

# Single relay - REL-MR- 24DC/21-21AU - 2961215

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Pluggable miniature relays, with multi-layer contact, 2 PDT, input voltage 24 V DC

## Product Features

- RT III wash tight (comparable with IP67)
- Switching current of up to 16 A

## Key commercial data

<b>package_quantity</b>	10
<b>GTIN</b>	4017918157999

## Technical data

### Dimensions

<b>Width</b>	12.7 mm
<b>Height</b>	29 mm
<b>Depth</b>	15.7 mm

### Ambient conditions

<b>Ambient temperature (operation)</b>	-40 °C ... 85 °C
<b>Ambient temperature (storage/transport)</b>	-40 °C ... 85 °C

### Coil side

<b>Nominal input voltage <math>U_N</math></b>	24 V DC
<b>Nominal input current at <math>U_{IN}</math></b>	17 mA
<b>Typical response time</b>	7 ms
<b>Typical release time</b>	3 ms
<b>Coil resistance</b>	1440 $\Omega$ $\pm$ 10% (at 20 °C)

### Contact side

<b>Contact type</b>	Single contact, 2-PDT
<b>Contact material</b>	AgNi, hard gold-plated
<b>Maximum switching voltage</b>	30 V AC
<b>Maximum switching voltage</b>	36 V DC
<b>Minimum switching voltage</b>	100 mV (at 10 mA)
<b>Maximum inrush current</b>	50 mA
<b>Min. switching current</b>	1 mA (at 24 V)

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## Technical data

### Contact side

Limiting continuous current	50 mA
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 10 mA)
Limiting continuous current	8 A
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (At 5 V)
Interrupting rating (ohmic load) max.	190 W (at 24 V DC)
Interrupting rating (ohmic load) max.	85 W (at 48 V DC)
Interrupting rating (ohmic load) max.	60 W (at 60 V DC)
Interrupting rating (ohmic load) max.	44 W (at 110 V DC)
Interrupting rating (ohmic load) max.	60 W (at 220 V DC)
Interrupting rating (ohmic load) max.	2000 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	0.2 A (at 110 V, DC13)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	0.2 A (at 250 V, DC13)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 120 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 250 V, AC15)

### General

Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Test voltage relay contact/relay contact	2.5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Mechanical service life	3 x 10 <sup>7</sup> cycles
Standards/regulations	IEC 60664
Standards/regulations	EN 50178
Standards/regulations	IEC 62103
Rated surge voltage / insulation	Basic insulation
Pollution degree	3
Surge voltage category	III
Mounting position	Any
Assembly instructions	Can be aligned without spacing (> 70 °C ≥ 2.5 mm)

## classifications

### eCl@ss

eCl@ss 4.0	27371104
eCl@ss 4.1	27371104
eCl@ss 5.0	27371001
eCl@ss 5.1	27371001

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## classifications

### eCl@ss

eCl@ss 6.0	27371001
eCl@ss 7.0	27371001
eCl@ss 8.0	27371001

### ETIM

ETIM 2.0	EC000196
ETIM 3.0	EC000196
ETIM 4.0	EC000196
ETIM 5.0	EC000196

### UNSPSC

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

## approvals

UL Recognized / VDE Gutachten mit Fertigungsüberwachung / cUL Recognized / GOST / GL / UL Recognized / cUL Recognized / cULus Recognized /

### Approval details

UL Recognized
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VDE Gutachten mit Fertigungsüberwachung	
Nominal voltage UN	
Nominal current IN	
mm <sup>2</sup> /AWG/kcmil	

