

REL-MR-230AC/21-21 - Single relay



2961451

<https://www.phoenixcontact.com/in/products/2961451>

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Plug-in miniature power relay, with power contact, 2 changeover contacts, input voltage 230 V AC

Your advantages

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

Commercial Data

Item number	2961451
Packing unit	10 pc
Minimum order quantity	10 pc
Sales Key	CK6
Product Key	CK6195
Catalog Page	Page 290 (C-5-2019)
GTIN	4017918937867
Weight per Piece (including packing)	16.68 g
Weight per Piece (excluding packing)	15.11 g
Customs tariff number	85364900
Country of origin	AT

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2961451

<https://www.phoenixcontact.com/in/products/2961451>

Technical Data

Product properties

Product type	Single relay
Set comprises	2834517 PR1-RSC3-LV-230AC/2X21
	2834591 PR1-RSP3-LV-230AC/2X21
	2903331 RIF-1-RPT-LV-230AC/2X21
	2903347 RIF-1-RSC-LV-230AC/2X21
Operating mode	100% operating factor
Mechanical service life	1x 10 ⁷ cycles

Insulation characteristics

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	230 V AC
Input voltage range	179.4 V AC ... 356.5 V AC
Mains frequency	50/60 Hz
Typical input current at U_N	3 mA (at 50 Hz)
	2.5 mA (At 60 Hz)
Typical response time	3 ms ... 12 ms (depending on phase relation)
Typical release time range	2 ms ... 9 ms (depending on phase relation)
Coil resistance	32500 Ω \pm 15 % (at 20 °C)

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	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	12 A (20 ms)

REL-MR-230AC/21-21 - Single relay



2961451

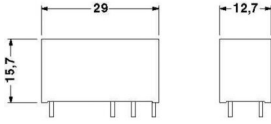
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Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
	85 W (at 48 V DC)
	60 W (at 60 V DC)
	44 W (at 110 V DC)
	60 W (at 220 V DC)
	2000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 250 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
	EN 60068-2-60

Standards and regulations

REL-MR-230AC/21-21 - Single relay



2961451

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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

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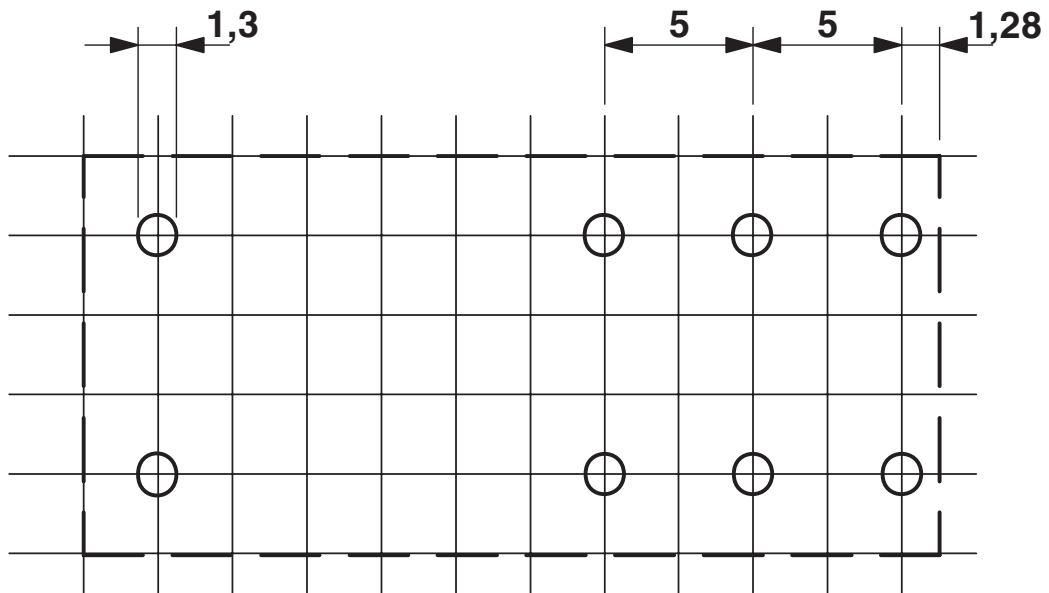


