

## Single relay - REL-MR-BL-24DC/21HC/MS - 2908180

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Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switch position indicator, polarity: bipolar, input voltage: 24 V DC

RoHS

### Key Commercial Data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 10 pc                                                                                                   |
| Minimum order quantity | 10 pc                                                                                                   |
| GTIN                   | <br>4 055626 277899 |
| GTIN                   | 4055626277899                                                                                           |

### Technical data

#### Dimensions

|        |         |
|--------|---------|
| Width  | 13 mm   |
| Height | 29 mm   |
| Depth  | 25.5 mm |

#### 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 DC                   |
| Input voltage range in reference to $U_N$ | 0.8 ... 2.2 (see diagram) |
| Typical input current at $U_N$            | 17 mA                     |
| Typical response time                     | 9 ms                      |
| Typical release time                      | 6 ms                      |
| Power dissipation for nominal condition   | 0.41 W                    |

#### Contact side

|              |       |
|--------------|-------|
| Contact type | 1 PDT |
|--------------|-------|

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## Technical data

### Contact side

|                                       |                    |
|---------------------------------------|--------------------|
| 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. | 384 W (at 24 V DC) |
|                                       | 62 W (at 48 V DC)  |
|                                       | 48 W (at 60 V DC)  |
|                                       | 53 W (at 110 V DC) |
|                                       | 66 W (at 220 V DC) |

### General

|                                          |                           |
|------------------------------------------|---------------------------|
| Test voltage relay winding/relay contact | 5 kV AC (50 Hz, 1 min.)   |
| Operating mode                           | 100% operating factor     |
| Degree of protection                     | RT II                     |
| Mechanical service life                  | 5x 10 <sup>6</sup> cycles |
| Service life, electrical                 | see diagram               |
| Mounting position                        | any                       |

### Standards and Regulations

|                          |           |
|--------------------------|-----------|
| Standards/regulations    | IEC 61810 |
|                          | IEC 60664 |
| Rated insulation voltage | 250 V AC  |
| Degree of pollution      | 2         |
| Overvoltage category     | III       |

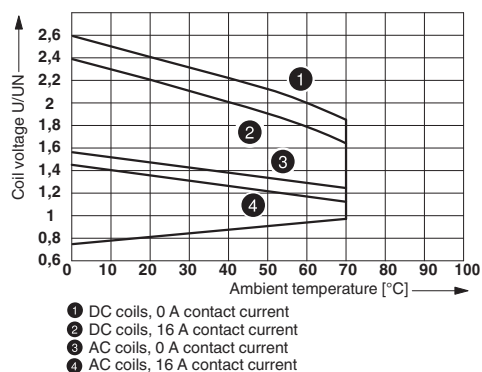
### Environmental Product Compliance

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

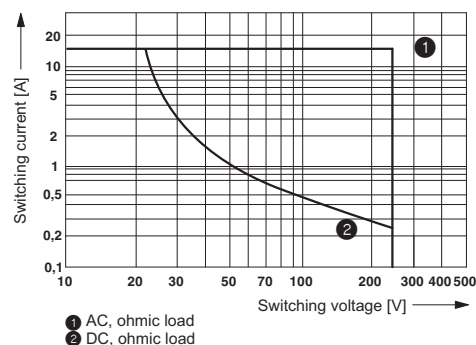
## Drawings

## Single relay - REL-MR-BL-24DC/21HC/MS - 2908180

Diagram



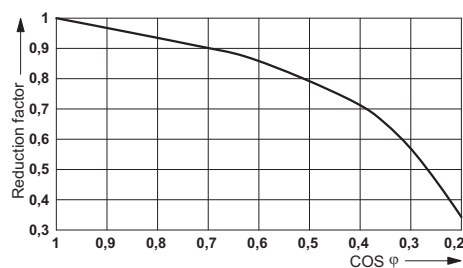
Diagram



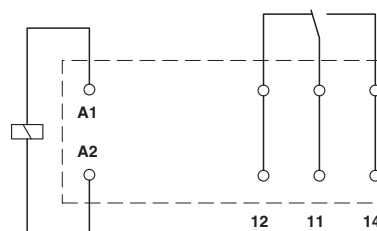
Operating voltage range

Interrupting rating

Diagram



Circuit diagram



Service life reduction factor with various  $\cos \varphi$

### Approvals

#### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

#### Ex Approvals

#### Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 195083

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### Approvals

cUL Recognized



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EAC



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DE.A\*30.B.01082

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