

## Single relay - REL-MR- 24AC/21HC/MS - 2987891

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Plug-in miniature relay, with power contact, 1 PDT, test button, mechanical switch position indicator, status LED, input voltage 24 V AC

### Your advantages

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



### Key Commercial Data

Packing unit	1 pc
Minimum order quantity	10 pc
GTIN	 4 046356 481021
GTIN	4046356481021
Weight per Piece (excluding packing)	18.000 g
Custom tariff number	85364190
Country of origin	China

### Technical data

#### Dimensions

Width	12.7 mm
Height	29 mm
Depth	25 mm

#### Ambient conditions

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## Technical data

### Ambient conditions

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

### Coil side

Nominal input voltage $U_N$	24 V AC
Mains frequency	50/60 Hz
Typical input current at $U_N$	32 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	0.77 W

### Contact side

Contact type	1 PDT
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 relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Mechanical service life	5x 10 <sup>6</sup> 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
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## Technical data

### Standards and Regulations

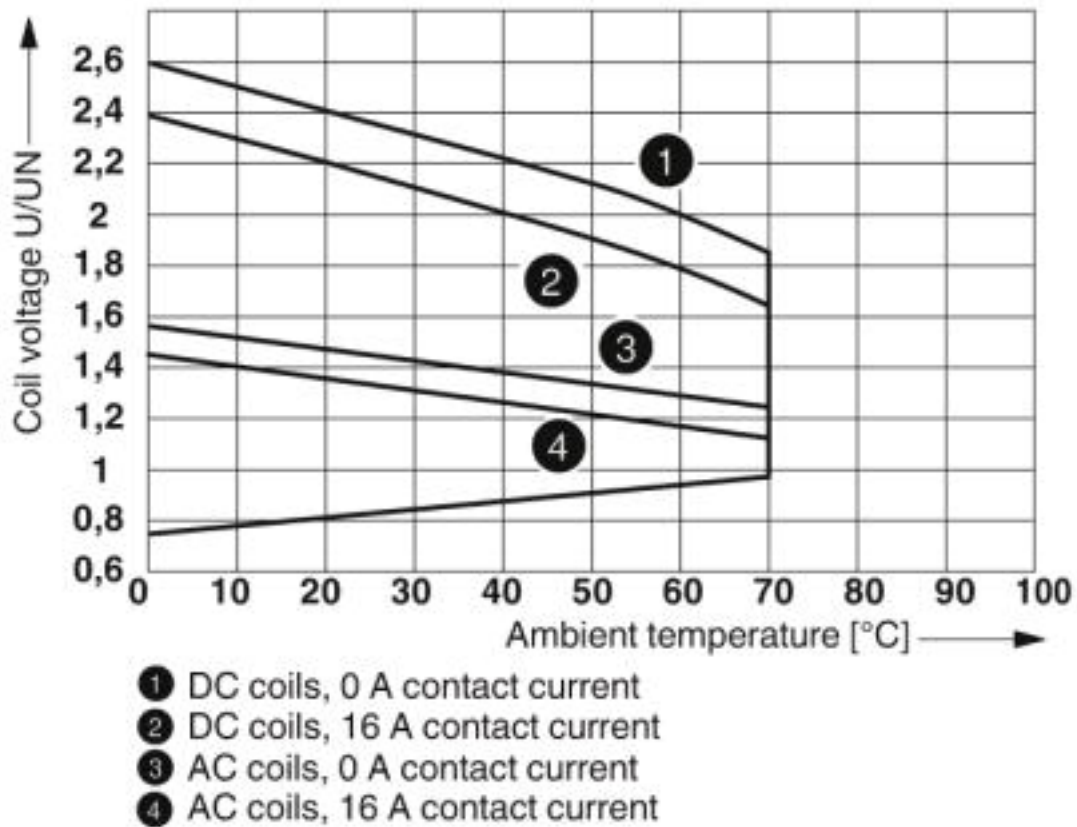
Standards/regulations	EN 61810-1
	VDE 0435-201
	EN 50178

