

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



2987972

<https://www.phoenixcontact.com/pc/products/2987972>

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Plug-in miniature relay, with power contact, 2 changeover contacts, test button, mechanical switching position indicator, status LED, coil voltage 230 V AC

Your advantages

- With detectable manual operation
- DC types with integrated freewheeling diode
- Integrated status LED
- Switching current of up to 16 A
- Mechanical switch position indicator

Commercial data

Item number	2987972
Packing unit	10 pc
Minimum order quantity	10 pc
Product key	CK6937
Catalog page	Page 292 (C-5-2019)
GTIN	4046356480987
Weight per piece (including packing)	19.19 g
Weight per piece (excluding packing)	17.99 g
Customs tariff number	85364900
Country of origin	CN

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Technical data

Product properties

Product type	Single relay
Mechanical service life	5x 10 ⁶ cycles

Data management status

Date of last data management	20.06.2024
Article revision	02

Electrical properties

Service life electrical	see diagram
Maximum power dissipation for nominal condition	0.81 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 ... 333.5 V AC
Mains frequency	50/60 Hz
Drive and function	monostable
Drive (polarity)	non-polarized
Typical input current at U _N	3.5 mA
Typical response time	3 ms ... 12 ms (depending on phase relation)
Typical release time range	2 ms ... 8 ms (depending on phase relation)

Output data

Switching

Contact switching type	2 changeover contacts
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	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)
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)
	1/4 HP, 120 V AC (N/O contact)

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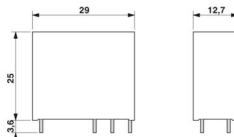
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Motor load according to UL 508	1/2 HP, 240 V AC (N/O contact)
	1/4 HP, 120 V AC (N/C contact)
	1/3 HP, 240 V AC (N/C contact)

Connection data

Connection method	Plug / 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

Approvals

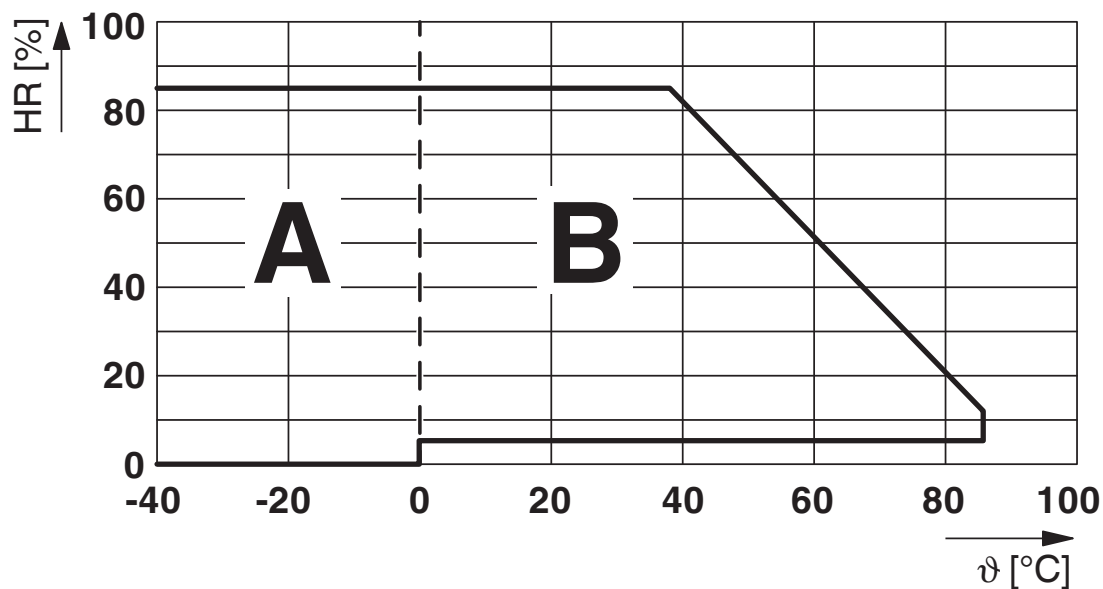
Corrosive gas test	
Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Standards and regulations

