

# PLC-RSC-120UC/21/SO46 - Relay module



5603593

<https://www.phoenixcontact.com/us/products/5603593>

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PLC-INTERFACE for protection against interference currents or interference voltages on the control side. Consisting of PLC-BSC-120UC/21/SO46 basic terminal block with screw connection and plug-in miniature relay with power contact up to 6 A, 1 changeover contact, input voltage: 120 V AC

## Your advantages

- Slim design
- Resistant to interference currents
- Efficient connection to system cabling using V8 adapter
- Safe isolation according to DIN EN 50178 between coil and contact
- RT III sealed relay
- Functional plug-in bridges

## Commercial data

Item number	5603593
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C462
Product key	DK622M
GTIN	4046356686143
Weight per piece (including packing)	40.985 g
Weight per piece (excluding packing)	40.985 g
Customs tariff number	85364900
Country of origin	DE

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## Set consists of

### PLC-BSC-120UC/21/SO46 - Relay base

2980319

<https://www.phoenixcontact.com/us/products/2980319>



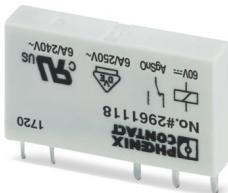
6.2 mm PLC basic terminal block with protection against interference currents/voltages on the control side, with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with integrated RCZ filter, 1 changeover contact, input voltage 120 V AC

### 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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## Technical data

### Notes

General	Separating plate PLC-ATP must 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....
General	The PLC-ATP separating plate should be installed for safe isolation between adjacent modules
General	The PLC-ATP separating plate is required at the start and end of every PLC terminal strip.
General	The system installer must ensure the touch protection of the product (at voltages > 25 V AC/60 V DC). The product is a built-in device without protection against direct contact.

### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Filter to prevent interference
Operating mode	100% operating factor
Mechanical service life	$2 \times 10^7$ cycles

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

Insulation	Safe isolation, reinforced insulation
Oversupply category	III
Pollution degree	3

Data management status

Date of last data management	12.09.2025
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### Electrical properties

Maximum power dissipation for nominal condition	0.84 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

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 $U_N$	120 V AC
	110 V DC
Input voltage range	93.6 V AC ... 168 V AC (20 °C)
	85.8 V DC ... 154 V DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	60 V DC
Mains frequency	50/60 Hz

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Drive and function	monostable
Drive (polarity)	polarized
Typical input current at $U_N$	7 mA (50 Hz) 8 mA (60 Hz)
Typical response time	7 ms
Typical release time	20 ms
Typical release voltage	50 V AC
Protective circuit	Bridge rectifier RC element
Status display	LED (yellow)

## 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 (100 mA)
Limiting continuous current	6 A
Maximum inrush current	10 A (4 s)
Min. switching current	10 mA (12 V)
Interrupting rating (ohmic load) max.	140 W (24 V DC) 20 W (48 V DC) 18 W (60 V DC) 23 W (110 V DC) 40 W (220 V DC) 1500 VA (250 V AC)
Switching capacity min.	0.12 W
Switching capacity	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 <sup>2</sup> ... 2.5 mm <sup>2</sup> 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>

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Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (Single ferrule) 2x 0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> (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 (Housing)	V0 (Housing)
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## Environmental and real-life conditions

Ambient conditions	
Degree of protection (Relay)	RT III (Relay)
Degree of protection (Relay base)	IP20 (Relay base)
Degree of protection (Installation location)	IP54 (Installation location)
Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m

