

Features

Printed circuit mount
50 A Power relay for photovoltaic inverters

- 2 and 3 pole versions (NO, double break contacts)
- Contact gap ≥ 3 mm (according to VDE 0126-1-1, EN 62109-1, EN 62109-2)
- DC coils, with only 170 mW holding power
- Reinforced insulation between coil and contacts
- 1.5 mm gap between PCB and relay base
- Suitable for use at ambient temperatures up to 85 °C (with energy-saving coil energization) or 70 °C (with standard coil energization)

NEW 67.22-4300

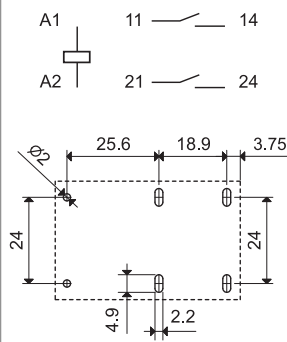


- 2 NO
- Contact gap ≥ 3 mm
- PCB mount

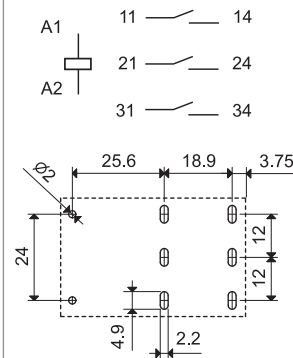
NEW 67.23-4300



- 3 NO
- Contact gap ≥ 3 mm
- PCB mount



Copper side view



Copper side view

For outline drawing see page 5

Contact specification

Contact configuration	2 NO (DPST-NO)	3 NO (3PST-NO)
Contact gap	≥ 3 mm	≥ 3 mm
Rated current/Maximum peak current (for 5 ms) A	50/150	50/150
Rated voltage/Maximum switching voltage V AC	400/690	400/690
Rated load AC1/AC-7a VA	20,000	20,000
Minimum switching load mW (V/mA)	1,000 (10/10)	1,000 (10/10)
Standard contact material	AgSnO ₂	AgSnO ₂

Coil specification

Nominal voltage (U _N) V DC	5 - 6 - 8 - 12 - 24 - 48 - 60 - 110	
Rated power W	1.7	1.7
Operating range (-40...+70°C) DC	(0.90 ... 1.1) U _N	(0.90 ... 1.1) U _N
Energy-saving mode (-40...+85°C)		
Operating range for 1" DC	(0.95...2.5) U _N	(0.95...2.5) U _N
Holding voltage range DC	(0.32...0.65) U _N	(0.32...0.65) U _N
Minimum holding power W	0.17	0.17
Must drop-out voltage DC	0.05 U _N	0.05 U _N

Technical data

Mechanical life cycles	1 · 10 ⁶	1 · 10 ⁶
Electrical life at rated load AC-7a cycles	30 · 10 ³	30 · 10 ³
Operate/release time ms	35/4	35/4
Ambient temperature range (energy-saving mode) °C	-40...+70 (-40...+85)	-40...+70 (-40...+85)
Environmental protection	RTII	RTII

Approvals (according to type)



Features

Printed circuit mount 50 A Power relay for photovoltaic inverters

- 2 and 3 pole versions (NO double break contacts)
- Contact gap ≥ 5.2 mm (according to VDE 0126-1-1, EN 62109-1, EN 62109-2)
- Suitable for inverters with DC input up to 1,500 V and AC output up to 690 V, installations up to 4,000 m above sea level
- DC coils, with only 170 mW holding power
- Reinforced insulation between coil and contacts
- 1.5 mm gap between PCB and relay base
- Suitable for use at ambient temperatures up to 85 °C (with energy-saving coil energization) or 60 °C (with standard coil energization)

