

Single relay - REL-MR- 12DC/21HC - 2961309

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Pluggable miniature relays, with power contact for high continuous current, 1 PDT, input voltage 12 V DC

Product Features

- Switching current of up to 16 A

Key commercial data

package_quantity	10
GTIN	4017918187552

Technical data

Dimensions

Width	12.7 mm
Height	29 mm
Depth	15.7 mm

Ambient conditions

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

Coil side

Nominal input voltage U_N	12 V DC
Input voltage range in reference to U_N	(refer to the diagram)
Nominal input current at U_{IN}	33 mA
Typical response time	7 ms
Typical release time	3 ms
Coil resistance	360 Ω \pm 10% (at 20 °C)

Contact side

Contact type	Single contact, 1-PDT
Contact material	AgNi
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	12 V (at 10 mA)
Maximum inrush current	50 A (20 ms)
Min. switching current	10 mA (at 12 V)
Limiting continuous current	16 A

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Technical data

Contact side

Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
Interrupting rating (ohmic load) max.	58 W (at 48 V DC)
Interrupting rating (ohmic load) max.	48 W (at 60 V DC)
Interrupting rating (ohmic load) max.	50 W (at 110 V DC)
Interrupting rating (ohmic load) max.	80 W (at 220 V DC)
Interrupting rating (ohmic load) max.	4000 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	6 A (at 24 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	6 A (at 120 V, AC15)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	6 A (at 250 V, AC15)

General

Test voltage relay winding/relay contact	5 kV AC (50 Hz, 1 min.)
Operating mode	100% operating factor
Mechanical service life	3 x 10 ⁷ cycles
Standards/regulations	IEC 60664
Standards/regulations	EN 50178
Standards/regulations	IEC 62103
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
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

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classifications

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

VDE Gutachten mit Fertigungsüberwachung

Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	


cUL Recognized

GOST

GL

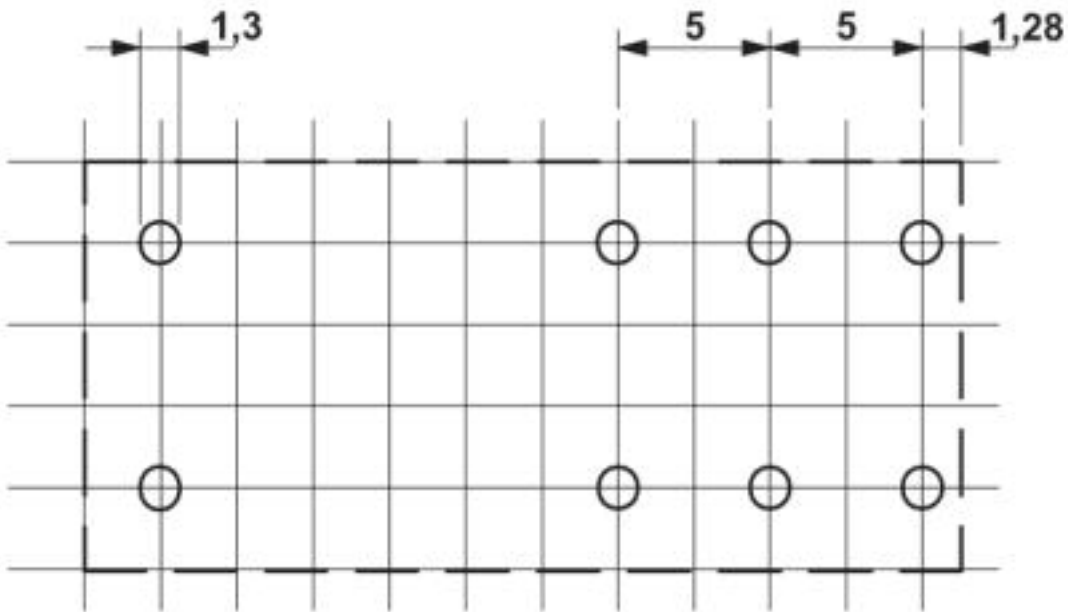
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approvals