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

Drawings

Diagram



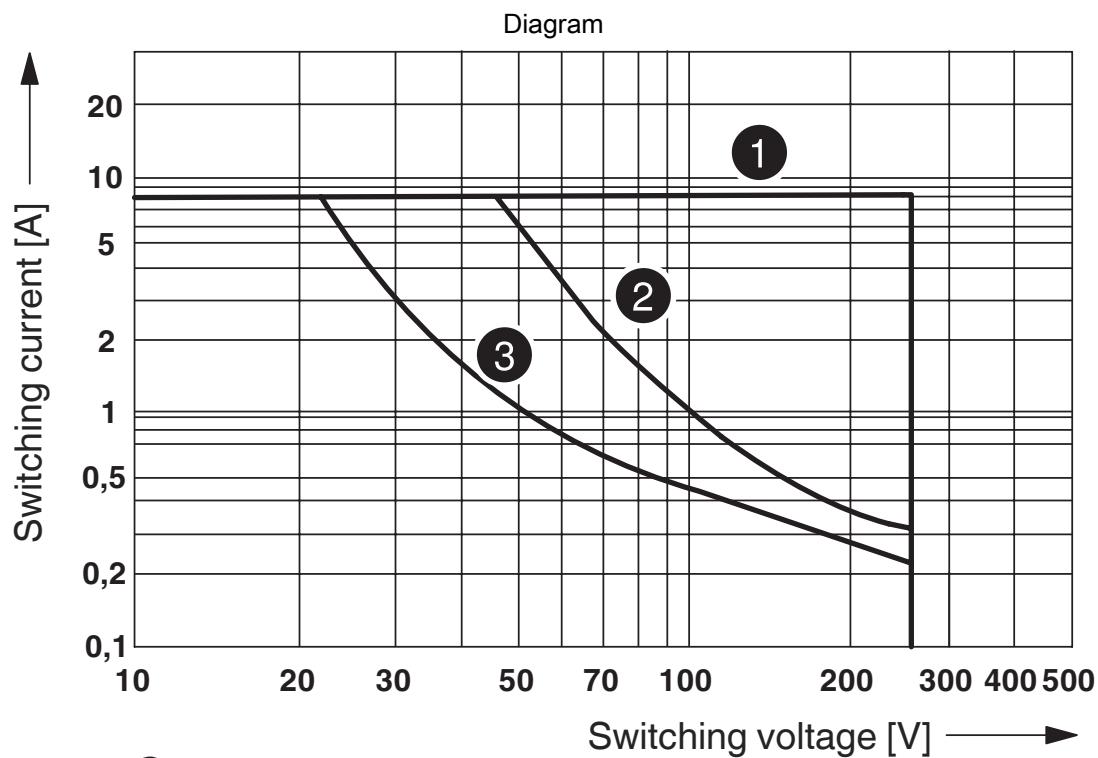
Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures $\leq 0^\circ\text{C}$ must be prevented

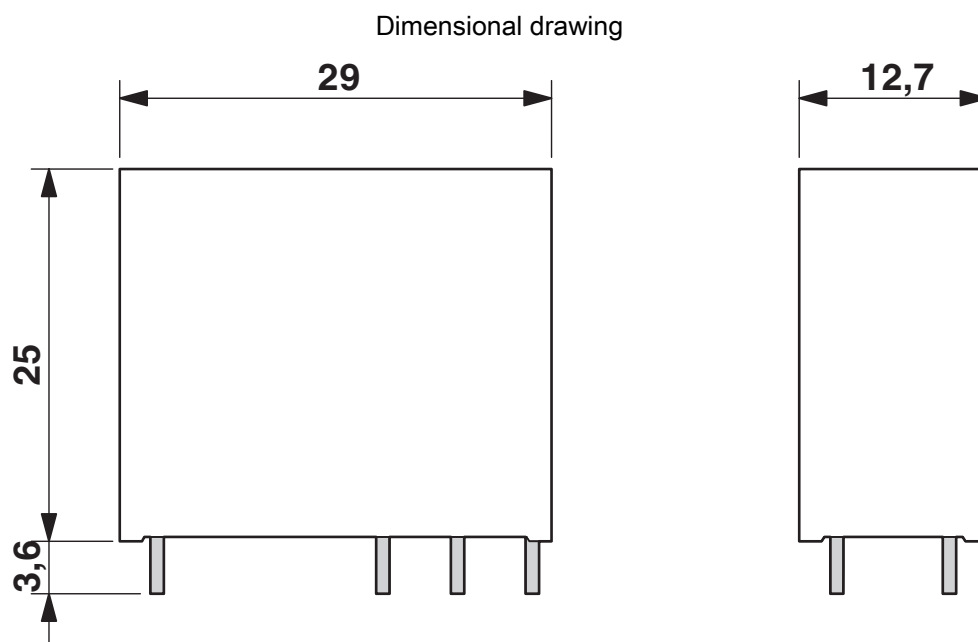
Area B: Condensation at ambient temperatures $> 0^\circ\text{C}$ must be prevented

