

AZ2150

MINIATURE POWER RELAY

FEATURES

- 30 Amp switching capability for both N.O. and N.C. contacts
- 1 Form A, B and C contacts available
- Life expectancy to 10 million operations
- Class B insulation standard
- Class F (155°C) version available
- Available with an epoxy seal for automatic wave soldering and immersion cleaning
- Proof Tracking Index (PTI/CTI) 175
- UL, CUR file E44211 including versions meeting UL 508 and UL 873 spacing and contact rating requirements;
- VDE certificate 40023154 (AZ2150-1A and 1C only)



CONTACTS

| | |
|-------------------------------|--|
| Arrangement | SPDT (1 Form C), SPST (1 Form A and 1 Form B) |
| Ratings | Resistive load: Max. switched power: 900 W or 7200 VA Max. switched current: 30 A Max. switched voltage: 30 VDC* or 300 VAC * Note: If switching voltage is greater than 30 VDC, special precautions must be taken. Please contact the factory. |
| Rated Load UL, CUR | See chart for UL contact ratings on page 2. AZ2150 series meets UL 508 group A spacing and UL 873 refrigeration and safety control requirements. AZ2151 series meets UL 508 group B spacing requirements. |
| VDE | Class F coil wire version - 1 Form A 25 A at 250 VAC, resistive, 10k cycles Class B coil wire version - 1 Form A 20 A at 250 VAC, resistive, 10k cycles Class B & F coil wire version - 1 Form C N.O.: 20 A at 250 VAC, resistive, 10k cycles N.C.: 10 A at 250 VAC, resistive, 10k cycles |
| Material | Silver cadmium oxide |
| Resistance | < 20 milliohms initially (at rated current, voltage drop method) |

NOTES

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| 1. All values at 20°C (68°F). |
| 2. Relay may pull in with less than "Must Operate" value. |
| 3. Unsealed relays should not be dip cleaned. |
| 4. Other coil resistances and sensitivities available upon request. Please call the factory. |
| 5. Specifications subject to change without notice. |

GENERAL DATA

| | |
|--|--|
| Life Expectancy Mechanical Electrical | Minimum operations 1 x 10 ⁷ 1 x 10 ⁵ at 30 A 120 VAC Res. (N.O.) |
| Operate Time | Max. 12 ms Typical: 8 ms |
| Release Time | Max. 5 ms Typical: 3.5 ms |
| Dielectric Strength (at sea level for 1 min.) | 2500 Vrms coil to contact 1500 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at 500 VDC, 20°C 50% RH |
| Dropout | Greater than 10% of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage -55°C (-67°F) to 85°C (185°F) -55°C (-67°F) to 105°C (221°F) |
| Vibration | 0.062" (1.5 mm) DA at 10–55 Hz |
| Shock | 20 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy |
| 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 | 25 grams |

COIL

| | |
|--|---|
| Power | |
| At Pickup Voltage (typical) | 500 mW |
| Max. Continuous Dissipation | 2.2 W at 20°C (68°F) ambient 1.8 W at 40°C (104°F) ambient |
| Temperature Rise | 43°C (77°F) at nominal coil voltage |
| Temperature | Max. 130°C (266°F) Class B Max. 155°C (311°F) Class F |

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AZ2150

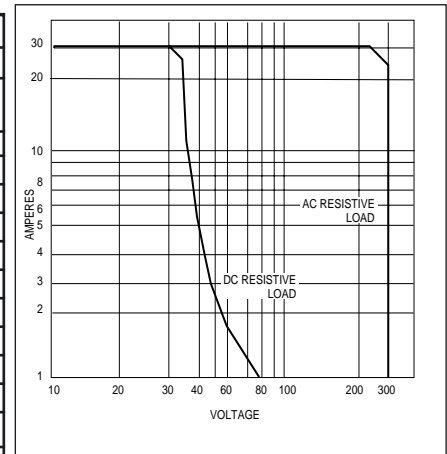
RELAY ORDERING DATA

| STANDARD RELAYS: 1 Form A (SPST); 508 Group A; UL 873 Version | | | | | |
|---|---------------------|----------------------------|------------------|----------------|-----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 7.3 | 27 | 3.75 | AZ2150-1A-5D | AZ2150-1A-5DE |
| 6 | 8.9 | 40 | 4.5 | AZ2150-1A-6D | AZ2150-1A-6DE |
| 9 | 13.9 | 97 | 6.75 | AZ2150-1A-9D | AZ2150-1A-9DE |
| 12 | 17.5 | 155 | 9.0 | AZ2150-1A-12D | AZ2150-1A-12DE |
| 15 | 22.5 | 256 | 11.25 | AZ2150-1A-15D | AZ2150-1A-15DE |
| 18 | 27.4 | 380 | 13.5 | AZ2150-1A-18D | AZ2150-1A-18DE |
| 24 | 36.1 | 660 | 18.0 | AZ2150-1A-24D | AZ2150-1A-24DE |
| 48 | 68.4 | 2,560 | 36.0 | AZ2150-1A-48D | AZ2150-1A-48DE |
| 70 | 104.4 | 5,500 | 52.5 | AZ2150-1A-70D | AZ2150-1A-70DE |
| 110 | 163.2 | 13,450 | 82.5 | AZ2150-1A-110D | AZ2150-1A-110DE |

