# Relay Module - PLC-RPT-230UC/21HC - 2900297

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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 230 V AC/DC

## Your advantages

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

## Key Commercial Data

| | |
|---|---|
| Packing unit | 10 pc |
| GTIN | 4 046356 507189 |
| GTIN | 4046356507189 |

## 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 ... 55 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

# Relay Module - PLC-RPT-230UC/21HC - 2900297

## Technical data

### Coil side

| | |
|---|---|
| Nominal input voltage $U_N$ | 230 V AC |
| | 220 V DC |
| Typical input current at $U_N$ | 4.3 mA (at 220 V DC) |
| | 4.5 mA (for 230 V AC) |
| Typical response time | 7 ms |
| Typical release time | 10 ms |
| Protective circuit | Bridge rectifier Bridge rectifier |
| Operating voltage display | Yellow LED |
| Power dissipation for nominal condition | 0.99 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 (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 | 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

| | |
|---|---|
| Connection name | Coil side |
| Connection method | Push-in connection |

# Relay Module - PLC-RPT-230UC/21HC - 2900297

## Technical data

### Connection data

| | |
|---|---|
| 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 (Single ferrule) |
| | 2x 0.5 mm² ... 1 mm² (TWIN ferrule) |
| Conductor cross section AWG | 26 ... 14 |

### Connection data 2

| | |
|---|---|
| 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 (Single ferrule) |
| | 2x 0.5 mm² ... 1 mm² (TWIN ferrule) |
| 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 |

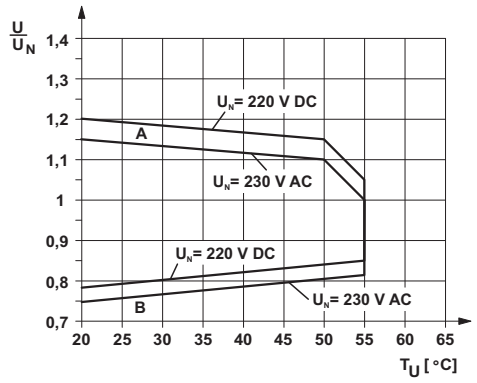
### Environmental Product Compliance

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

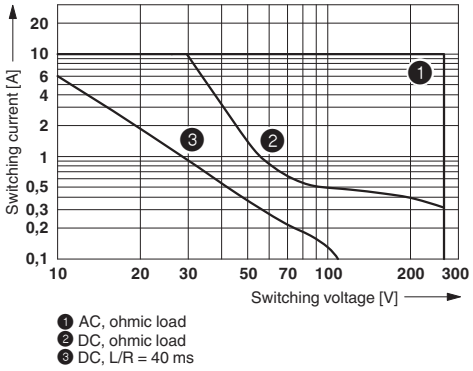
## Drawings

# Relay Module - PLC-RPT-230UC/21HC - 2900297

Diagram



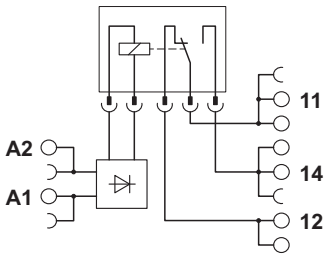

Diagram




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-230UC/21HC - 2900259

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 230 V AC/DC

Single relay - REL-MR-110DC/21HC - 2961338

Plug-in miniature power relay, with power contact for high continuous currents, 1 PDT, input voltage 110 V DC

# Relay Module - PLC-RPT-230UC/21HC - 2900297

## Approvals

### Approvals

Approvals

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

Ex Approvals

## Approval details

| | | |
|---|---|---|
| DNV GL | http://exchange.dnv.com/tari/ | TAE0000196-02 |
| UL 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 |
| cUL Listed | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 172140 |
| EAC | | RU C-DE.A*30.B.01082 |
| RC FRT | | B.00094 |
| cULus Recognized | | |

# Relay Module - PLC-RPT-230UC/21HC - 2900297

## Approvals

cULus Listed



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