

# PLC-RSC-120UC/21AU

Order No.: 2966281

The illustration shows the version PLC-RSC-24DC/21



<http://catalog.phoenixcontact.net/phoenix/treeViewClick.do?UID=2966281>

PLC relay, consisting of base terminal block PLC-BSC.../21 with screw connection and pluggable miniature relay with multi-layer contact, for assembly on DIN rail NS 35/7.5, 1 PDT, input voltage 120 V AC / 110 V DC



## Commercial data

|                          |                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------|
| EAN                      | <br>4 017918 131012 |
| sales group              | G220                                                                                                   |
| Pack                     | 10 Pcs.                                                                                                |
| Customs tariff           | 85364900                                                                                               |
| Gross weight in pieces   | 0.03987 KG                                                                                             |
| Net weight per piece     | 0.03342 KG                                                                                             |
| Catalog page information | Page 323 (C-7-2013)                                                                                    |

## Product notes

WEEE/RoHS-compliant since:  
11/15/2005



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## Technical data

### Dimensions

|        |        |
|--------|--------|
| Width  | 6.2 mm |
| Height | 80 mm  |
| Depth  | 94 mm  |

#### Ambient conditions

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

#### Coil side

|                                |                                   |
|--------------------------------|-----------------------------------|
| Nominal input voltage $U_N$    | 120 V AC (110 V DC)               |
|                                | 110 V DC                          |
| Typical input current at $U_N$ | 3.5 mA (at $U_N = 120$ V AC)      |
|                                | 3 mA (at $U_N = 120$ V AC)        |
| Typical response time          | 6 ms                              |
| Typical release time           | 15 ms                             |
| Operating voltage display      | Yellow LED                        |
| Protective circuit             | Bridge rectifier Bridge rectifier |

#### Contact side

|                                       |                                                                         |
|---------------------------------------|-------------------------------------------------------------------------|
| Contact type                          | 1 PDT                                                                   |
| Contact material                      | AgSnO, hard gold-plated                                                 |
| Maximum switching voltage             | 30 V AC                                                                 |
|                                       | 36 V DC                                                                 |
| Minimum switching voltage             | 100 mV (at 10 mA)                                                       |
| Maximum inrush current                | 50 mA                                                                   |
| Min. switching current                | 1 mA (at 24 V)                                                          |
| Limiting continuous current           | 50 mA                                                                   |
| Interrupting rating (ohmic load) max. | 1.2 W (at 24 V DC)                                                      |
| Note                                  | <b>the following values are applicable if a gold layer is destroyed</b> |
| Maximum switching voltage             | 250 V AC/DC                                                             |
| Minimum switching voltage             | 5 V (at 100 mA)                                                         |
| Limiting continuous current           | 6 A                                                                     |
| Min. switching current                | 10 mA (at 12 V)                                                         |
| Interrupting rating (ohmic load) max. | 140 W (at 24 V DC)                                                      |
|                                       | 20 W (at 48 V DC)                                                       |
|                                       | 18 W (at 60 V DC)                                                       |
|                                       | 23 W (at 110 V DC)                                                      |
|                                       | 40 W (at 220 V DC)                                                      |
|                                       | 1500 VA (for 250 V AC)                                                  |

|                                                        |                        |
|--------------------------------------------------------|------------------------|
| Switching capacity in acc. with DIN VDE 0660/IEC 60947 | 2 A (at 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)   |

#### General

|                                          |                            |
|------------------------------------------|----------------------------|
| Test voltage relay winding/relay contact | 4 kV AC (50 Hz, 1 min.)    |
| Operating mode                           | 100% operating factor      |
| Mechanical service life                  | 2 x 10 <sup>7</sup> cycles |
| Inflammability class according to UL 94  | V0                         |
| Designation                              | Standards/regulations      |
| Standards/regulations                    | IEC 60664                  |
|                                          | EN 50178                   |
|                                          | IEC 62103                  |
| Pollution degree                         | 3                          |
| Surge voltage category                   | III                        |
| Mounting position                        | any                        |
| Assembly instructions                    | In rows with zero spacing  |

#### Connection data

|                                        |                      |
|----------------------------------------|----------------------|
| Connection method                      | Screw connection     |
| Stripping length                       | 8 mm                 |
| Conductor cross section stranded min.  | 0.14 mm <sup>2</sup> |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>  |
| Conductor cross section solid min.     | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.     | 2.5 mm <sup>2</sup>  |
| Conductor cross section AWG/kcmil max  | 14                   |
| Conductor cross section AWG/kcmil min. | 26                   |
| Screw thread                           | M3                   |

#### Certificates / Approvals



Certification

cULus Listed, cULus Recognized, GOST, GL

Certifications applied for:

Certification Ex:

