

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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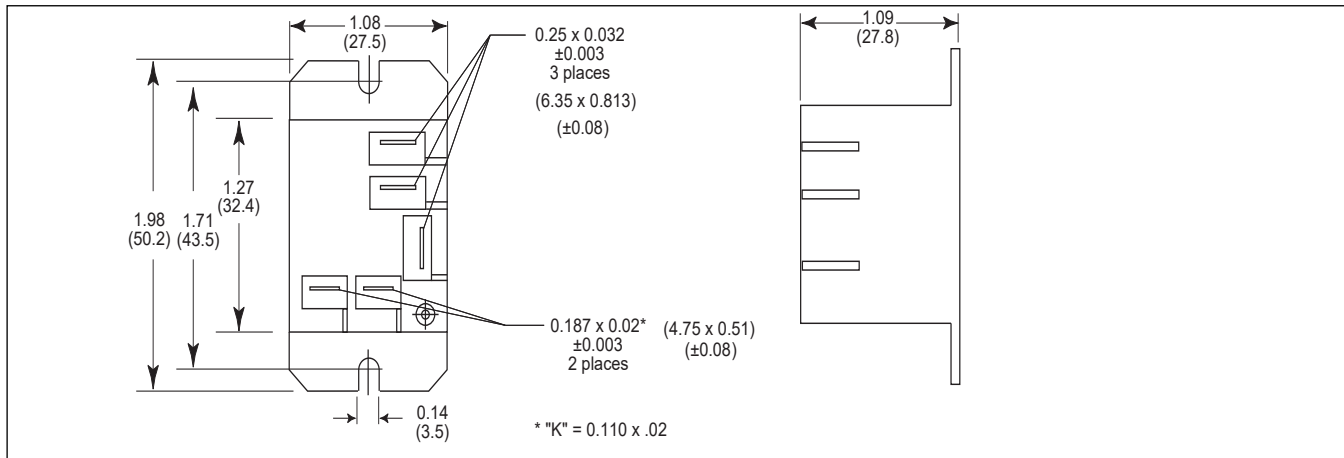
AZ2280

RELAY ORDERING DATA

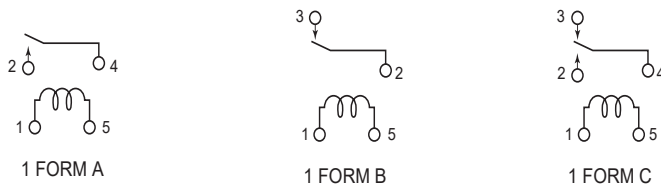
| COIL SPECIFICATIONS – DC Coil | | | | | ORDER NUMBER* |
|--|------------------|---------------------|-------------------------------|----------------------------|-----------------|
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Nominal Current mA $\pm 10\%$ | Coil Resistance $\pm 10\%$ | |
| 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 $\pm 10\%$ | |
| 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: $\pm .010$ "

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