### Environmental Product Compliance

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

## Drawings

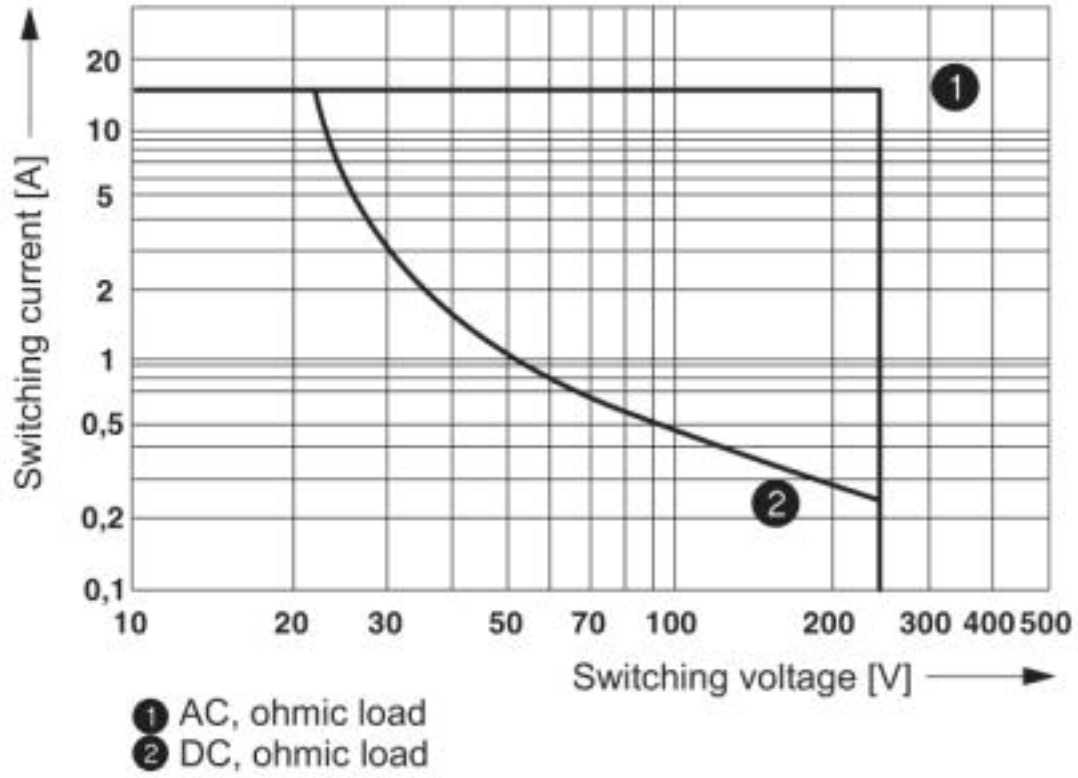
Diagram



Operating voltage range

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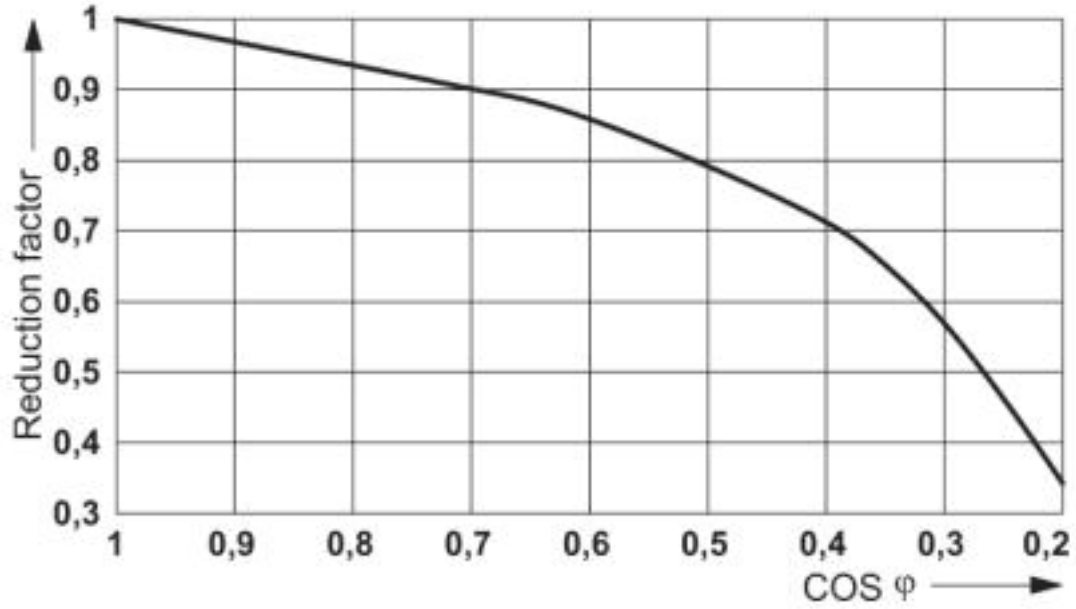
Diagram