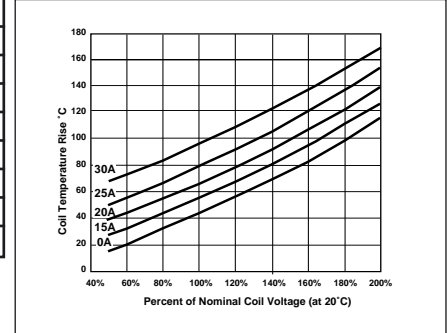
| STANDARD RELAYS: 1 Form A (SPST); UL 508 Group B Version | | | | | |
|--|---------------------|----------------------------|------------------|----------------|-----------------|
| COIL SPECIFICATIONS | | | | ORDER NUMBER* | |
| Nominal Coil VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | Must Operate VDC | Unsealed | Sealed |
| 5 | 7.3 | 27 | 3.75 | AZ2151-1A-5D | AZ2151-1A-5DE |
| 6 | 8.9 | 40 | 4.5 | AZ2151-1A-6D | AZ2151-1A-6DE |
| 9 | 13.9 | 97 | 6.75 | AZ2151-1A-9D | AZ2151-1A-9DE |
| 12 | 17.5 | 155 | 9.0 | AZ2151-1A-12D | AZ2151-1A-12DE |
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| 110 | 163.2 | 13,450 | 82.5 | AZ2151-1A-110D | AZ2151-1A-110DE |

* Substitute "1B" or "1C" in place of the "1A" to indicate 1 Form B and 1 Form C respectively. To indicate Class F version, add suffix "F".

Maximum Switching Capacity



Coil Temperature Rise

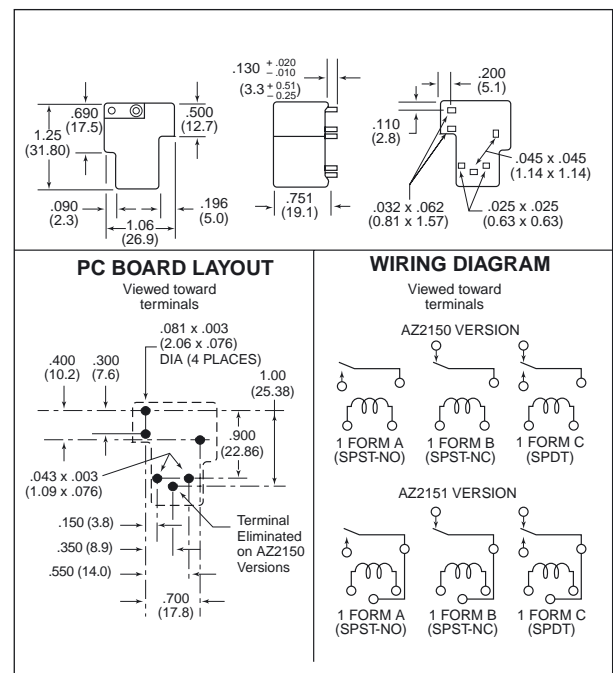


UL/CUR File E44211 Approved Contact Ratings

| Load Type | Cycles | Volts | Form A (NO) | Form B (NC) | Form C | |
|-------------------------------------|---------|----------------|--------------------|------------------|--------------------|------------------|
| | | | | | NO | NC |
| General Purpose (Inductive) | 100,000 | 125 or 240 VAC | 30 A | 15 A | 30 A | 15 A |
| | 30,000 | 277 VAC | 30 A | 30 A | 30 A | 30 A |
| Resistive | 100,000 | 125 or 240 VAC | 30 A | 15 A | — | — |
| | 100,000 | 30 VDC | 20 A | 10 A | 20 A | 10 A |
| | 100,000 | 277 VAC | 20 A | — | — | — |
| | 100,000 | 240 VAC | 15 A | — | — | — |
| Ballast | 6,000 | 277 VAC | 6 A | 3 A | 6 A | 3 A |
| Pilot Duty | 30,000 | 125 VAC | 800 VA | 275 VA | 470 VA | 275 VA |
| | 30,000 | 240 VAC | 690 VA | 275 VA | 470 VA | 275 VA |
| | 100,000 | 125 or 277 VAC | 690 VA | — | 690 VA | — |
| Motor Load | 6,000 | 125 VAC | 1 HP | 1/4 HP | 1 HP | 1/4 HP |
| | 6,000 | 240 VAC | 2 HP | 1 HP | 2 HP | 1 HP |
| | 30,000 | 125 VAC | 1 HP | — | 1 HP | — |
| | 100,000 | 125 or 277 VAC | 3/4 HP | — | 3/4 HP | — |
| Definite Purpose (LRA-Locked Rotor) | 30,000 | 125 VAC | 96 LRA 30 FLA | 33 LRA 10 FLA | 60 LRA 20 FLA | 33 LRA 10 FLA |
| | 100,000 | 125 VAC | 82.8 LRA 27 FLA | — | 82.8 LRA 27 FLA | — |
| | 30,000 | 240 VAC | 80 LRA 30 FLA | 33 LRA 10 FLA | 60 LRA 20 FLA | 33 LRA 10 FLA |
| | | 100,000 | 277 VAC | 60 LRA 20 FLA | — | 60 LRA 20 FLA |
| Tungsten | 6,000 | 125 VAC | 15 A | — | 15 A | — |
| | 6,000 | 240 VAC | 5 A | — | 5 A | 3 A |
| | 6,000 | 120 VAC | — | 3 A | — | — |
| | 6,000 | 240 VAC | — | 3 A | — | — |
| TV-5 | 25,000 | 120 VAC | TV-5 | — | TV-5 | TV-3 |
| TV-3 | 25,000 | 120 VAC | — | TV-3 | — | TV-3 |

Note: See AZ2100 Data Sheet for more complete UL and CUR approved contact ratings.

MECHANICAL DATA



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

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