## 30 AMP MINIATURE POWER RELAY

## FEATURES

- Quick-connect leads for contacts and coil
- 1 Form A, B and C contacts available
- AC and DC coils available
- Epoxy sealed versions available
- UL Class F $\left(155^{\circ} \mathrm{C}\right)$ standard
- UL, CUR file E44211
- VDE 40027037 ( DC coil only )


## CONTACTS

| Arrangement | $\begin{aligned} & \hline \hline \text { SPST (1 Form A, or B) } \\ & \text { SPDT (1 Form C) } \end{aligned}$ |
| :---: | :---: |
| Ratings <br> UL, CUR | Resistive load: <br> Max. switched power: 840 W or 8310 VA <br> Max. switched current: 30 A (Form A) <br> 15 A (Form B) <br> Max. switched voltage: 277 VAC, 28 VDC <br> 1 Form A <br> 30 A at 277 VAC, General Use [1][2] <br> 28 A at 277 VAC, General Use, 100k cycles [1] <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] <br> 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] <br> 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] |
| Material | Silver cadmium oxide [1], silver tin oxide [2] |
| Resistance | < 50 milliohms initially ( $24 \mathrm{~V}, 1$ A voltage drop method) |

## COIL

| Power |  |
| :--- | :--- |
| At Pickup Voltage | DC: 500 mW |
| (typical) | AC: 1.4 VA |
| Max. Continuous | DC: 1.7 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Dissipation | AC: 2.7 VA at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Temperature Rise | $38^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |
| Temperature | Max. $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |

## GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $\begin{aligned} & 1 \times 10^{7} \\ & 1 \times 10^{5} \text { at } 30 \text { A } 120 \text { VAC Res. N.O. } \end{aligned}$ |
| :---: | :---: |
| Operate Time | 15 ms at nominal coil voltage |
| Release Time | 10 ms at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min .) | 1500 Vrms contact to contact 2500 Vrms contact to coil |
| Insulation Resistance | 1000 megohms min. at 500 VDC, $20^{\circ} \mathrm{C}$ $50 \%$ RH |
| Dropout | DC: Greater than $10 \%$ of nominal coil voltage AC: Greater than $20 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage $\begin{aligned} & -55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right) \text { to } 85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right) \\ & -55^{\circ} \mathrm{C}\left(-67^{\circ} \mathrm{F}\right) \text { to } 155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right) \end{aligned}$ |
| Vibration | 0.062" DA at $10-55 \mathrm{~Hz}$ |
| Shock | 10 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, Quick Connects Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| Max. Solder Temp. | $270^{\circ} \mathrm{C}\left(518^{\circ} \mathrm{F}\right)$ |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 seconds |
| Weight | 36 grams |

## NOTES

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## RELAY ORDERING DATA

| COIL SPECIFICATIONS - DC Coil |  |  |  |  | ORDER NUMBER* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | $\begin{aligned} & \text { Must Operate } \\ & \text { VDC } \end{aligned}$ | Max. Continuous VDC | Nominal Current $\mathrm{mA} \pm 10 \%$ | $\begin{gathered} \hline \text { Coil Resistance } \\ \pm 10 \% \\ \hline \end{gathered}$ |  |
| 5 | 3.75 | 6.4 | 185 | 27 | AZ2280-1A-5DF |
| 6 | 4.50 | 7.8 | 150 | 40 | AZ2280-1A-6DF |
| 9 | 6.75 | 12.2 | 93 | 97 | AZ2280-1A-9DF |
| 12 | 9.00 | 15.4 | 77 | 155 | AZ2280-1A-12DF |
| 15 | 11.25 | 19.8 | 59 | 256 | AZ2280-1A-15DF |
| 18 | 13.5 | 24.1 | 47 | 380 | AZ2280-1A-18DF |
| 24 | 18.00 | 32.0 | 36 | 660 | AZ2280-1A-24DF |
| 48 | 36.00 | 62.6 | 19 | 2560 | AZ2280-1A-48DF |
| 110 | 82.5 | 146.6 | 8.2 | 13450 | AZ2280-1A-110DF |
| COIL SPECIFICATIONS - AC Coil $50 / 60 \mathrm{~Hz}$ |  |  |  |  | ORDER NUMBER* |
| Nominal Coil VAC | Must Operate VAC | Max. Continuous VAC | Nominal Coil Power VA | $\begin{gathered} \hline \text { Coil Resistance } \\ \pm 10 \% \\ \hline \end{gathered}$ |  |
| 12 | 10.2 | 13.8 | 2.3 | 25 | AZ2280-1A-12AF |
| 24 | 20.4 | 27.6 | 2.1 | 100 | AZ2280-1A-24AF |
| 120 | 102.0 | 138.0 | 2.3 | 2,500 | AZ2280-1A-120AF |
| 208 | 176.8 | 239.0 | 2.2 | 11,000 | AZ2280-1A-208AF |
| 220/240 | 187.0 | 276.0 | 2.2/2.6 | 13,490 | AZ2280-1A-240AF |
| 277 | 235.4 | 318.5 | 2.2 | 15,000 | AZ2280-1A-277AF |

*Substitute " -1 B " or " -1 C " in place of " 1 A " for 1 Form B or 1 Form C respectively. For silver tin oxide contacts substitute " -1 AE " or "-1CE" in place of " -1 A " or "1C." Add "T" to "-1A", "-1AE", "-1B", "-1C" or "-1CE" for extended life contacts. Substitute "DEF" or "AEF" in place of "DF" or "AF" for epoxy sealed version. For 0.110 coil terminals change " $F$ " to "KF."

MECHANICAL DATA


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


[^0]:    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.