NEW 67.22-4500

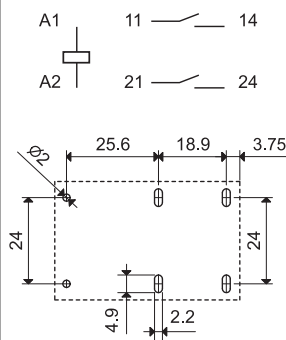


- 2 NO
- Contact gap ≥ 5.2 mm
- PCB mount

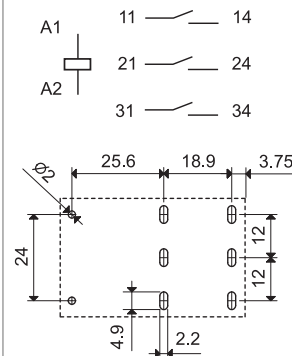
NEW 67.23-4500



- 3 NO
- Contact gap ≥ 5.2 mm
- PCB mount



Copper side view



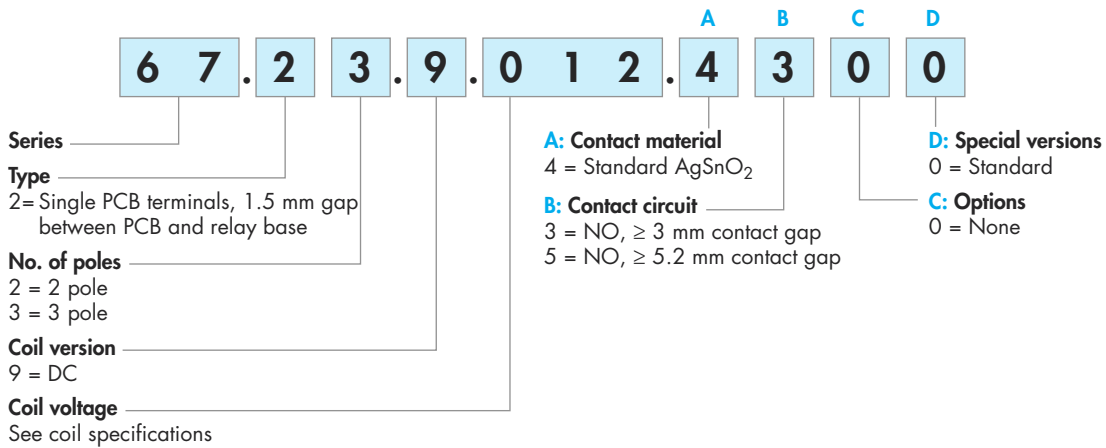
Copper side view

For outline drawing see page 5

Contact specification		67.22-4500	67.23-4500
Contact configuration		2 NO (DPST-NO)	3 NO (3PST-NO)
Contact gap		≥ 5.2 mm	≥ 5.2 mm
Rated current/Maximum peak current (for 5 ms) A		50/150	50/150
Rated voltage/Maximum switching voltage V AC		400/690	400/690
Rated load AC1/AC-7a VA		20,000	20,000
Minimum switching load mW (V/mA)		1,000 (10/10)	1,000 (10/10)
Standard contact material		AgSnO ₂	AgSnO ₂
Coil specification		67.22-4500	67.23-4500
Nominal voltage (U _N) V DC		5 - 6 - 8 - 12 - 24 - 48 - 60 - 110	
Rated power W		2.7	2.7
Operating range (-40...60°C) DC		(0.90 ... 1.1) U _N	(0.90 ... 1.1) U _N
Energy-saving mode (-40...+85)°C	Operating range for 1"	(0.95...2.5) U _N	(0.95...2.5) U _N
	Holding voltage range DC	(0.25...0.5) U _N	(0.25...0.5) U _N
	Minimum holding power W	0.17	0.17
Must drop-out voltage DC		0.05 U _N	0.05 U _N
Technical data		67.22-4500	67.23-4500
Mechanical life cycles		1 · 10 ⁶	1 · 10 ⁶
Electrical life at rated load AC-7a cycles		30 · 10 ³	30 · 10 ³
Operate/release time ms		30/4	30/4
Ambient temperature range (energy-saving mode) °C		-40...+60 (-40...+85)	-40...+60 (-40...+85)
Environmental protection		RTII	RTII
Approvals (according to type)			

Ordering information

Example: 67 series solar relay, single PCB terminals, 2 pole NO, ≥ 3 mm contact gap .



Technical data

Insulation according to EN 61810-1				
Nominal voltage of supply system	V AC	400/690 3-phase	400 1-phase	230/400
Rated insulation voltage	V AC	630	400	400
Pollution degree		3		3
Insulation between coil and contact set				
Type of Insulation		Reinforced		
Overvoltage category		III		III
Rated impulse voltage	kV (1.2/50 μ s)	6		4
Dielectric strength	V AC	4,000		
Insulation between adjacent contacts				
Type of Insulation		Basic		
Overvoltage category		III		III
Rated impulse voltage	kV (1.2/50) μ s	6		4
Dielectric strength	V AC	2,500		
Insulation between open contacts				
Type of disconnection		Micro-disconnection (with overvoltage category II: Full-disconnection)		Full-disconnection
Overvoltage category		III		III
Rated impulse voltage	kV (1.2/50) μ s	6		4
Dielectric strength	V AC	2,500 (67.xx-4300) / 3,000 (67.xx-4500)		

Coil specifications

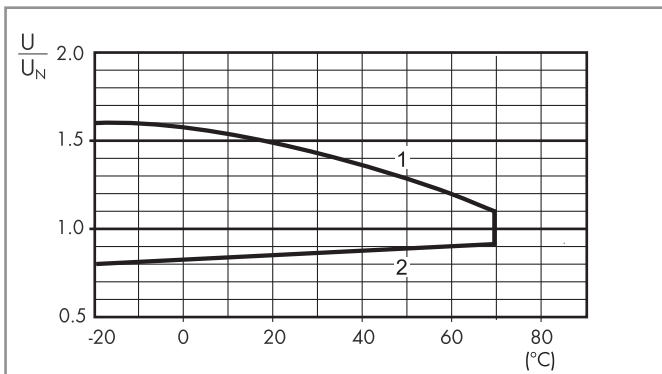
DC coil data, 67.xx-4300

Nominal voltage	Coil code	Operating range (@ 70 °C max)		Holding voltage	Resistance	Rated coil consumption I at U _N
		U _{min}	U _{max}			
U _N		V	V	V	R	I _N
V		V	V	V	Ω	mA
5	9.005	4.5	5.5	1.6	14.7	340
6	9.006	5.4	6.6	1.9	21.5	279
8	9.008	7.2	8.8	2.6	37.6	213
12	9.012	10.8	13.2	3.8	85	141
24	9.024	21.6	26.4	7.7	340	71
48	9.048	43.2	52.8	15.4	1,355	35
60	9.060	54	66	19.2	2,120	28
110	9.110	99	121	35.2	7,120	15