## Approvals

Corrosive gas test	
Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

## Standards and regulations

Standards/regulations	
Standards/regulations	EN 50178
	EN 61810

## Air clearances and creepage distances between the power circuits

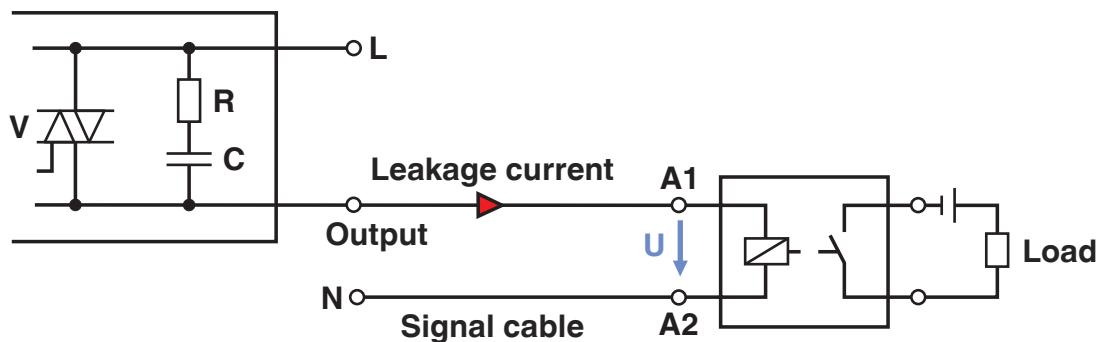
Standards/regulations	DIN EN 50178
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## Mounting