cUL Recognized
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GOST
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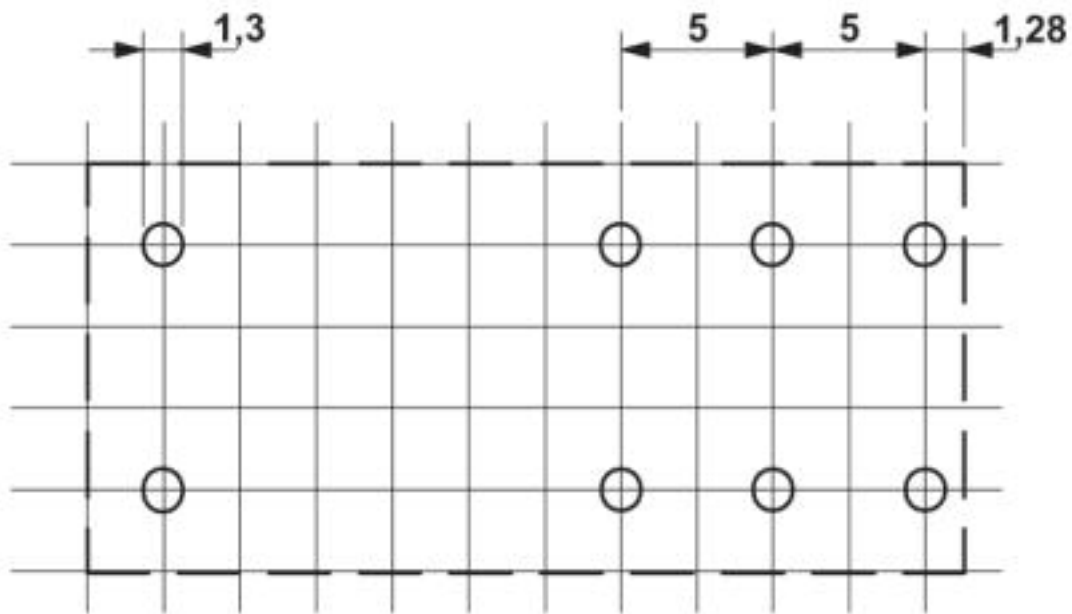
approvals

