

## Special Load PCB Relay 409 47, 409 67

1 pole 10 A, for high inrush currents,  
mono- or bistable



F0249-A

### Features

- Specifically designed to handle high inrush currents
- Tungsten prerun contact
- 500 A / 10  $\mu$ s inrush peak current
- 4 kV / 8 mm coil-contact
- meets protection class II requirements

### Applications

Dimmer switches, movement sensors, filament loads, halogen bulbs, motors and electrovalves

 (409 47 only)

Technical data of approved types on request

### Contact data

Configuration	1 N/O contact
Type of contact	single contact
Rated current	10 A
Rated voltage / max.breaking voltage AC	250 Vac / 400 Vac
Maximum breaking capacity AC	2500 VA
Make current (max. 4 s at duty cycle 10%)	16 A
peak inrush current 10 $\mu$ s / 20 ms	500 / 120 A
Contact material	W (prerun contact) + AgCdO

### Contact ratings

Type	Load	Operations	Standard
409	10 A, 250 Vac, resistive	2.5x10 <sup>5</sup>	
409	1300 W, fluorescent lamps, 140 $\mu$ F	3x10 <sup>4</sup>	
409	2500 W, incandescent lamps	3x10 <sup>4</sup>	
409	1000 W, Dulux lamps, 140 $\mu$ F	3x10 <sup>4</sup>	

### Coil data

monostable DC coil

Nominal voltage	5...110 Vdc
Nominal coil power	820 mW
Operate category	2 / b

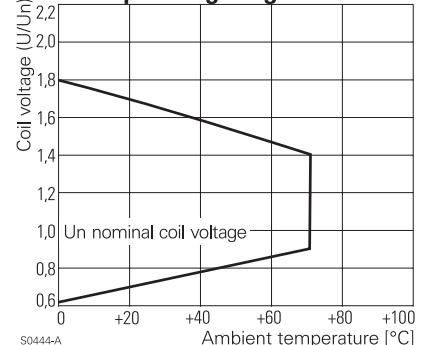
### Coil versions monostable

Coil code	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Maximum voltage Vdc	Coil resistance $\Omega$	Coil current mA
<b>031</b>	<b>12</b>	<b>7.5</b>	<b>0.9</b>	<b>14.2</b>	<b>170<math>\pm</math>10%</b>	<b>71.0</b>
<b>027</b>	<b>24</b>	<b>18.0</b>	<b>1.8</b>	<b>34.6</b>	<b>880<math>\pm</math>15%</b>	<b>27.0</b>
024	48	34.5	3.6	60.6	2700 $\pm$ 15%	18.0
023	60	41.0	4.5	77.8	4400 $\pm$ 15%	14.0

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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<b>Coil data</b> bistable	1 coil
Nominal voltage	6...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
032	12	8.9	0.7	2.5	118 $\pm$ 10%	102.0
029	24	18.0	1.3	5.0	457 $\pm$ 10%	53.0

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

Other coil voltages on request

### Insulation

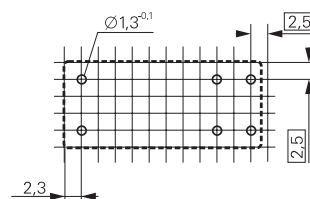
Dielectric strength	coil-contacts	4000 V <sub>rms</sub>
	open contact circuit	1000 V <sub>rms</sub>
Clearance / creepage		8 / 8 mm
Insulation to VDE 0110b (2/79)		
Insulation category / reference voltage		C / 250
Tracking resistance of relay base		PTI 250

### Other data

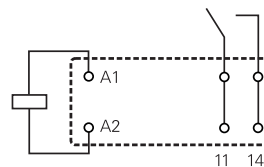
Flammability class according to UL 94	V-0
Ambient temperature	-20...+70 °C
Mechanical life	30x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load	15 min <sup>-1</sup> / 1200 min <sup>-1</sup>
Operate- / release time	typ. 10 / 3 ms
Bounce time	typ. 3 ms
Vibration resistance	20 g (30...300 Hz)
Shock resistance (destruction)	100 g
Category of protection (IEC 61810)	RT II - flux proof
Relay weight	16 g
Packaging unit	25 / 250 pcs.

### PCB layout / terminal assignment

View on solder pins  
Dimensions in mm



S0163-CX



S0163-BF

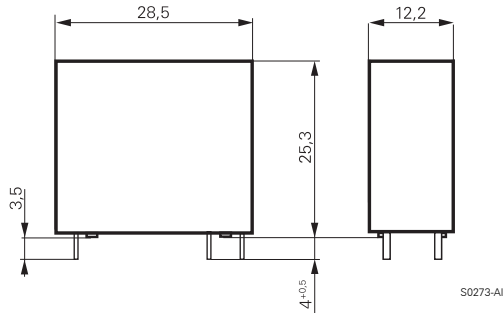
Bistable versions:  
Indicated contact position during or after coil energization with reset voltage.

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### Dimensions

Dimensions in mm



### Product key

**0 4 0 9**    **7**       **0 0 1**

Type

Coil version

- 47** Monostable version
- 67** Bistable version

Coil

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

Contact configuration

- 001** 1 N/O contact

Other types on request

Product key	Version	Contacts	Coil	Coil	Part number
0409 47 031 001	10A	1 N/O	DC-coil	12Vdc	1-1415403-6
0409 47 028 001	flux proof	W prerun		24Vdc	1-1415403-4
0409 67 032 001		AgCdO	bistable	12Vdc	0-1415405-0
0409 67 029 001			1 coil	24Vdc	0-1415405-1

0409 67 002 000 is identical with 0409 67 032 001  
 0409 67 003 000 is identical with 0409 67 029 001