

2909642

<https://www.phoenixcontact.com/us/products/2909642>

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Plug-in miniature power relay, with power contact, 1 changeover contact, manual operation, 24 V DC input voltage

Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2909642       |
| Packing unit                         | 10 pc         |
| Minimum order quantity               | 10 pc         |
| Sales key                            | C460          |
| Product key                          | DK6923        |
| GTIN                                 | 4055626377674 |
| Weight per piece (including packing) | 6.8 g         |
| Weight per piece (excluding packing) | 6.77 g        |
| Customs tariff number                | 85364190      |
| Country of origin                    | CZ            |

# REL-MR- 24DC/21/MS - Single relay



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## Technical data

### Product properties

|                         |                              |
|-------------------------|------------------------------|
| Product type            | Single relay                 |
| Set comprises           | 1550107 RIF-0-RPT-24DC/21/MS |
| Operating mode          | 100% operating factor        |
| Mechanical service life | 1x 10 <sup>7</sup> cycles    |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree     | 3   |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 03.07.2026 |
|------------------------------|------------|

### Electrical properties

|                                                 |                                          |
|-------------------------------------------------|------------------------------------------|
| Maximum power dissipation for nominal condition | 0.17 W                                   |
| Test voltage (Winding/contact)                  | 4 kV AC (50 Hz, 1 min., winding/contact) |

### Input data

#### Coil side

|                                           |                                     |
|-------------------------------------------|-------------------------------------|
| Nominal input voltage $U_N$               | 24 V DC                             |
| Input voltage range                       | 14.4 V DC ... 66 V DC               |
| Input voltage range in reference to $U_N$ | see diagram                         |
| Drive and function                        | monostable                          |
| Drive (polarity)                          | non-polarized                       |
| Typical input current at $U_N$            | 7 mA                                |
| Typical response time                     | 5 ms                                |
| Typical release time                      | 2.5 ms                              |
| Coil resistance                           | 3390 $\Omega$ $\pm$ 10 % (at 20 °C) |

### Output data

#### Switching

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Contact switching type                | 1 changeover contact              |
| Type of switch contact                | Single contact                    |
| Contact material                      | AgSnO                             |
| Maximum switching voltage             | 250 V AC/DC                       |
| Minimum switching voltage             | 5 V (100 mA)                      |
| Limiting continuous current           | 6 A                               |
| Maximum inrush current                | 10 A (4 s)                        |
| Min. switching current                | 10 mA (12 V)                      |
| Interrupting rating (ohmic load) max. | 140 W (24 V DC)<br>20 W (48 V DC) |

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|                                |                                      |
|--------------------------------|--------------------------------------|
|                                | 18 W (60 V DC)                       |
|                                | 23 W (110 V DC)                      |
|                                | 40 W (220 V DC)                      |
|                                | 1500 VA (250 V AC)                   |
| Switching capacity             | 2 A (24 V (DC13))                    |
|                                | 0.2 A (at 110 V, DC13)               |
|                                | 0.1 A (at 220 V, DC13)               |
|                                | 3 A (at 24 V, AC15)                  |
|                                | 3 A (at 120 V, AC15)                 |
|                                | 3 A (at 230 V, AC15)                 |
| Motor load according to UL 508 | 1/4 HP, 240 - 277 V AC (N/O contact) |
|                                | 1/6 HP, 240 - 277 V AC (N/C contact) |

## Connection data

|                   |                          |
|-------------------|--------------------------|
| Connection method | Plug / solder connection |
|-------------------|--------------------------|

## Dimensions

|                 |       |
|-----------------|-------|
| Item dimensions |       |
| Width           | 5 mm  |
| Height          | 28 mm |
| Depth           | 16 mm |

## Material specifications

|       |                  |
|-------|------------------|
| Color | white (RAL 9010) |
|-------|------------------|

## Environmental and real-life conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Ambient conditions                      |                  |
| Degree of protection                    | RT II            |
| Ambient temperature (operation)         | -40 °C ... 85 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

