# AZ2270\_

## 30 AMP MINIATURE POWER RELAY

#### **FEATURES**

- Quick-connect leads for contacts
- 1 Form A, B and C contacts available
- AC and DC coils available
- High dielectric strength version available
- Epoxy sealed 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)<br>SPDT (1 Form C)  |
|-------------|---|
| Ratings     | Resistive load:   |
|             | Max. switched power: 840 W or 8310 VA<br>Max. switched current: 30 A (Form A),15 A (Form B)<br>Max. switched voltage: 277 VAC, 28 VDC   |
| UL, CUR     | 1 Form A<br>40 A at 277 VAC, General Use [1][2] - DC coils only<br>30 A at 277 VAC, General Use [1][2]<br>2 Hp at 250 VAC [1][2]<br>1 HP at 125 VAC [1][2]<br>30 A at 28 VDC [1]<br>20/60 (FLA/LRA) at 277 VAC 30k cycles [1]   |
|             | 1 Form B<br>15 A at 277 VAC, General Use [1]<br>10 A at 28 VDC [1]<br>0.5 HP at 250 VAC [1]<br>0.25 HP at 125 VAC [1]<br>10/33 (FLA/LRA) at 277 VAC 30k cycles [1]  |
|             | 1 Form C<br>30/20 A (N.O./N.C.) at 277 VAC, General Use [1][2]<br>20/10 A (N.O./N.C.) at 28 VDC[1]<br>2/0.5 HP (N.O./N.C.) at 250 VAC[1][2]<br>1/0.25 HP (N.O./N.C.) at 125 VAC[1][2]<br>20/60 (FLA/LRA) at 277 VAC 30k cycles N.O. [1]<br>10/33 (FLA/LRA) at 277 VAC 30k cycles N.C. [1] |
| VDE         | Contact factory for ratings   |
| Material    | Silver cadmium oxide [1], silver tin oxide [2]  |
| Resistance  | < 50 milliohms initially<br>(24 V, 1 A voltage drop method)   |

#### COIL

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



#### **GENERAL DATA**

| Life Expectancy<br>Mechanical<br>Electrical      | Minimum operations<br>1 x 10 <sup>7</sup><br>1 x 10 <sup>5</sup> at 30 A 120 VAC Res.  |  |  |  |
|--|--|--|--|--|
| Operate Time                                     | 15 msec max. at nominal coil voltage   |  |  |  |
| Release Time                                     | 10 msec max. at nominal coil voltage<br>(without suppression)  |  |  |  |
| Dielectric Strength<br>(at sea level for 1 min.) | 1500 Vrms contact to contact<br>2500 Vrms contact to coil<br>4000 Vrms contact to coil ("T" version)   |  |  |  |
| Insulation Resistance                            | 1000 megohms min. at 20°C, 500 VDC<br>50% RH   |  |  |  |
| Dropout  | DC: > 10% of nominal coil voltage<br>AC: > 20% of nominal coil voltage   |  |  |  |
| Ambient Temperature<br>Operating<br>Storage      | -55°C (-67°F) to 85°C (185°F)<br>-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, P.C., Quick Connects<br>Note: Allow suitable slack on leads when wiring,<br>and do not subject the terminals to excessive<br>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   | 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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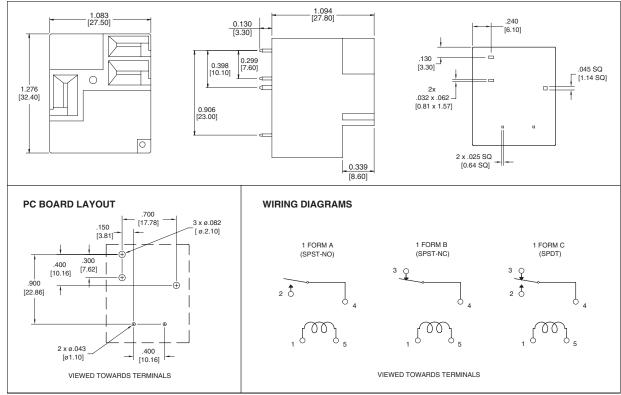
## AZ2270 RELAY ORDERING DATA

| Nominal Coil<br>VDC | Must Operate<br>VDC | Max. Continuous<br>VDC | Nominal Current<br>mA ± 10% | Coil Resistance<br>± 10% | ORDER NUMBER*   |
|---------------------|---------------------|------------------------|-----------------------------|--------------------------|-----------------|
| 5                   | 3.75                | 6.4                    | 185                         | 27                       | AZ2270–1A–5DF   |
| 6                   | 4.50                | 7.8                    | 150                         | 40                       | AZ2270-1A-6DF   |
| 9                   | 6.75                | 12.2                   | 93                          | 97                       | AZ2270-1A-9DF   |
| 12                  | 9.0                 | 15.4                   | 77                          | 155                      | AZ2270-1A-12DF  |
| 15                  | 11.3                | 19.8                   | 59                          | 256                      | AZ2270-1A-15DF  |
| 18                  | 13.5                | 24.1                   | 47                          | 380                      | AZ2270-1A-18DF  |
| 24                  | 18.0                | 32.0                   | 36                          | 660                      | AZ2270-1A-24DF  |
| 48                  | 36.0                | 62.6                   | 19                          | 2,560                    | AZ2270-1A-48DF  |
| 70                  | 52.0                | 93.0                   | 27                          | 5,500                    | AZ2270-1A-70DF  |
| 110                 | 82.5                | 146.0                  | 20                          | 13,450                   | AZ2270-1A-110DF |

| Nominal Coil<br>VAC | Must Operate<br>VAC | Max. Continuous<br>VAC | Nominal Coil<br>Power VA | Coil Resistance<br>± 10% | ORDER NUMBER*   |
|---------------------|---------------------|------------------------|--------------------------|--------------------------|-----------------|
| 12                  | 10.2                | 13.8                   | 2.3                      | 25                       | AZ2270–1A–12AF  |
| 24                  | 20.4                | 27.6                   | 2.1                      | 100                      | AZ2270–1A–24AF  |
| 120                 | 102.0               | 138.0                  | 2.3                      | 2,500                    | AZ2270-1A-120AF |
| 208                 | 166.0               | 239.0                  | 2.2                      | 11,000                   | AZ2270-1A-208AF |
| 220/240             | 187.0               | 276.0                  | 2.2/2.6                  | 13,490                   | AZ2270-1A-240AF |
| 277                 | 220.0               | 318.0                  | 2.2                      | 15,000                   | AZ2270-1A-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 "-1AE", "-1AE", "-1B", "-1C" or "-1CE" for extended life contacts. Substitute "DEF" or "AEF" in place of "DF" or "AF" for epoxy sealed version. For 4000 Vrms dielectric strength change "F" to "TF."

#### **MECHANICAL DATA**



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

## AMERICAN ZETTLER, INC.

#### PHONE: (949) 831-5000

www.azettler.com

E-MAIL: SALES@AZETTLER.COM

8/10/20

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.