

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



Plug-in miniature power relay, with power contact for high continuous currents, 1 changeover contact, input voltage 230 V AC

Your advantages

- RT III-proof (wash-proof)
- Switching current of up to 16 A

Commercial Data

Item number	2961422
Packing unit	1 pc
Minimum order quantity	10 pc
Sales Key	C05
Product Key	CK6195
Catalog Page	Page 290 (C-5-2019)
GTIN	4017918937836
Weight per Piece (including packing)	16.3 g
Weight per Piece (excluding packing)	15.89 g
Customs tariff number	85364900
Country of origin	AT

Technical Data

Product properties

Product type	Single relay
Set comprises	2834355 PR1-RSC3-LV-230AC/21
	2834436 PR1-RSP3-LV-230AC/21
	2903339 RIF-1-RPT-LV-230AC/1X21
	2903355 RIF-1-RSC-LV-230AC/1X21
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)

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 (50 Hz)
	2.5 mA (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	1 changeover contact
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	16 A
Maximum inrush current	25 A (20 ms)
Min. switching current	10 mA (at 12 V)
	384 W (at 24 V DC)

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Interrupting rating (ohmic load) max.	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
Motor load according to UL 508	6 A (at 250 V, AC15)
	1/2 HP, 120 V AC (N/O contact)
	1 HP, 240 V AC (N/O contact)
	1/3 HP, 120 V AC (N/C contact)
	3/4 HP, 240 V AC (N/C contact)
1/4 HP, 200 ... 250 V AC	

Connection data

Connection method	Plug / solder connection
-------------------	--------------------------

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 II
Ambient temperature (operation)	-40 °C ... 85 °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