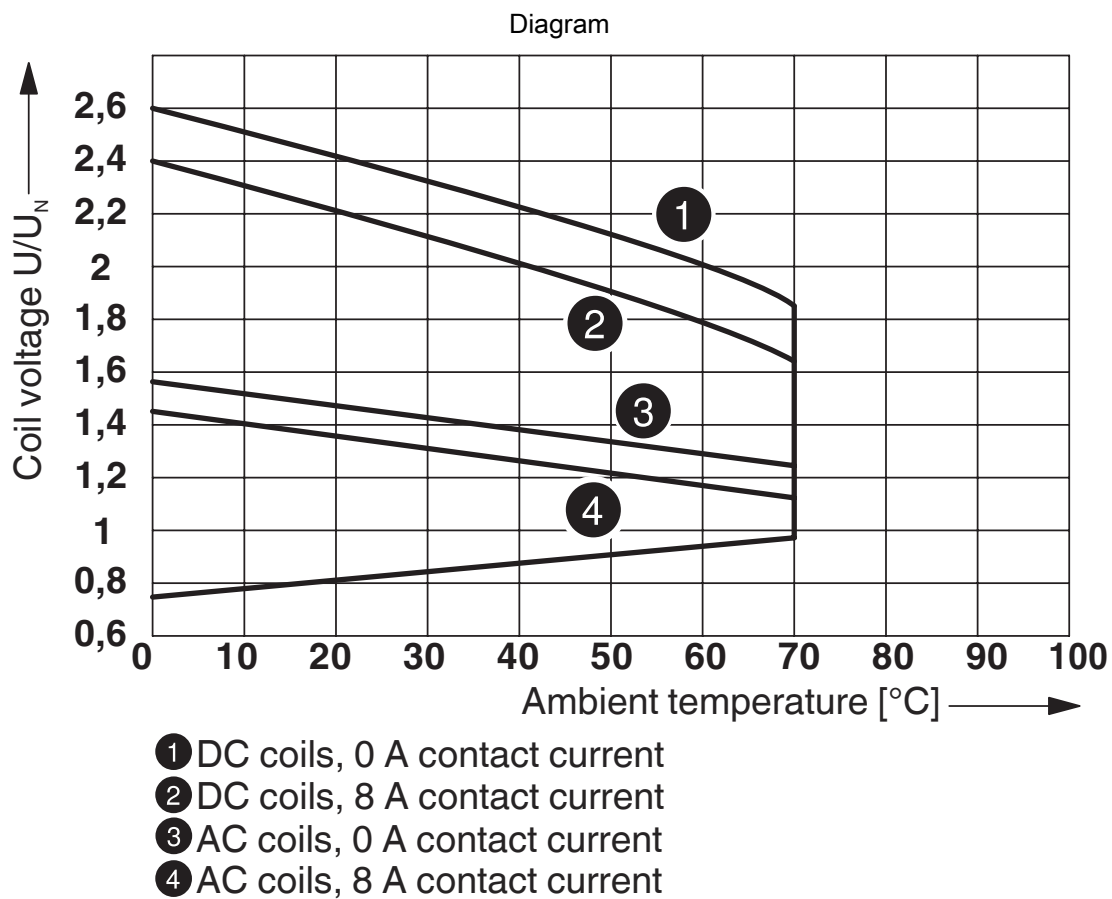
On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature $\leq 25^\circ\text{C}$.



