

## Single relay - REL-MR-BL-100AC/21HC/MS - 2908179

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Plug-in miniature relay, with power contact, 1 changeover contact, test button, mechanical switch position indicator, polarity: bipolar, input voltage: 100 V AC

RoHS

### Key Commercial Data

|                        |                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit           | 10 pc                                                                                                   |
| Minimum order quantity | 10 pc                                                                                                   |
| GTIN                   | <br>4 055626 277882 |
| GTIN                   | 4055626277882                                                                                           |

### 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 $U_N$               | 100 V AC                                     |
| Input voltage range in reference to $U_N$ | 0.8 ... 1.35 (see diagram)                   |
| Mains frequency                           | 50/60 Hz                                     |
| Typical input current at $U_N$            | 8 mA                                         |
| Typical response time                     | 3 ms ... 12 ms (depending on phase relation) |
| Typical release time range                | 2 ms ... 8 ms (depending on phase relation)  |
| Power dissipation for nominal condition   | 0.8 W                                        |

#### Contact side

# Single relay - REL-MR-BL-100AC/21HC/MS - 2908179

## Technical data

### 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                | 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       |

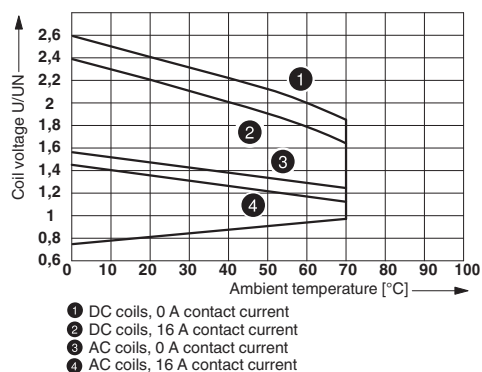
### Environmental Product Compliance

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

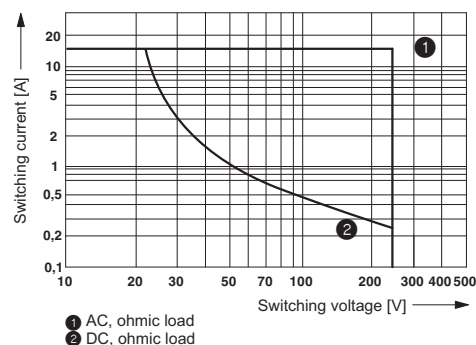
## Drawings

## Single relay - REL-MR-BL-100AC/21HC/MS - 2908179

Diagram



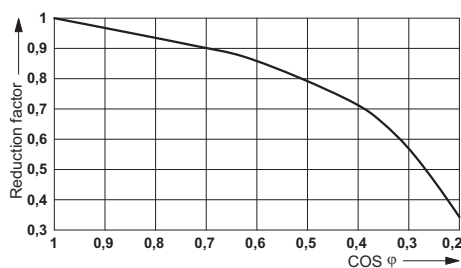
Diagram



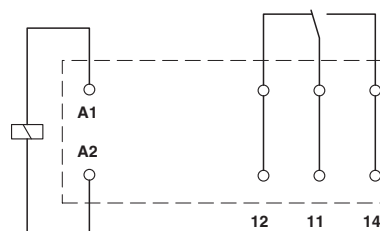
Operating voltage range

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

## Single relay - REL-MR-BL-100AC/21HC/MS - 2908179

### Approvals

cUL Recognized



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

FILE E 195083

EAC



RU C-  
DE.A\*30.B.01082

cULus Recognized



Phoenix Contact 2019 © - all rights reserved  
<http://www.phoenixcontact.com>

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