

# PLC-RPT- 24DC/21-21/MS - Relay module



2910519  
<https://www.phoenixcontact.com/us/products/2910519>

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PLC-INTERFACE, consisting of a relay base and pluggable power contact relay with manual operation, integrated status LED and freewheeling diode, Push-in connection, 2 changeover contacts, Freewheeling diode, Input voltage: 24 V DC

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 2910519             |
| Packing unit                         | 10 pc               |
| Minimum order quantity               | 10 pc               |
| Sales key                            | C461                |
| Product key                          | CK62BC              |
| Catalog page                         | Page 368 (C-5-2019) |
| GTIN                                 | 4055626486710       |
| Weight per piece (including packing) | 75 g                |
| Weight per piece (excluding packing) | 64 g                |
| Customs tariff number                | 85364190            |
| Country of origin                    | DE                  |

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## Technical data

### Product properties

|                         |                           |
|-------------------------|---------------------------|
| Product type            | Relay Module              |
| Product family          | PLC-INTERFACE             |
| Application             | Palm switch               |
| Operating mode          | 100% operating factor     |
| Mechanical service life | 5x 10 <sup>6</sup> cycles |

### Data management status

|                              |            |
|------------------------------|------------|
| Date of last data management | 08.07.2024 |
| Article revision             | 03         |

### Insulation characteristics: Air clearances and creepage distances between the power circuits

|                      |                                       |
|----------------------|---------------------------------------|
| Insulation           | Safe isolation, reinforced insulation |
| Overvoltage category | III                                   |
| Pollution degree     | 2                                     |

### Electrical properties

|                                                      |                                       |
|------------------------------------------------------|---------------------------------------|
| Maximum power dissipation for nominal condition      | 0.44 W                                |
| Test voltage (Winding/contact)                       | 4 kV <sub>rms</sub> (50 Hz, 1 min.)   |
| Test voltage (Changeover contact/changeover contact) | 2.5 kV <sub>rms</sub> (50 Hz, 1 min.) |

### Air clearances and creepage distances between the power circuits

|                          |          |
|--------------------------|----------|
| Rated insulation voltage | 250 V AC |
| Rated surge voltage      | 6 kV     |

### Input data

#### Coil side

|                                                      |                                      |
|------------------------------------------------------|--------------------------------------|
| Nominal input voltage U <sub>N</sub>                 | 24 V DC                              |
| Input voltage range                                  | 20.2 V DC ... 33.6 V DC (20 °C)      |
| Nominal voltage (plugged-in electromechanical relay) | 24 V DC                              |
| Drive and function                                   | monostable                           |
| Drive (polarity)                                     | polarized                            |
| Typical input current at U <sub>N</sub>              | 18 mA                                |
| Typical response time                                | 10 ms                                |
| Typical release time                                 | 10 ms                                |
| Protective circuit                                   | Surge protection; Freewheeling diode |
| Operating voltage display                            | Yellow LED                           |

### Output data

#### Switching

|                        |                       |
|------------------------|-----------------------|
| Contact switching type | 2 changeover contacts |
| Type of switch contact | Single contact        |

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|                                       |                                                                                                                                                                                                                                               |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact material                      | AgNi                                                                                                                                                                                                                                          |
| Maximum switching voltage             | 250 V AC/DC (The separating plate PLC-ATP should be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...) |
| Minimum switching voltage             | 12 V (10 mA)                                                                                                                                                                                                                                  |
| Limiting continuous current           | 6 A                                                                                                                                                                                                                                           |
| Maximum inrush current                | 12 A (20 ms)                                                                                                                                                                                                                                  |
| Min. switching current                | 10 mA (12 V)                                                                                                                                                                                                                                  |
| Interrupting rating (ohmic load) max. | 192 W (24 V DC)                                                                                                                                                                                                                               |
|                                       | 62 W (48 V DC)                                                                                                                                                                                                                                |
|                                       | 42 W (60 V DC)                                                                                                                                                                                                                                |
|                                       | 55 W (110 V DC)                                                                                                                                                                                                                               |
|                                       | 66 W (220 V DC)                                                                                                                                                                                                                               |
|                                       | 2000 VA (250 V AC)                                                                                                                                                                                                                            |
| Switching capacity                    | 1 A (24 V, DC13)                                                                                                                                                                                                                              |
|                                       | 1.5 A (230 V, AC15)                                                                                                                                                                                                                           |

