

# Single relay - REL-MR-12DC/21HC/EX - 2908821

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Plug-in miniature power relay, RT III sealed with power contacts, 1 changeover contact, input voltage: 12 V DC, in connection with the corresponding PLC base approved in accordance with ATEX/IECEX (zone 2) and Ex zone class I, div. 2.

## Why buy this product

- Switching current of up to 16 A
- RT III-proof (wash-proof)



## Key Commercial Data

Packing unit	10 pc
Minimum order quantity	10 pc
GTIN	 4 055626 345154
GTIN	4055626345154

## 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 $U_N$	see diagram
Typical input current at $U_N$	33 mA
Typical response time	7 ms
Typical release time	3 ms

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## Technical data

### Coil side

Coil resistance	360 Ω ±10 % (at 20 °C)
Power dissipation for nominal condition	0.4 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	50 A (20 ms)
Limiting continuous current	16 A
Interrupting rating (ohmic load) max.	384 W (at 24 V DC)
	58 W (at 48 V DC)
	48 W (at 60 V DC)
	50 W (at 110 V DC)
	80 W (at 220 V DC)
	4000 VA (for 250 V AC)
Switching capacity in acc. with DIN VDE 0660/IEC 60947	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.2 A (at 250 V, DC13)
	6 A (at 24 V, AC15)
	6 A (at 120 V, AC15)
	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
Degree of protection	RT III (wash-proof)
Mechanical service life	3x 10 <sup>7</sup> cycles
Mounting position	any
Assembly instructions	Can be aligned without spacing (> 70 °C ≥ 2.5 mm)

### Standards and Regulations

Standards/regulations	IEC 60664
	EN 50178
	EN 61810-1
Degree of pollution	3
Overvoltage category	III

### Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
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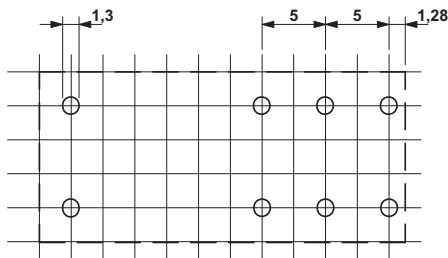
## Technical data

### Environmental Product Compliance

For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

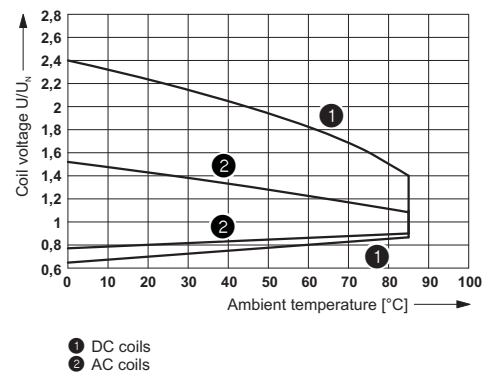
## Drawings

Drilling diagram



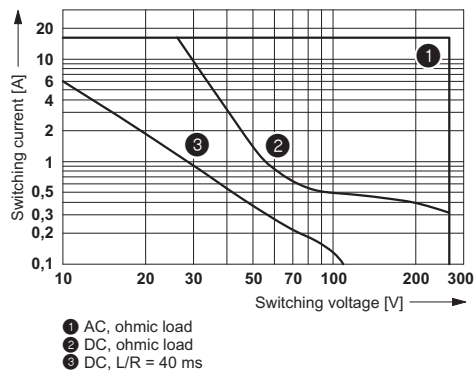
a = pitch division 2.5 mm

Diagram



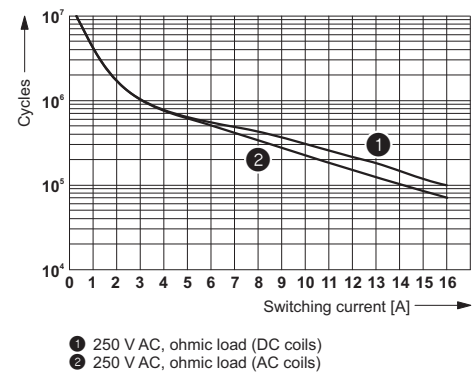
Operating voltage range

Diagram



Interrupting rating

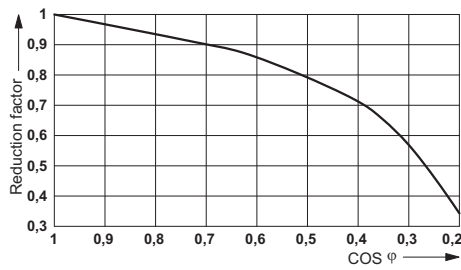
Diagram



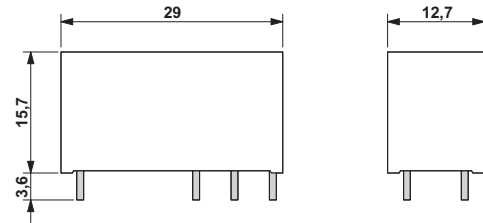
Electrical service life

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Diagram

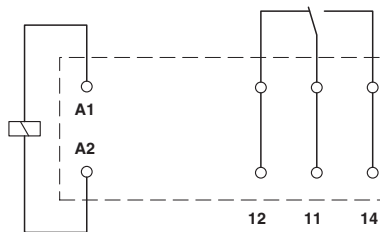


Dimensional drawing



Service life reduction factor with various cos phi

Circuit diagram



## Approvals

Approvals

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Approvals

UL Recognized / cUL Recognized / VDE approval of drawings / EAC / cULus Recognized

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Ex Approvals

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## 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 228652
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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 228652
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### Approvals

VDE approval of drawings		<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>	40007758
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EAC			RU C- DE.A*30.B.01082
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cULus 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>	
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