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

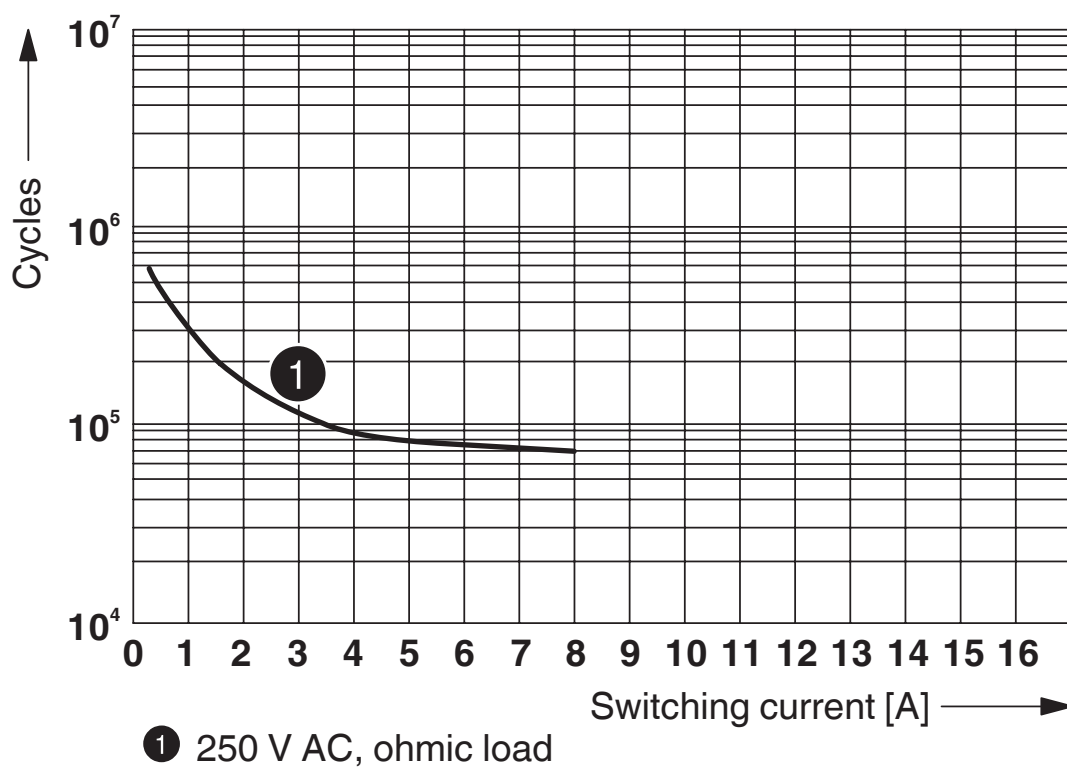
Interrupting rating





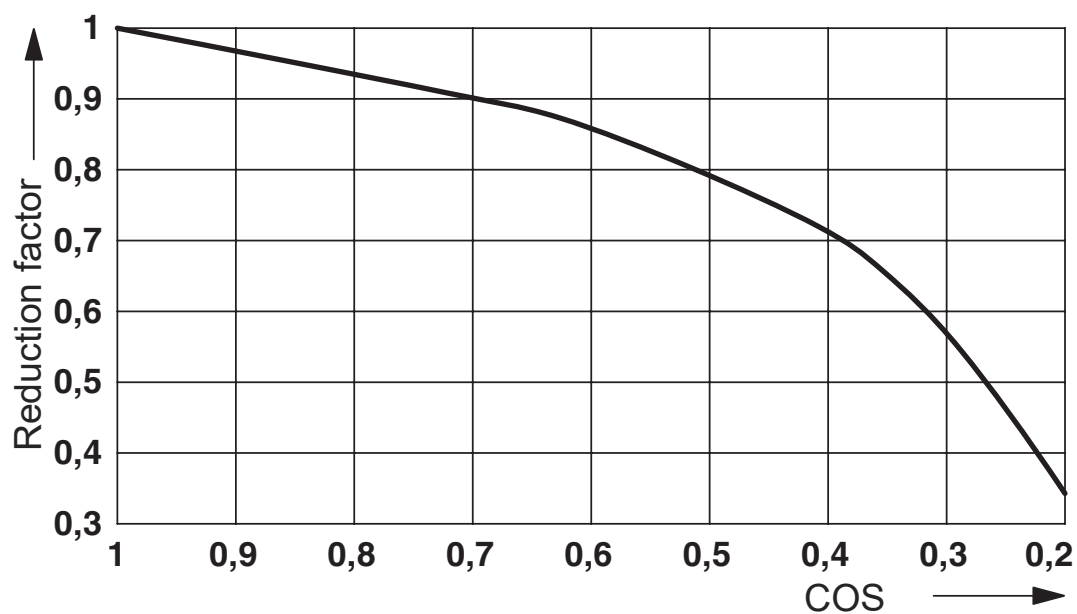
Operating voltage range

Diagram



Electrical service life

Diagram



Service life reduction factor with various cos phi

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Approvals

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cUL Recognized
Approval ID: FILE E 195083



UL Recognized
Approval ID: FILE E 195083



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



VDE approval of drawings
Approval ID: 40027210

cULus Recognized

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001437
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UNSPSC

UNSPSC 21.0	39122300
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(c)-I
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%
EF3.0 Climate Change	
CO2e kg	0.279 kg CO2e

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Mandatory accessories

RIF-1-BPT/2X21 - Relay base

2900931

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