GL

cULus Recognized US

## Drawings

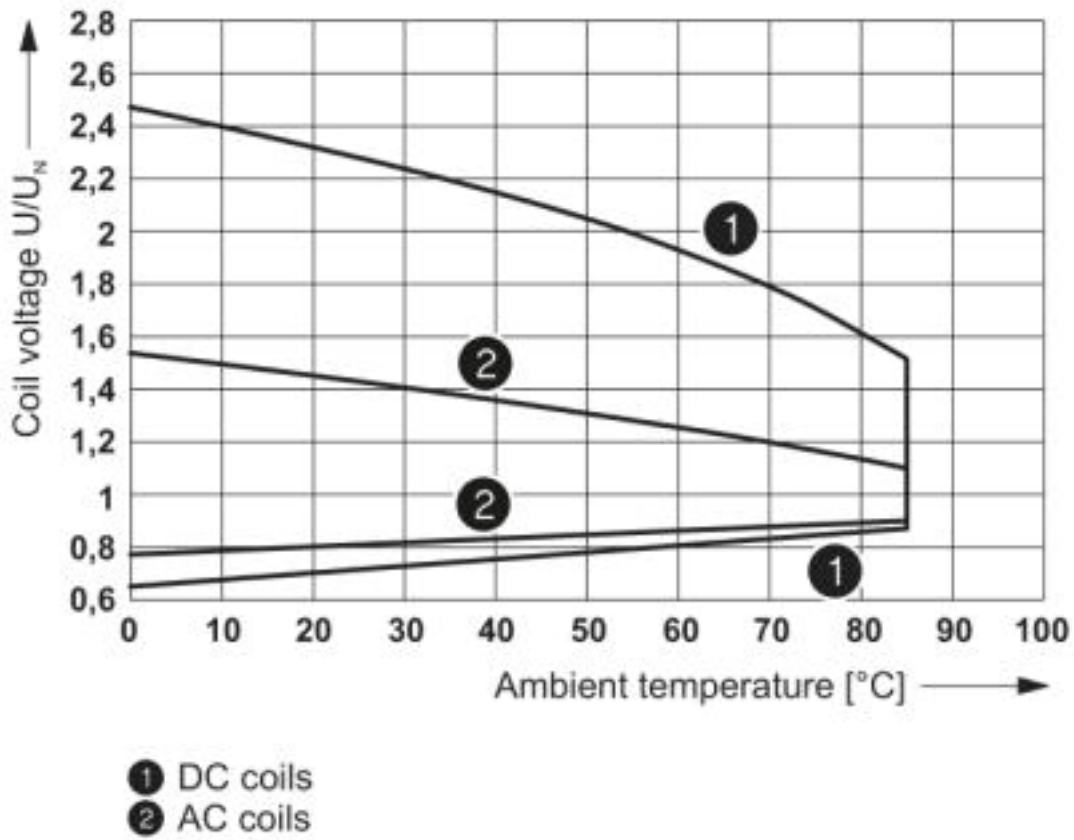
Drilling diagram



a = pitch division 2.5 mm

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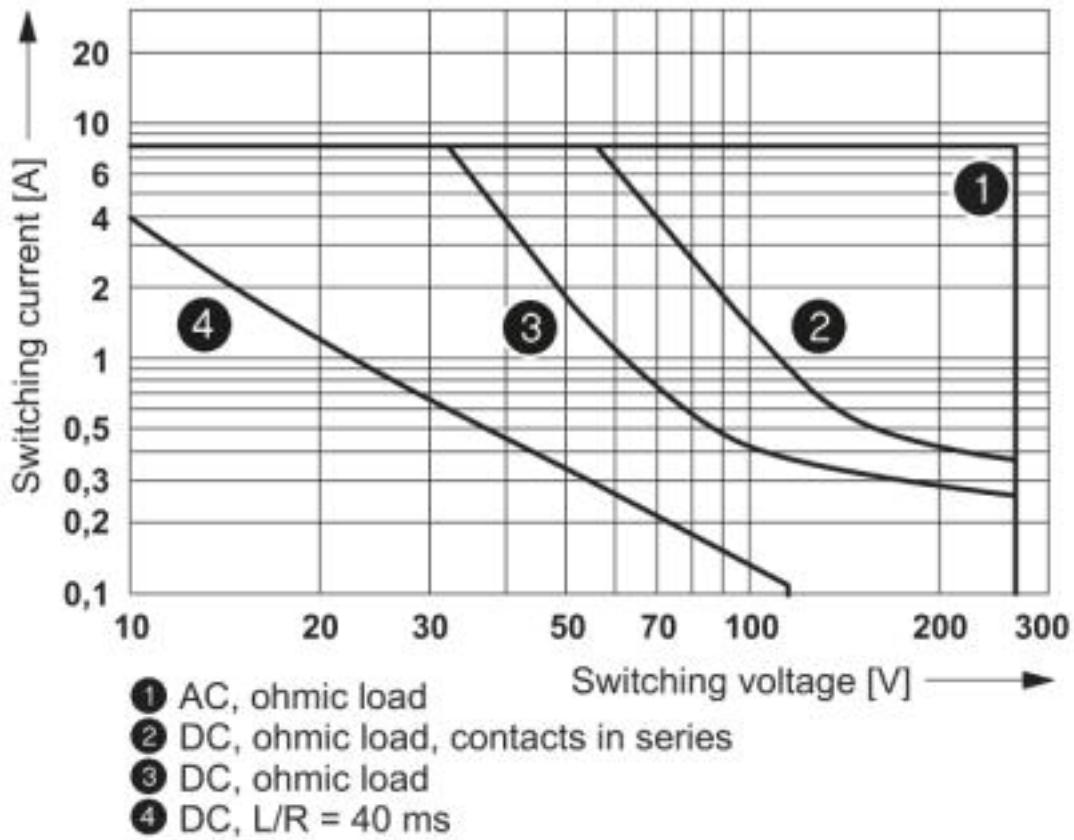
Diagram



