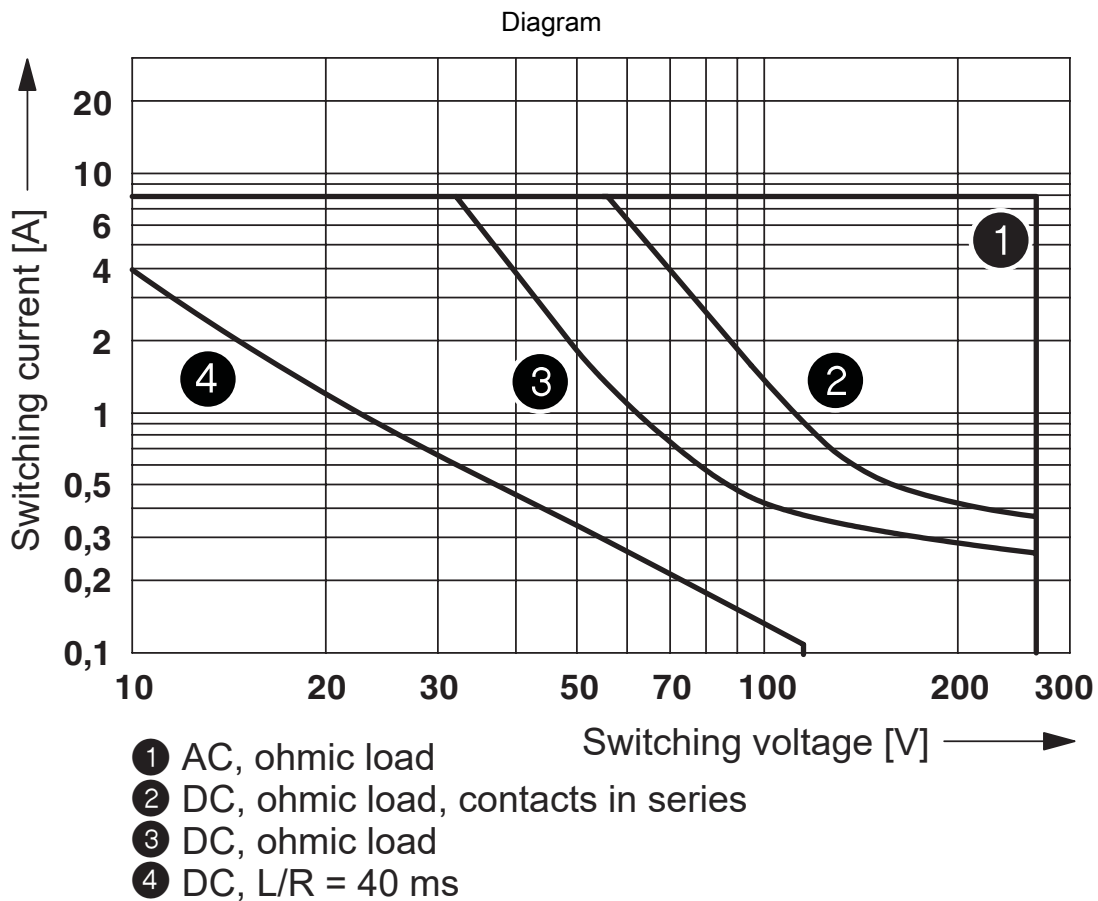


- ① DC coils
- ② AC coils

Operating voltage range

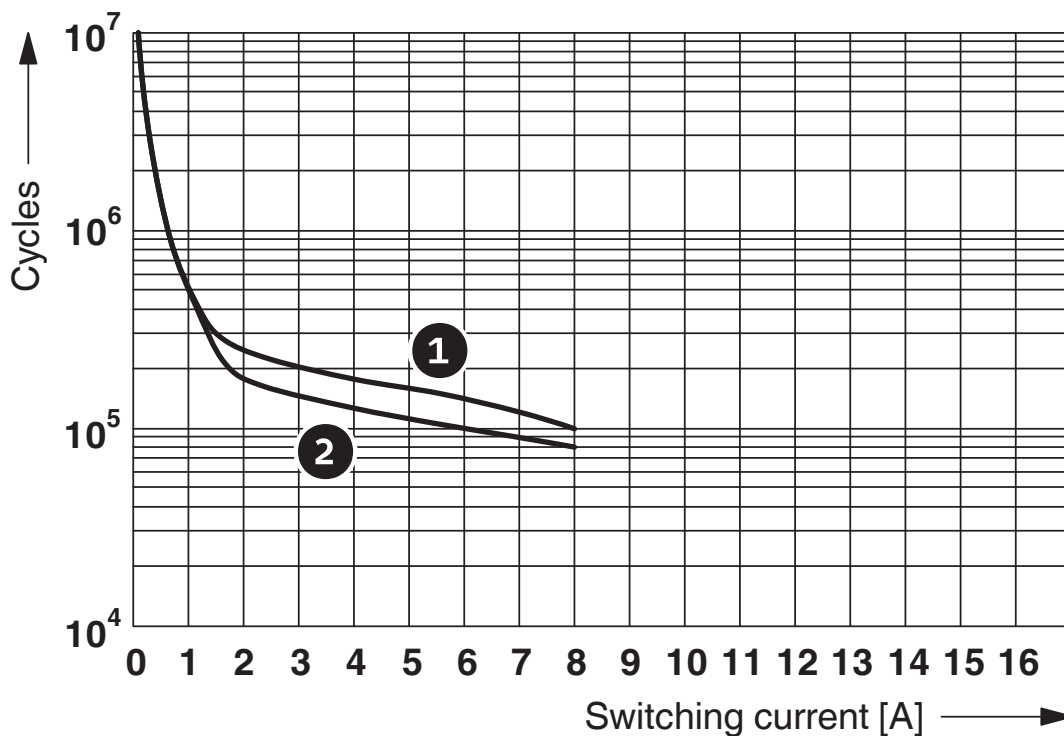
Dimensional drawing