cULus Recognized  US

Drawings

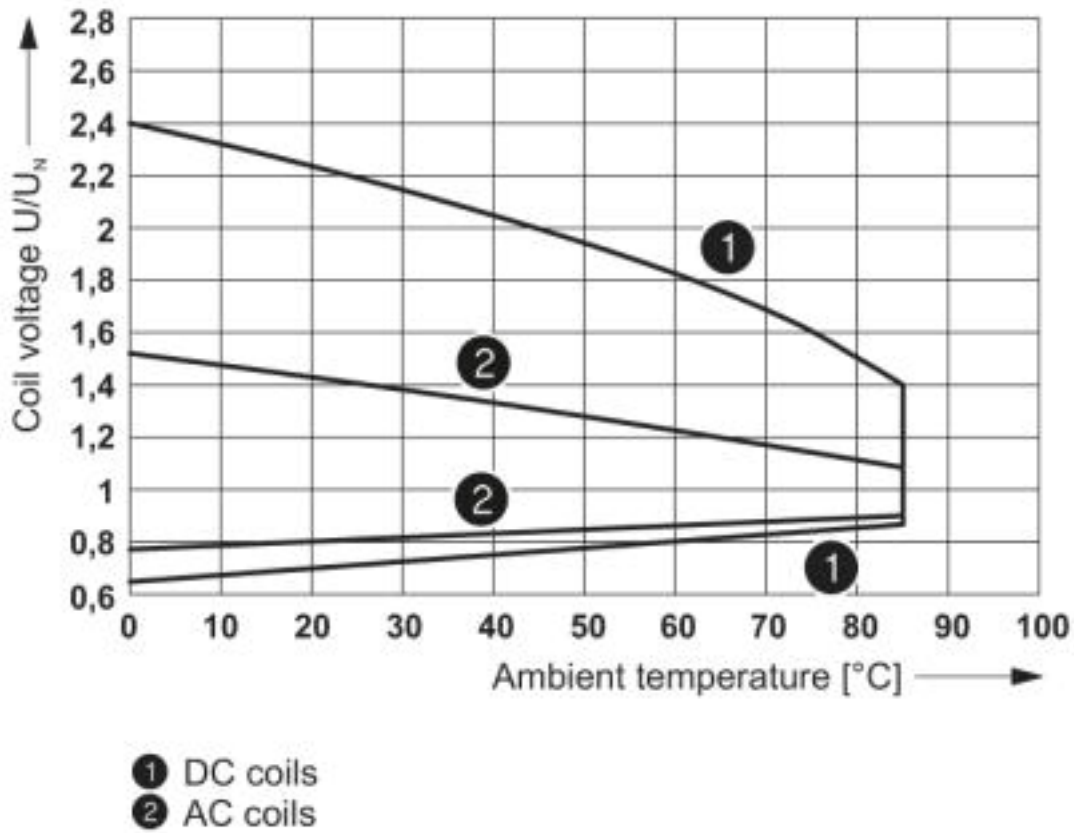
Drilling diagram



a = pitch division 2.5 mm

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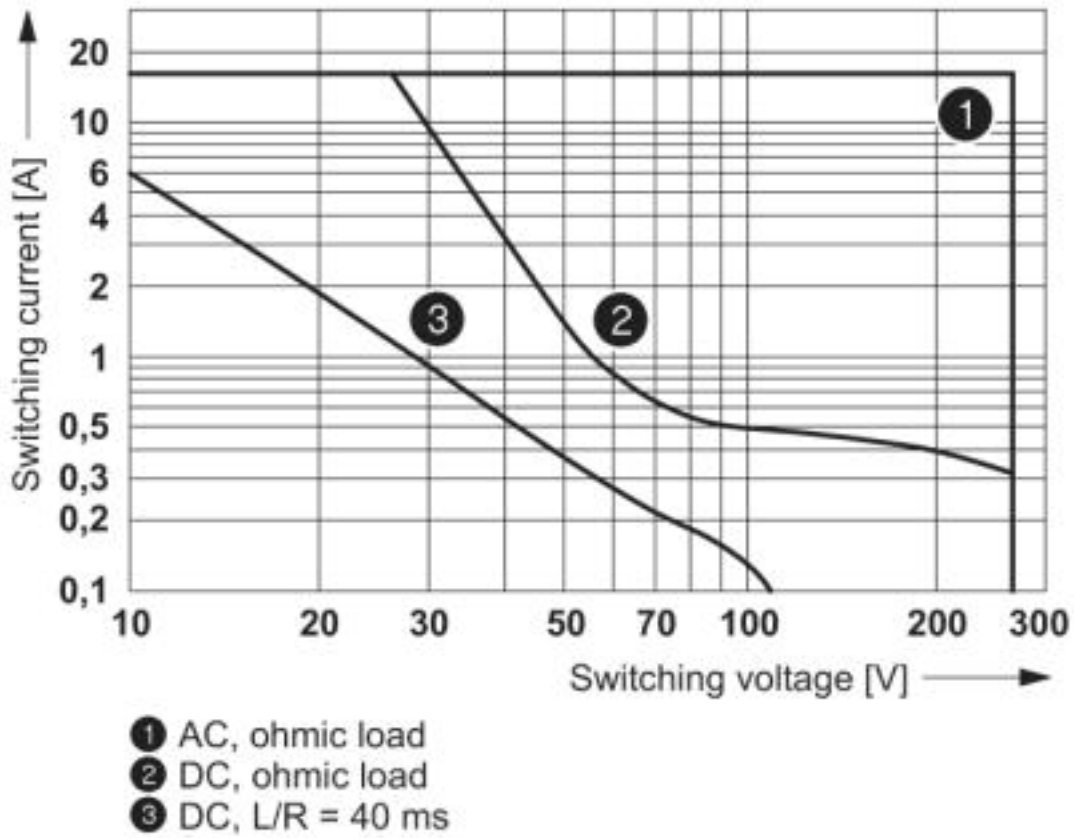
Diagram