Operating voltage range

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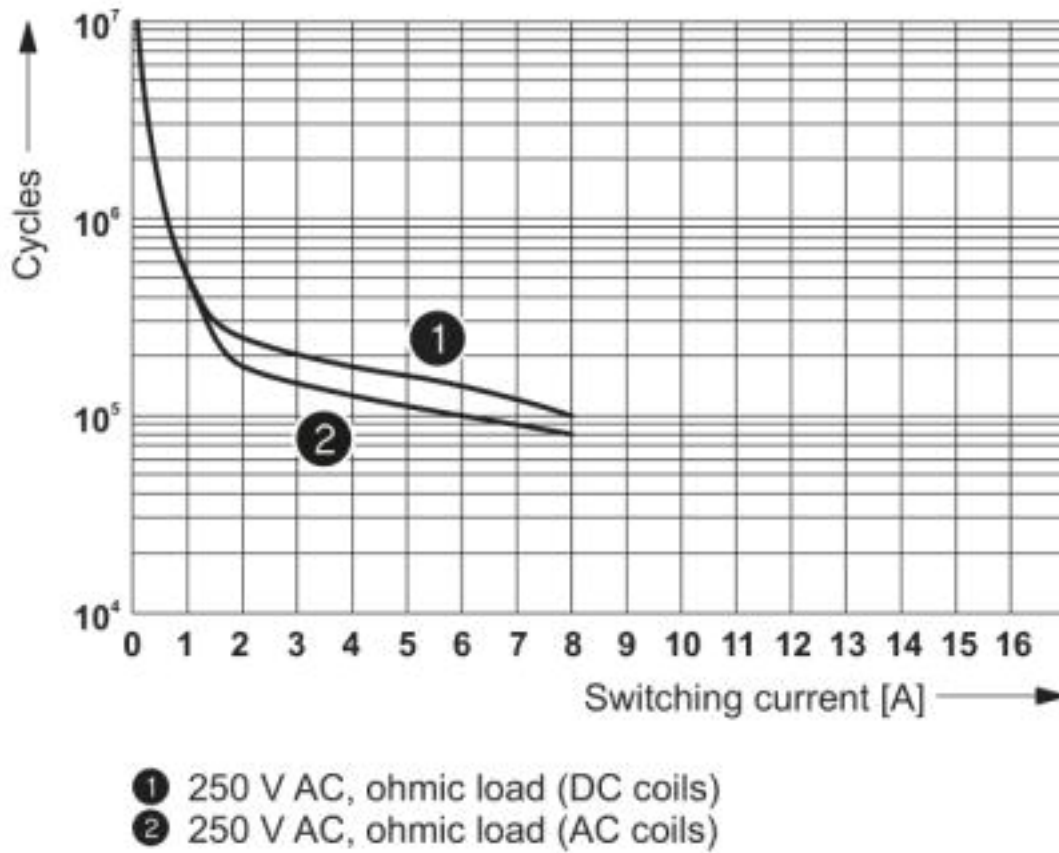
Diagram



Interrupting rating

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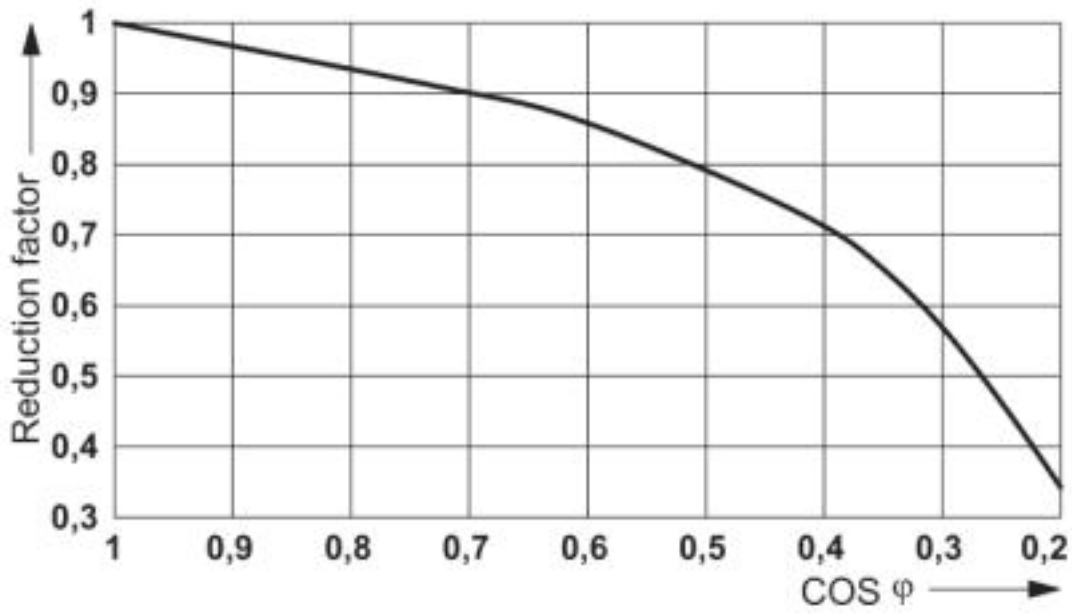
Diagram