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

## Drawings

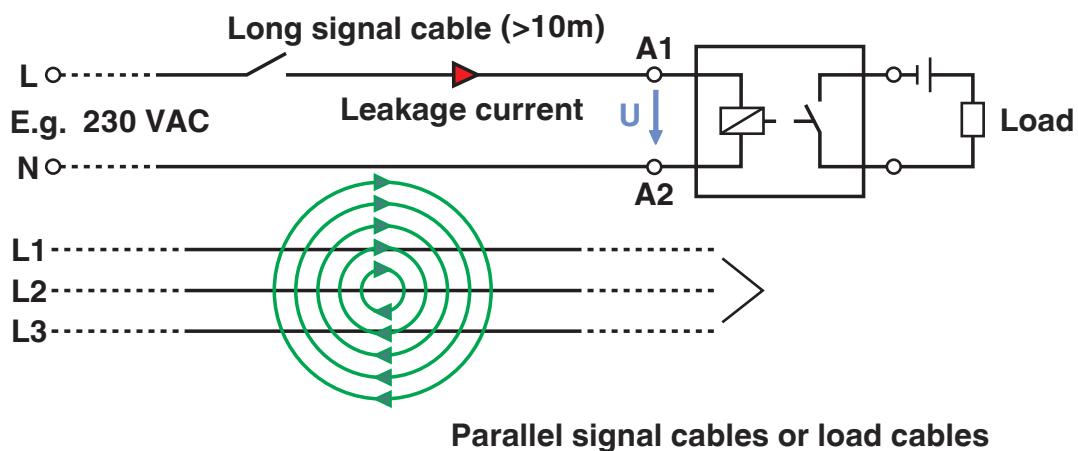
Application drawing



Occurrence of interference signals

Scenario 1: controller - AC output card

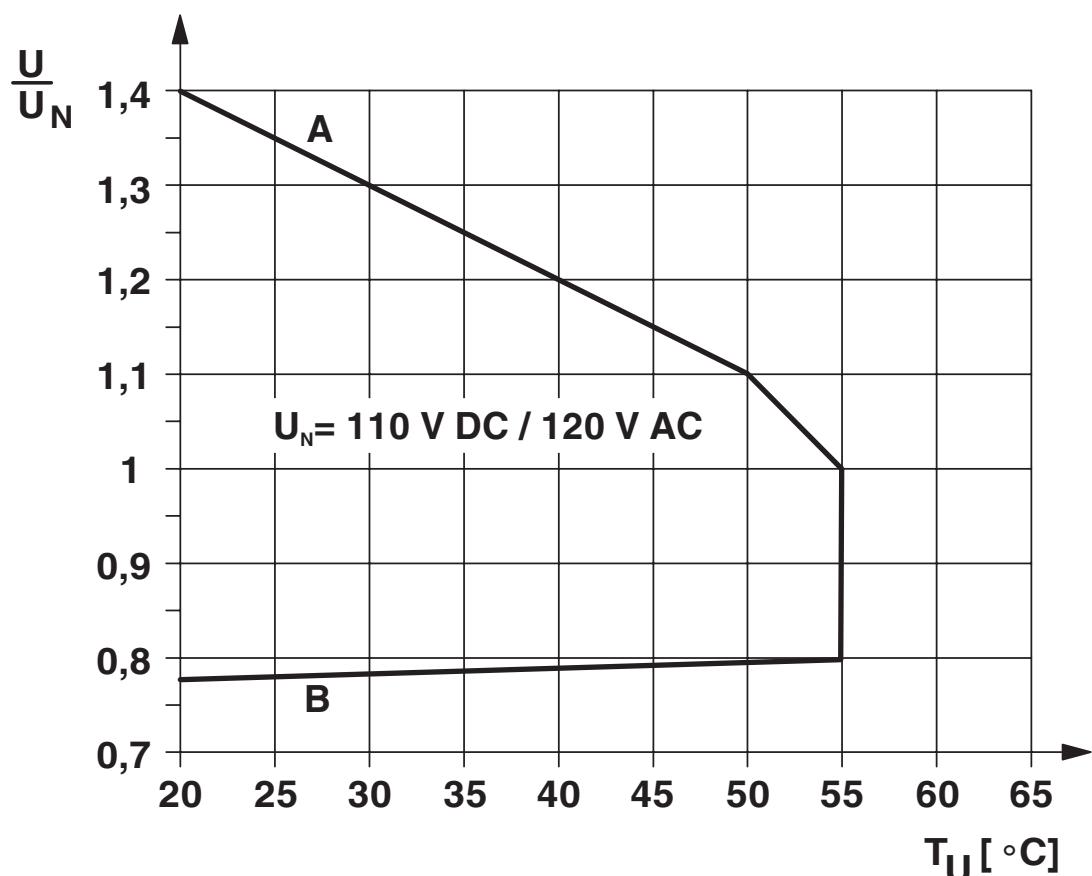
Application drawing



Occurrence of interference signals

Scenario 2: long signal cables

Diagram

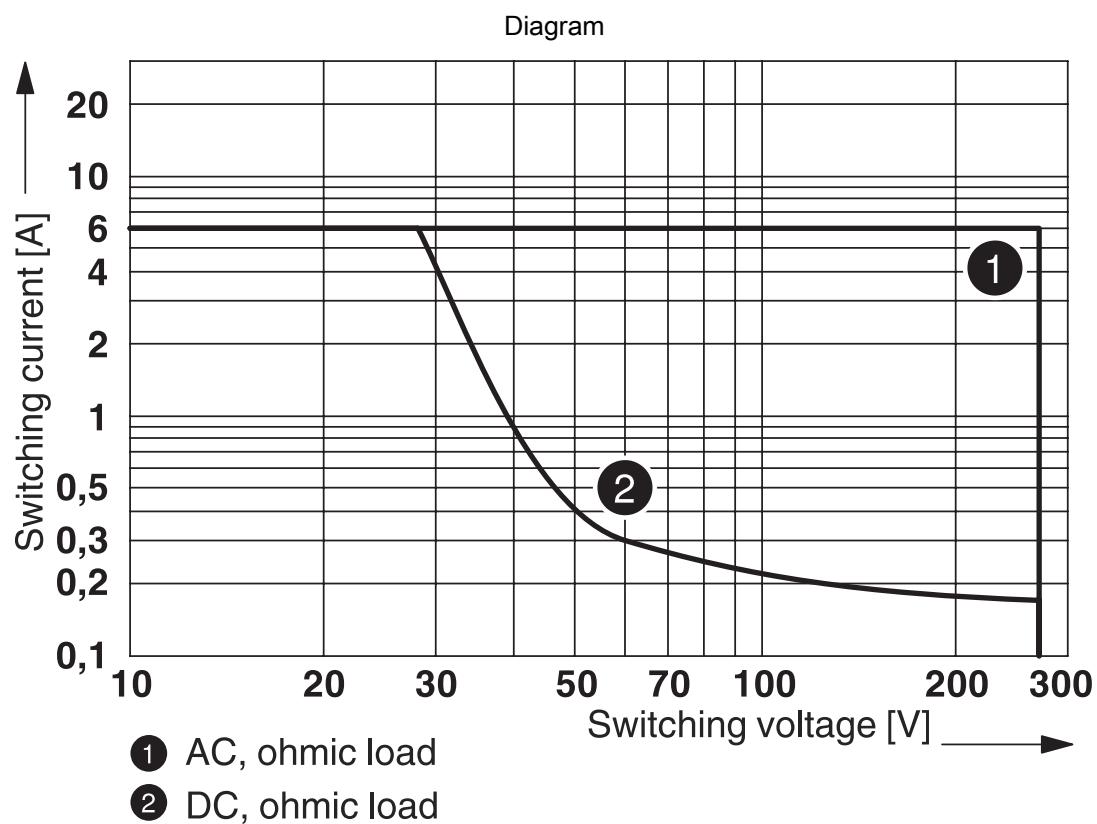


### Curve A

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

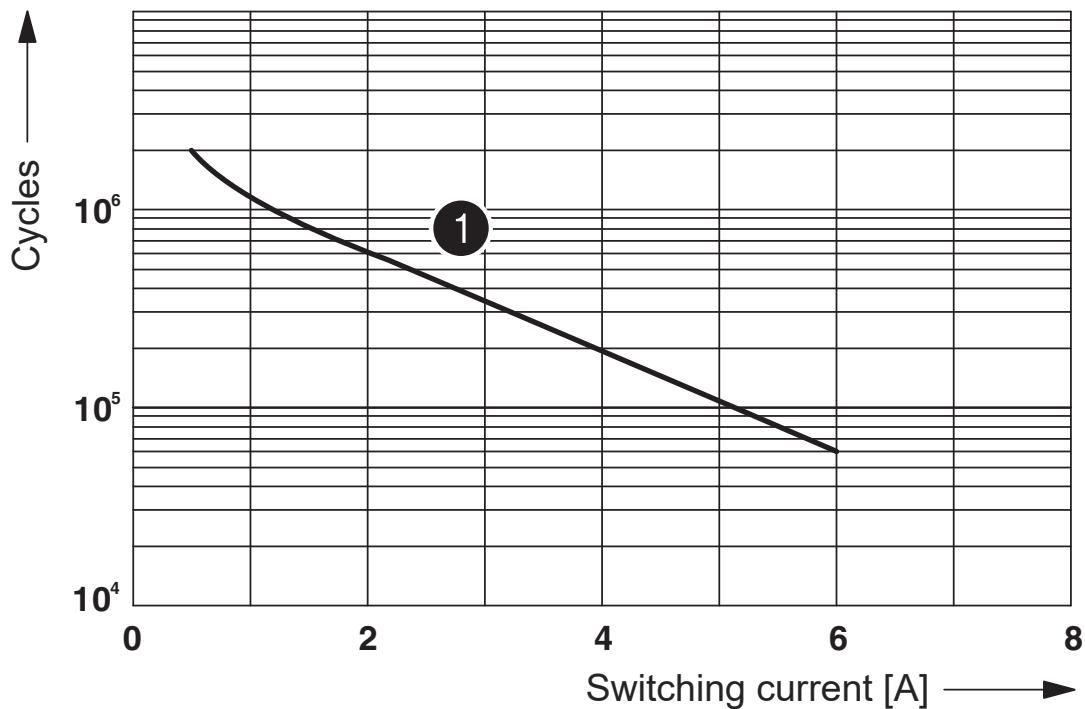