## Connection data

|                                  |                                                              |
|----------------------------------|--------------------------------------------------------------|
| Connection method                | Push-in connection                                           |
| Stripping length                 | 10 mm                                                        |
| Conductor cross section rigid    | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                 |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                 |
|                                  | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule) |
|                                  | 2x 0.5 mm <sup>2</sup> ... 1 mm <sup>2</sup> (TWIN ferrule)  |
| Conductor cross section AWG      | 26 ... 14                                                    |

## Dimensions

|        |        |
|--------|--------|
| Width  | 14 mm  |
| Height | 80 mm  |
| Depth  | 104 mm |

## Material specifications

|                                        |                 |
|----------------------------------------|-----------------|
| Color                                  | gray (RAL 7042) |
| Flammability rating according to UL 94 | V0 (Housing)    |

## Environmental and real-life conditions

### Ambient conditions

|                                              |                  |
|----------------------------------------------|------------------|
| Degree of protection (Relay)                 | RT II            |
| Degree of protection (Relay base)            | IP20             |
| Degree of protection (Installation location) | ≥ IP54           |
| Ambient temperature (operation)              | -40 °C ... 60 °C |
| Ambient temperature (storage/transport)      | -40 °C ... 85 °C |
| Altitude                                     | ≤ 2000 m         |

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## Approvals

### CE

|             |              |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

### UKCA

|             |                |
|-------------|----------------|
| Certificate | UKCA-compliant |
|-------------|----------------|

### UL, USA

|                |                   |
|----------------|-------------------|
| Identification | UL 508            |
|                | UL 508 Recognized |

### UL, USA/Canada

|                |                   |
|----------------|-------------------|
| Identification | UL 508            |
|                | UL 508 Recognized |

### Shipbuilding approval

|             |            |
|-------------|------------|
| Certificate | TAE0000196 |
|-------------|------------|

### Corrosive gas test

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

### DNV GL data

|             |                                                                                         |
|-------------|-----------------------------------------------------------------------------------------|
| Temperature | D                                                                                       |
| Humidity    | A                                                                                       |
| Vibration   | B/C                                                                                     |
| EMC         | B                                                                                       |
| Enclosure   | Required protection according to the Rules shall be provided upon installation on board |

## EMC data

|                               |                                        |
|-------------------------------|----------------------------------------|
| Electromagnetic compatibility | Conformance with EMC directive         |
| Low Voltage Directive         | Conformance with Low Voltage Directive |

## Standards and regulations

### Air clearances and creepage distances between the power circuits

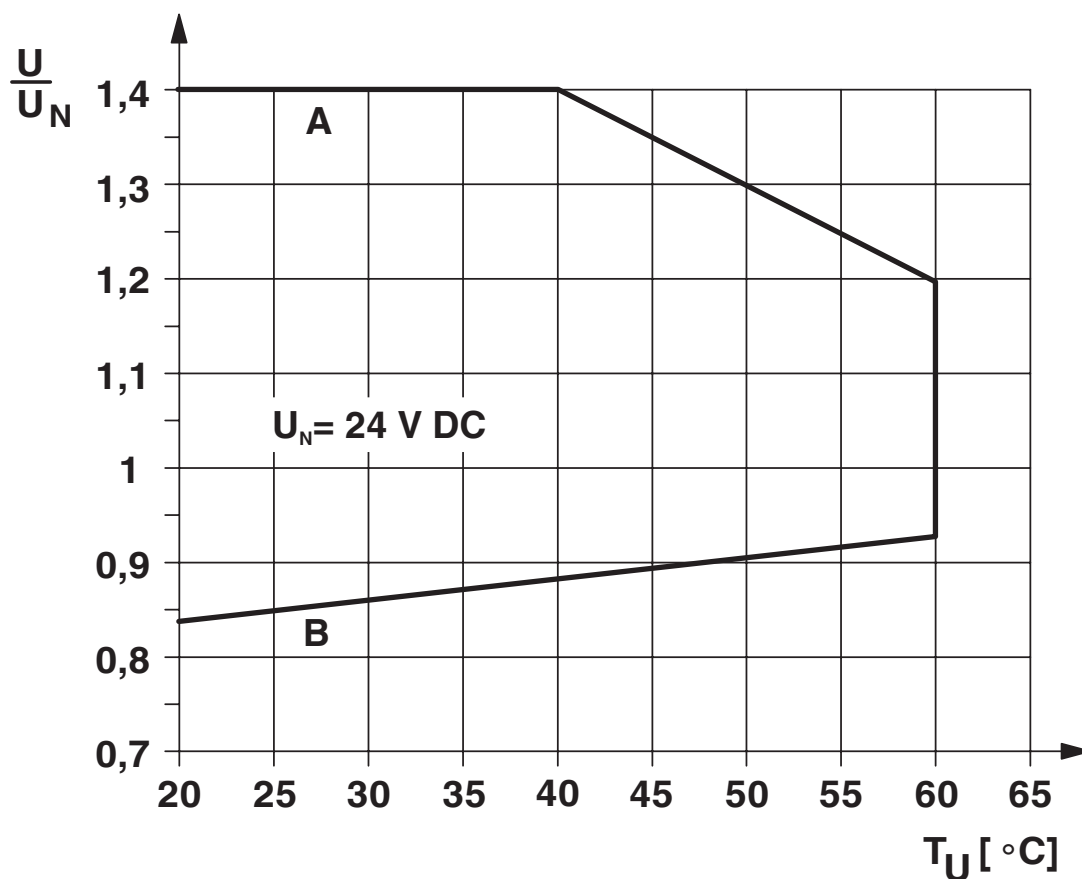
|                       |               |
|-----------------------|---------------|
| Standards/regulations | IEC 60947-5-1 |
|-----------------------|---------------|