Interrupting rating

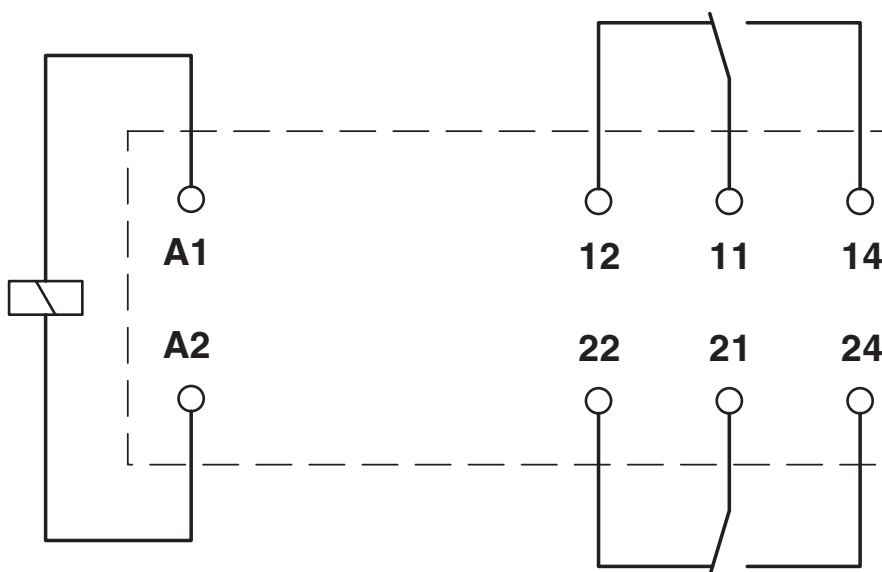
Diagram



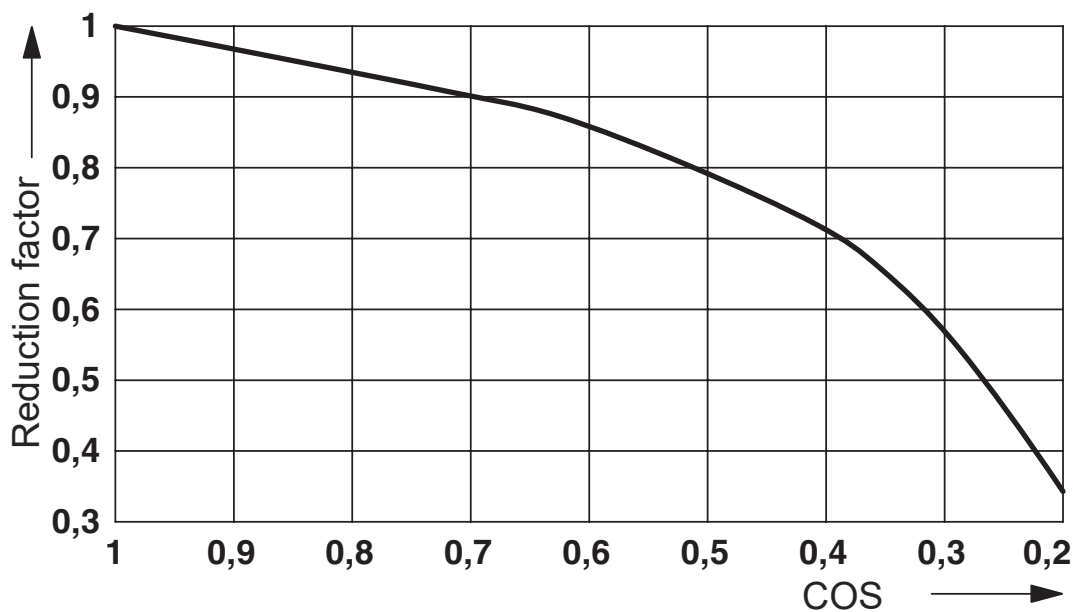
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