DC coil data, 67.xx-4500

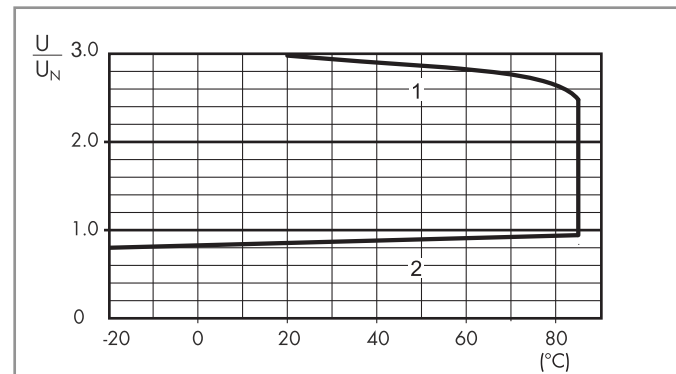
Nominal voltage	Coil code	Operating range (@ 60 °C max)		Holding voltage	Resistance	Rated coil consumption I at U _N
		U _{min}	U _{max}			
U _N		V	V	V	R	I _N
V		V	V	V	Ω	mA
5	9.005	4.5	5.5	1.25	9.3	538
6	9.006	5.4	6.6	1.5	13.5	444
8	9.008	7.2	8.8	2	23.7	338
12	9.012	10.8	13.2	3	53.5	224
24	9.024	21.6	26.4	6	213	113
48	9.048	43.2	52.8	12	855	56
60	9.060	54	66	15	1,335	45
110	9.110	99	121	27.5	4,500	24

R 67 - Operating range v ambient temperature, 67.xx-4300
with standard coil energization (-40...+70)°C



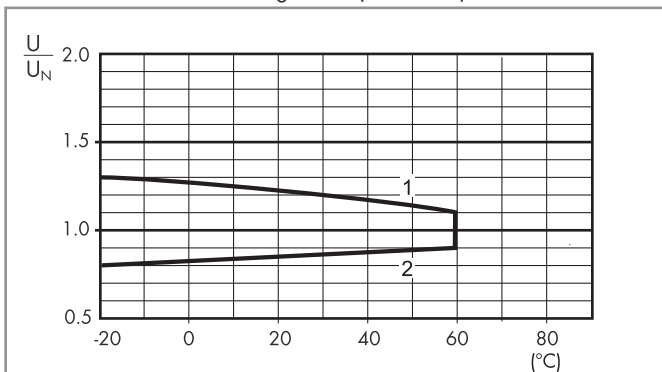
- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

R 67 - Operating range v ambient temperature, 67.xx-4300
with energy-saving energization (-40...+85)°C



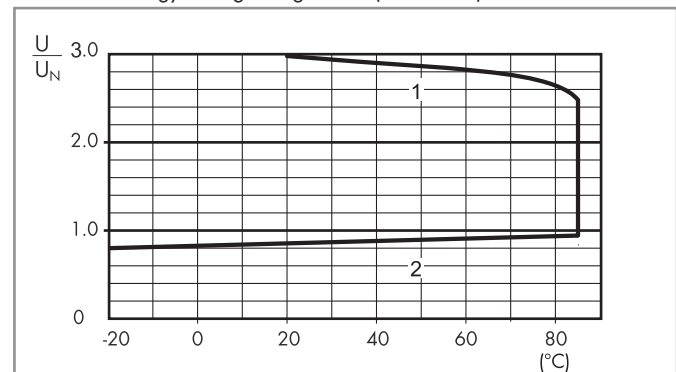
Operating range for < 1 s

R 67 - Operating range v ambient temperature, 67.xx-4500
with standard coil energization (-40...+60)°C



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

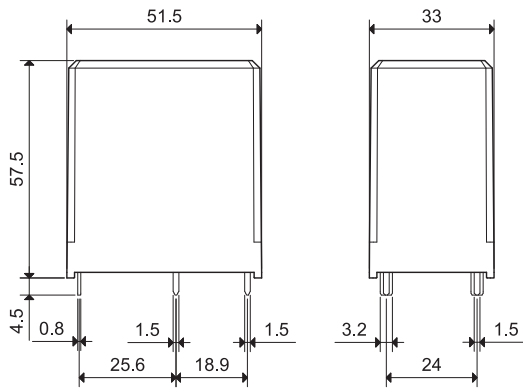
R 67 - Operating range v ambient temperature, 67.xx-4500
with energy-saving energization (-40...+85)°C



Operating range for < 1 s

Outline drawings

Type 67.22



Type 67.23

