## 30 AMP POWER RELAY

## FEATURES

- Low cost
- 30 Amp switching
- Class B insulation system standard, Class F available
- PC mount
- 4 kV dielectric
- Standard ( 2.4 mm ) and wide contact gap ( 3.0 mm ) available

- UL, CUR file E44211
-TÜV R50164753


## CONTACTS

| Arrangement | SPST (1 Form X) <br> DPST (2 Form X) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 840 W or 8310 VA <br> Max. switched current: 30 A <br> Max. switched voltage: $150 *$ VDC or 400 VAC <br> *Note: If switching voltage is greater than 30 VDC , special precautions must be taken. Please contact the factory. |
| Rated Load UL, CUR <br> TÜV | 30 A at 277 VAC res. 30k cycles [1] <br> 1.5 HP at 120 VAC [1] <br> 3 HP at 240 VAC [1] <br> TV-10 at 120 VAC [1] <br> 30 A at 277 VAC res. 70k cycles [2] <br> 3 HP at 240 VAC 100k cycles [2] <br> 10 A at 120 VAC tungsten load, 10k cycles [2] <br> 27 A at $240 \mathrm{VAC}, \cos \mathrm{phi}=.8,50 \mathrm{k}$ cycles <br> [1] silver cadmium oxide, <br> [2] silver tin oxide |
| Material | Silver cadmium oxide, silver tin oxide |
| Resistance | < 100 milliohms initially <br> ( $24 \mathrm{~V}, 1 \mathrm{~A}$ voltage drop method) |

## COIL

| Power |  |
| :--- | :--- |
| At Pickup VoItage <br> (typical) | $1.08 \mathrm{~W}(\mathrm{DC})$ |
| Max. Continuous | $1.2 \mathrm{VA}(\mathrm{AC})$ |
| Dissipation | 3.8 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |
| Temperature Rise | $50^{\circ} \mathrm{C}\left(90^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| Temperature | Max. $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ - Class B <br>  <br>  Max. $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ - Class F |

## GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{6}$ <br> $1 \times 10^{5}$ at 30 A 120 VAC Res. |
| :---: | :---: |
| Operate Time (max) | 30 ms at nominal coil voltage |
| Release Time (max) | 30 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min .) | 4000 Vrms coil to contact 2000 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at $20^{\circ} \mathrm{C}, 500 \mathrm{VDC}$, $50 \% \mathrm{RH}$ |
| Dropout | Greater than $5 \%$ of nominal coil voltage (DC) Greater than $15 \%$ of nominal coil voltage (AC) |
| Ambient Temperature Operating Storage | At nominal coil voltage $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right)$ - Class B $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ - Class F $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ - Class B $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ - Class F |
| Vibration | 0.062 " DA at $10-55 \mathrm{~Hz}$ |
| Shock <br> Operating Non-Operating | $10 \mathrm{~g}, 11 \mathrm{~ms}, 1 / 2$ sine (no false operation) $100 \mathrm{~g}, 11 \mathrm{~ms}, 1 / 2$ sine (no damage) |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, PC mount |
| Max. Solder Temp. | $270^{\circ} \mathrm{C}\left(518^{\circ} \mathrm{F}\right)$ |
| Max. Solder Time | 5 seconds |
| Weight | 120 grams |

## NOTES

1. All values at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$.
2. Relay may pull in with less than "Must Operate" value.
3. Specifications subject to change without notice.

RELAY ORDERING DATA

| COIL SPECIFICATIONS - DC COIL |  |  | ORDER NUMBER* |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil <br> VDC | Must Operate <br> VDC | Max. Continuous <br> VDC | Coil Resistance <br> $\mathbf{\pm 1 0 \%}$ | 1 Form X |  |
| 3 | 2.25 | 4.2 | 4.7 | AZ2704-1A-3D |  |
| 6 | 4.50 | 8.4 | 18.8 | AZ2704-2A-3D |  |
| 12 | 9.00 | 16.8 | 75 | AZ2704-1A-6D | AZ2704-2A-6D |
| 24 | 18.00 | 33.7 | 300 | AZ2704-1A-12D | AZ2704-2A-12D |
| 48 | 36.0 | 67.5 | 1200 | AZ2704-1A-24D | AZ2704-2A-24D |
| 100 | 75.0 | 140.5 | 5200 | AZ2704-1A-48D | AZ2704-2A-48D |
| 110 | 82.5 | 154.7 | 6300 | AZ2704-1A-100D | AZ2704-2A-100D |
| 200 | 150.0 | 282.4 | 21000 | AZ2704-1A-110D | AZ2704-2A-110D |
|  |  |  | AZ2704-1A-200D | AZ2704-2A-200D |  |


| COIL SPECIFICATIONS - AC COIL |  | ORDER NUMBER* |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil <br> VAC | Must Operate <br> VAC | Max. Continuous <br> VAC | Coil Current <br> mA $\pm \mathbf{1 0 \%}$ | 1 Form X | 2 Form X |
| 6 | 4.80 | 6.6 | 319 | AZ2704-1A-6A | AZ2704-2A-6A |
| 12 | 9.60 | 13.2 | 160 | AZ2704-1A-12A | AZ2704-2A-12A |
| 24 | 19.2 | 26.4 | 80 | AZ2704-1A-24A | AZ2704-2A-24A |
| 48 | 38.4 | 52.8 | 40 | AZ2704-1A-48A | AZ2704-2A-48A |
| 120 | 96.0 | 132.0 | 23 | AZ2704-1A-120A | AZ2704-2A-120A |
| 220 | 176.0 | 242.0 | 10 | AZ2704-1A-220A | AZ2704-2A-220A |
| 240 | 192.0 | 264.0 | 9.2 | AZ2704-1A-240A | AZ2704-2A-240A |

*For silver tin oxide add suffix "T." For wide contact gap add "W". For Class F add suffix "F".

## MECHANICAL DATA

|  | MOUNTING HOLE LAYOUT |
| :---: | :---: |
|  | WIRING DIAGRAMS |

AC operating coil


Dimensions in inches with metric equivalents in parentheses. Tolerance: $\pm .010^{\prime \prime}$