## Approvals

|                    |                            |
|--------------------|----------------------------|
| Corrosive gas test |                            |
| Identification     | ISA-S71.04. G3 Harsh Group |
|                    | EN 60068-2-60              |

## Standards and regulations

|                       |            |
|-----------------------|------------|
| Standards/regulations | IEC 60664  |
|                       | EN 50178   |
|                       | EN 61810-1 |

## Mounting

|               |                  |
|---------------|------------------|
| Mounting type | Plug-in mounting |
|---------------|------------------|

# REL-MR- 24DC/21/MS - Single relay



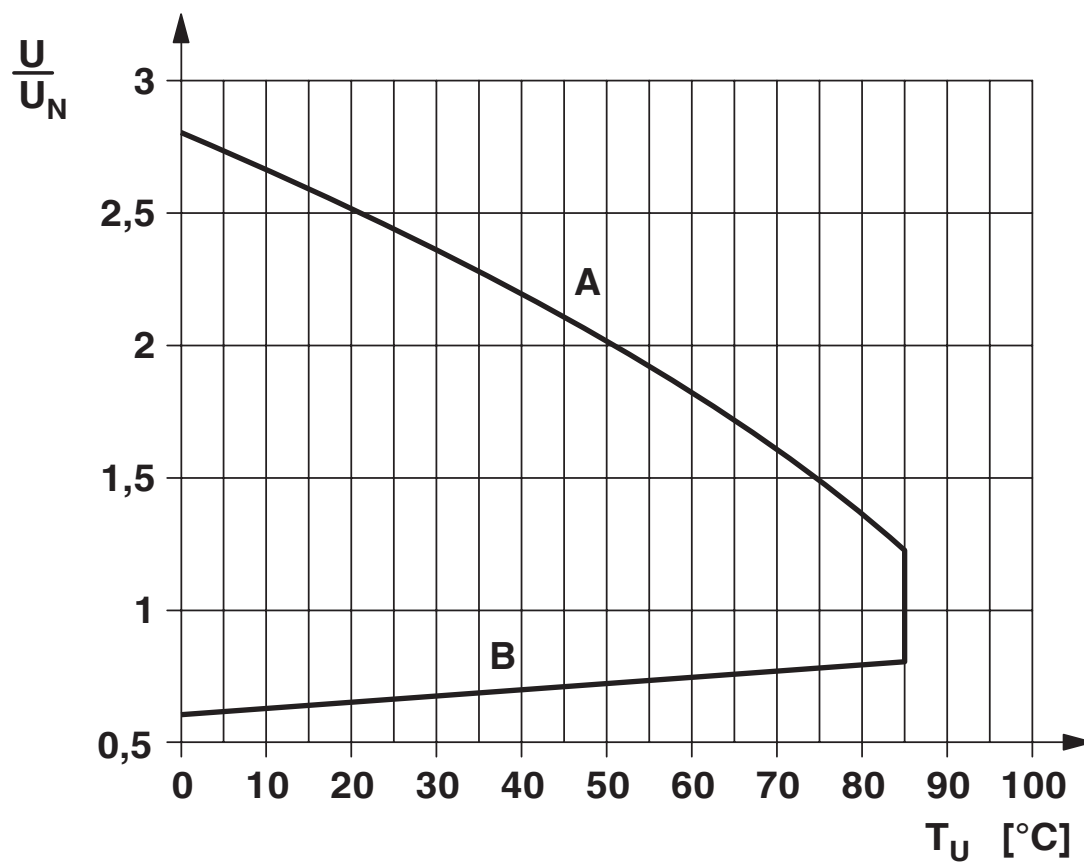
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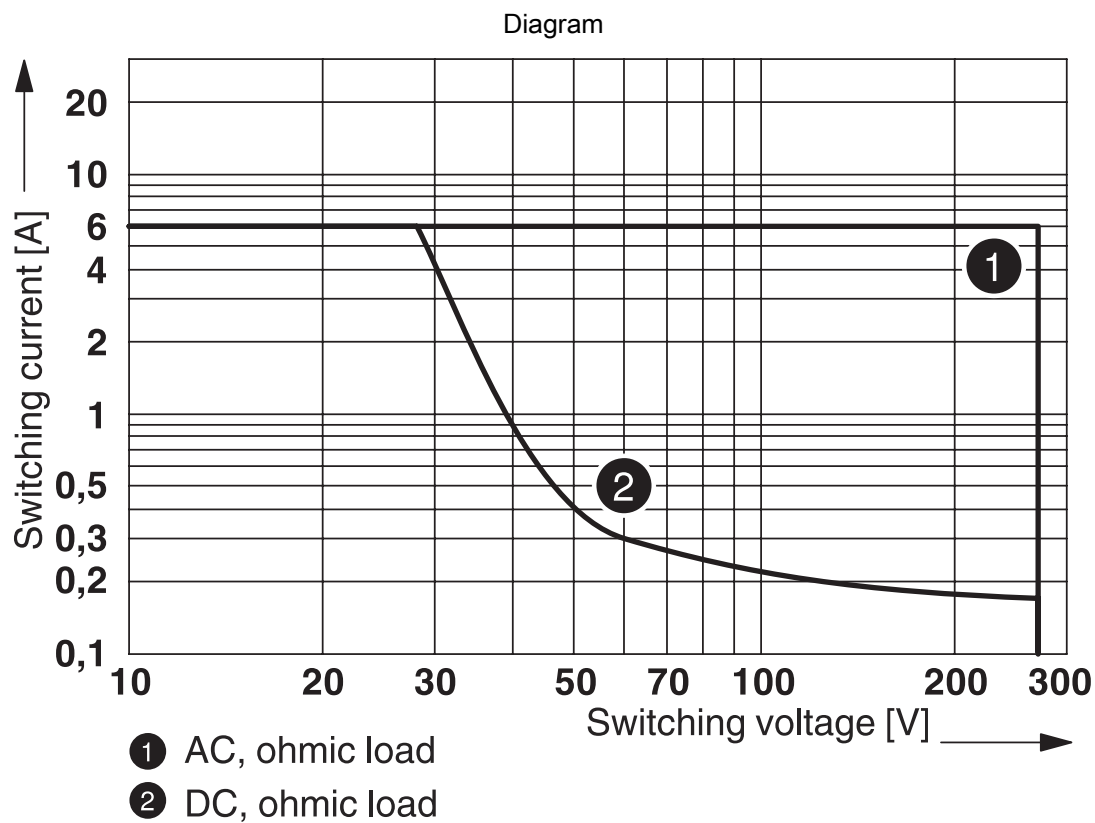
<https://www.phoenixcontact.com/us/products/2909642>

