

AZ2280

40 AMP MINIATURE POWER RELAY

FEATURES

- Quick-connect leads for contacts and coil
- 1 Form A, B and C contacts available
- AC and DC coils available
- Epoxy sealed IP67 approved versions available
- UL Class F (155°C) standard
- UL, CUR file E44211
- VDE 40049064 (DC coil only)



CONTACTS

Arrangement	SPST (1 Form A, or B) SPDT (1 Form C)
Ratings	Resistive load: Max. switched power: 840W or 11,080VA Max. switched current: 40A (Form A), 15A (Form B), 20A (Form C) Max. switched voltage: 277VAC, 28VDC
UL, CUR	1 Form A 40A at 277VAC, General Use [1][2] 28A at 277VAC, General Use, 100k cycles [1] 2Hp at 250VAC [1][2] 1HP at 125VAC [1][2] 30A at 28VDC [1] 20/60 (FLA/LRA) at 277VAC 30k cycles [1] 1 Form B 15A at 277VAC, General Use [1] 10A at 28VDC [1] 0.5HP at 250VAC [1] 0.25HP at 125VAC [1] 10/33 (FLA/LRA) at 277VAC 30k cycles [1] 1 Form C 30/20A (N.O./N.C.) at 277VAC, General Use [1][2] 20/10A (N.O./N.C.) at 28VDC[1] 2/0.5HP (N.O./N.C.) at 250VAC[1][2] 1/0.25HP (N.O./N.C.) at 125VAC[1][2] 20/60 (FLA/LRA) at 277VAC 30k cycles N.O. [1] 10/33 (FLA/LRA) at 277VAC 30k cycles N.C. [1]
VDE	Contact factory for ratings
Material	Silver cadmium oxide [1], silver tin oxide [2]
Resistance	< 50 milliohms initially (24V, 1A voltage drop method)

COIL

Power	
At Pickup Voltage (typical)	DC: 500mW AC: 1.4VA
Max. Continuous Dissipation	DC: 1.7W at 20°C (68°F) AC: 2.7VA at 20°C (68°F)
Temperature Rise	38°C (68°F)
Temperature	Max. 155°C (311°F)

GENERAL DATA

Life Expectancy Mechanical Electrical	Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 28A, 277VAC Res. [N.O.]
Operate Time (max.)	15ms at nominal coil voltage
Release Time (max.)	10ms at nominal coil voltage (with no coil suppression)
Dielectric Strength (at sea level for 1 min.)	1500 Vrms contact to contact 2500 Vrms contact to coil
Insulation Resistance	1000 megohms min. at 500 VDC, 20°C 50% RH
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 -55°C (-67°F) to 85°C (185°F), [DC] -55°C (-67°F) to 60°C (140°F), [AC] -55°C (-67°F) to 155°C (311°F)
Vibration	0.062" DA at 10–55 Hz
Shock	10 g
Enclosure	P.B.T. polyester
Terminals	Tinned copper alloy, Quick Connects Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.
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 (approx.)	36 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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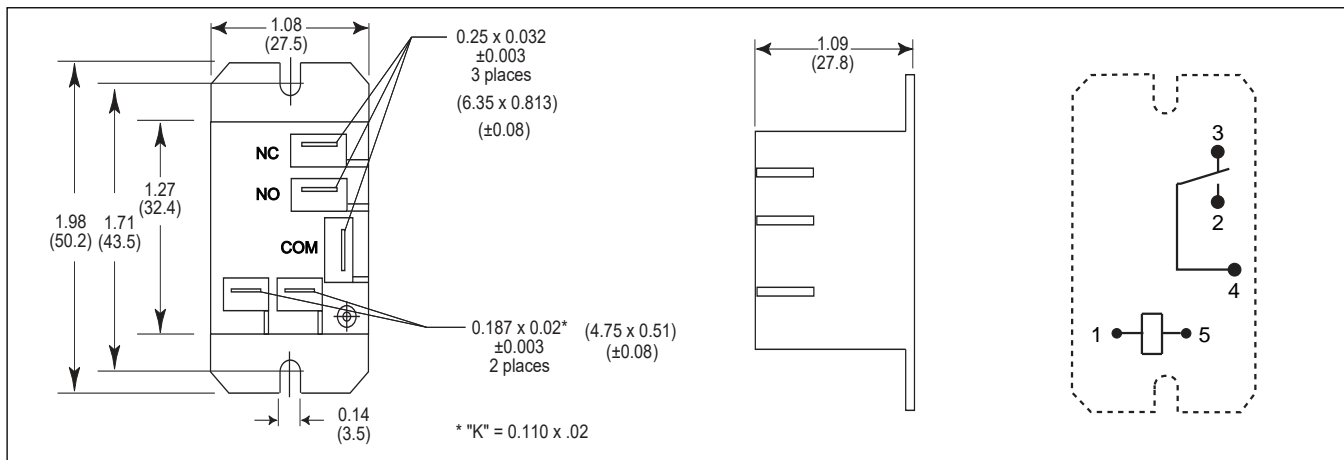
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RELAY ORDERING DATA

