# Relay Module - PLC-RPT- 24UC/21HC - 2900293

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)

PLC-INTERFACE for high continuous currents, consisting of PLC-BPT.../21 HC basic terminal block with push-in connection and plug-in miniature relay, for mounting on DIN rail NS 35/7,5, limiting continuous current up to 10 A, 1 PDT, input voltage 24 V AC/DC

## Why buy this product

- Efficient connection to system cabling using V8 adapter
- All common input voltages of 12 V DC to 230 V AC
- Long electrical service life thanks to 16 A relay
- Safe isolation according to DIN EN 50178 between coil and contact
- Functional plug-in bridges
- Max. continuous current of 10 A

RoHS


## Key Commercial Data

| | |
|---|---|
| Packing unit | 10 STK |
| GTIN | 4 046356 509879 |
| GTIN | 4046356509879 |

## Technical data

### Note

| | |
|---|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |

### Dimensions

| | |
|---|---|
| Width | 14 mm |
| Height | 80 mm |
| Depth | 94 mm |

### Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

# Relay Module - PLC-RPT- 24UC/21HC - 2900293

## Technical data

### Coil side

| | |
|---|---|
| Nominal input voltage $U_N$ | 24 V AC/DC |
| Typical input current at $U_N$ | 17.5 mA |
| Typical response time | 8 ms |
| Typical release time | 10 ms |
| Protective circuit | Bridge rectifier Bridge rectifier |
| Operating voltage display | Yellow LED |
| Power dissipation for nominal condition | 0.42 W |

### Contact side

| | |
|---|---|
| Contact type | 1 PDT |
| Type of switch contact | Single contact |
| 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 DC (at 10 mA) |
| Min. switching current | 10 mA (at 12 V) |
| Maximum inrush current | 30 A (300 ms) |
| Limiting continuous current | 10 A |
| | 6 A (value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| Interrupting rating (ohmic load) max. | 240 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) |
| | 2500 VA (for 250 V AC) |
| Interrupting rating (ohmic load) max. bridged | 144 W (for 24 V DC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| | 1500 VA (for 250 V AC. Value applies to connections 12. If connections 12 are bridged, the normal value applies.) |
| 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) |

### Connection data input side

| | |
|---|---|
| Connection name | Coil side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm² ... 2.5 mm² |

# Relay Module - PLC-RPT- 24UC/21HC - 2900293

## Technical data

### Connection data input side

| | |
|---|---|
| Conductor cross section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² () |
| | 2x 0.5 mm² ... 1 mm² () |
| Conductor cross section AWG | 26 ... 14 |

### Connection data output side

| | |
|---|---|
| Connection name | Contact side |
| Connection method | Push-in connection |
| Stripping length | 8 mm |
| Conductor cross section solid | 0.14 mm² ... 2.5 mm² |
| Conductor cross section flexible | 0.14 mm² ... 2.5 mm² |
| | 0.2 mm² ... 2.5 mm² () |
| | 2x 0.5 mm² ... 1 mm² () |
| Conductor cross section AWG | 26 ... 14 |

### General

| | |
|---|---|
| Operating mode | 100% operating factor |
| Degree of protection | RT II (Relay) |
| | IP20 (Relay base) |
| Mechanical service life | 3x $10^7$ cycles |
| Mounting position | any |
| Assembly instructions | In rows with zero spacing |

### Standards and Regulations

| | |
|---|---|
| Connection in acc. with standard | CUL |
| Designation | Standards/regulations |
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| Rated surge voltage | 6 kV |
| Insulation | Safe isolation, reinforced insulation |
| Degree of pollution | 2 |
| Overvoltage category | III |
| Flammability rating according to UL 94 | V0 |

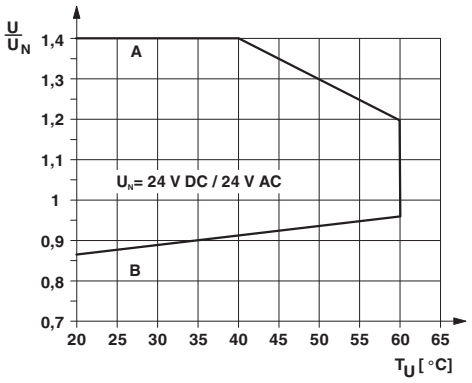
### Environmental Product Compliance

| | |
|---|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration” |

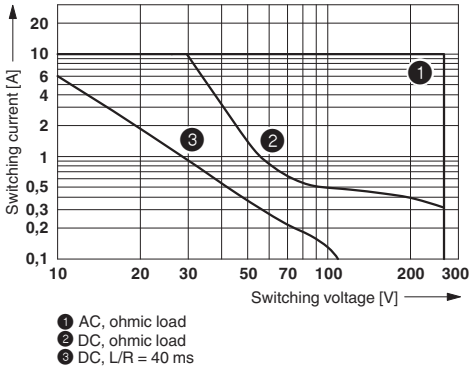
## Drawings

# Relay Module - PLC-RPT- 24UC/21HC - 2900293

Diagram




Diagram

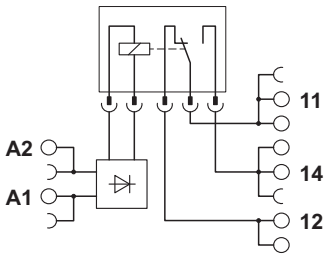



❶ AC, ohmic load
❷ DC, ohmic load
❸ DC, L/R = 40 ms

Interrupting rating

Curve A
Maximum permissible continuous voltage $U_{max}$ with limiting continuous current on the contact side (see relevant technical data)
Curve B
Minimum permissible operate voltage $U_{op}$ after pre-excitation (see relevant technical data)

Circuit diagram




## Articles in set

Relay base - PLC-BPT- 24UC/21HC - 2900255

14 mm PLC basic terminal block for high continuous currents with push-in connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, 1 PDT, input voltage 24 V AC/DC

Single relay - REL-MR- 24DC/21HC - 2961312

Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 24 V DC

# Relay Module - PLC-RPT- 24UC/21HC - 2900293

## Approvals

### Approvals

Approvals

UL Listed / cUL Listed / UL Recognized / cUL Recognized / EAC / RC FRT / DNV GL / cULus Recognized / cULus Listed

Ex Approvals

## Approval details

| | | |
|---|---|---|
| UL Listed | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| cUL Listed | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| UL Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
| cUL Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
| EAC | | RU C-DE.A*30.B.01082 |
| RC FRT | http://www.rsfgt.ru/en/web/guest/english | B.00094 |
| DNV GL | http://exchange.dnv.com/tari/ | TAE0000196-01 |
| cULus Recognized | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | |
| cULus Listed | | |

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