
RS35


RS50

- **Relays to control power in photovoltaic systems which generate electric energy**
- Max. switching current: 35 A (version RS35); 50 A (version RS50)
- 5000 V / 10 mm reinforced insulation • Contact gap: RS35 ≥ 2,2 mm; RS50 ≥ 1,85 mm • Holding power 0,1 W
- For PCB • DC coils • Reinforced insulation, acc. PN-EN 60730-1 (VDE 0631, part 1); PN-EN 60335-1 (VDE 0700, part 1)
- Recognitions, certifications, directives: RoHS,

Contact data

Number and type of contacts		2 NO	
Contact material		**$AgSnO_2$**	
Rated / max. switching voltage	AC	250 V / 440 V	
Min. switching voltage		10 V	
Rated load	AC1	RS35: 35 A / 250 V AC	RS50: 48 A / 250 V AC
	DC1	RS35: 35 A / 24 V DC	RS50: 48 A / 24 V DC
Min. switching current		10 mA	10 mA
Rated current		RS35: 35 A	RS50: 50 A
Max. breaking capacity	AC1	RS35: 8 750 VA	RS50: 12 500 VA
	DC1	RS35: 90 W 0,3 A / 300 V	RS50: 90 W 0,3 A / 300 V
Min. breaking capacity		1 W	
Contact resistance		≤ 50 mΩ	
Max. operating frequency			
• at rated load	AC1	360 cycles/hour	
• no load		3 600 cycles/hour	

Coil data

Rated voltage	DC	5 ... 110 V
Must release voltage		DC: ≥ 0,05 U_n
Operating range of supply voltage		0,75...2,0 U_n see Table 1
Rated power consumption	DC	0,48 W
Power consumption at pickup voltage		0,3 W
Max. continuous dissipation		1,9 W 20 °C

Insulation according to PN-EN 60664-1

Insulation rated voltage	250 V AC
Rated surge voltage	6 000 V 1,2 / 50 µs
Overvoltage category	III
Insulation pollution degree	3
Insulation resistance	1000 MΩ
Dielectric strength	
• between coil and contacts	5 000 V AC type of insulation: reinforced
• contact clearance	2 500 V AC type of clearance: full-disconnection
• pole - pole	2 500 V AC type of insulation: basic
Contact - coil distance	
• clearance	≥ 10 mm
• creepage	≥ 10 mm

General data

Operating / release time (typical values)		40 ms / 5 ms	
Electrical life			
• resistive AC1		3×10^4 35 A, 250 V AC, 20 °C	10^4 50 A, 250 V AC, 20 °C
• AC7a		3×10^4 35 A, 250 V AC, 20 °C	3×10^4 50 A, 250 V AC, 20 °C
Mechanical life (cycles)		10^6	
Dimensions (L x W x H)		40 x 25 x 49,2 mm	
Weight		105 g	
Ambient temperature	• storage	-40...+105 °C	
	• operating	-40...+85 °C	
Cover protection category		IP 40 PN-EN 60529	
Environmental protection		RTI PN-EN 116000-3	
Shock resistance		10 g	
Vibration resistance		1,5 mm DA (constant amplitude) 10...55 Hz	
Solder bath temperature		max. 270 °C	
Soldering time		max. 5 s	

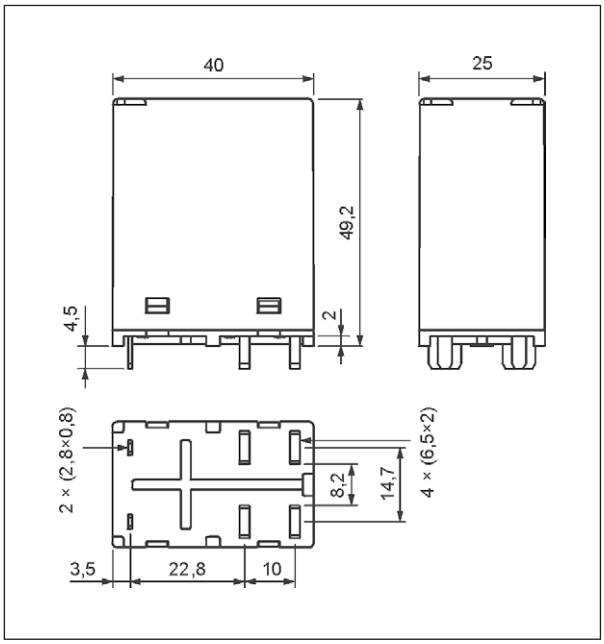
The data in bold type pertain to the standard versions of the relays.

