

PLC-RSC-120UC/21 ATEX - Relay Module



2902956

<https://www.phoenixcontact.com/us/products/2902956>

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PLC-INTERFACE, consisting of DIN rail-mountable basic terminal block with screw connection and plug-in miniature relay with power contact, 1 changeover contact, input voltage: 120 V AC/110 V DC, UL/cUL: approved for use in Ex Zone Class I, Div. 2 and ATEX (Zone 2)

Commercial data

| | |
|--------------------------------------|--------------------------------|
| Item number | 2902956 |
| Packing unit | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | C461 |
| Product key | CK61B2 |
| Catalog page | Page 412 (C-7-2015) |
| GTIN | 4046356957595 |
| Weight per piece (including packing) | 42.54 g |
| Weight per piece (excluding packing) | 31.06 g |
| Customs tariff number | 85364900 |
| Country of origin | DE |

Technical data

Product properties

| | |
|-------------------------|---------------------------|
| Product type | Relay Module |
| Application | Class I, Division 2 |
| Operating mode | 100% operating factor |
| Mechanical service life | 2x 10 ⁷ cycles |

Insulation characteristics: Standards/regulations

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

Electrical properties

| | |
|-------------------------------------------------|------------------------------------------|
| Maximum power dissipation for nominal condition | 0.42 W |
| Test voltage (Winding/contact) | 4 kV AC (50 Hz, 1 min., winding/contact) |

Input data

Coil side

| | |
|--------------------------------|------------------------------------|
| Nominal input voltage U_N | 120 V AC |
| | 110 V DC |
| Input voltage range | 93.6 V AC/DC ... 168 V AC/DC |
| Typical input current at U_N | 3.5 mA ($U_N = 120$ V AC) |
| | 3 mA ($U_N = 110$ V DC) |
| Typical response time | 6 ms |
| Typical release time | 15 ms |
| Protective circuit | Bridge rectifier; Bridge rectifier |
| Operating voltage display | Yellow LED |

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 (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 | 5 V (at 100 mA) |
| Limiting continuous current | 6 A |
| Maximum inrush current | 10 A (4 s) |
| 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) |

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| | |
|----------------------|------------------------|
| Switching capacity | 23 W (at 110 V DC) |
| | 40 W (at 220 V DC) |
| | 1500 VA (for 250 V AC) |
| | 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) | |

Connection data

| | |
|----------------------------------|---------------------------------------------------------------|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross section rigid | 0.14 mm ² ... 2.5 mm ² |
| Conductor cross section flexible | 0.14 mm ² ... 2.5 mm ² |
| | 0.2 mm ² ... 2.5 mm ² (Single ferrule) |
| | 2x 0.5 mm ² ... 1.5 mm ² (TWIN ferrule) |
| Conductor cross section AWG | 26 ... 14 |
| Tightening torque | 0.6 Nm ... 0.8 Nm |

Dimensions

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

Material specifications

| | |
|----------------------------------------|--------------|
| Flammability rating according to UL 94 | V0 (Housing) |
|----------------------------------------|--------------|

Environmental and real-life conditions

Ambient conditions

| | |
|-----------------------------------------|---------------------------------|
| Degree of protection (Relay) | RT III (Relay) |
| Degree of protection (Relay base) | IP20 (Relay base) |
| Ambient temperature (operation) | -20 °C ... 60 °C (UL) |
| | -40 °C ... 60 °C (ATEX / IECEx) |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

CE

| | |
|----------------|--------------|
| Identification | CE-compliant |
|----------------|--------------|

ATEX

| | |
|----------------|----------------------------|
| Identification | Ⓔ II 3G Ex ec nC IIC T4 Gc |
| Certificate | IBExU16ATEXB015 X |

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IECEX

| | |
|----------------|--------------------|
| Identification | Ex ec nC IIC T4 Gc |
| Certificate | IECEX IBE 16.0029X |

UL, USA

| | |
|----------------|-----------------------------------|
| Identification | Class I, Zone 2, AEx nA nC IIC T6 |
|----------------|-----------------------------------|

UL, USA/Canada

| | |
|----------------|------------------------------------|
| Identification | Class I, Div. 2, Groups A, B, C, D |
|----------------|------------------------------------|