Interrupting rating

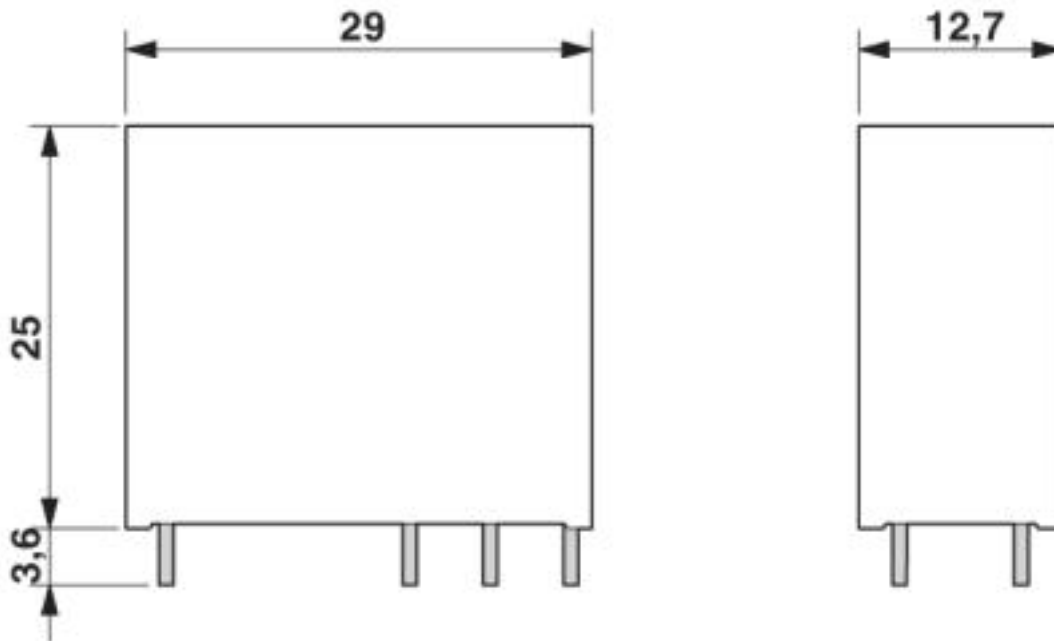
# Single relay - REL-MR- 24AC/21HC/MS - 2987891

Diagram



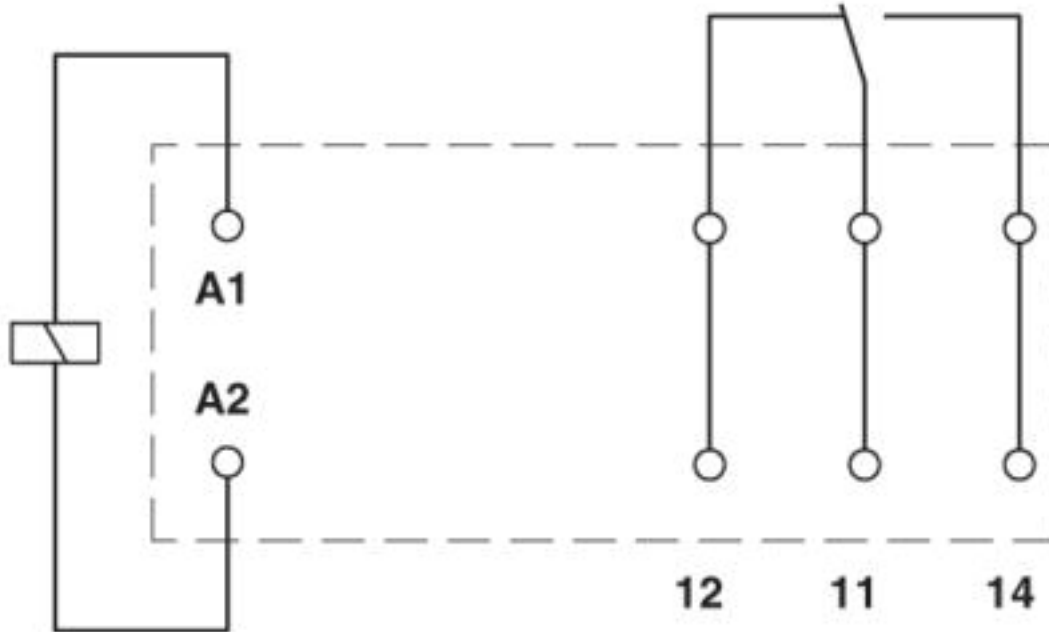
Service life reduction factor with various cos phi

Dimensional drawing



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Circuit diagram



## Classifications

eCl@ss

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 8.0	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

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## Classifications

### UNSPSC

UNSPSC 6.01	30211916
UNSPSC 7.0901	39121515
UNSPSC 11	39121515
UNSPSC 12.01	39121515
UNSPSC 13.2	39122334

## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / VDE Zeichengenehmigung / EAC / EAC / 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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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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EAC			TR_TS_D_00573_c
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EAC			TR_TS_S_00010_c
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## Approvals

cULus Recognized



## Accessories

### Additional products

Relay base - RIF-1-BPT/2X21 - 2900931



RIF-1... relay base, for miniature power relay with 1 or 2 PDTs or solid-state relays of the same design, push-in connection, plug-in option for input/suppressor 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



