0409 series

High Inrush (500A/10µs) Printed Circuit Board Relay

File E214025

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Features

- 1 Form A (SPST-NO).
- Tungsten prerun contact and silver-cadmium oxide contact.
- 10 amp rated current, 500A/10µs inrush current.
- 4kV/8mm contact-to-coil, insulation to VDE 0631 and 0700.
- Non-latching and latching types.
- Well suited for lighting systems, motors, lamp loads.

Contact Data

Arrangements: 1 Form A (SPST-NO), single contact.
Material: Tungsten prerun contact and silver-cadmium oxide contact.
Expected Mechanical Life: 30 million operations.
Ratings:
Current: 10A.
Current (making, max. 4s at 10% duty cycle): 16A.
Current (peak inrush 10µs): 500A.
Voltage: 250VAC.
Voltage (breaking): 400VAC.
Load/Life
10 amp resistive, 250VAC; 250,000 ops.
2,500W, incandescent lamps; 30,000 ops.
1,300W, fluorescent lamps (140µF); 30,000 ops.
1,000W, Dulux lamps (140µF); 30,000 ops.

Initial Dielectric Strength

Between Open Contacts: 1,000Vrms.
Between Coil and Contacts: 4,000Vrms.
Creepage/Clearance: 8/8mm.

Non-Latching Coil Data DC @ 20°C

Nominal Coil Power: Non-latching: 820mW.

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Must Operate Voltage VDC	Drop-out Voltage VDC	Maximum Voltage VDC	Nominal Coil Current (mA)
6	80	4.2	0.4	12.0	75.0
12	300	8.4	0.9	24.0	40.0
24	1,200	16.8	1.8	48.0	20.0
48	4,825	33.6	3.6	96.0	10.0
60	7,500	42.0	4.5	120.0	8.0

Latching Coil Data DC @ 20°C

Nominal Coil Power: Latching: 0.8 - 1W.
Minimum Energization Time: 20 ms.

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Must Operate Voltage VDC	Min. Reset Voltage VDC	Max. Reset Voltage VDC	Nominal Coil Current (mA)
12	118	8.9	0.7	2.5	40.0
24	457	18.0	1.3	5.0	20.0

Operate Data

Must Operate Voltage: See Coil Data table.
Operate Time /Release Time (typical): 10 ms / 3ms.
Bounce Time (typical): 3 ms.
Switching Rate: 9,000 ops./hr. max. at rated load.

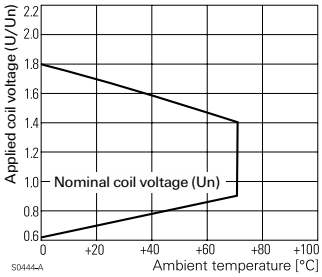
Environmental Data

Temperature Range: Operating: -20°C to +70°C.
Vibration (30-300 Hz.): 20g.
Shock (destructive): 100g.

Mechanical Data

Termination: Printed circuit terminals.
Enclosure (94 V-0 rated): Flux-tight (RTII) plastic case.
Weight: 0.35 oz. (10 g) approximately.

Coil Operating Range



Ordering Information

	Typical Part Number ▶	0409	47	031	001

1. Basic Series:
0409 = Miniature printed circuit board relay for high inrush currents.

2. Type:
47 = Non-latching 67 = Latching

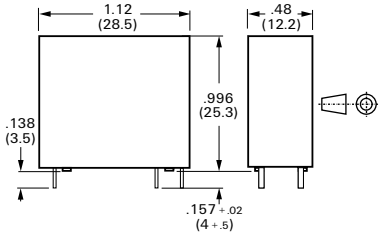
3. Coil Voltage:
Non latching Coil: 031 = 12VDC 027 = 24VDC 024 = 48VDC 023 = 60VDC
Latching Coil: 032 = 12VDC 029 = 24VDC

4. Contact Configuration:
001 = 1 Form A (SPST-NO)

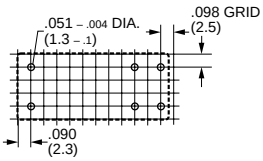
Our authorized distributors are more likely to stock the following items for immediate delivery.

None at present.

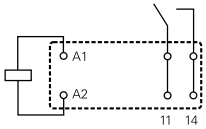
Outline Dimensions



PC Board Layout (Bottom View)



Wiring Diagram (Bottom View)



Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.