

# AZ2703

## 30 AMP POWER RELAY

### FEATURES

- 30 Amp switching
- 30 Amp AC7a approved
- 900 Amp Short curcyut cyrrrent (carrying)
- PC mount and quick connect terminals
- Dielectric strength 4000Vrms
- Standard (2.4 mm) and wide contact gap (3.0 mm) available
- UL, CUR file E44211
- TÜV certficcate R50164753

### CONTACTS

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arrangement           | SPST (1 Form X)<br>DPST (2 Form X)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Ratings               | Resistive load:<br>Max. switched power: 840W or 8310VA<br>Max. switched current: 30A<br>Max. switched voltage: 300 VDC* or 400 VAC<br>*Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory.                                                                                                                                                                                                                                                                                                                                                                        |
| Rated Load<br>UL, CUR | 30A at 277 VAC, resistive 30k cycles [1][2]<br>25A at 277 VAC, resistive, 100k cycles [2]<br>25A at 240 VAC, resistive, 100k cycles [1]<br>3HP at 240 VAC, 6k cycles [1]<br>1.5HP at 120 VAC, 6k cycles [1]<br>TV-10 at 120 VAC, 6k cycles [1]<br>105 LRA / 20.5 FLA at 240 VAC, 100k cycles [1]<br><br>SPST (1 Form X)<br>10A at 120 VAC, tungsten, 6k cycles [1][2]<br>3HP at 240 VAC, 100k cycles [2]<br>1.5HP at 120 VAC, 100k cycles [2]<br><br>DPST (2 Form X)<br>10A at 277 VAC, tungsten, 6k cycles [2]<br>10A at 120 VAC, tungsten, 6k cycles [1]<br>2HP at 277 VAC, 75k cycles [2]<br>1HP at 125 VAC, 30k cycles [2] |
| TÜV                   | 27A at 240VAC, cos phi 0.8, 50k cycles [1][2]<br>25A at 240VAC, cos phi 0.4, 50k cycles [1][2]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Material              | [1] Silver cadmium oxide, [2] silver tin oxide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Resistance            | < 100 milliohms initially<br>(24V, 1A voltage drop method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

### COIL

|                             |                                                              |
|-----------------------------|--------------------------------------------------------------|
| Power                       |                                                              |
| At Pickup Voltage (typical) | 1.08W (DC)<br>1.7VA (AC)                                     |
| Max. Continuous Dissipation | 3.8 W at 20°C (68°F) ambient                                 |
| Temperature Rise            | 50°C (90°F) at nominal coil voltage                          |
| Temperature                 | Max. 130°C (266°F) - Class B<br>Max. 155°C (311°F) - Class F |



### GENERAL DATA

|                                                  |                                                                                                                                                                                                        |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Life Expectancy<br>Mechanical<br>Electrical      | Minimum operations<br>1 x 10 <sup>6</sup><br>1 x 10 <sup>5</sup> at rated load                                                                                                                         |
| Operate Time (max)                               | 30ms at nominal coil voltage                                                                                                                                                                           |
| Release Time (max)                               | 30ms at nominal coil voltage<br>(with no coil suppression)                                                                                                                                             |
| Dielectric Strength<br>(at sea level for 1 min.) | 4000Vrms coil to contact<br>2000Vrms between open contacts                                                                                                                                             |
| Insulation Resistance                            | 1000 megohms min. at 20°C, 500 VDC,<br>50% RH                                                                                                                                                          |
| Dropout                                          | Greater than 5% of nominal coil voltage (DC)<br>Greater than 15% of nominal coil voltage (AC)                                                                                                          |
| Ambient Temperature<br>Operating<br>Storage      | At nominal coil voltage<br>-40°C (-40°F) to 85°C (185°F) - Class B<br>-40°C (-40°F) to 105°C (221°F) - Class F<br>-40°C (-40°F) to 130°C (266°F) - Class B<br>-40°C (-40°F) to 155°C (311°F) - Class F |
| Vibration                                        | 0.062" DA at 10–55 Hz                                                                                                                                                                                  |
| Shock<br>Operating<br>Non-Operating              | 10g, 11ms, 1/2 sine (no false operation)<br>100g, 11ms, 1/2 sine (no damage)                                                                                                                           |
| Enclosure                                        | P.B.T. polyester                                                                                                                                                                                       |
| Terminals                                        | Tinned copper alloy, Quick connect tabs<br>Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force.                                                       |
| Weight                                           | 120 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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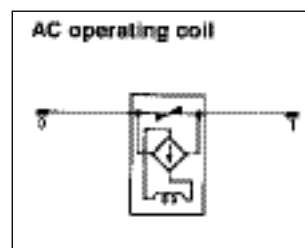
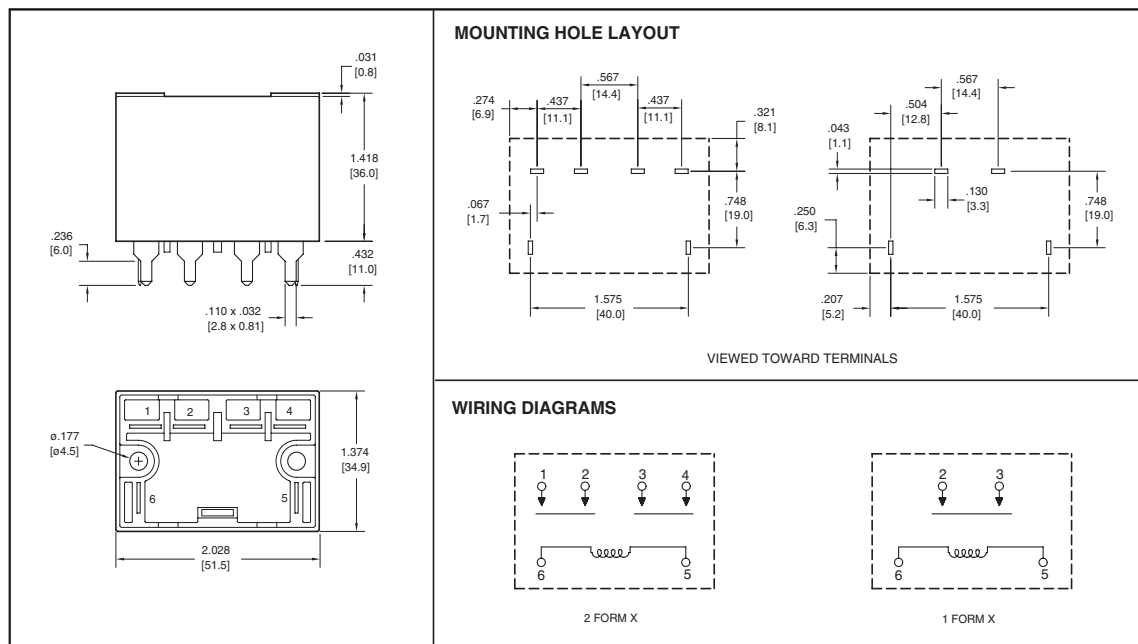
## RELAY ORDERING DATA