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Drawings

Drilling plan/solder pad geometry



Basic pitch 2.5 mm

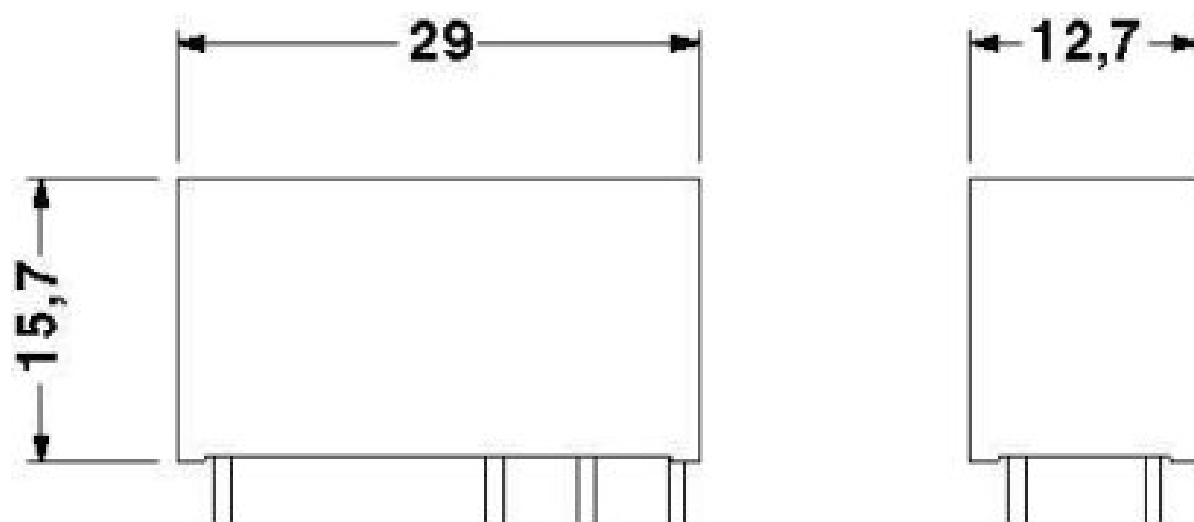
