

# PLC-RSP-110UC/21-21/RW


Order No.: 2987147

The illustration shows the version PLC-RSP-24UC/21-21/RW




6.2 mm PLC complete relay module with spring-cage connection for railway applications, 110 V DC nominal input voltage, range:  $0.7 \times U_N$  to  $1.25 \times U_N$ , temperature class TX:  $-40^\circ\text{C}$  to  $70^\circ\text{C}$ . Corresponds to EN 50155, EN 50178, EN 61373, EN 50121, and IEC 62103.



Commercial data	
EAN	4  046356 155403
Pack	10 Pcs.
Customs tariff	85364900
Product key	106221
Catalog page information	Page 121 (IF-2011)

**Product notes**

WEEE/RoHS-compliant since:  
08/29/2006



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Technical data	
<b>Coil side</b>	
Nominal input voltage $U_N$	110 V DC
Input voltage range in reference to $U_N$	0.7 ... 1.25
Nominal input current at $U_{IN}$	4 mA

Typical response time	8 ms
Typical release time	11 ms
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier Bridge rectifier
	Free-wheeling diode Damping diode
	Surge protection
	RCZ filter
	Wide-range electronics

#### Contact side

Contact type	Single contact, 2-PDT
Contact material	AgNi
Maximum switching voltage	250 V AC/DC (Separating plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal blocks in adjacent modules.)
Minimum switching voltage	5 V (at 100 mA)
Maximum inrush current	15 A (300 ms)
Min. switching current	10 mA (at 12 V)
Limiting continuous current	2x 6 A (see derating curve)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	85 W (for 48 V DC)
	60 W (for 60 V DC)
	44 W (for 110 V DC)
	60 W (for 220 V DC)
	1500 VA (for 250 V AC)

#### General data

Width	14 mm
Height	80 mm
Depth	94 mm
Test voltage relay winding/relay contact	5 kV <sub>rms</sub> (50 Hz, 1 min.)
Test voltage PDT/PDT	2.5 kV <sub>rms</sub> (50 Hz, 1 min.)
Ambient temperature (operation)	-40 °C ... 70 °C (Temperature class TX)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Operating mode	100% operating factor
Mechanical service life	Approx. 3 x 10 <sup>7</sup> cycles
Inflammability class according to UL 94	V0

Standards/regulations	EN 50155 (VDE 0115 part 200)
	EN 50178
	IEC 62103
	EN 61373
	EN 50121
Rated surge voltage / insulation	6 kV / Basic isolation
Rated insulation voltage	250 V AC
Pollution degree	2
Surge voltage category	III
Mounting position	Any
Assembly instructions	In rows with zero spacing

#### Connection data

Connection method	Spring-cage connection
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 stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	14
Stripping length	8 mm

#### Certificates / Approvals

Certification CUL, CUL Listed, GL, UL, UL Listed

#### Accessories

Item	Designation	Description
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#### Assembly

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, 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

#### Bridges

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
2967691	FBST 14-PLC BK	Single plug-in bridge, Length: 14 mm, Number of positions: 2, Color: black
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

#### General

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

1053001	ZB 10:UNBEDRUCKT	Zack marker strip, Strip, white, Unlabeled, Can be labeled with: Plotter, Mounting type: Snap into tall marker groove, For terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm
1053014	ZB10,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 991 - 1000, Mounting type: Snap into tall marker groove, For terminal block width: 10.2 mm

5060883	ZB10/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: 10.2 mm
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### Relay

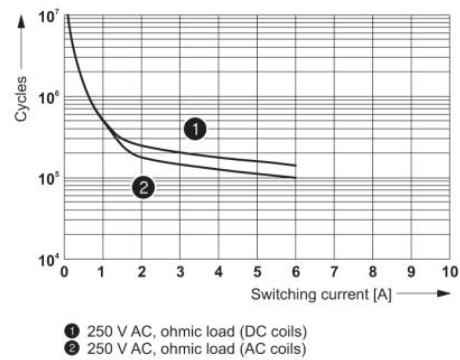
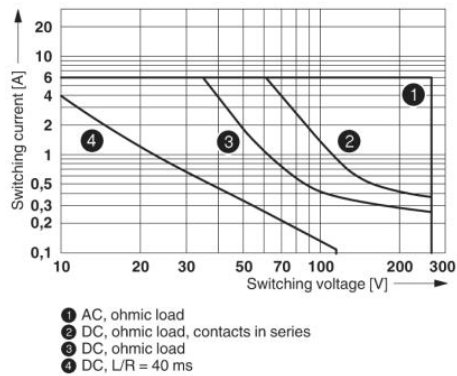
2961273	REL-MR- 60DC/21-21	Pluggable miniature relays, with power contact, 2 PDT, input voltage 60 V DC
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### Tools

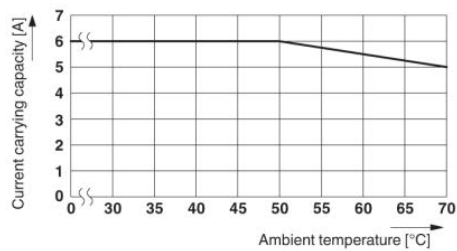
1204517	SZF 1-0,6X3,5	Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip
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## Drawings

### Diagram



### Interrupting rating



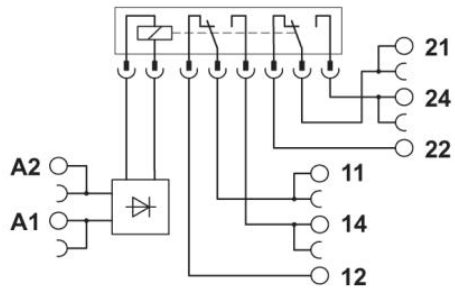
### Electrical service life

### Derating diagram

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Circuit diagram

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Connection data incl. use groups

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