|                   |                           |
|-------------------|---------------------------|
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |

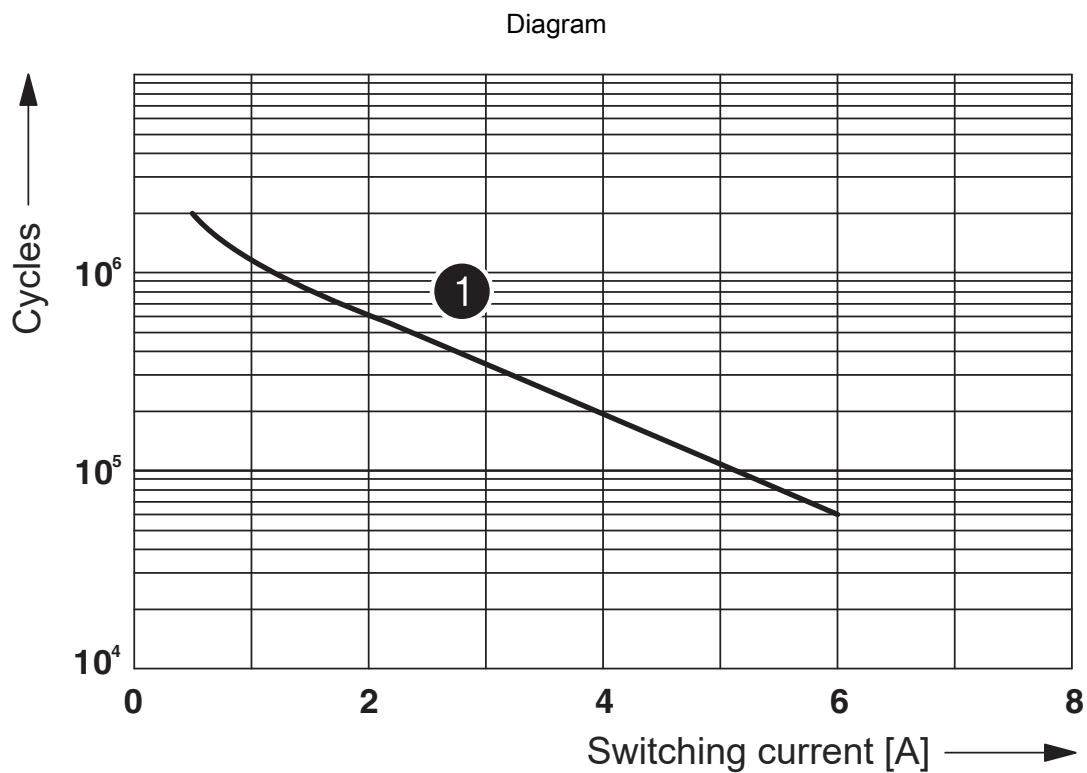
## Drawings

Diagram



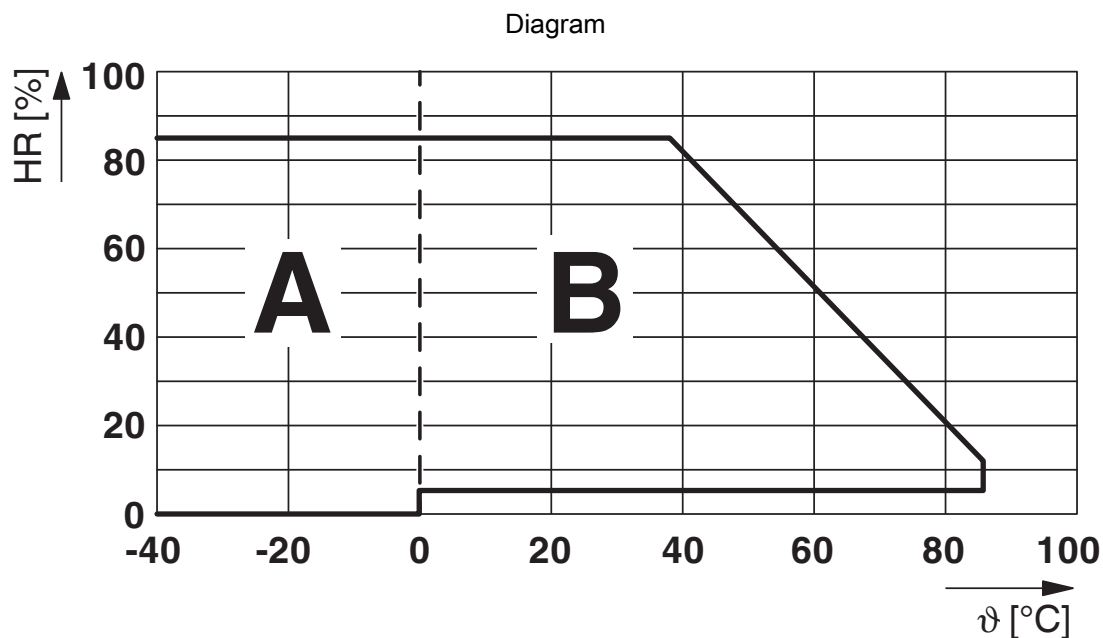


Interrupting rating



① 250 V AC, ohmic load

Electrical service life



Permissible humidity for operation and storage.