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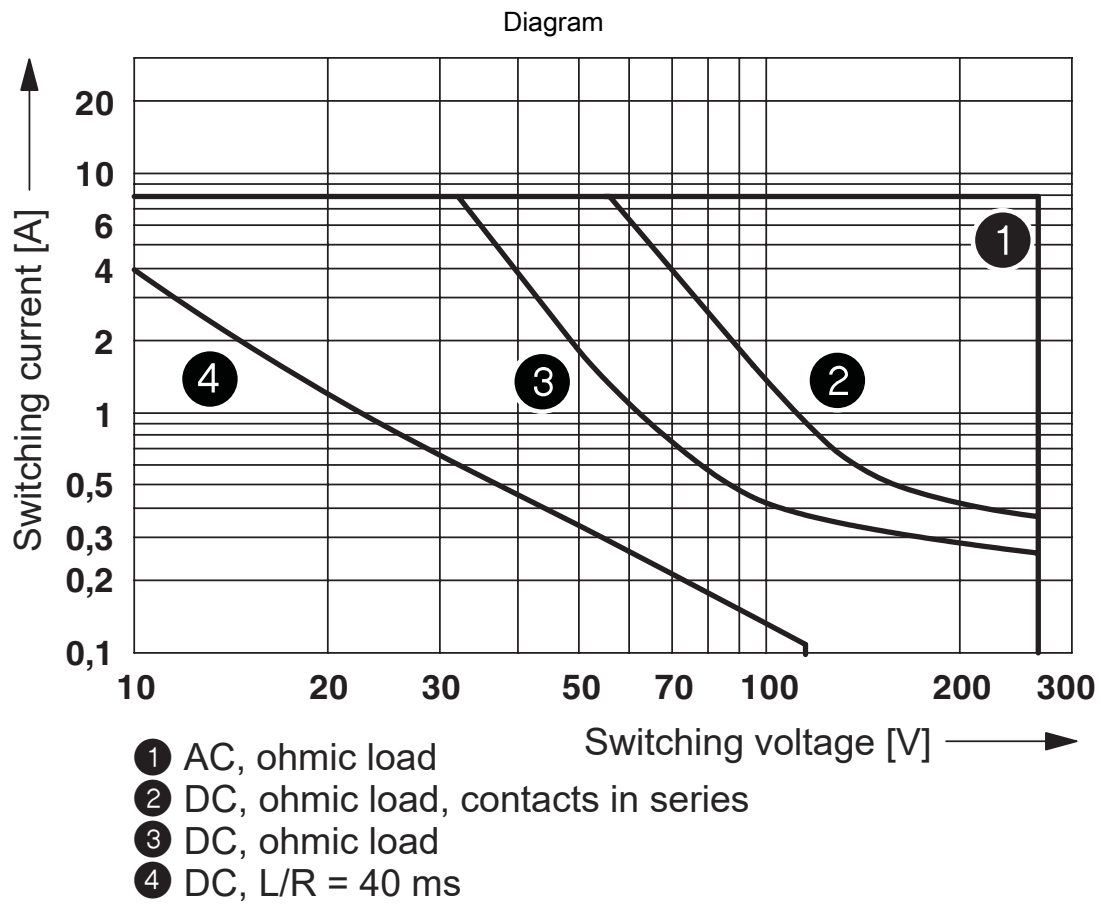
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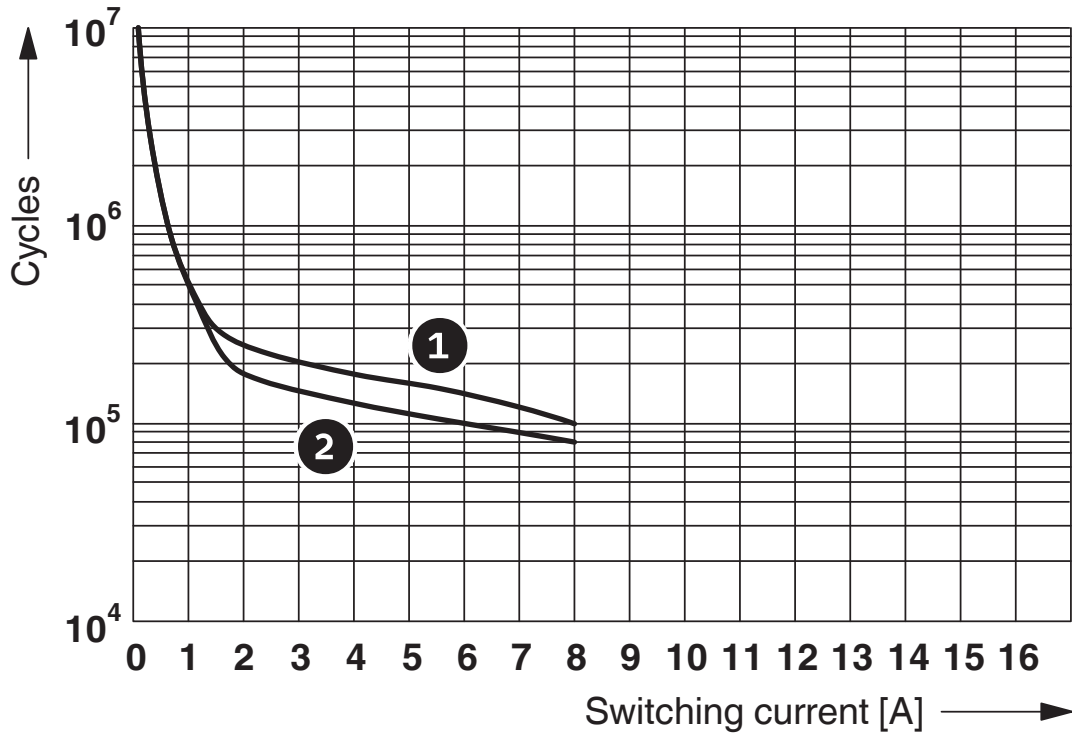
Dimensional drawing