## Accessories

| Item            | Designation                  | Description                                                                                                                                                                                                                                            |
|-----------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Assembly</b> |                              |                                                                                                                                                                                                                                                        |
| 0801762         | NS 35/ 7,5 CU UNPERF 2000MM  | DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m                                                                                                                                                                      |
| 0801733         | NS 35/ 7,5 PERF 2000MM       | DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm                                                                                                                        |
| 0801681         | NS 35/ 7,5 UNPERF 2000MM     | DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m                                                                                                                                                                       |
| 0801377         | NS 35/ 7,5 V2A UNPERF 2000MM | DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver                                                                                                                                                                   |
| 1201756         | NS 35/15 AL UNPERF 2000MM    | DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm                                                                                                                          |
| 1201895         | NS 35/15 CU UNPERF 2000MM    | DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m                                                                                                                                                         |
| 1201730         | NS 35/15 PERF 2000MM         | DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm                                                                                                                         |
| 1201714         | NS 35/15 UNPERF 2000MM       | DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m                                                                                                                                                                        |
| 1201798         | NS 35/15-2,3 UNPERF 2000MM   | DIN rail, material: Steel, unperforated, 2.3 mm thick, height 15 mm, width 35 mm, length: 2 m                                                                                                                                                          |
| 2966841         | PLC-ATP BK                   | Separating plate, 2 mm thick, required at the start and end of a PLC terminal strip. Furthermore, it is used for: visual separation of groups, safe isolation of different voltages of neighboring PLC relays in acc. with DIN VDE 0106-101, isolation |
| <b>Bridges</b>  |                              |                                                                                                                                                                                                                                                        |
| 2966812         | FBST 6-PLC BU                | Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: blue                                                                                                                                                                               |
| 2966825         | FBST 6-PLC GY                | Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: gray                                                                                                                                                                               |
| 2966236         | FBST 6-PLC RD                | Single plug-in bridge, Length: 6 mm, Number of positions: 2, Color: red                                                                                                                                                                                |
| 2967688         | FBST 8-PLC GY                | Single plug-in bridge, Length: 8 mm, Number of positions: 2, Color: gray                                                                                                                                                                               |

|         |                 |                                                        |
|---------|-----------------|--------------------------------------------------------|
| 2966692 | FBST 500-PLC BU | Continuous plug-in bridge, Length: 500 mm, Color: blue |
| 2966838 | FBST 500-PLC GY | Continuous plug-in bridge, Length: 500 mm, Color: gray |
| 2966786 | FBST 500-PLC RD | Continuous plug-in bridge, Length: 500 mm, Color: red  |

#### Connector/Adapter

|         |                   |                                                                                                                                                                                               |
|---------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2296087 | PLC-V8/D15B/IN    | V8-INPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./ see "Additional Products"). 15-pin D-SUB female connector, control logic: Positive switching                                   |
| 2296074 | PLC-V8/D15S/IN    | V8-INPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./ see "Additional Products"). 15-pin D-SUB male connector, control logic: Positive switching                                     |
| 2296553 | PLC-V8/FLK14/IN   | V8L-INPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Plus switching  |
| 2304115 | PLC-V8/FLK14/IN/M | V8L-INPUT adapter for eight 6.2 mm PLC interfaces (1 PDT, etc./see "Supplementary Products"). 14-pos. flat-ribbon cable connection for the PLC system cabling, control logic: Minus switching |

#### Marking

|         |                        |                                                                                                                                                                                                                                                                         |
|---------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1051016 | ZB 6,LGS:FORTL.ZAHLEN  | Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm |
| 5060935 | ZB 6/WH-100:UNBEDRUCKT | Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm                                                                                |
| 1051003 | ZB 6:UNBEDRUCKT        | Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 6.2 mm, Lettering field: 6.15 x 10.5 mm                                                                                |

#### Power terminal block

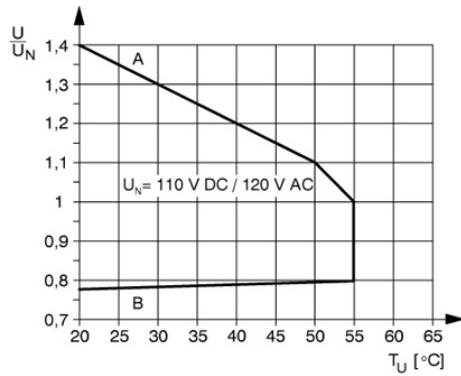
|         |            |                                                                                         |
|---------|------------|-----------------------------------------------------------------------------------------|
| 2966508 | PLC-ESK GY | Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5 |
|---------|------------|-----------------------------------------------------------------------------------------|

#### Tools

|         |               |                                                                                                                                                       |
|---------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1204517 | SZF 1-0,6X3,5 | Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip |
|---------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

## Drawings

### Diagram



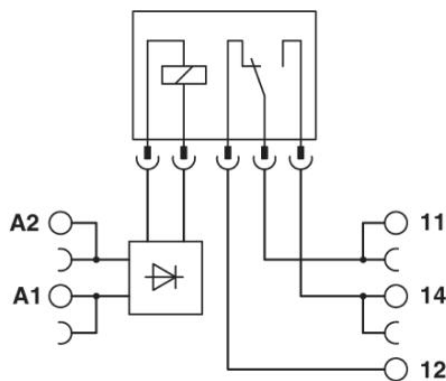
#### Curve A

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

#### Curve B

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

### Circuit diagram



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