UL, Canada

| | |
|----------------|---------------------------------------|
| Identification | Class I, Zone 2, Ex nA nC IIC Gc T6 X |
|----------------|---------------------------------------|

Standards and regulations

Standards/regulations

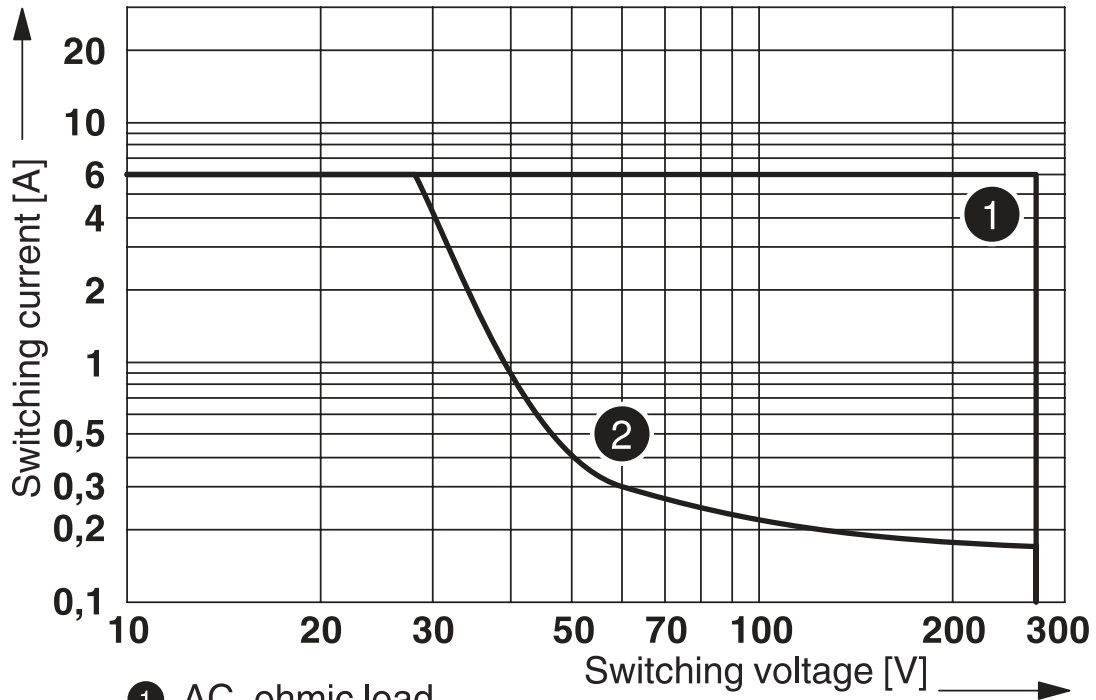
| | |
|-----------------------|---------------------|
| Standards/regulations | IEC 60664 |
| | EN 50178 |
| | EN 60079-0, -7, -15 |