11.05.2013

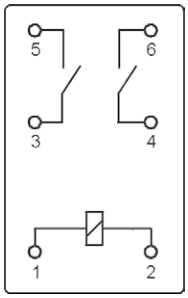
Coil data - DC voltage version Table 1

Coil code	Rated voltage V DC	Coil resistance at 20 °C Ω	Acceptable resistance	Coil operating range V DC	
				min. (at 20 °C)	max. (at 55 °C)
1005	5	50	± 10%	3,75	10
1009	9	170	± 10%	6,75	18
1012	12	300	± 10%	9,00	24
1018	18	675	± 10%	13,50	36
1024	24	1 200	± 10%	18,00	48
1110	110	25 000	± 10%	82,50	220

Dimensions



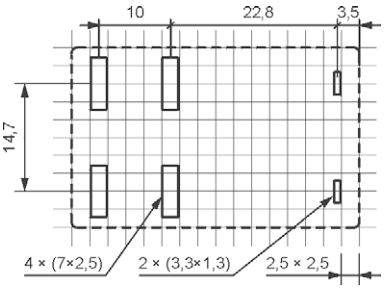
Connection diagrams (pin side view)



2 NO

Pinout (solder side view)

2 NO



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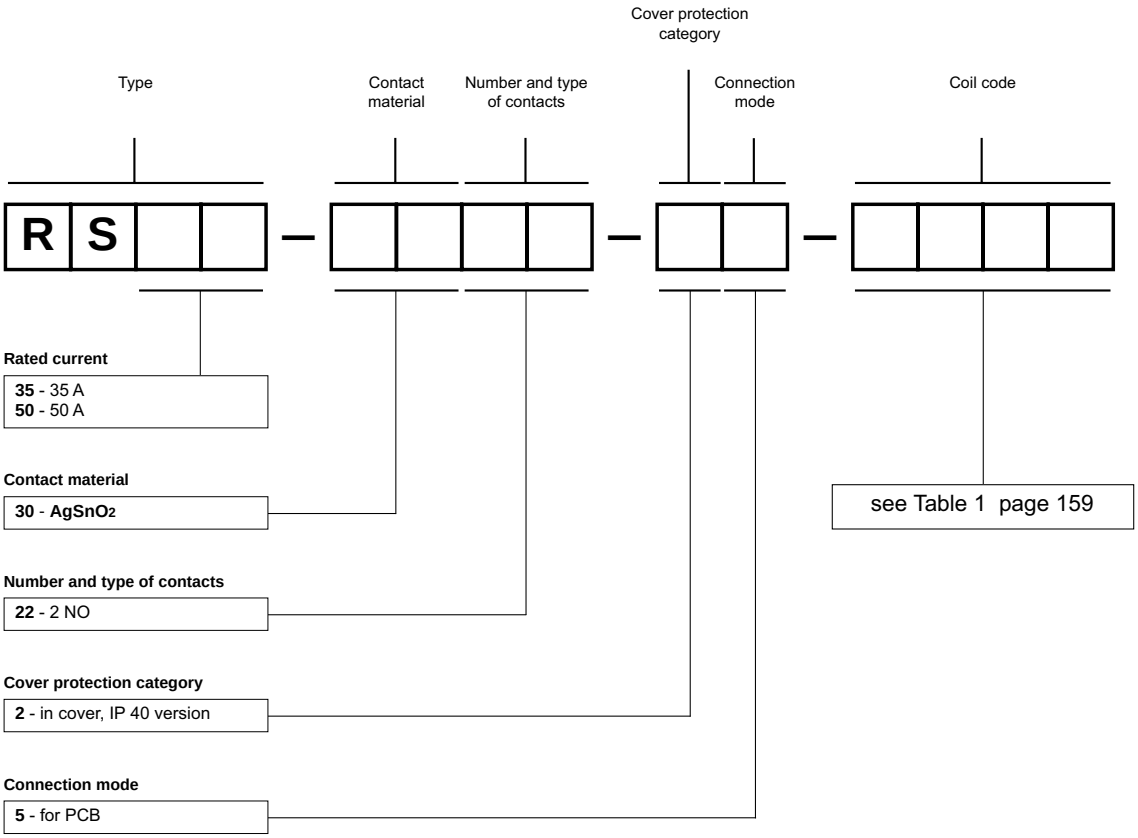
Mounting

Relays **RS35**, **RS50** are designed for direct PCB mounting.

Ordering codes



Examples of ordering code:

RS35-3022-25-1005 relay **RS35**, rated current 35 A, for PCB, two normally open contacts, contact material $AgSnO_2$, coil voltage 5 V DC, in cover IP 40

RS50-3022-25-1110 relay **RS35**, rated current 50 A, for PCB, two normally open contacts, contact material $AgSnO_2$, coil voltage 110 V DC, in cover IP 40

PRECAUTIONS:
1. Ensure that the parameters of the product described in its specification provide a safety margin for the appropriate operation of the device or system and never use the product in circumstances which exceed the parameters of the product. **2.** Never touch any live parts of the device. **3.** Ensure that the product has been connected correctly. An incorrect connection may cause malfunction, excessive heating or risk of fire. **4.** In case of any risk of any serious material loss or death or injuries of humans or animals, the devices or systems shall be designed so to equip them with double safety system to guarantee their reliable operation.

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