### Curve B

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



Interrupting rating

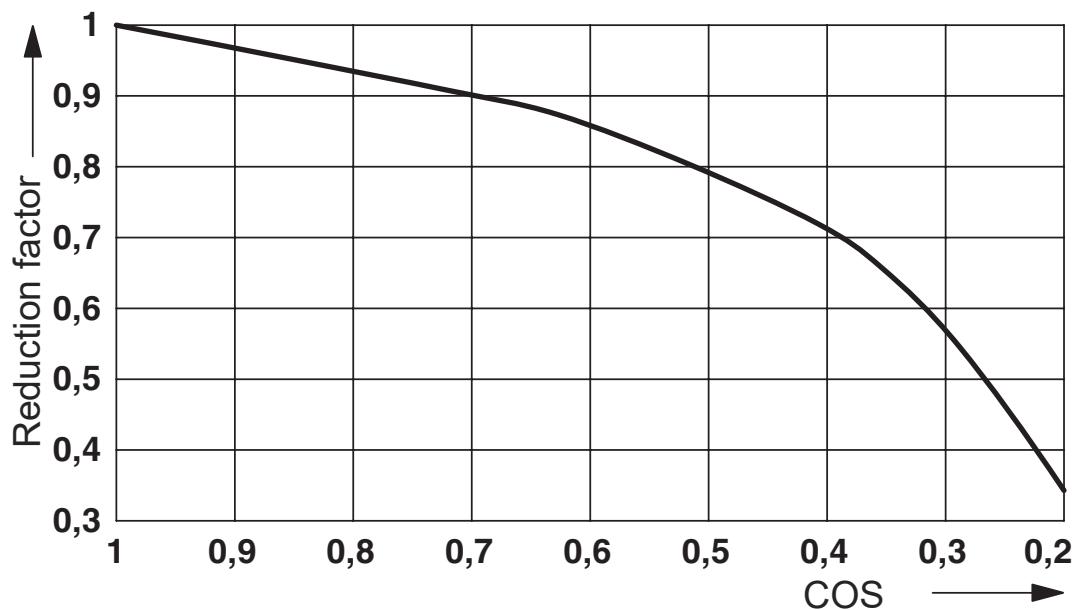
Diagram



① 250 V AC, ohmic load

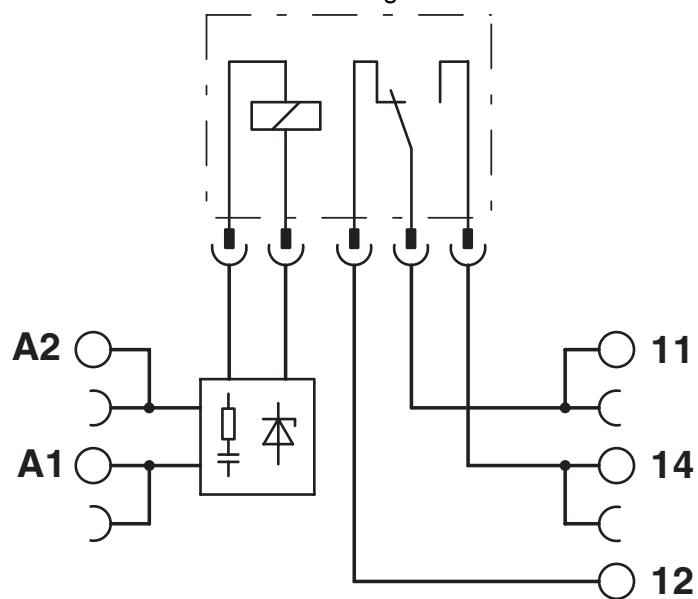
Electrical service life

Diagram



Service life reduction factor

Circuit diagram



## Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/5603593>



**EAC**

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



**DNV GL**

Approval ID: TAE0000196



**cULus Listed**

Approval ID: E140324

## Classifications

### ECLASS

ECLASS-13.0	27371601
ECLASS-15.0	27371601

### ETIM

ETIM 9.0	EC001437
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### UNSPSC

UNSPSC 21.0	39122300
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## 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)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)

### SCIP

2bbd43a8-5f51-45db-bea1-c9ee8a76fa51

### EF3.0 Climate Change

CO2e kg	0.604 kg CO2e
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