## Mounting

|                   |                           |
|-------------------|---------------------------|
| Mounting type     | DIN rail mounting         |
| Assembly note     | in rows with zero spacing |
| Mounting position | any                       |

## Drawings

Diagram

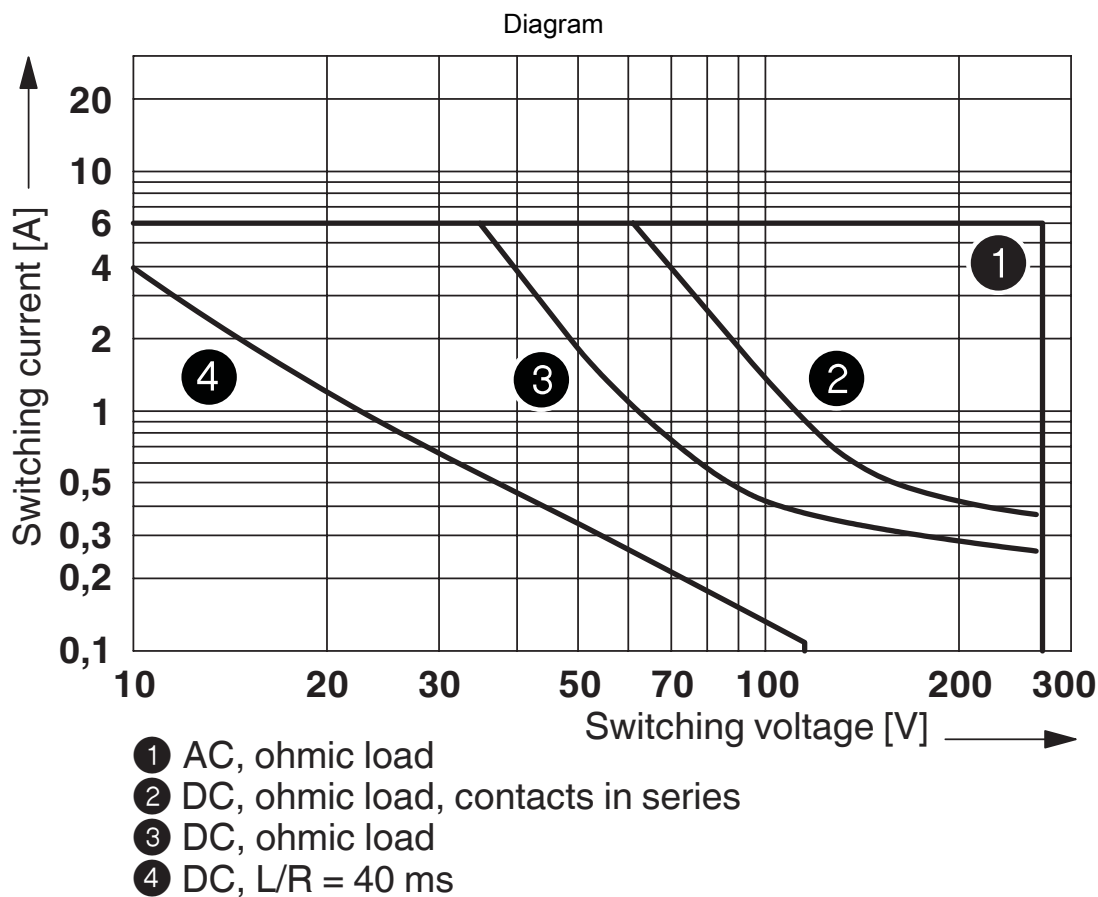


### Curve A

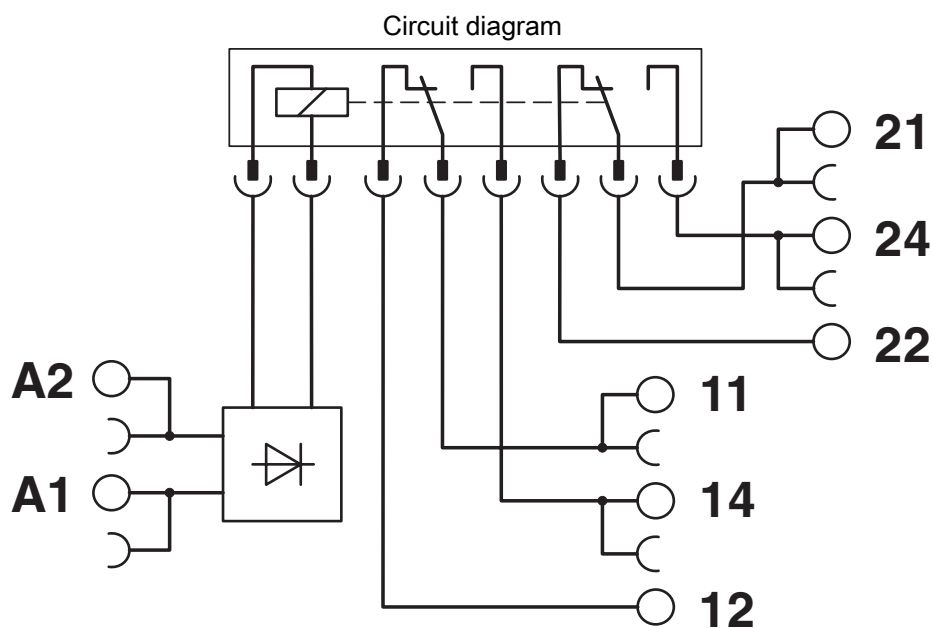
Maximum permissible continuous voltage  $U_{\text{max}}$  with limiting continuous current on the contact side (see relevant technical data)

### Curve B

Minimum permissible operate voltage  $U_{\text{op}}$  after pre-excitation (see relevant technical data)