| COIL SPECIFICATIONS – DC COIL |                  |                     |                            | ORDER NUMBER*  |                |
|-------------------------------|------------------|---------------------|----------------------------|----------------|----------------|
| Nominal Coil VDC              | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10\%$ | 1 Form X       | 2 Form X       |
| 3                             | 2.25             | 4.2                 | 5                          | AZ2703-1A-3D   | AZ2703-2A-3D   |
| 6                             | 4.50             | 8.4                 | 19                         | AZ2703-1A-6D   | AZ2703-2A-6D   |
| 12                            | 9.00             | 16.8                | 75                         | AZ2703-1A-12D  | AZ2703-2A-12D  |
| 24                            | 18.00            | 33.7                | 300                        | AZ2703-1A-24D  | AZ2703-2A-24D  |
| 48                            | 36.0             | 67.5                | 1200                       | AZ2703-1A-48D  | AZ2703-2A-48D  |
| 100                           | 75.0             | 140.5               | 5200                       | AZ2703-1A-100D | AZ2703-2A-100D |
| 110                           | 82.5             | 154.7               | 6300                       | AZ2703-1A-110D | AZ2703-2A-110D |
| 200                           | 150.0            | 282.4               | 21000                      | AZ2703-1A-200D | AZ2703-2A-200D |

| COIL SPECIFICATIONS – AC COIL |                  |                     |                            | ORDER NUMBER*  |                |
|-------------------------------|------------------|---------------------|----------------------------|----------------|----------------|
| Nominal Coil VAC              | Must Operate VAC | Max. Continuous VAC | Coil Current mA $\pm 10\%$ | 1 Form X       | 2 Form X       |
| 6                             | 4.80             | 6.6                 | 319                        | AZ2703-1A-6A   | AZ2703-2A-6A   |
| 12                            | 9.60             | 13.2                | 160                        | AZ2703-1A-12A  | AZ2703-2A-12A  |
| 24                            | 19.2             | 26.4                | 80                         | AZ2703-1A-24A  | AZ2703-2A-24A  |
| 48                            | 38.4             | 52.8                | 40                         | AZ2703-1A-48A  | AZ2703-2A-48A  |
| 120                           | 96.0             | 132.0               | 23                         | AZ2703-1A-120A | AZ2703-2A-120A |
| 220                           | 176.0            | 242.0               | 10                         | AZ2703-1A-220A | AZ2703-2A-220A |
| 240                           | 192.0            | 264.0               | 9                          | AZ2703-1A-240A | AZ2703-2A-240A |

\*For epoxy sealed version add suffix "E". For silver tin oxide add suffix "T." For wide contact gap add suffix "W". For Class F add suffix "F".

## MECHANICAL DATA



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

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