## 30 AMP MINIATURE POWER RELAY

## FEATURES

- DPST-NO and DPDT configuration
- Meets 8 mm creepage, 4 kV dielectric
- Epoxy sealed versions available
- UL Class F $\left(155^{\circ} \mathrm{C}\right)$ standard
- UL, CUR file E44211
- VDE certificate 40023442



## CONTACTS

| Arrangement | DPST (2 Form A) <br> DPDT (2 Form C) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 560 W or 8310 VA <br> Max. switched current: 30 A (N.O), 3 A (N.C.) <br> Max. switched voltage: 30 VDC* or 600 VAC <br> *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory. |
| Rated Load UL <br> VDE | Normally open contacts (N.O.) <br> 30 A at 277 VAC General Use, 100k cycles [1][2] <br> 10 A at 600 VAC, General Use, 6k cycles [1] <br> 1 HP at $120 \mathrm{VAC}, 100 \mathrm{k}$ cycles [1][2] <br> 2.5 HP at 240 VAC, 100 k cycles [1][2] <br> 8 FLA / 26 LRA at $277,480,600$ VAC, 30 k cycles [1] <br> Normally open contacts (N.O.), DC Coils only 25.3 FLA / 110 LRA at 240 VAC, 30 k cycles [1][2] <br> Normally closed contacts (N.C.) <br> 3 A at 277 VAC, General Use, 100k cycles [1][2] <br> 2 A at 480 VAC, General Use, 6 k cycles [1] <br> 1 A at 600 VAC, General Use, 6 k cycles [1] <br> 3 FLA / 3 LRA at 240 VAC, 30k cycles [1] <br> 2 FLA / 2 LRA at 277,480 VAC, 30 k cycles [1] <br> 1 FLA / 1 LRA at 600 VAC, 30k cycles [1] <br> Normally open contacts (N.O.) <br> 20 A at 250 VAC, Resistive, 50k cycles [2] <br> Normally closed contacts (N.C.) <br> 3 A at 250 VAC, Resistive, 50k cycles [2] |
| Material | Silver cadmium [1], silver tin oxide [2] |
| Resistance | $<50$ milliohms initially ( $6 \mathrm{~V}, 1 \mathrm{~A}$ voltage drop method) |

## COIL

| Power |  |
| :--- | :--- |
| At Pickup Voltage | $925 \mathrm{~mW}, \mathrm{DC}$ coil |
| (typical) | $2.6 \mathrm{VA}, \mathrm{AC}$ coil |
| Max. Continuous | 5.0 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient, DC coil |
| Dissipation | 7.0 VA at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient, AC coil |
| Temperature Rise | $48^{\circ} \mathrm{C}\left(86^{\circ} \mathrm{F}\right)$ at nominal coil voltage, DC coil |
|  | $68^{\circ} \mathrm{C}\left(122^{\circ} \mathrm{F}\right)$ at nominal coil voltage, AC coil |
| Temperature | Max. $155^{\circ} \mathrm{C}\left(311^{\circ} \mathrm{F}\right)$ |

## GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $\begin{aligned} & 5 \times 10^{7} \\ & 1 \times 10^{5} \text { at } 30 \text { A } 277 \text { VAC Res. (N.O.) } \end{aligned}$ |
| :---: | :---: |
| Operate Time | 15 ms typical 25 ms maximum with bounce |
| Release Time | 10 ms typical 25 ms maximum with bounce (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min .) | 1500 Vrms contact to contact <br> 4000 Vrms contact to coil <br> 2000 Vrms between contact sets |
| Insulation Resistance | $10^{9}$ ohms minimum at 500 VDC |
| Dropout | DC: Greater than $10 \%$ of nominal coil voltage AC: Greater than $20 \%$ of nominal coil voltage |
| Ambient Temperature Operating <br> Storage | At nominal coil voltage <br> DC: $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right)$ <br> AC: $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $65^{\circ} \mathrm{C}\left(149^{\circ} \mathrm{F}\right)$ <br> $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $105^{\circ} \mathrm{C}\left(221^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.062 " (1.5 mm) DA at $10-55 \mathrm{~Hz}$ |
| Shock | Operational, 10 g for $11 \mathrm{~ms} 1 / 2$ sine pulse (no contact opening > 100usec) Non-destructive, 100 g for $11 \mathrm{~ms} 1 / 2$ sine pulse |
| Enclosure | P.B.T. polyester |
| Terminals | Quick connect tabs Note: Allow suitable slack on leads when wiring, and do not subject the terminals to excessive force. |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 seconds |
| Weight | 86 grams |
| Packing unit in pcs | 20 per plastic tray / 100 per carton box |

## 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 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil <br> VDC | Must Operate <br> VDC | Max. Continuous <br> VDC | Nominal Current <br> mA $\pm \mathbf{1 0 \%}$ | Coil Resistance <br> Ohm $\pm 10 \%$ | ORDER NUMBER* |
| 6 | 4.5 | 10.5 | 272.0 | 22 | AZ2800-2C-6D |
| 12 | 9.0 | 20.7 | 140.0 | 86 | AZ2800-2C-12D |
| 24 | 18.0 | 41.8 | 68.5 | 350 | AZ2800-2C-24D |
| 48 | 36.0 | 83.4 | 34.5 | 1390 | AZ2800-2C-48D |
| 110 | 82.5 | 190.5 | 15.2 | 7255 | AZ2800-2C-110D |


| COIL SPECIFICATIONS - AC Coil |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil <br> VAC | Must Operate <br> VAC | Max. Continuous <br> VAC | Nominal Curent <br> $\mathbf{m A} \pm \mathbf{1 0 \%}$ | 50Hz Coil Resistance <br> Ohm $\pm \mathbf{1 0 \%}$ | 60Hz Coil Resistance <br> Ohm $\pm \mathbf{1 0 \%}$ | ORDER NUMBER* |
| 12 | 9.6 | 15.6 | 340.0 | 9.5 | 8 | AZ2800-2C-12A |
| 24 | 19.2 | 31.2 | 166.0 | 45 | 35.7 | AZ2800-2C-24A |
| 120 | 96.0 | 156.0 | 33.3 | 1125 | 830 | AZ2800-2C-120A |
| 220 | 176.0 | 286.0 | 18.2 | 3800 | 2870 | AZ2800-2C-220A |
| 240 | 192.0 | 312.0 | 16.7 | 4500 | 3800 | AZ2800-2C-240A |
| 277 | 221.6 | 360.1 | 14.4 | 5960 | 4700 | AZ2800-2C-277A |

* Substitute " 2 A " in place of " 2 C " to indicate 2 Form A contacts.
" $2 A$ " or " $2 C$ " denotes silver cadmium contacts.
Add suffix "E" to " $2 A$ " or " $2 C$ " for silver tin oxide contacts.
Add suffix " 5 " for 50 Hz coil, AC coils only. (Example: AZ2800-2C-24A5)
Add suffix "E" at the end of order number for sealed version.
Add suffix " K " for 0.187 " x 0.020 " [ $4.8 \mathrm{~mm} \times 0.5 \mathrm{~mm}$ ] coil terminals.

MECHANICAL DATA


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