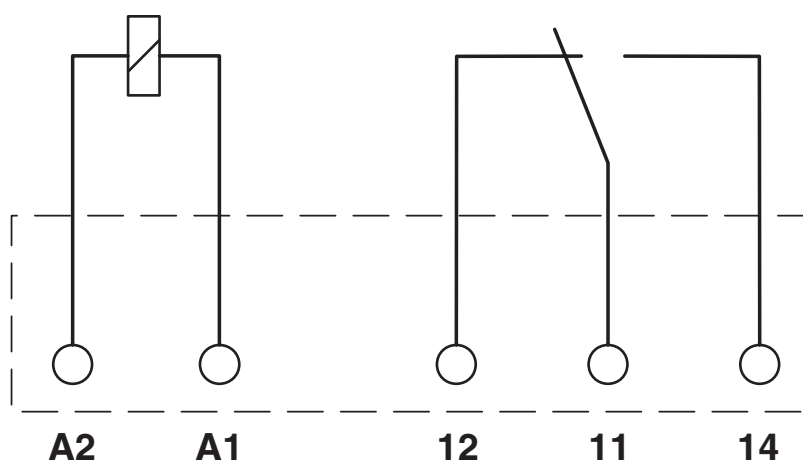
The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures  $\leq 0^\circ\text{C}$  must be prevented

Area B: Condensation at ambient temperatures  $> 0^\circ\text{C}$  must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature  $\leq 25^\circ\text{C}$ .

Circuit diagram



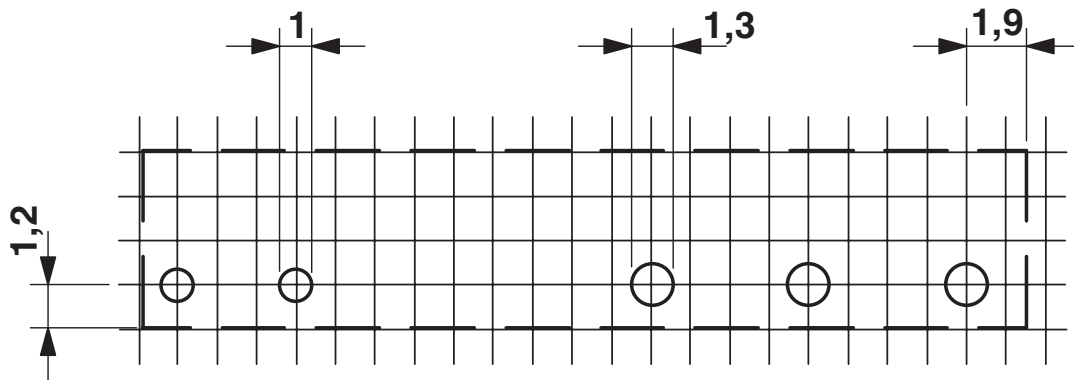
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Drilling plan/solder pad geometry



View from below

a = grid spacing 1.25 mm and 1.27 mm

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## Approvals

 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2909642>



**cUL Recognized**  
Approval ID: FILE E 228652



**UL Recognized**  
Approval ID: FILE E 228652



**VDE Zeichengenehmigung**  
Approval ID: 40010212

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27371601 |
| ECLASS-15.0 | 27371601 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001437 |
|-----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39122300 |
|-------------|----------|

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## Environmental product compliance

|                                         |                                          |
|-----------------------------------------|------------------------------------------|
| EU RoHS                                 |                                          |
| Fulfills EU RoHS substance requirements | Yes, No exemptions                       |
| China RoHS                              |                                          |
| Environment friendly use period (EFUP)  | EFUP-E                                   |
|                                         | No hazardous substances above the limits |
| EU REACH SVHC                           |                                          |
| REACH candidate substance (CAS No.)     | No substance above 0.1 wt%               |
| EF3.1 Climate Change                    |                                          |
| CO2e kg                                 | 0.195 kg CO2e                            |

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