

AZ2850

40 AMP MINIATURE POWER RELAY

FEATURES

- DPST-NO and DPDT configuration
- Meets 8mm creepage, 4kV dielectric
- Epoxy sealead version available
- UL Class F (155°C) standard
- UL, CUR file E44211
- VDE certificate 40023442



CONTACTS

Arrangement	DPST (2 Form A) DPDT (2 Form C)
Ratings	Resistive load: Max. switched power: 560W or 8310VA Max. switched current: 30A (N.O.), 3A (N.C.) Max. switched voltage: 30VDC* or 600VAC * Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.
Rated Load UL	Normally open contacts (N.O.) 40A at 277VAC, Resistive, 6k cycles [1][2] 30A at 277VAC, General Use, 100k cycles [1][2] 10A at 600VAC, General Use, 6k cycles [1] 1HP at 120VAC, 100k cycles [1][2] 2.5HP at 240VAC, 100k cycles [1][2] 8FLA / 26LRA at 277/480/600VAC, 30k cycles[1] Normally open contacts (N.O.), DC coils only 25.3FLA / 110LRA at 240VAC, 30kcycles [1][2] Normally closed contacts (N.C.) 3A at 277VAC, General Use, 100k cycles [1][2] 2A at 480VAC, General Use, 6k cycles [1] 1A at 600VAC, General Use, 6k cycles [1] 3FLA / 3LRA at 240VAC, 30k cycles [1] 2FLA / 2LRA at 277/480VAC, 30k cycles [1] 1FLA / 1LRA at 600VAC, 30k cycles [1]
VDE	Normally open contacts (N.O.) 30A at 250VAC, Resistive, 50k cycles [2] Normally closed contacts (N.C.) 3A at 250VAC, Resistive, 50k cycles
Material	Silver cadmium [1], silver tin oxide [2],
Resistance	< 50 milliohms initially (6V, 1A, voltage drop method)

COIL

Power At Pickup Voltage (typical)	925mW, DC coil 2.6VA, AC coil
Max. Continuous Dissipation	5W at 20°C (68°F) ambient, DC coil 7VA at 20°C (68°F) ambient, AC coil
Temperature Rise	48°C (86°F) at nominal coil voltage, DC coil 68°C (122°F) at nominal coil voltage, AC coil
Temperature	Max. 155°C (311°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 5 x 10 ⁷ 1 x 10 ⁵ at 30A, 277VAC Res. (N.O.)
Operate Time	15ms typical 25ms maximum with bounce
Release Time	10ms typical 25ms maximum with bounce (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1500Vrms contact to contact 4000Vrms contact to coil 2000Vrms between contact sets
Insulation Resistance	10 ⁹ ohms minimum at 500 VDC
Dropout	DC: Greater than 10% of nominal coil voltage AC: Greater than 20% of nominal coil voltage
Ambient Temperature Operating Storage	At nominal coil voltage DC: -40°C (-40°F) to 85°C (185°F) AC: -40°C (-40°F) to 65°C (149°F) -40°C (-40°F) to 105°C (221°F)
Vibration	0.062" (1.5mm) DA at 10–55Hz
Shock	Operational, 10g for 11ms 1/2 sine pulse (no contact opening > 100usec) Non-destructive, 100g for 11ms 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	86 grams
Packing unit in pcs	20 per plastic tray / 100 per carton box

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.

AMERICAN ZETTLER, INC. www.azettler.com

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5/05/16

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RELAY ORDERING DATA

COIL SPECIFICATIONS – DC Coil					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA $\pm 10\%$	Coil Resistance Ohm $\pm 10\%$	
6	4.5	10.5	272.0	22	AZ2850-2C-6D
12	9.0	20.7	140.0	86	AZ2850-2C-12D
24	18.0	41.8	68.5	350	AZ2850-2C-24D
48	36.0	83.4	34.5	1,390	AZ2850-2C-48D
110	82.5	190.5	15.2	7,255	AZ2850-2C-110D

COIL SPECIFICATIONS – AC Coil						ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Current mA $\pm 10\%$	50Hz Coil Resistance Ohm $\pm 10\%$	60Hz Coil Resistance Ohm $\pm 10\%$	
12	9.6	15.6	340.0	9.5	8	AZ2850-2C-12A
24	19.2	31.2	166.0	45	35.7	AZ2850-2C-24A
120	96.0	156.0	33.3	1125	830	AZ2850-2C-120A
220	176.0	286.0	18.2	3800	2870	AZ2850-2C-220A
240	192.0	312.0	16.7	4500	3800	AZ2850-2C-240A
277	221.6	360.1	14.4	5960	4700	AZ2850-2C-277A

* Substitute "2A" in place of "2C" to indicate 2 Form A contacts.
 "2A" or "2C" denote silver cadmium contacts.
 Add suffix "E" to "2A" or "2C" for silver tin oxide contacts.
 Add suffix "5" for 50Hz coil, AC coils only (Example: AZ2850-2C-24A5).
 Add suffix "6" for 50/60Hz coil, AC coils only (Example: AZ2850-2C-24A6).
 Add suffix "E" at the end of order number for sealed version.

MECHANICAL DATA

WIRING DIAGRAMS

2 Form C

2 Form A

Viewed toward terminals

PC BOARD LAYOUT

Viewed toward terminals

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

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