



RS35



RS50



- **Relays for power control in solar systems generating energy**
- Max. switching current: 35 A (version RS35); 50 A (version RS50)
- 5000 V / 10 mm reinforced insulation
- Contact gap > 1,75 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	AgSnO₂		
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		
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	AC1	360 cycles/hour 3 600 cycles/hour	
• at rated load			
• no load			

Coil data

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

Insulation according to PN-EN 60664-1

Insulation rated voltage	250 V AC	
Rated surge voltage	4 000 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)	30 ms / 5 ms	
Electrical life		
• resistive AC1	5 x 10 ⁴ 35 A, 250 V AC, 20 °C	5 x 10 ⁴ 50 A, 250 V AC, 20 °C
• AC7a	3 x 10 ⁴ 35 A, 250 V AC, 20 °C	3 x 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	

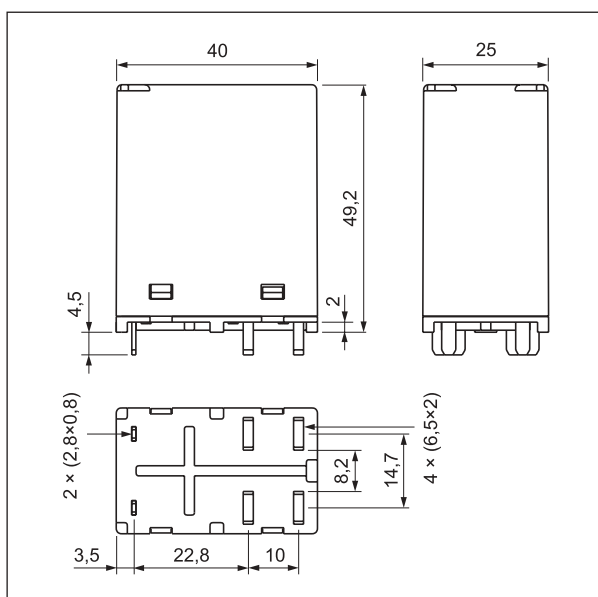
The data in bold type pertain to the standard versions of the relays.

Coil data - DC voltage version

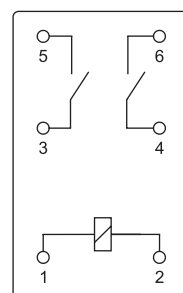
Table 1

Coil code	Rated voltage V DC	Coil resistance $\pm 10\%$ at 20°C Ω	Coil operating range V DC	
			min. (at 20°C)	max. (at 55°C)
1005	5	50	3,75	10
1009	9	170	6,75	18
1012	12	300	9,00	24
1018	18	675	13,50	36
1024	24	1 200	18,00	48
1100	110	25 000	82,50	220

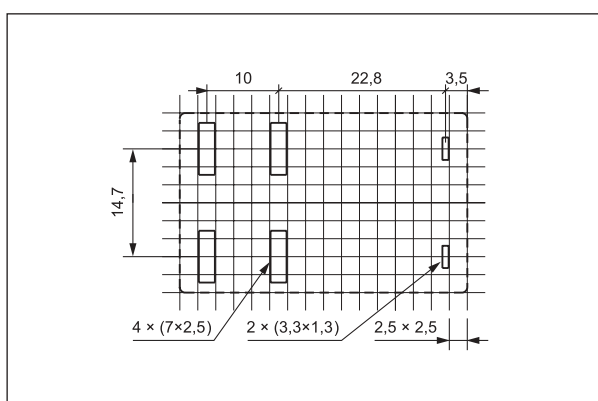
Dimensions



Connection diagram (pin side view)



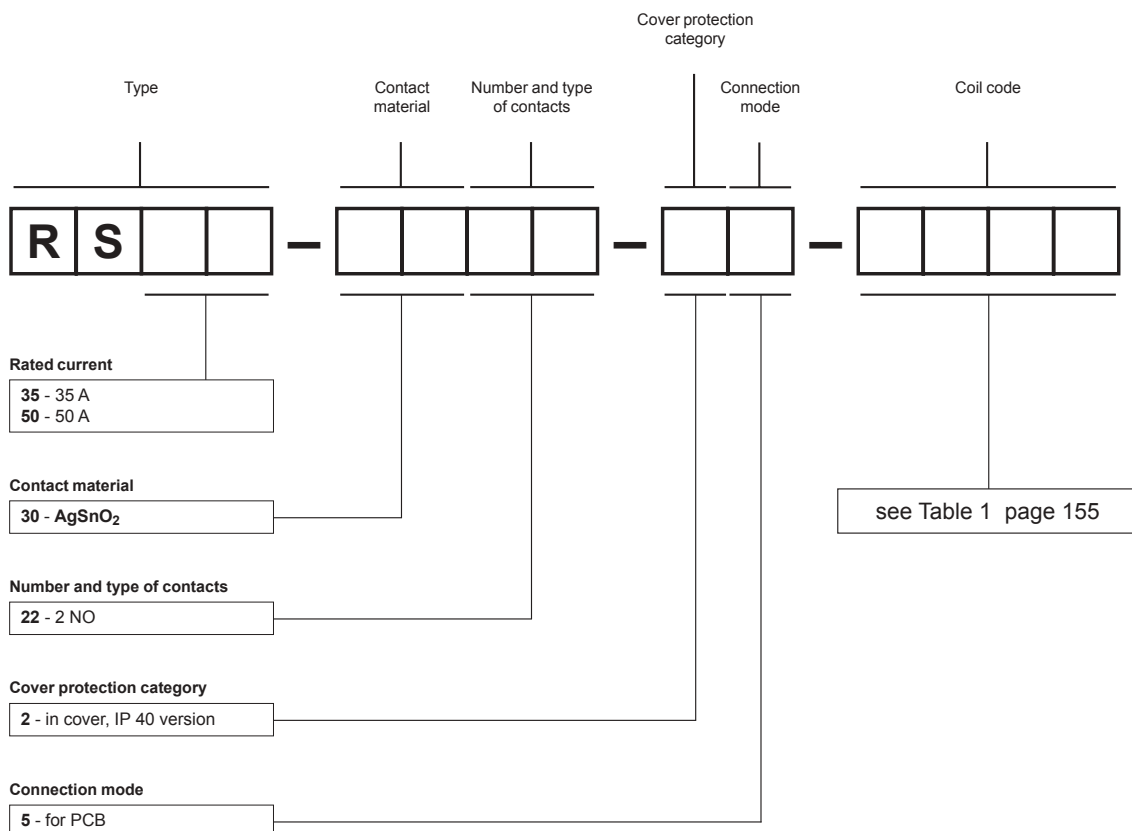
Pinout (solder side view)



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, contact material AgSnO₂, with two normally open contacts, in cover IP 40, for PCB, voltage version 5 V DC

RS50-3022-25-1110

relay **RS35**, rated current 50 A, contact material AgSnO₂, with two normally open contacts, in cover IP 40, for PCB, voltage version 110 V DC

