

## Special Load PCB Relay 409 57, 409 77

1 pole 16 A, for high inrush currents,  
mono- or bistable



F0249-A

### Features

- Specifically designed to handle high inrush currents
- 1 N/O contact
- DC- or bistable version
- 4 kV / 8 mm coil-contact

### Applications

Lighting controls, filament loads, motors and electrovalves



(409 57 only)

Technical data of approved types on request

### Contact data

Configuration	1 N/O contact
Type of contact	single contact
Rated current	16 A
Rated voltage / max.breaking voltage AC	250 Vac / 440 Vac
Rated voltage / max.breaking voltage DC	250 Vdc / 250 Vdc
Maximum breaking capacity AC	4000 VA
Make current (max. 4 s at duty cycle 10%)	25 A
Peak inrush current	120 A
Contact material	AgSnO <sub>2</sub>

### Contact ratings

Type	Load	Operations	Standard
409 57 / 77	16 A, 250 Vac, $\cos\phi=1$	$1.5 \times 10^5$	Standard
409 57 / 77	1200 W, fluorescent lamps, 100 $\mu$ F	$3 \times 10^4$	
409 57 / 77	2500 W, Filament lamps	$3 \times 10^4$	
409 57 / 77	800 W, Dulux lamps, 100 $\mu$ F	$2 \times 10^4$	
409 57 / 77	capacitive load 10 A, 140 $\mu$ F	$3 \times 10^4$	EN 61058-1

### Coil data

	monostable DC coil	bistable, 1 coil
Nominal voltage	5...110 Vdc	
Nominal coil power	530 mW	
Operate category	2 / b	

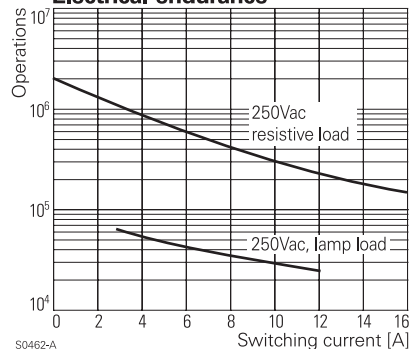
### Coil versions monostable

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance $\Omega$	Coil current mA
002	12	8.6	0.9	16.0	$285 \pm 10\%$	42.1
001	24	17.3	1.8	31.0	$1040 \pm 10\%$	22.0
007	48	34.5	3.6	62.0	$4580 \pm 10\%$	10.5
003	60	43.2	4.5	78.0	$6300 \pm 10\%$	9.5
005	110	79.3	7.5	142.0	$20000 \pm 10\%$	5.5

All figures are given for coil without preenergization, at ambient temperature +20°C

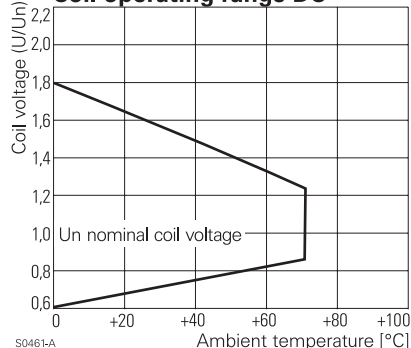
Other coil voltages on request

### Electrical endurance



S0462-A

### Coil operating range DC



S0461-A

# Special Load PCB Relay 409 57, 409 77

**1 pole 16 A, for high inrush currents,  
mono- or bistable**

<b>Coil data</b> bistable	1 coil
Nominal voltage	4...100 Vdc
Nominal coil power	0.8...1 W
Minimum energization time	20 ms

### Coil versions bistable, 1 coil

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Reset voltage min Vdc	Reset voltage max Vdc	Coil resistance $\Omega$	Coil current mA
002	4	2.8	0.22	0.8	11.6 $\pm$ 10%	345.0
001	12	8.9	0.7	2.5	118 $\pm$ 10%	102.0

All figures are given for coil without preenergization, at ambient temperature +20°C  
Other coil voltages on request

### Insulation

Dielectric strength	coil-contacts	4000 V <sub>rms</sub>
	open contact circuit	2000 V <sub>rms</sub>
Clearance / creepage		8 mm
Insulation to VDE 0110b (2/79)		
	Insulation category / reference voltage	C / 250
Tracking resistance of relay base		PTI 250

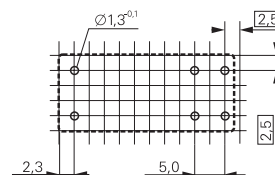
### Other data

Flammability class according to UL 94	V-0
Ambient temperature	DC-coil -20...+70 °C
Mechanical life	DC-coil 30x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	15 min <sup>-1</sup> / 1200 min <sup>-1</sup>
Operate- / release time	typ. 10 / 3 ms
Bounce time	typ. 3 ms
Vibration resistance	20 g (30...300 Hz)
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II - flux proof
Relay weight	15 g
Packaging unit	25 / 250 pcs.

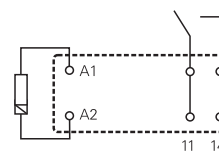
### PCB layout / terminal assignment

View on solder pins  
Dimensions in mm

1 N/O 5 mm



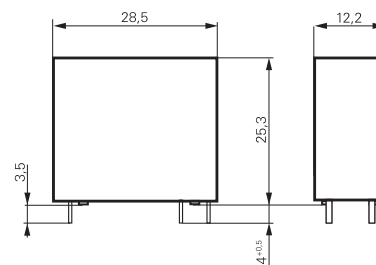
S0468-AF



S0468-au

### Dimensions

Dimensions in mm



S0273-AI

### Product key

Type

Coil Version

**57** Monostable version  
**77** Bistable version

Coil

Coil code: Please refer to coil versions table, preferred types in bold print

Contact configuration

**000** 1 N/O contact

Other types on request

