

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

RL US (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 ₂

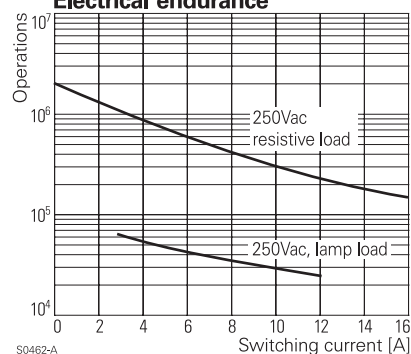
Contact ratings

Type	Load	Operations	Standard
409 57 / 77	16 A, 250 Vac, cosφ=1	1.5x10 ⁵	Standard
409 57 / 77	1200 W, fluorescent lamps, 100 µF	3x10 ⁴	
409 57 / 77	2500 W, Filament lamps	3x10 ⁴	
409 57 / 77	800 W, Dulux lamps, 100 µF	2x10 ⁴	
409 57 / 77	capacitive load 10 A, 140 µF	3x10 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	

Electrical endurance



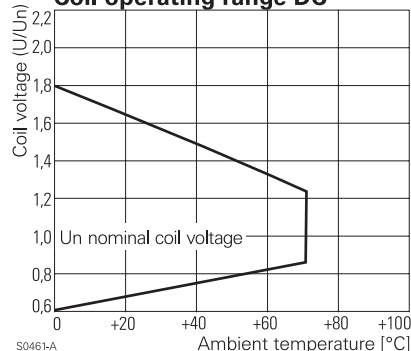
Coil versions monostable

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

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

Other coil voltages on request

Coil operating range DC



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Coil data 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 Ω	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 _{rms}
	open contact circuit	2000 V _{rms}
Clearance / creepage		8 mm
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250
Tracking resistance of relay base		PTI 250

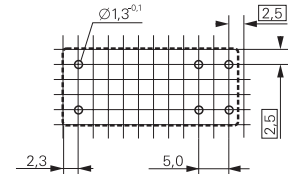
Other data

Flammability class according to UL 94	V-0
Ambient temperature	DC-coil -20...+70 °C
Mechanical life	DC-coil 30x10 ⁶ operations
Max. switching rate at rated- / minimum load	15 min ⁻¹ / 1200 min ⁻¹
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.

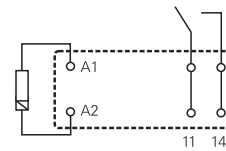
PCB layout / terminal assignment

View on solder pins
Dimensions in mm

1 N/O 5 mm



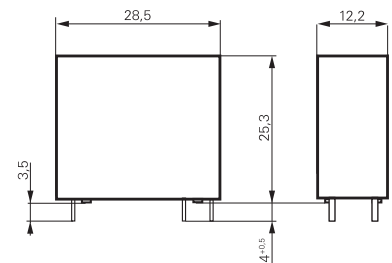
S0468-AF



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

0 4 0 9

0 0 0