

**Printed circuit mount - 3 mm contact gap**  
**50 A Power relay for photovoltaic inverters**

- 2 and 3 pole versions (NO, double break contacts)
- Contact gap  $\geq 3$  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)
- Meets the EN 60335-1 requirements of resistance to heat and fire (GWIT 775 °C and GWFI 850 °C)
- Cadmium free contact materials:
  - AgNi version (for applications where lower contact resistance is needed)
  - AgSnO<sub>2</sub> version (for applications where higher inrush current values are expected)

**NEW 67.22-x300**

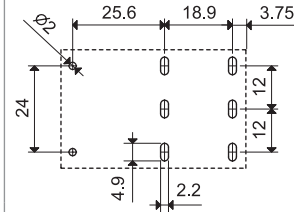
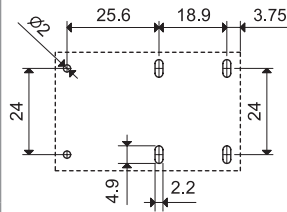
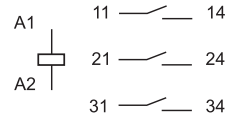
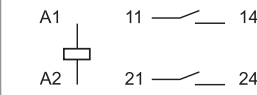


- 2 NO
- Contact gap  $\geq 3$  mm
- PCB mount

**NEW 67.23-x300**



- 3 NO
- Contact gap  $\geq 3$  mm
- PCB mount



Copper side view

Copper side view

For outline drawing see page 6

**Contact specification**

Contact configuration		2 NO (DPST-NO)	3 NO (3PST-NO)
Contact gap	mm	$\geq 3$	$\geq 3$
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/AC7a (per pole)	VA	20000	20000
Rated load AC15 (per pole @ 230 V AC)	VA	2300	2300
Single-phase motor rating (230 V AC)	kW	2.2	2.2
Three-phase motor rating (480 V AC)	kW	—	11
Breaking capacity DC1: 24/110/220 V	A	50/4/1	50/4/1
Minimum switching load	mW (V/mA)	1000 (10/10)	1000 (10/10)
Standard contact material		AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

**Coil specification**

Nominal voltage (U <sub>N</sub> )	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 <sub>N</sub>	(0.90 ... 1.1)U <sub>N</sub>
Energy-saving mode (-40...+85)°C			
Operating range for 1 s		(0.95...2.5)U <sub>N</sub>	(0.95...2.5)U <sub>N</sub>
Holding voltage range	DC	(0.32...0.65)U <sub>N</sub>	(0.32...0.65)U <sub>N</sub>
Minimum holding power	W	0.17	0.17
Must drop-out voltage	DC	0.05 U <sub>N</sub>	0.05 U <sub>N</sub>

**Technical data**

Mechanical life	cycles	1 · 10 <sup>6</sup>	1 · 10 <sup>6</sup>
Electrical life at rated load AC7a	cycles	30 · 10 <sup>3</sup>	30 · 10 <sup>3</sup>
Operate/release time	ms	25/5	25/5
Ambient temperature range (energy-saving mode)	°C	-40...+70 (-40...+85)	-40...+70 (-40...+85)
Environmental protection		RT II	RT II

**Approvals** (according to type)



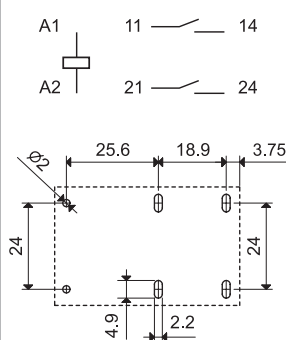
**Printed circuit mount - 5.2 mm contact gap  
50 A Power relay for photovoltaic inverters**

- 2 and 3 pole versions (NO double break contacts)
- Contact gap  $\geq 5.2$  mm (according to VDE 0126-1-1, EN 62109-1, EN 62109-2)
- Suitable for inverters with DC input up to 1500 V and AC output up to 690 V, installations up to 4000 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)
- Meets the EN 60335-1 requirements of resistance to heat and fire (GWIT 775 °C and GWFI 850 °C)
- Cadmium free contact materials:
  - AgNi version (for applications where lower contact resistance is needed)
  - AgSnO<sub>2</sub> version (for applications where higher inrush current values are expected)

A

**NEW 67.22-x500**

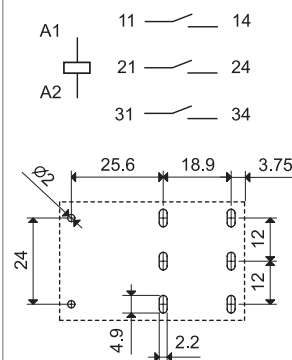

- 2 NO
- Contact gap  $\geq 5.2$  mm
- PCB mount



Copper side view

**NEW 67.23-x500**


- 3 NO
- Contact gap  $\geq 5.2$  mm
- PCB mount



Copper side view

For outline drawing see page 6

**Contact specification**

Contact configuration		2 NO (DPST-NO)	3 NO (3PST-NO)
Contact gap	mm	$\geq 5.2$	$\geq 5.2$
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/AC7a (per pole)	VA	20000	20000
Rated load AC15 (per pole @ 230 V AC)	VA	2300	2300
Single-phase motor rating (230 V AC)	kW	2.2	2.2
Three-phase motor rating (480 V AC)	kW	—	11
Breaking capacity DC1: 24/110/220	A	50/7/2	50/7/2
Minimum switching load	mW (V/mA)	1000 (10/10)	1000 (10/10)
Standard contact material		AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

**Coil specification**

Nominal voltage (U <sub>N</sub> )	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 <sub>N</sub>	(0.90 ... 1.1)U <sub>N</sub>
Energy-saving mode (-40...+85)°C			
Operating range for 1 s		(0.95...2.5)U <sub>N</sub>	(0.95...2.5)U <sub>N</sub>
Holding voltage range	DC	(0.25...0.5)U <sub>N</sub>	(0.25...0.5)U <sub>N</sub>
Minimum holding power	W	0.17	0.17
Must drop-out voltage	DC	0.05 U <sub>N</sub>	0.05 U <sub>N</sub>

**Technical data**

Mechanical life	cycles	1 · 10 <sup>6</sup>	1 · 10 <sup>6</sup>
Electrical life at rated load AC7a	cycles	30 · 10 <sup>3</sup>	30 · 10 <sup>3</sup>
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		RT II	RT II

**Approvals** (according to type)
