

## Single relay - REL-MR-230AC/21HC/MS - 2987914

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)




Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switching position indicator, status LED, input voltage 230 V AC

### Your advantages

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



### Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	 4 046356 481045
GTIN	4046356481045

### 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

# Single relay - REL-MR-230AC/21HC/MS - 2987914

## Technical data

### Coil side

Typical input current at $U_N$	3.5 mA
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
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Min. switching current	10 mA (at 12 V)
Maximum inrush current	32 A (20 ms)
Limiting continuous current	16 A
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)
Motor load according to UL 508	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)
	1/2 HP, 240 V AC (N/C contact)

### General

Test voltage	5 kV AC (50 Hz, 1 min., winding/contact)
Mechanical service life	5x 10 <sup>6</sup> cycles
Service life, electrical	see diagram

### Connection data

Connection method	Solder connection
-------------------	-------------------

### Standards and Regulations

Connection in acc. with standard	CUL
Standards/regulations	EN 61810-1
	VDE 0435-201
	EN 50178

### 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
------------	---

# Single relay - REL-MR-230AC/21HC/MS - 2987914

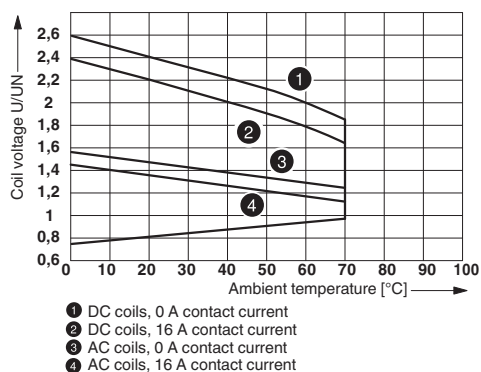
## Technical data

### Environmental Product Compliance

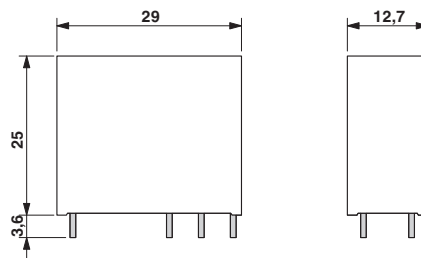
	No hazardous substances above threshold values
--	--

## Drawings

Diagram

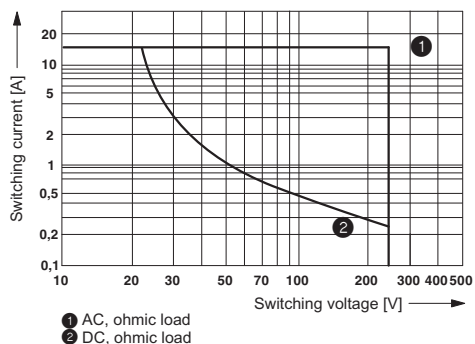


Dimensional drawing

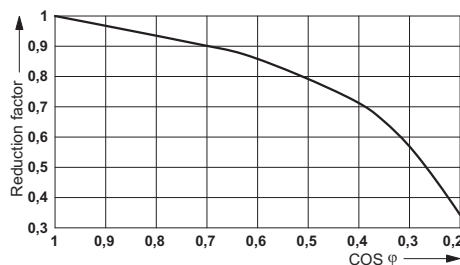


### Operating voltage range

Diagram



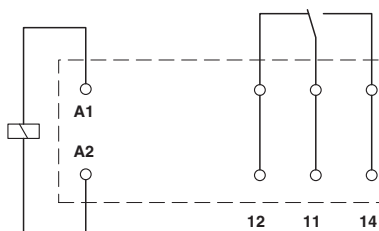
Diagram



### Interrupting rating

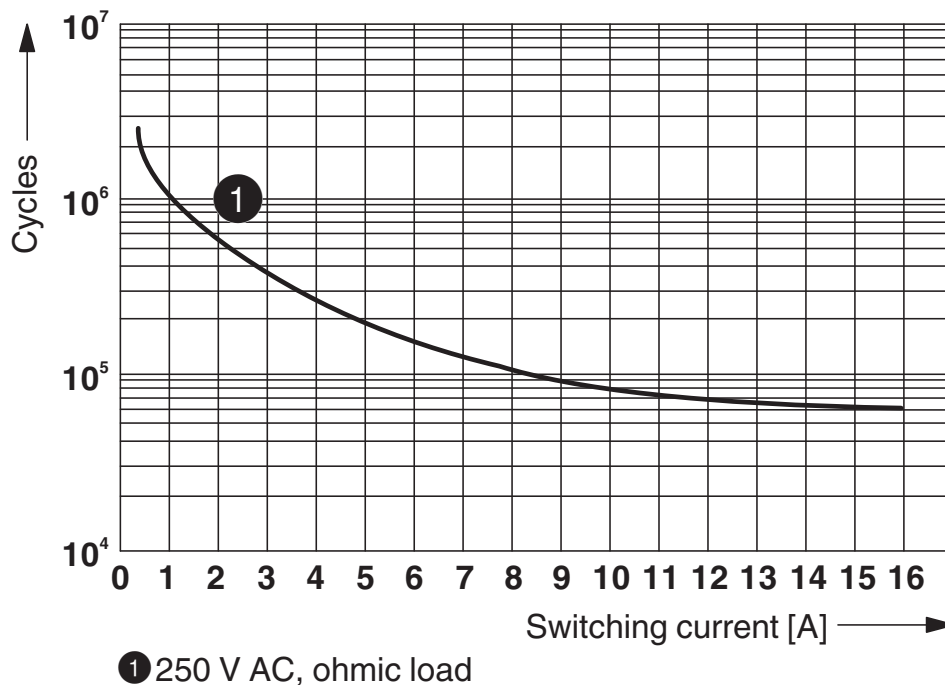
### Service life reduction factor with various cos phi

Circuit diagram



# Single relay - REL-MR-230AC/21HC/MS - 2987914

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

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

# Single relay - REL-MR-230AC/21HC/MS - 2987914

## Classifications

### 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 / 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
---------------	---	---	---------------

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
----------------	---	---	---------------

EAC			TR_TS_D_00573_c
-----	---	--	-----------------

EAC			RU*C-DE.*08.B.00010
-----	---	--	---------------------

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
------------------------	---	---	----------

# Single relay - REL-MR-230AC/21HC/MS - 2987914

## Approvals

cULus Recognized



## 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

Phoenix Contact 2021 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>