

# Single relay - REL-MR-120AC/21HC - 2961419

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Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 120 V AC

## Why buy this product

- Switching current of up to 16 A

## Key Commercial Data

|                        |                     |
|------------------------|---------------------|
| Packing unit           | 10 STK              |
| Minimum order quantity | 10 STK              |
| GTIN                   | <br>4 017918 937829 |

## 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 $U_N$    | 120 V AC                                     |
| Typical input current at $U_N$ | 7 mA (50 Hz)<br>5 mA (60 Hz)                 |
| Typical response time          | 3 ms ... 12 ms (depending on phase relation) |
| Typical release time range     | 2 ms ... 9 ms (depending on phase relation)  |
| Coil resistance                | 8100 $\Omega$ $\pm$ 15 % (at 20 °C)          |

### Contact side

|                           |             |
|---------------------------|-------------|
| Contact type              | 1 PDT       |
| Contact material          | AgNi        |
| Maximum switching voltage | 250 V AC/DC |

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## Technical data

### Contact side

|  |                        |
|--|------------------------|
| Minimum switching voltage                              | 12 V (at 10 mA)        |
| Min. switching current                                 | 10 mA (at 12 V)        |
| Maximum inrush current                                 | 25 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 II (flux-proof)                                |
| Mechanical service life                  | 1 x 10 <sup>7</sup> cycles                        |
| Standards/regulations                    | IEC 60664   |
|  | EN 50178  |
|  | IEC 62103   |
| Degree of pollution                      | 3   |
| Overvoltage category                     | III   |
| Mounting position                        | any   |
| Assembly instructions                    | Can be aligned without spacing (> 70 °C ≥ 2.5 mm) |

### Standards and Regulations

|                                  |           |
|----------------------------------|-----------|
| Connection in acc. with standard | CUL       |
| Standards/regulations            | IEC 60664 |
|                                  | EN 50178  |
|                                  | IEC 62103 |
| Degree of pollution              | 3         |
| Overvoltage category             | III       |

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## 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 | 27371601 |
| eCl@ss 9.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000196 |
| ETIM 3.0 | EC000196 |
| ETIM 4.0 | EC000196 |
| ETIM 5.0 | EC001437 |

### UNSPSC

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

## Approvals

### Approvals

#### Approvals

UL Recognized / VDE Gutachten mit Fertigungsüberwachung / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

