

## Single relay - REL-MR-230AC/21HC AU/MS - 2987930

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Plug-in miniature relay, with multi-layer contact with hard gold coating, 1 changeover contact, test button, mechanical switching position indicator, status LED, input voltage 230 V AC

### Your advantages

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



### Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	 4 046356 481069
GTIN	4046356481069

### Technical data

#### Dimensions

Width	12.7 mm
Height	29 mm
Depth	25 mm

#### Ambient conditions

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

#### Coil side

Nominal input voltage $U_N$	230 V AC
Mains frequency	50/60 Hz

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## Technical data

### Coil side

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)
Power dissipation for nominal condition	0.81 W

### Contact side

Contact type	1 changeover contact
Type of switch contact	Single contact
Contact material	AgNi, hard gold-plated
Maximum switching voltage	30 V AC 36 V DC
Minimum switching voltage	12 V (At 1 mA)
Min. switching current	1 mA (at 12 V)
Maximum inrush current	50 mA
Limiting continuous current	50 mA
Switching capacity	3 A (at 240 V, AC15)

### Contact side (with destroyed gold layer)

Contact material	AgNi
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	6 V AC/DC
Limiting continuous current	16 A
Maximum inrush current	30 A (300 ms)
Min. switching current	100 mA
Interrupting rating (ohmic load) max.	4000 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13) 3 A (at 24 V, AC15) 3 A (at 120 V, AC15) 3 A (at 240 V, AC15)

### General

Test voltage	5 kV AC (50 Hz, 1 min., winding/contact)
Mechanical service life	$5 \times 10^6$ cycles
Service life, electrical	see diagram

### Connection data

Connection method	Solder connection
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### Standards and Regulations

Connection in acc. with standard	CUL
Standards/regulations	EN 61810-1 VDE 0435-201

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## Technical data

### Standards and Regulations

	EN 50178
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### Conformance/approvals

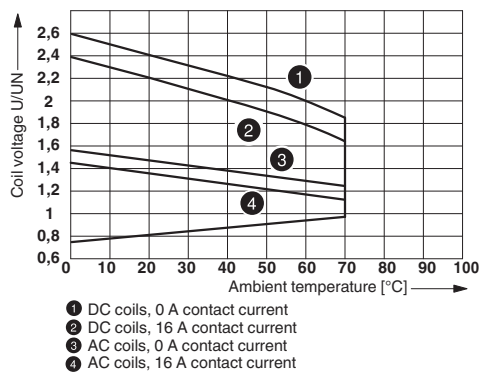
Designation	Corrosive gas test
Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

### Environmental Product Compliance

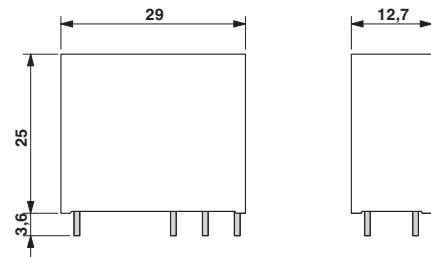
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