Electrical service life

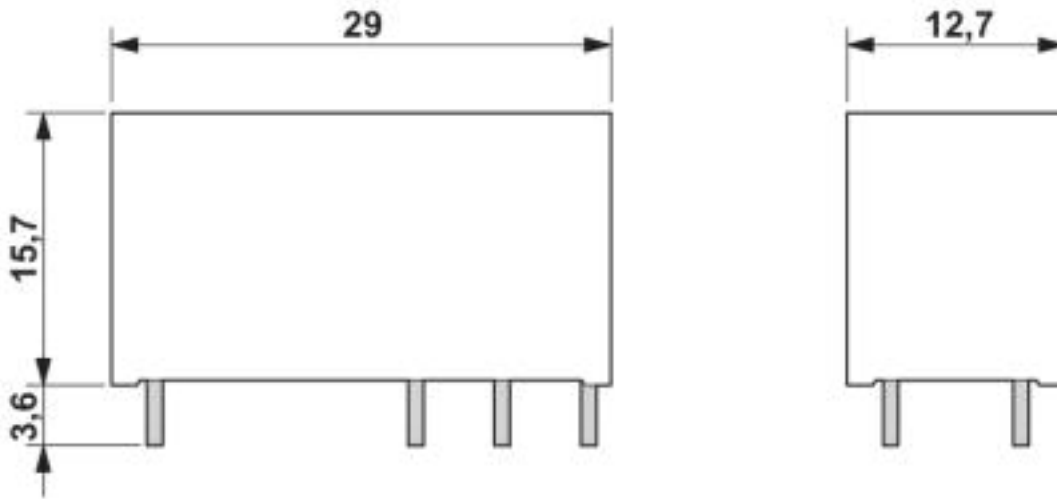
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Diagram



Service life reduction factor with various cos phi

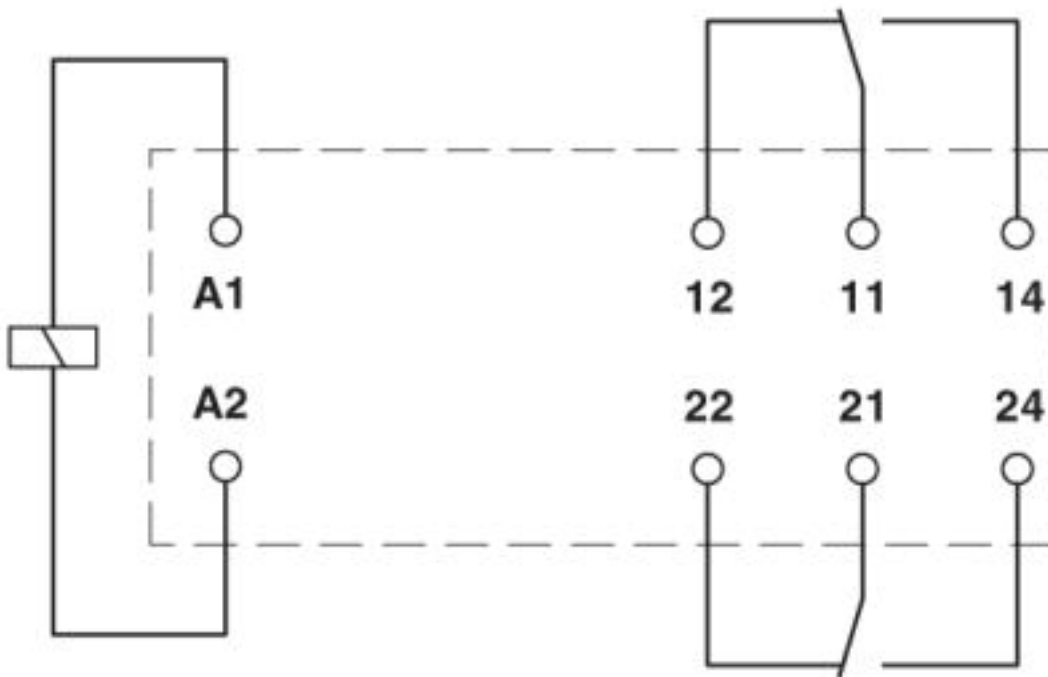
Dimensioned drawing





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Circuit diagram



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