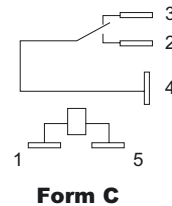
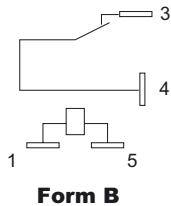
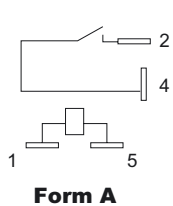
COIL SPECIFICATIONS – DC Coil					ORDER NUMBER*
Nominal Coil VDC	Must Operate VDC	Max. Continuous VDC	Nominal Current mA ± 10%	Coil Resistance ± 10%	
5	3.75	6.4	185	27	AZ2280-1A-5DF
6	4.50	7.8	150	40	AZ2280-1A-6DF
9	6.75	12.2	93	97	AZ2280-1A-9DF
12	9.00	15.4	77	155	AZ2280-1A-12DF
15	11.25	19.8	59	256	AZ2280-1A-15DF
18	13.5	24.1	47	380	AZ2280-1A-18DF
24	18.00	32.0	36	660	AZ2280-1A-24DF
48	36.00	62.6	19	2560	AZ2280-1A-48DF
110	82.5	146.6	8.2	13450	AZ2280-1A-110DF
COIL SPECIFICATIONS – AC Coil 50/60 Hz					ORDER NUMBER*
Nominal Coil VAC	Must Operate VAC	Max. Continuous VAC	Nominal Coil Power VA	Coil Resistance ± 10%	
12	10.2	13.8	2.3	25	AZ2280-1A-12AF
24	20.4	27.6	2.1	100	AZ2280-1A-24AF
120	102.0	138.0	2.3	2,500	AZ2280-1A-120AF
208	176.8	239.0	2.2	11,000	AZ2280-1A-208AF
220/240	187.0	276.0	2.2/2.6	13,490	AZ2280-1A-240AF
277	235.4	318.5	2.2	15,000	AZ2280-1A-277AF

*Substitute "-1B" or "-1C" in place of "-1A" for 1 Form B or 1 Form C respectively. For silver tin oxide contacts substitute "-1AE" or "-1CE" in place of "-1A" or "-1C." Add "T" to "-1A", "-1AE", "-1B", "-1C" or "-1CE" for extended life contacts. Substitute "DEF" or "AEF" in place of "DF" or "AF" for epoxy sealed version IP67 approved. For 0.110 coil terminals change "F" to "KF."

MECHANICAL DATA



WIRING DIAGRAM (Top View)



Dimensions in inches with metric equivalents in parentheses. Tolerance: ± .010"

AMERICAN ZETTLER, INC.

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PHONE: (949) 831-5000

www.azettler.com

E-MAIL: SALES@AZETTLER.COM

This specification provides an overview of the most significant part features. Any individual applications and operating conditions are not taken into consideration. It is recommended to test the product under application conditions. Responsibility for the application remains with the customer. Proper operation and service life cannot be guaranteed if the part is operated outside the specified limits.