

AZ9405

10 AMP MINIATURE POWER RELAY

FEATURES

- 10 Amp switching capability
- SPST-N.O. and SPDT configurations
- 4 kV dielectric strength
- Epoxy sealed version available
- Class F insulation system standard
- UL, CUR file E44211
- TUV R50290833



CONTACTS

Arrangement	SPST N.O. (1 Form A) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 150 W or 1400 VA N.O. 90 W or 850 VA N.C. Max. switched current: 10 A N.O., 3 A N.C.. Max. switched voltage: 30 VDC or 277 VAC
UL, CUR (N.O.)	10 A at 125 VAC, Res., 100k cycles, 85°C 5 A at 277 VAC, Res., 100k cycles, 85°C 5 A at 30 VDC, Res., 100k cycles, 85°C 1/10 HP at 125 VAC, 100k cycles, 85°C 1/10 HP at 250 VAC, 100k cycles, 85°C
(N.C.)	3 A at 277 VAC Res., 100k cycles, 85°C 3 A at 30 VDC Res., 100k cycles, 85°C
TUV	5A NO / 3A NC @ 277VAC; cos phi=1, 100k cycles, 85°C 5A NO / 3A NC @ 30VDC; L/R=0ms, 100k cycles, 85°C 5A NO @ 277VAC; cos phi=1, 100k cycles, 85°C 10A NO @ 125VAC; cos phi=1, 100k cycles, 85°C
Material	Silver tin oxide
Resistance	< 0.1 Ohm (24 V, 1 A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	196 mW (Standard Coil) 113 mW (Sensitive Coil)
Max. Continuous Dissipation	676 mW at 20°C (68°F)
Temperature Rise	42°C (76°F) (Standard Coil) 24°C (44°F) (Sensitive Coil)
Temperature	Max. 155°C (311°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 5 x 10 ⁶ 1 x 10 ⁵ at 10 A 120 VAC Res.
Operate Time (max.)	10 ms at nominal coil voltage, standard 15 ms at nominal coil voltage, sensitive
Release Time (max.)	5 ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1000 Vrms contact to contact 4000 Vrms contact to coil
Insulation Resistance	1 x 10 ⁹ ohms minimum at 500 VDC
Dropout	Greater than 10% of nominal coil voltage
Ambient Temperature Operating	At nominal coil voltage -40°C (-40°F) to 85°C (185°F)
Storage	-40°C (-40°F) to 105°C (221°F)
Vibration	0.062" DA at 10–55 Hz
Shock Operating Mechanical	10 g for 11 ms 1/2 sine pulse (no contact opening >100 usec) 100 g for 11 ms 1/2 sine pulse
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, P.C.
Max. Solder Temp.	270°C (518°F)
Max. Solder Time	5 seconds
Max. Solvent Temp.	80°C (176°F)
Max. Immersion Time	30 seconds
Weight	7 grams

NOTES

1. All values at 20°C (68°F).
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

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RELAY ORDERING DATA

COIL SPECIFICATIONS – Standard Coil (SPDT and SPST)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	SPST-NO	SPDT
3	2.1	3.9	22.5	AZ9405-1A-3DF	AZ9405-1C-3DF
5	3.5	6.5	62.5	AZ9405-1A-5DF	AZ9405-1C-5DF
6	4.2	7.8	90	AZ9405-1A-6DF	AZ9405-1C-6DF
9	6.3	11.7	202.5	AZ9405-1A-9DF	AZ9405-1C-9DF
12	8.4	15.6	360	AZ9405-1A-12DF	AZ9405-1C-12DF
18	12.6	23.4	810	AZ9405-1A-18DF	AZ9405-1C-18DF
24	16.8	31.2	1440	AZ9405-1A-24DF	AZ9405-1C-24DF
48	33.6	62.4	5760	AZ9405-1A-48DF	AZ9405-1C-48DF

*Add suffix "E" for sealed version.

COIL SPECIFICATIONS – Sensitive Coil (SPST)				ORDER NUMBER*	
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Coil Resistance $\pm 10\%$	Unsealed	Sealed
3	2.3	3.9	45	AZ9405-1A-3DSF	AZ9405-1A-3DSEF
5	3.8	6.5	125	AZ9405-1A-5DSF	AZ9405-1A-5DSEF
6	4.5	7.8	180	AZ9405-1A-6DSF	AZ9405-1A-6DSEF
9	6.8	11.7	400	AZ9405-1A-9DSF	AZ9405-1A-9DSEF
12	9.0	15.6	720	AZ9405-1A-12DSF	AZ9405-1A-12DSEF
18	13.5	23.4	1620	AZ9405-1A-18DSF	AZ9405-1A-18DSEF
24	18.0	31.2	2800	AZ9405-1A-24DSF	AZ9405-1A-24DSEF

MECHANICAL DATA

PC BOARD LAYOUT

WIRING DIAGRAM

VIEWED TOWARD TERMINALS

Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010$ "

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