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

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

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

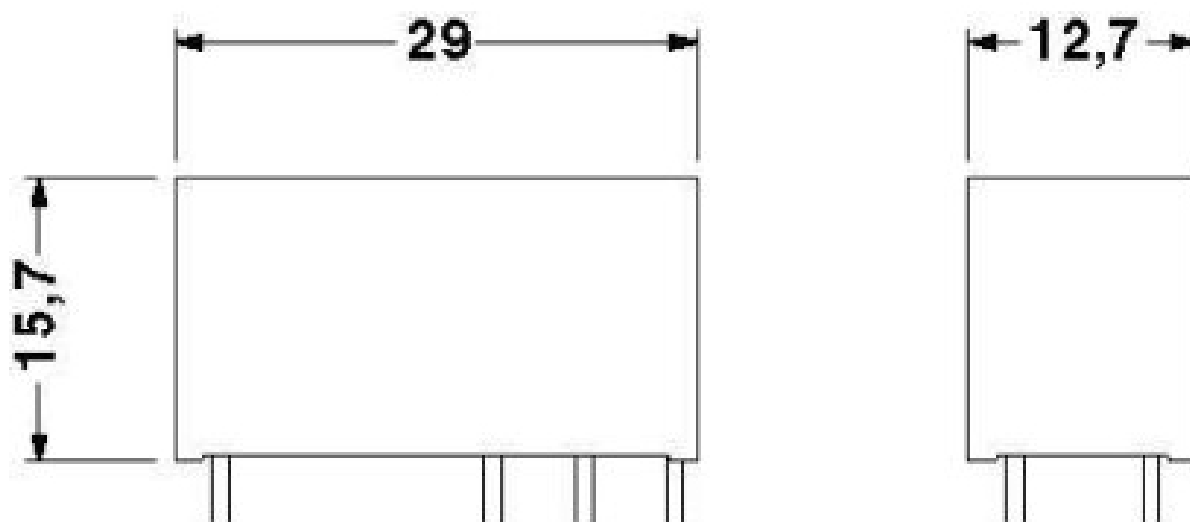
2961422

