## 30 AMP POWER RELAY

## FEATURES

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


## CONTACTS

| Arrangement | SPST (1 Form X) DPST (2 Form X) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 840W (2X) or 8310VA (1X) <br> Max. switched current: 30A <br> Max. switched voltage: 150VDC* or 400 VAC <br> *Note: If switching voltage is greater than 30 VDC , special precautions must be taken. Please contact the factory. |
| Rated Load <br> UL, CUR | 30 A at 277 VAC , resistive 30 k cycles [1][2] <br> 25A at 277 VAC, resistive, 100k cycles [2] <br> 25 A at 240 VAC , resistive, 100k cycles [1] <br> 3 HP at $240 \mathrm{VAC}, 6 \mathrm{k}$ cycles [1] <br> 1.5HP at $120 \mathrm{VAC}, 6 \mathrm{k}$ cycles [1] <br> TV-10 at 120 VAC, 6 k cycles [1] <br> 105 LRA / 20.5 FLA at 240 VAC, 100k cycles [1] <br> SPST (1 Form X) <br> 10 A at 120 VAC, tungsten, 6 k cycles [1][2] <br> 3 HP at $240 \mathrm{VAC}, 100 \mathrm{k}$ cycles [2] <br> 1.5 HP at $120 \mathrm{VAC}, 100 \mathrm{k}$ cycles [2] <br> DPST (2 Form X) <br> 10 A at 277 VAC, tungsten, 6 k cycles [2] <br> 10 A at 120 VAC , tungsten, 6 k cycles [1] <br> 2 HP at $277 \mathrm{VAC}, 75 \mathrm{k}$ cycles [2] <br> 1 HP at $125 \mathrm{VAC}, 30 \mathrm{k}$ cycles [2] <br> 27 A at 240 VAC , cos phi $0.8,50 \mathrm{k}$ cycles [1][2] <br> 25 A at 240 VAC , cos phi $0.4,50 \mathrm{k}$ cycles [1][2] |
| Material | [1] Silver cadmium oxide, [2] silver tin oxide |
| Resistance | < 100 milliohms initially (24V, 1A voltage drop method) |

## COIL

| Power |  |
| :--- | :--- |
| At Pickup Voltage <br> (typical) | $1.08 \mathrm{~W}(\mathrm{DC})$ |
| Max. Continuous <br> Dissipation <br> Temperature Rise | $1.7 \mathrm{VA}(\mathrm{AC})$ |
| Temperature | 3.8 W at $20^{\circ} \mathrm{C}\left(60^{\circ} \mathrm{F}\right)$ ambient $\left(90^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
|  | $\operatorname{Max} .130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)-$ Class B <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 rated load |
| :---: | :---: |
| 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 .) | 4000Vrms coil to contact 2000 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at $20^{\circ} \mathrm{C}, 500 \mathrm{VDC}$, 50\% 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, Quick connect tabs Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| Weight (Approx) | 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 | 5 | 2 Form X |  |
| 6 | 4.50 | 8.4 | 19 | AZ2704-1A-3D |  |
| 12 | 9.00 | 16.8 | 75 | AZ2704-2A-3D |  |
| 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 | 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



AC operating coil


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