Diagram

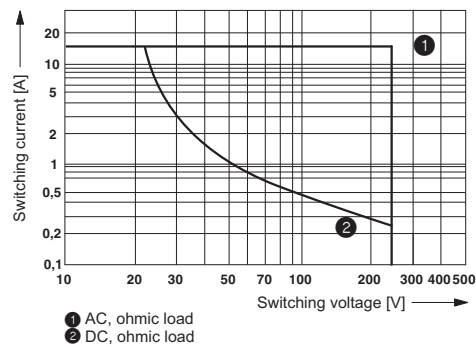


Dimensional drawing

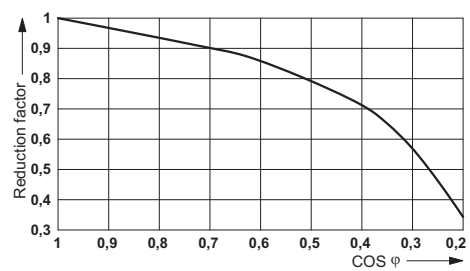


### Operating voltage range

Diagram



Diagram

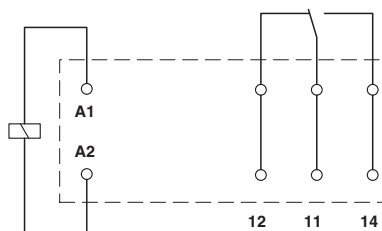


### Interrupting rating

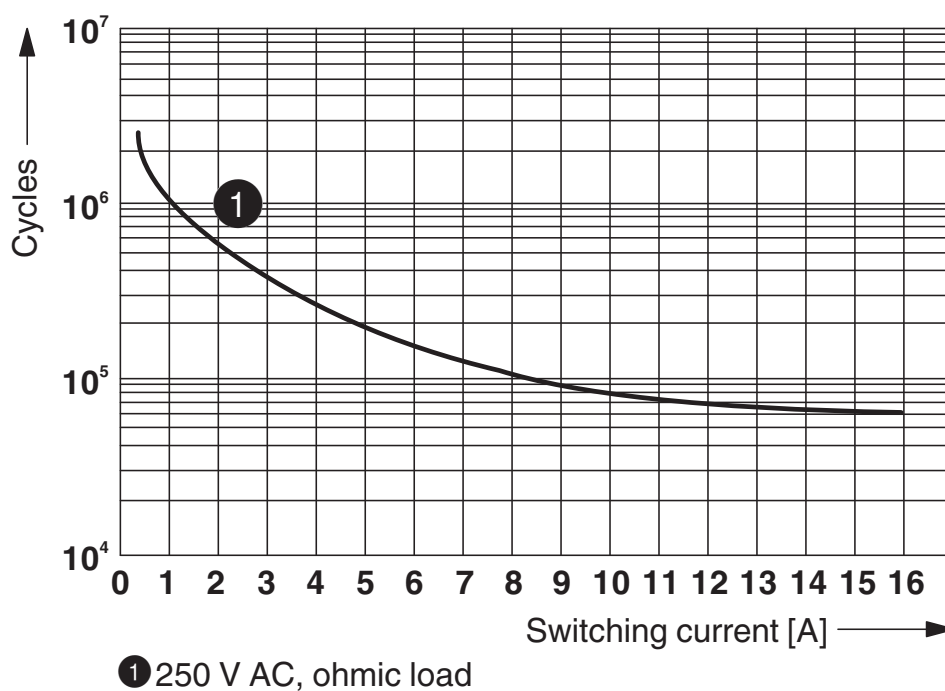
### Service life reduction factor with various cos phi

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Circuit diagram



Diagram



Electrical service life

## Classifications

eCl@ss

eCl@ss 10.0.1	27371601
eCl@ss 11.0	27371601
eCl@ss 4.0	27371100
eCl@ss 4.1	27371100
eCl@ss 5.0	27371600
eCl@ss 5.1	27371600
eCl@ss 6.0	27371600
eCl@ss 7.0	27371601
eCl@ss 9.0	27371601

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## Classifications

### ETIM

ETIM 2.0	EC001437
ETIM 3.0	EC001437
ETIM 4.0	EC001437
ETIM 5.0	EC001437
ETIM 6.0	EC001437
ETIM 7.0	EC001437

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39122334
UNSPSC 18.0	39122334
UNSPSC 19.0	39122334
UNSPSC 20.0	39122334
UNSPSC 21.0	39122334

## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / VDE Zeichengenehmigung / cULus Recognized

#### Ex Approvals

### Approval details

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 195083
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cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 195083
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EAC		RU C- DE.A*30.B.01082
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## Approvals

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40027210
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cULus Recognized	
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## Accessories

### Additional products

Relay base - RIF-1-BPT/2X21 - 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

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

Relay base - PR1-BSC3/2X21 - 2833521



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, screw connections, connection facility for input/interference suppression modules

Relay base - PR1-BSP3/2X21 - 2833534



Relay base PR1..., for miniature power relay or miniature switching relay with 1 or 2 PDT or solid-state relay of same construction, 1/3 level design, spring-cage connections, connection facility for input/interference suppression modules

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