Operating voltage range

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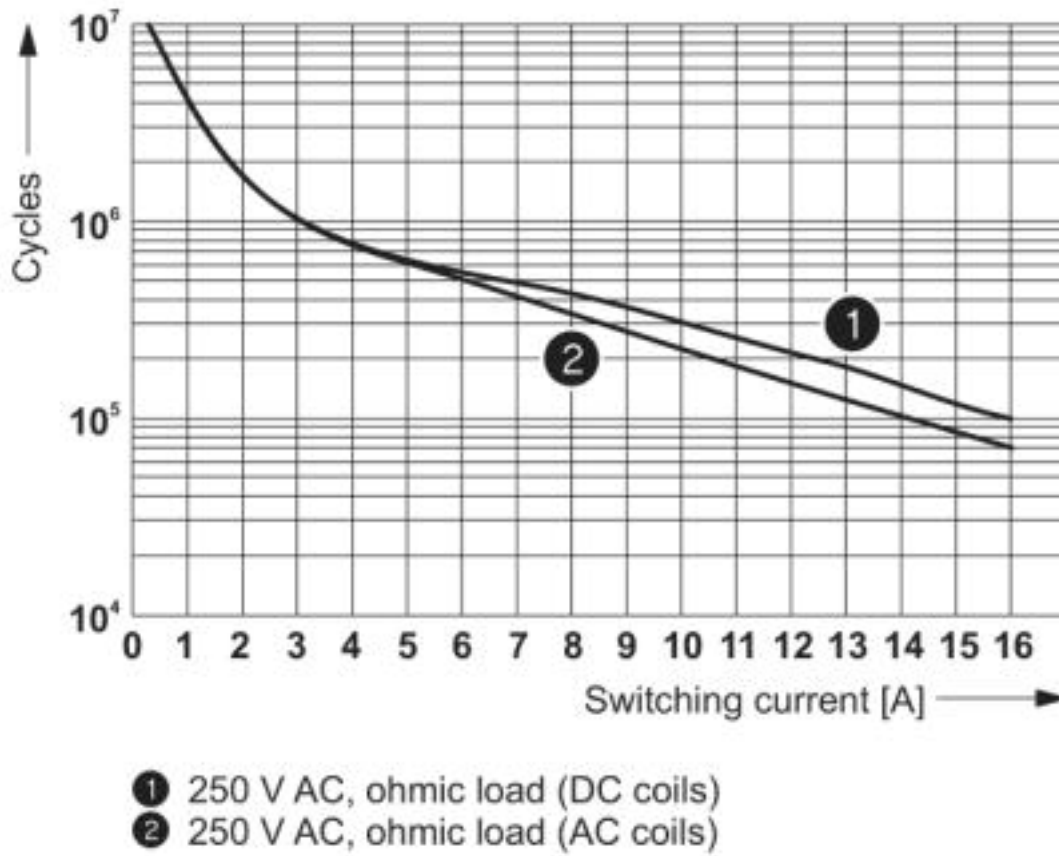
Diagram



Interrupting rating

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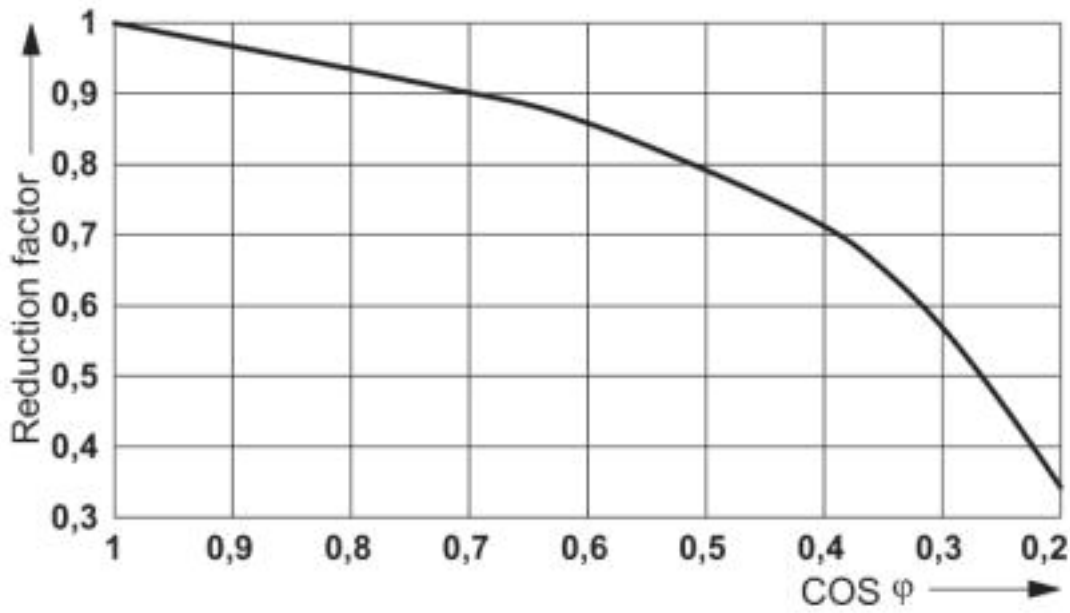
Diagram