#### Approvals submitted

#### Approval details

|               |
|---------------|
| UL Recognized |
|---------------|

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## Approvals

VDE Gutachten mit Fertigungsüberwachung

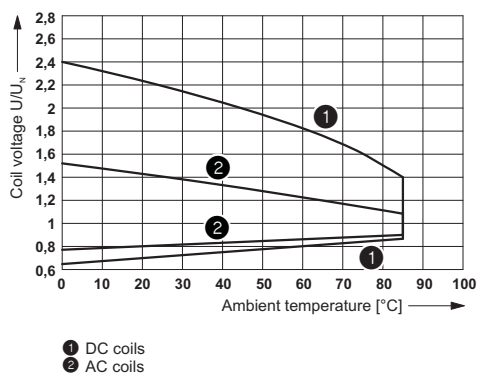
cUL Recognized

EAC

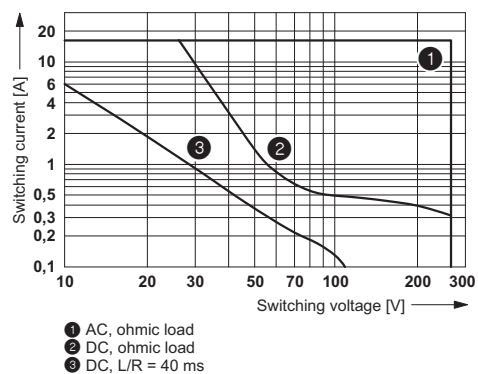
cULus Recognized

## Drawings

Diagram



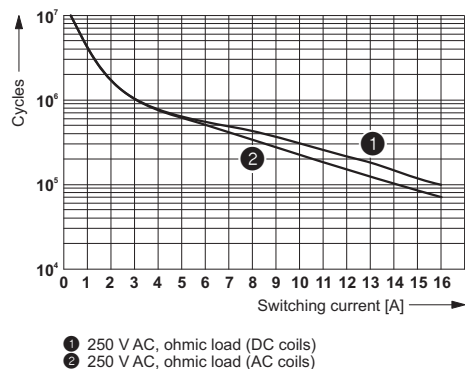
Diagram



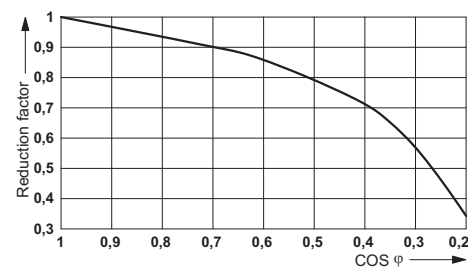
Operating voltage range

Interrupting rating

Diagram



Diagram

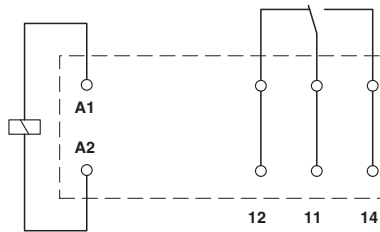


Electrical service life

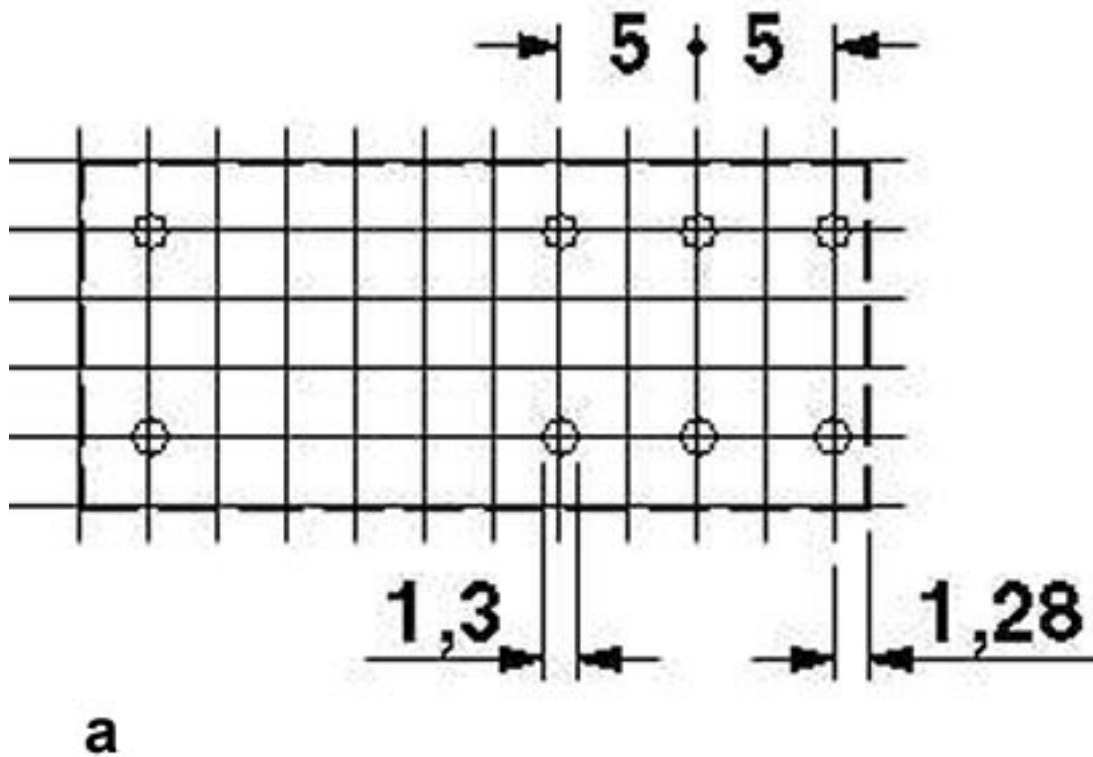
Service life reduction factor with various cos phi

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Circuit diagram



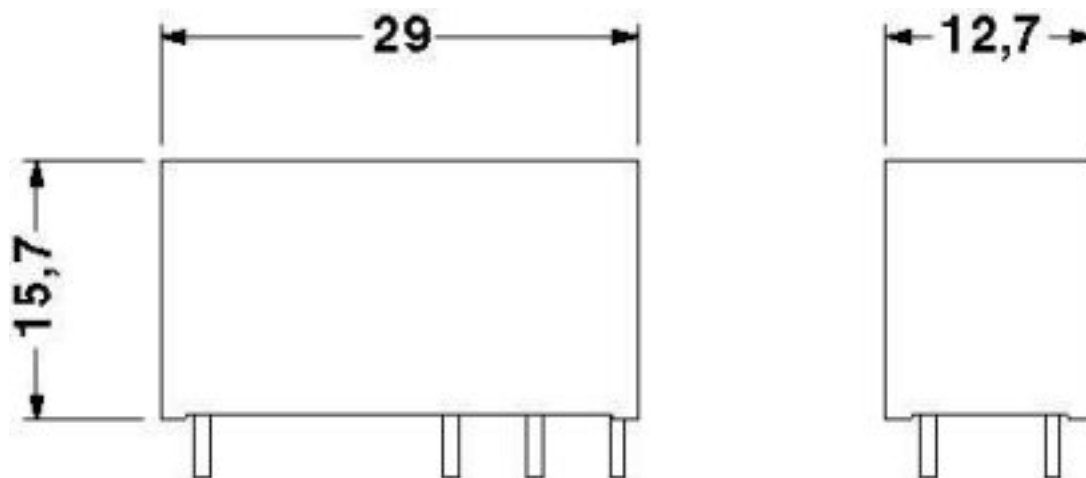
Drilling diagram



a = pitch division 2.5 mm

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Dimensional drawing



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