Interrupting rating

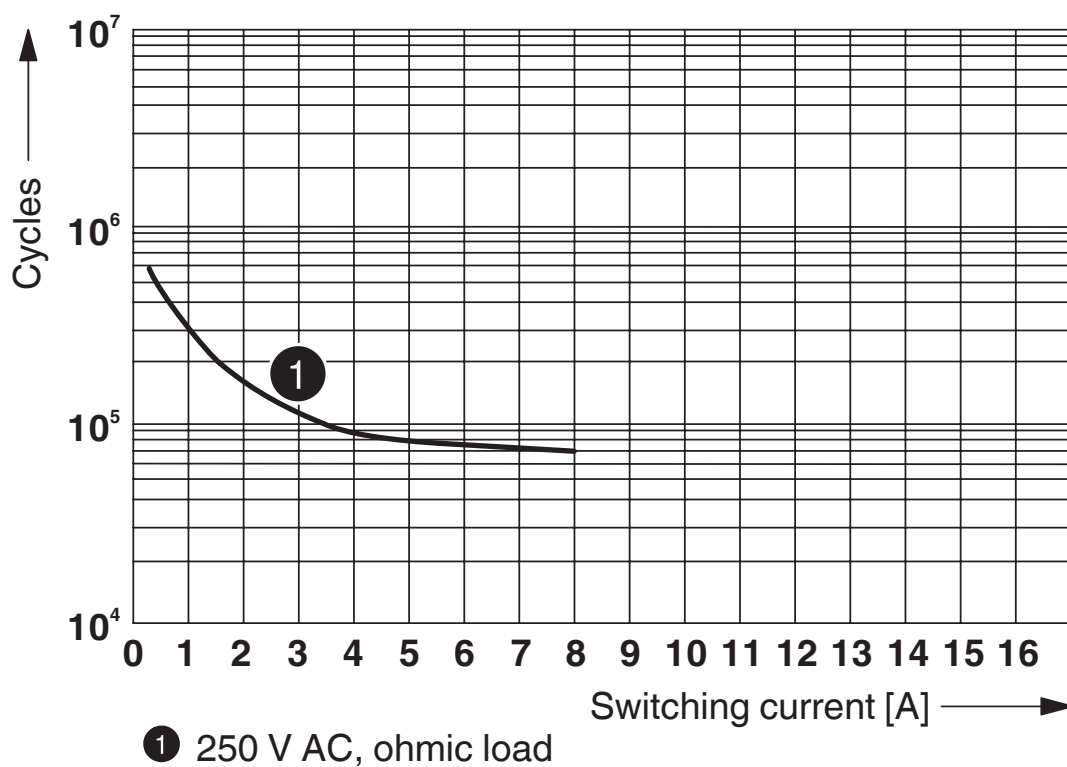


Diagram



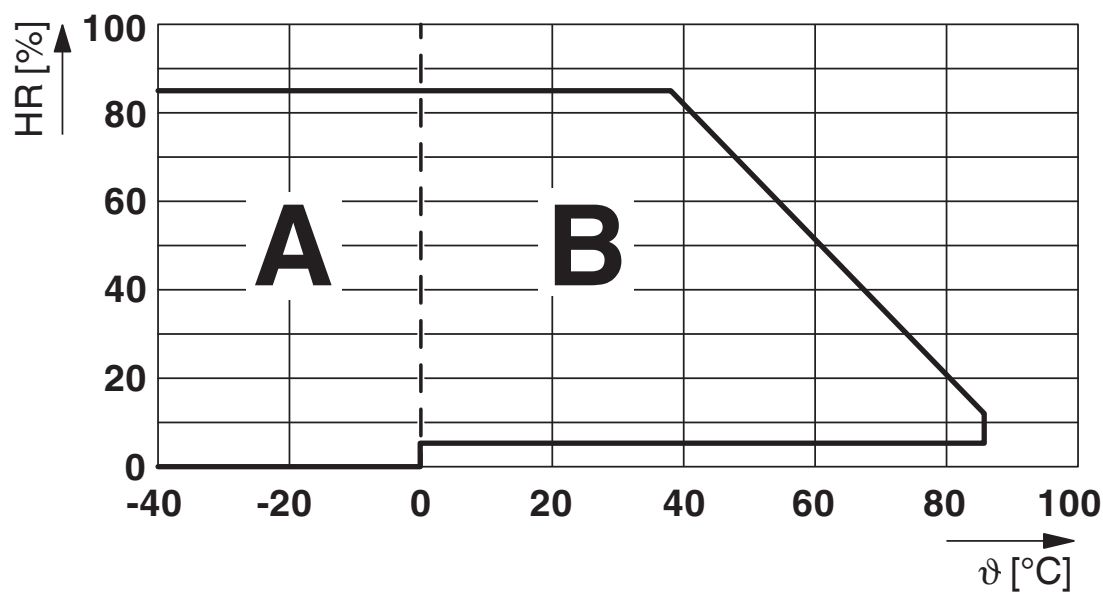
Service life reduction factor

Diagram



Electrical service life

Diagram



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  $\leq 25^\circ\text{C}$ .

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2910519>



**EAC**

Approval ID: RU\*C-DE.\*08.B.00010



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27371601 |
| ECLASS-12.0 | 27371601 |
| ECLASS-13.0 | 27371601 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001437 |
|----------|----------|

### UNSPSC

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

## Environmental product compliance

### EU RoHS

|                                         |              |
|-----------------------------------------|--------------|
| Fulfills EU RoHS substance requirements | Yes          |
| Exemption                               | 7(a), 7(c)-I |

### China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-50                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

### EU REACH SVHC

|                                     |                                             |
|-------------------------------------|---------------------------------------------|
| REACH candidate substance (CAS No.) | Hexahydromethylphthalic anhydride(CAS: n/a) |
|                                     | Lead(CAS: 7439-92-1)                        |
| SCIP                                | 827e2f93-ba73-400a-ba3c-80967c00a0b6        |