Electrical service life

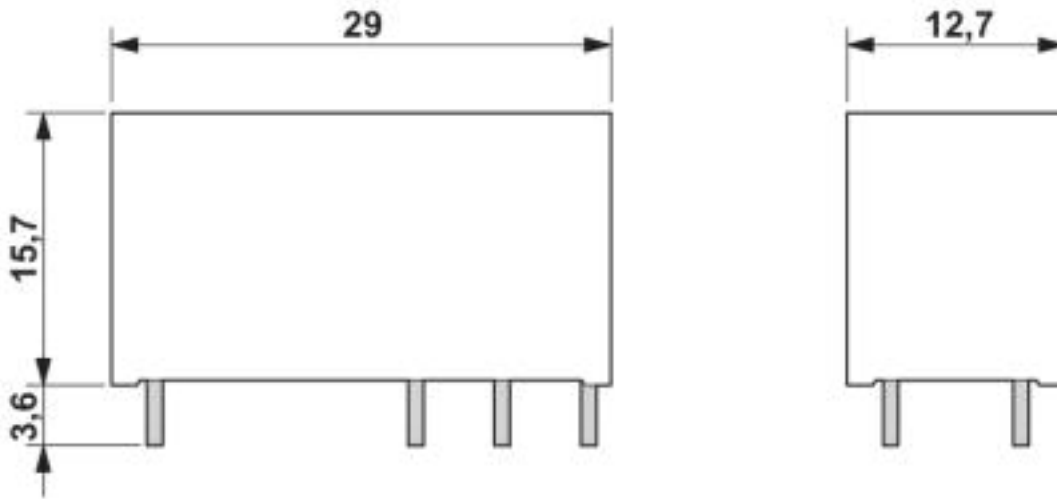
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Diagram



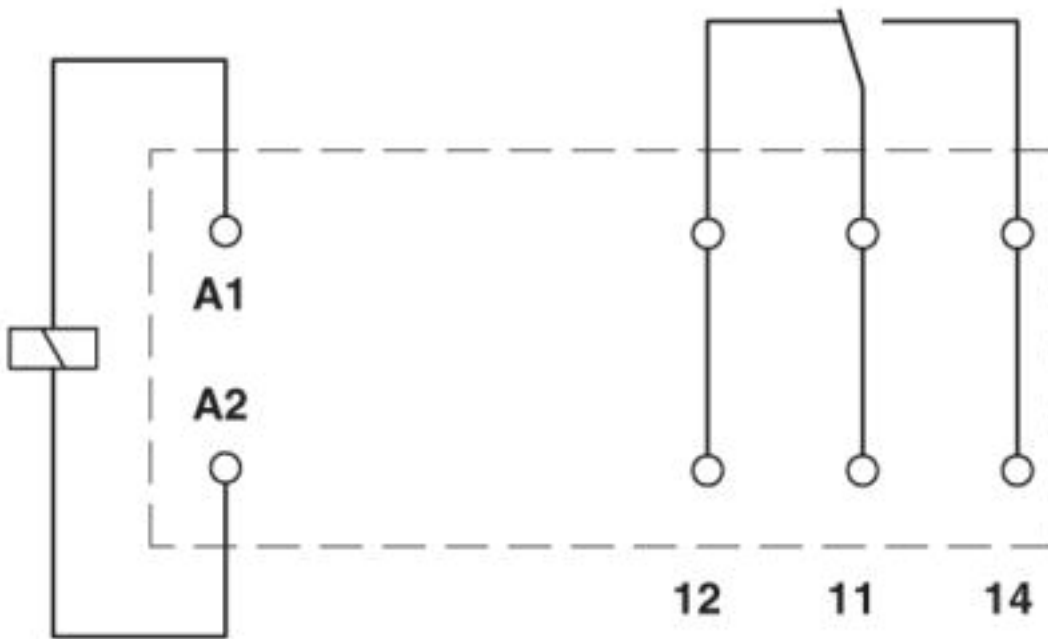
Service life reduction factor with various cos phi

Dimensioned drawing



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Circuit diagram



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