Mounting

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

Drawings

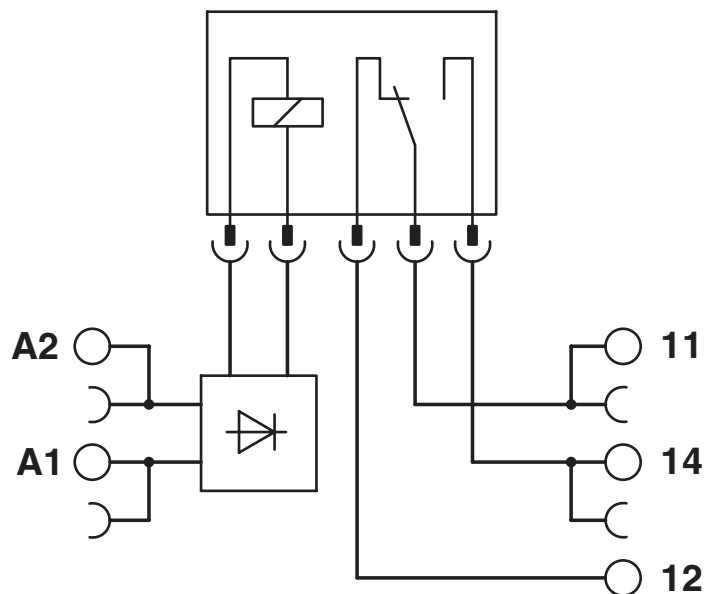
Diagram



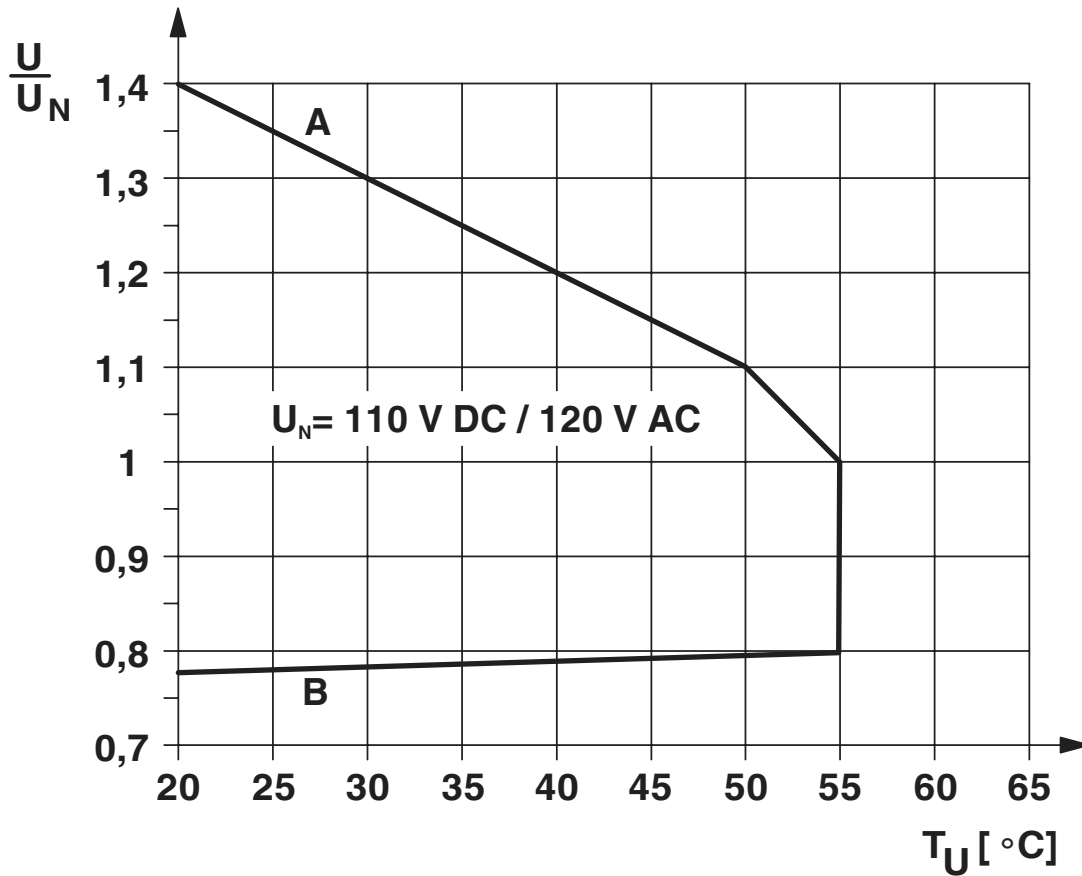
- ① AC, ohmic load
- ② DC, ohmic load

Interrupting rating

Circuit diagram



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_{op} after pre-excitation (see relevant technical data)

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Classifications

ECLASS

ECLASS-11.0

27371601

ETIM

ETIM 7.0

EC001437

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Environmental product compliance

| | |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| China RoHS | Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Accessories

i Note: Applying some accessories below might limit this product.