Interrupting rating

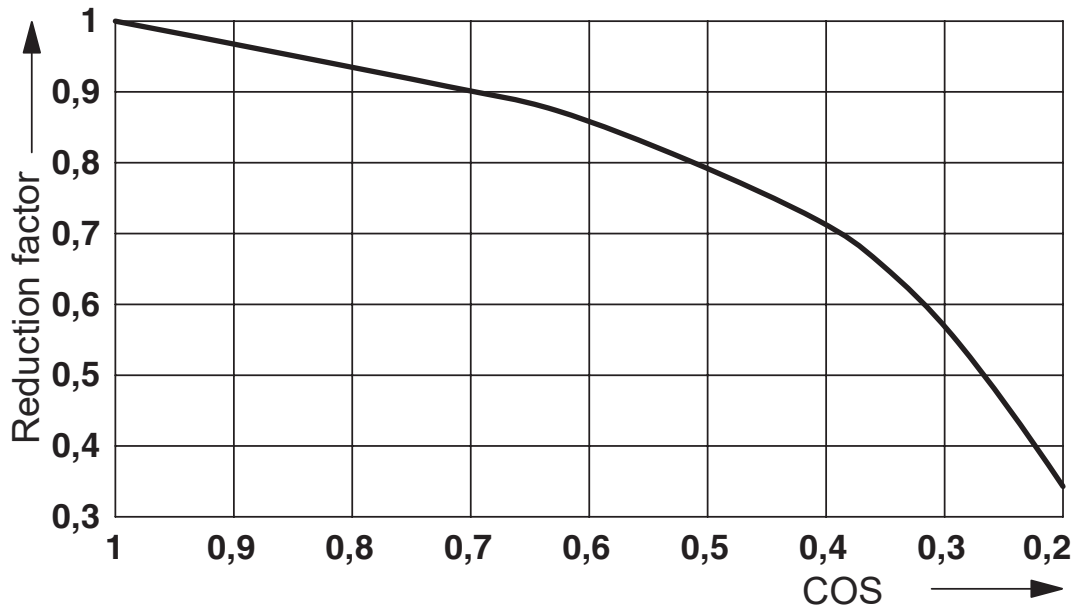
Diagram



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

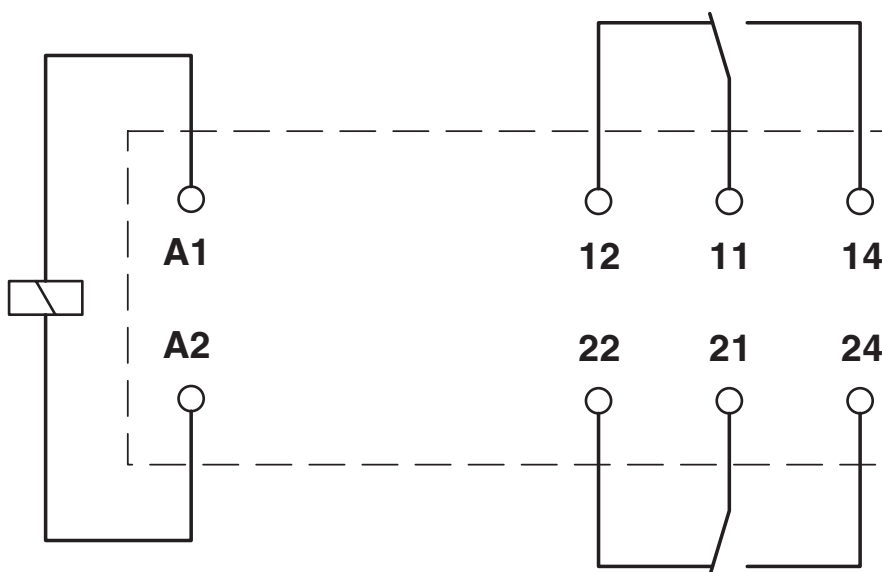
Electrical service life

Diagram

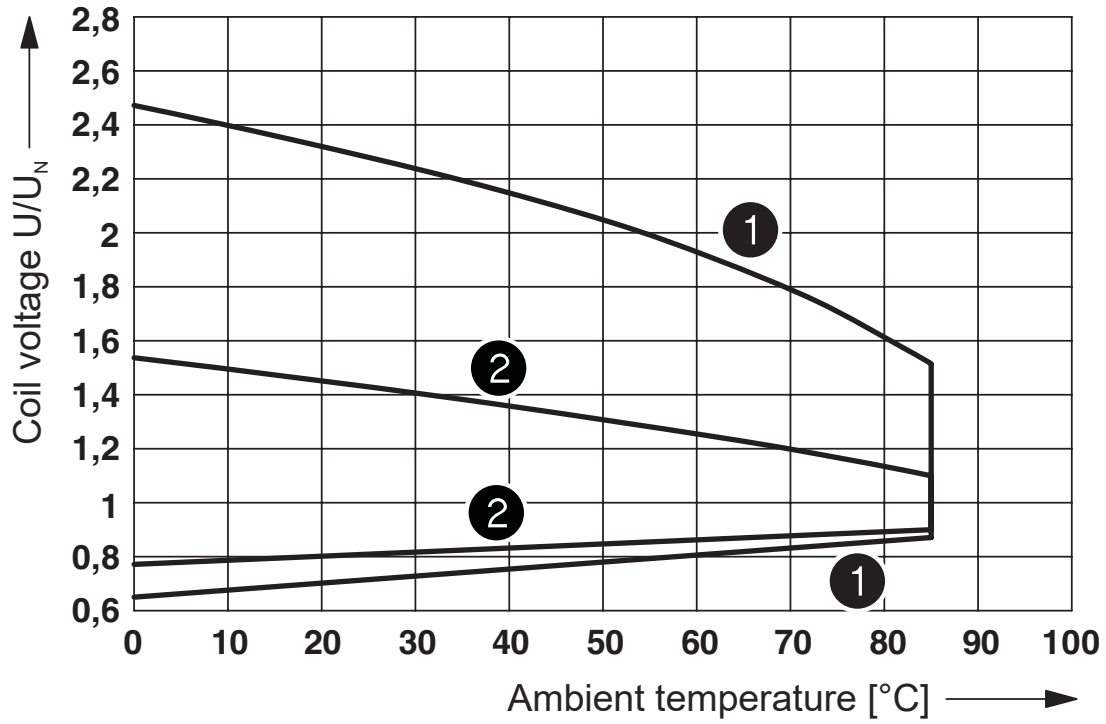


Service life reduction factor with various cos phi

Circuit diagram



Diagram



- ① DC coils
- ② AC coils

Operating voltage range

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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 172140



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



VDE Zeichengenehmigung
Approval ID: 40007758



VDE Zeichengenehmigung
Approval ID: 40048281



cUL Recognized
Approval ID: FILE E 172140

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2961451

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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

REL-MR-230AC/21-21 - Single relay



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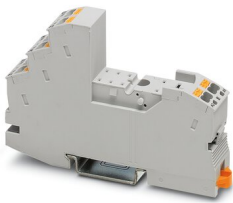
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Accessories

RIF-1-BPT/2X21 - Relay base

2900931

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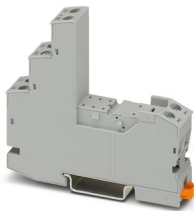


Relay base RIF-1..., for miniature power relay with 1 or 2 changeover contacts or solid-state relays of the same design, Push-in connection, plug-in option for input/interference suppression modules, for mounting on NS 35/7,5

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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