<https://www.phoenixcontact.com/us/products/2961422>

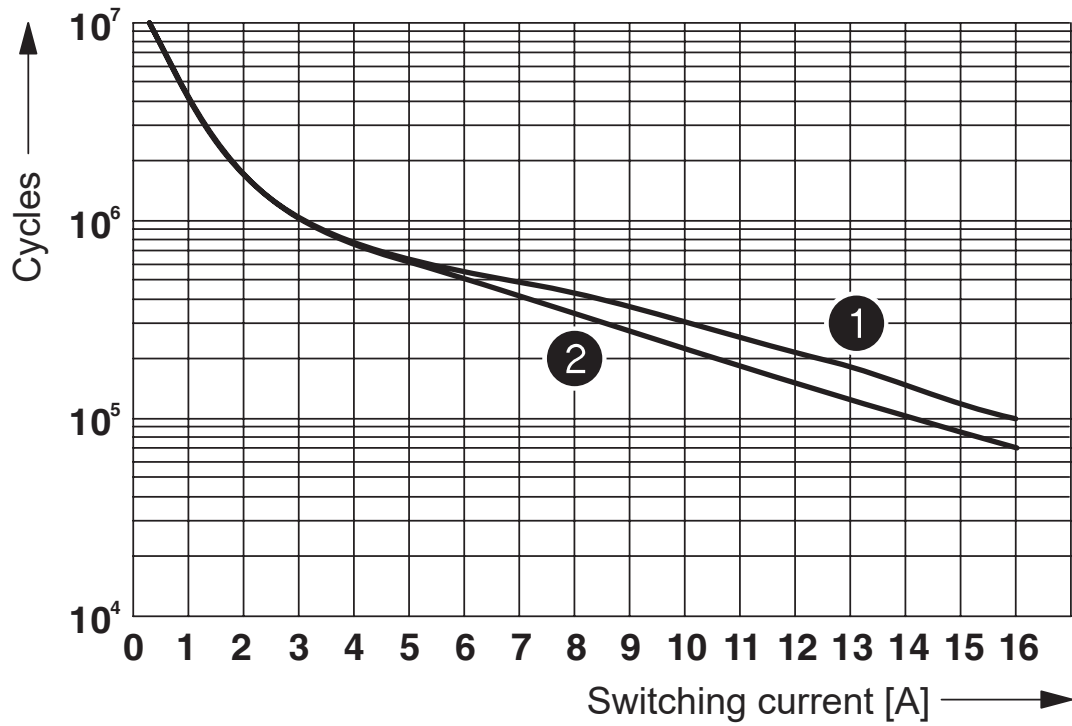


Drawings

Dimensional drawing



Diagram



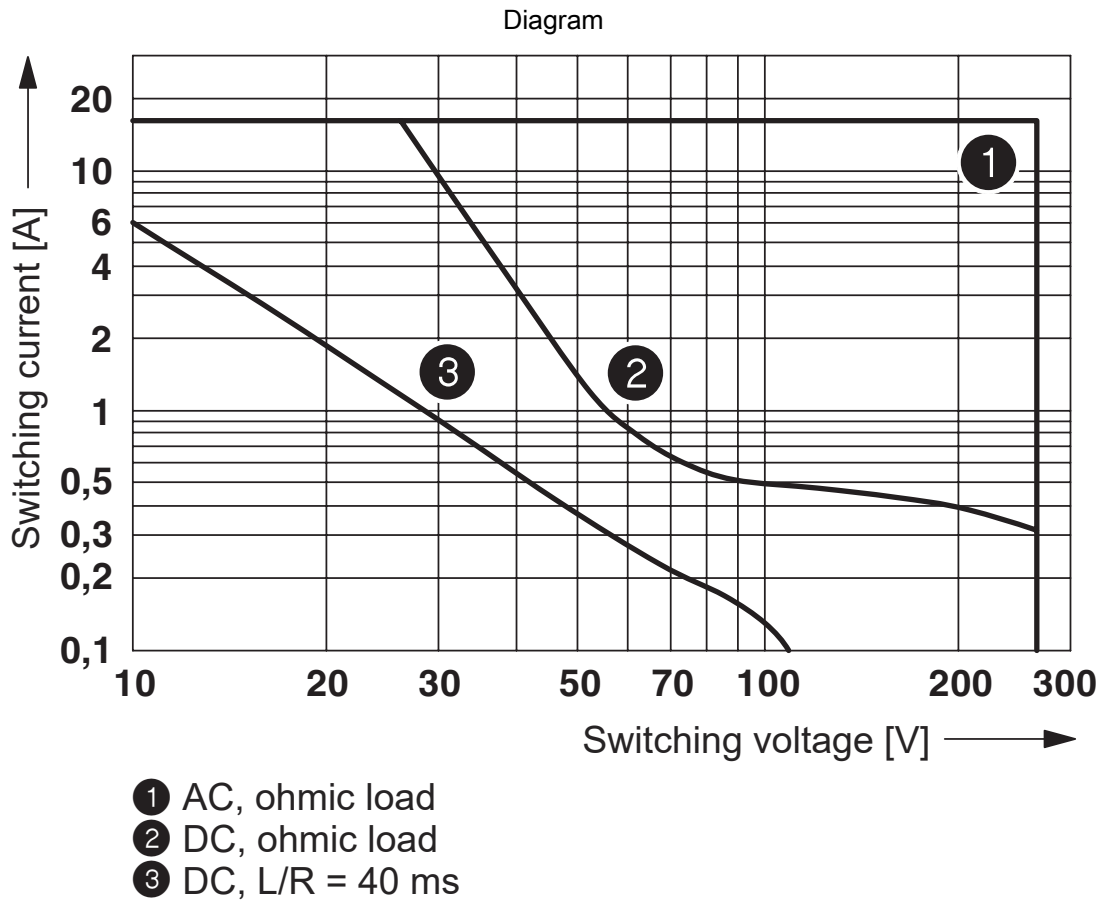
- ① 250 V AC, ohmic load (DC coils)
- ② 250 V AC, ohmic load (AC coils)