FBST 500-PLC RD - Continuous plug-in bridge

2966786

<https://www.phoenixcontact.com/us/products/2966786>



Continuous plug-in bridge, length: 500 mm, color: red

i Max. current carrying capacity: 32 A

FBST 500-PLC BU - Continuous plug-in bridge

2966692

<https://www.phoenixcontact.com/us/products/2966692>



Continuous plug-in bridge, length: 500 mm, color: blue

i Max. current carrying capacity: 32 A

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FBST 500-PLC GY - Continuous plug-in bridge

2966838

<https://www.phoenixcontact.com/us/products/2966838>



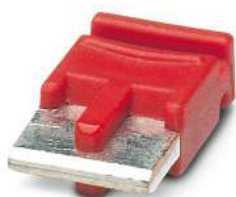
Continuous plug-in bridge, length: 500 mm, color: gray

 Max. current carrying capacity: 32 A


FBST 6-PLC RD - Single plug-in bridge

2966236

<https://www.phoenixcontact.com/us/products/2966236>



Single plug-in bridge, number of positions: 2, length: 6 mm, color: red

 Max. current carrying capacity: 6 A

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FBST 6-PLC BU - Single plug-in bridge

2966812

<https://www.phoenixcontact.com/us/products/2966812>

Single plug-in bridge, number of positions: 2, length: 6 mm, color: blue



 Max. current carrying capacity: 6 A


FBST 6-PLC GY - Single plug-in bridge

2966825

<https://www.phoenixcontact.com/us/products/2966825>

Single plug-in bridge, number of positions: 2, length: 6 mm, color: gray



 Max. current carrying capacity: 6 A

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FBST 8-PLC GY - Single plug-in bridge

2967688

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Single plug-in bridge, number of positions: 2, length: 8 mm, color: gray



 Max. current carrying capacity: 6 A

NS 35/ 7,5 V2A UNPERF 2000MM - DIN rail, unperforated

0801377

<https://www.phoenixcontact.com/us/products/0801377>



DIN rail, unperforated, acc. to EN 60715, material: Stainless steel V2A, uncoated, Standard profile, color: silver, Pack of 25 (50 m)

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NS 35/ 7,5 PERF 2000MM - DIN rail perforated

0801733

<https://www.phoenixcontact.com/us/products/0801733>



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/us/products/0801762>



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

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NS 35/15 UNPERF 2000MM - DIN rail, unperforated

1201714

<https://www.phoenixcontact.com/us/products/1201714>



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

<https://www.phoenixcontact.com/us/products/1201895>



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

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NS 35/15-2,3 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201798

<https://www.phoenixcontact.com/us/products/1201798>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver, Pack of 10 (20 m)

NS 35/15 AL UNPERF 2000MM - DIN rail, unperforated

1201756

<https://www.phoenixcontact.com/us/products/1201756>



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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NS 35/15 PERF 2000MM - DIN rail perforated

1201730

<https://www.phoenixcontact.com/us/products/1201730>



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

NS 35/ 7,5 UNPERF 2000MM - DIN rail, unperforated

0801681

<https://www.phoenixcontact.com/us/products/0801681>



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

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PLC-ESK GY - Power terminal block

2966508

<https://www.phoenixcontact.com/us/products/2966508>



Power terminal block, for the input of up to four potentials, for mounting on NS 35/7.5

PLC-ATP BK - Separating plate

2966841

<https://www.phoenixcontact.com/us/products/2966841>



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

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SZF 1-0,6X3,5 - Screwdriver

1204517

<https://www.phoenixcontact.com/us/products/1204517>



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

ZB 6:UNBEDRUCKT - Zack marker strip

1051003

<https://www.phoenixcontact.com/us/products/1051003>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

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ZB 6,LGS:FORTL.ZAHLEN - Zack marker strip

1051016

<https://www.phoenixcontact.com/us/products/1051016>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

ZB 6/WH-100:UNBEDRUCKT - Zack marker strip

5060935

<https://www.phoenixcontact.com/us/products/5060935>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 1000

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UC-TM 6 - Marker for terminal blocks

0818085

<https://www.phoenixcontact.com/us/products/0818085>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 80

UCT-TM 6 - Marker for terminal blocks

0828736

<https://www.phoenixcontact.com/us/products/0828736>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 5.6 x 10.5 mm, Number of individual labels: 60

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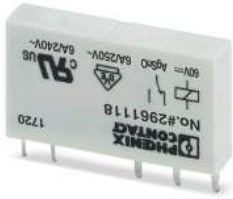
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REL-MR- 60DC/21 - Single relay

2961118

<https://www.phoenixcontact.com/us/products/2961118>

Plug-in miniature power relay, with power contact, 1 changeover contact, input voltage 60 V DC



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