Circuit diagram

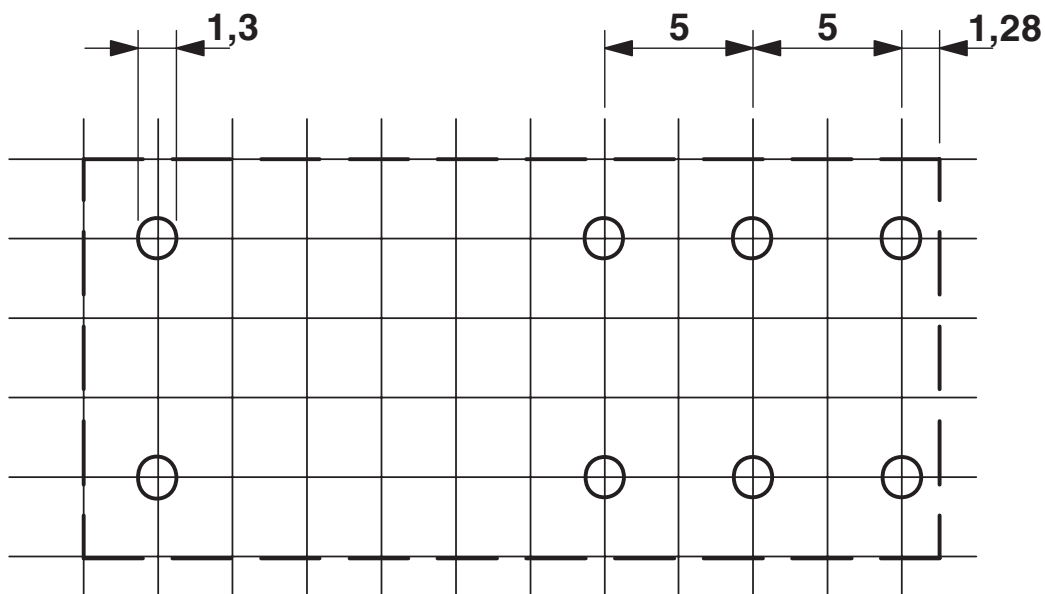


Diagram



Service life reduction factor with various cos phi

Drilling plan/solder pad geometry



a = pitch division 2.5 mm

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Approvals



cUL Recognized
Approval ID: FILE E 228652



UL Recognized
Approval ID: FILE E 228652



EAC
Approval ID: TR_TS_D_00573_c



UL Recognized
Approval ID: FILE E 228652



EAC
Approval ID: RU*C-DE.*08.B.00010



VDE Zeichengenehmigung
Approval ID: 40007758



VDE Zeichengenehmigung
Approval ID: 40048281



PRS
Approval ID: TE/2109/880590/16



cUL Recognized
Approval ID: FILE E 228652



cUL Recognized
Approval ID: FILE E 172140



UL Recognized
Approval ID: FILE E 172140

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Classifications

ECLASS

ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	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

PLC-BPT- 12DC/21-21 - Relay base

2900282

<https://www.phoenixcontact.com/in/products/2900282>



14 mm PLC basic terminal block with Push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 2 changeover contacts, input voltage 12 V DC

PLC-BSC- 12DC/21-21 - Relay base

2967251

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14 mm PLC basic terminal block with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 2 changeover contacts, input voltage 12 V DC

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RIF-1-BPT/2X21 - Relay base

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

RIF-1-BSC/2X21 - Relay base

2900930

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