Electrical service life

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

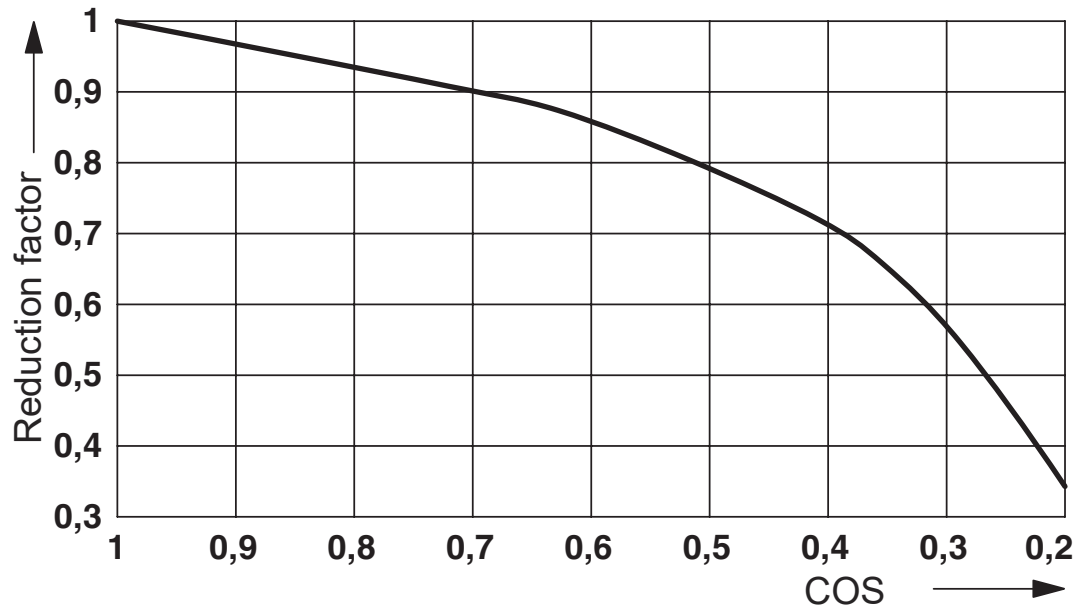
2961422

<https://www.phoenixcontact.com/us/products/2961422>



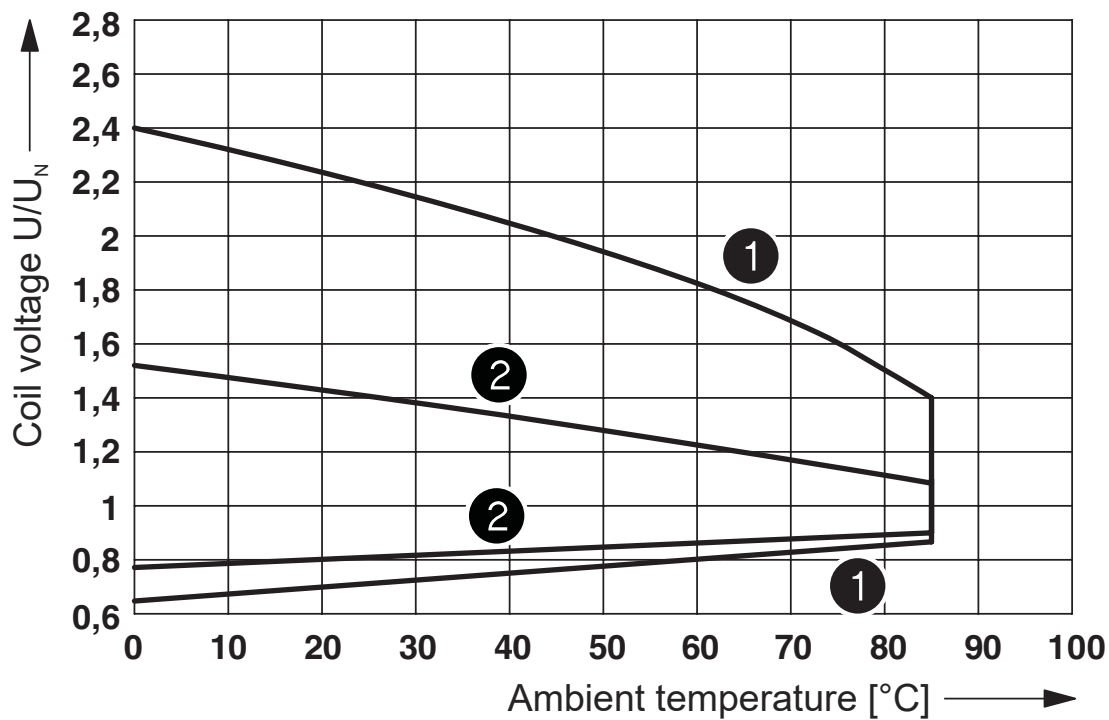
Interrupting rating

Diagram



Service life reduction factor with various cos phi

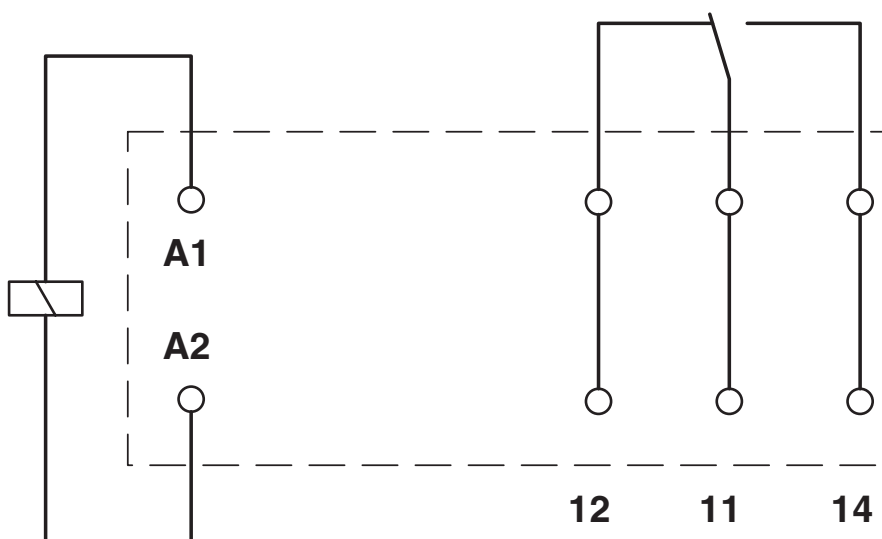
Diagram



- ① DC coils
- ② AC coils

Operating voltage range

Circuit diagram



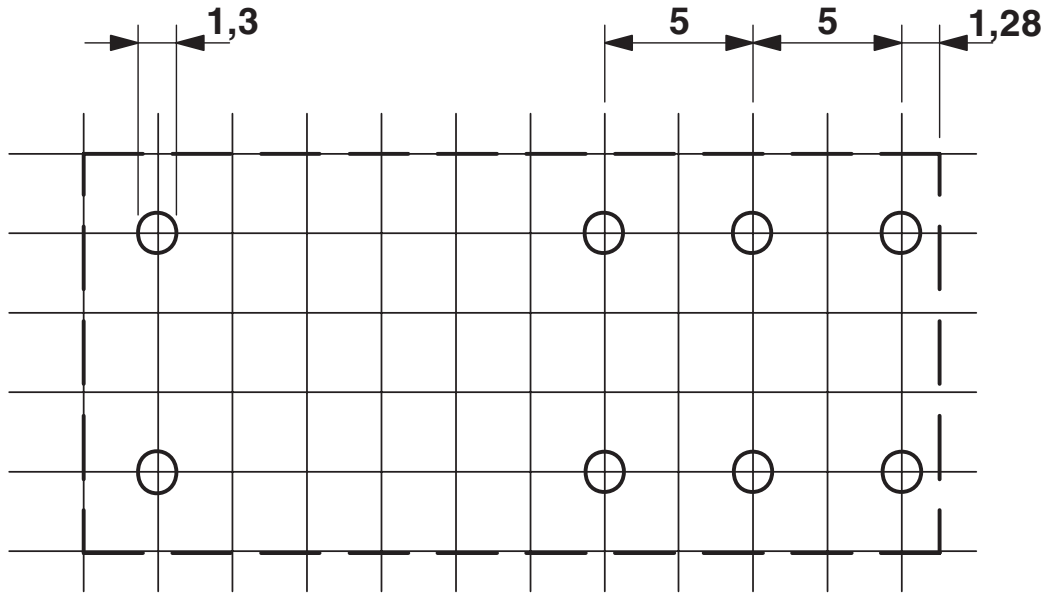
REL-MR-230AC/21HC - Single relay



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Drilling plan/solder pad geometry



Basic pitch 2.5 mm

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

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

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Reports with production monitoring			-	-



VDE Zeichengenehmigung
Approval ID: 40048281

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Reports with production monitoring			-	-



cUL Recognized
Approval ID: FILE E 172140

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Classifications

ECLASS

ECLASS-9.0	27371601
ECLASS-10.0.1	27371601
ECLASS-11.0	27371601
ECLASS-12.0	27371601
ECLASS-13.0	27371601

ETIM

ETIM 8.0	EC001437
----------	----------

UNSPSC

UNSPSC 21.0	39122300
-------------	----------

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Environmental Product Compliance

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

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



2961422

<https://www.phoenixcontact.com/us/products/2961422>

Accessories

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

Phoenix Contact 2023 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com