## 20 AMP MINIATURE POWER RELAY

## FEATURES

- Dielectric strength 5000 Vrms
- Low cost
- Epoxy sealed version available
- 20 Amp switching - single pole contacts
- Isolation spacing greater than 8 mm
- UL Class B insulation system standard, Class F available
- UL, CUR file E44211
- TÜV file R50129286


## CONTACTS

| Arrangement | SPST (1 Form A, 1 Form B) SPDT (1 Form C) |
| :---: | :---: |
| Ratings | Resistive load: <br> Max. switched power: 480W or 5540VA <br> Max. switched current: 20A <br> Max. switched voltage: 150VDC* or 277VAC <br> *Note: If switching voltage is greater than 30VDC, special precautions must be taken. Please contact the factory. |
| Rated Load UL, CUR <br> Tüv | 20A at 277VAC N.O. resistive, 50k cycles 16A at 240VAC general use, 100k cycles 12A at 277VAC N.O. resistive., 100k cycles 20A at 24VDC resistive <br> 1HP 240VAC <br> TV-8 125VAC N.O. (silver tin oxide only) <br> Suffix 136 Contact <br> 25 A at 125VAC N.O. resistive, 30k cycles <br> 20 A at 125/250/277 VAC N.O. general use, 30k cycles <br> 1/2 HP at 125/250 VAC <br> TV-10 at 125VAC N.O. <br> 10FLA, 60LRA at 250VAC N.O. 20k cycles <br> 16A at 30VDC, 250VAC resistive, 30k cycles* <br> 13A at 420VAC resistive, 30k cycles * <br> *approval for form A , C, and Class F only |
| Material | Silver cadmium oxide (silver tin oxide available) |
| Resistance | < 50 milliohms initially <br> (24V, 1A voltage drop method) |

## COIL

| Power <br> At Pickup Voltage <br> (typical) | 270 mW |
| :--- | :--- |
| Max. Continuous |  |
| Dissipation | 1.9 W at $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient |
| Temperature Rise | $34^{\circ} \mathrm{C}\left(61^{\circ} \mathrm{F}\right)$ at nominal coil voltage |
| Temperature | Max. $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ |

## GENERAL DATA

| Life Expectancy Mechanical Electrical | Minimum operations $1 \times 10^{7}$ <br> $1 \times 10^{5}$ at 16A 240VAC Res. |
| :---: | :---: |
| Operate Time (typical) | 15 ms max at nominal coil voltage |
| Release Time (typical) | 5ms max at nominal coil voltage (with no coil suppression) |
| Dielectric Strength (at sea level for 1 min.) | 4000 Vrms coil to contact 1000 Vrms between open contacts |
| Insulation Resistance | 1000 megohms min. at $20^{\circ} \mathrm{C}$ 500VDC 50\% RH |
| Dropout | Greater than $10 \%$ of nominal coil voltage |
| Ambient Temperature Operating Storage | At nominal coil voltage $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $85^{\circ} \mathrm{C}\left(185^{\circ} \mathrm{F}\right)$ $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $130^{\circ} \mathrm{C}\left(266^{\circ} \mathrm{F}\right)$ |
| Vibration | 0.062 " DA at $10-55 \mathrm{~Hz}$ |
| Shock | 10 g |
| Enclosure | P.B.T. polyester |
| Terminals | Tinned copper alloy, P.C. |
| Max. Solder Temp. | $270^{\circ} \mathrm{C}$ ( $518^{\circ} \mathrm{F}$ ) |
| Max. Solder Time | 5 seconds |
| Max. Solvent Temp. | $80^{\circ} \mathrm{C}\left(176{ }^{\circ} \mathrm{F}\right)$ |
| Max. Immersion Time | 30 Seconds |
| Weight | Approx. 18.5 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 |  |  |  | ORDER NUMBER* |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nominal Coil VDC | Must Operate VDC | Max. Continuous VDC | Coil Resistance $\pm 10 \%$ | Form A (SPST) | Form C (SPDT) |
| 5 | 3.6 | 9.4 | 47 | AZ755-1A-5D | AZ755-1C-5D |
| 6 | 4.3 | 11.4 | 69 | AZ755-1A-6D | AZ755-1C-6D |
| 9 | 6.5 | 17.4 | 155 | AZ755-1A-9D | AZ755-1C-9D |
| 12 | 8.6 | 22.8 | 275 | AZ755-1A-12D | AZ755-1C-12D |
| 18 | 13.0 | 27.9 | 620 | AZ755-1A-18D | AZ755-1C-18D |
| 24 | 17.3 | 45.7 | 1100 | AZ755-1A-24D | AZ755-1C-24D |
| 48 | 34.6 | 89.0 | 4170 | AZ755-1A-48D | AZ755-1C-48D |
| 60 | 43.2 | 115.3 | 7000 | AZ755-1A-60D | AZ755-1C-60D |
| 110** | 79.3 | 170.5 | 22900 | AZ755-1A-110D | AZ755-1C-110D |

*Substitute " 1 B " in place of " 1 A " or " 1 C " to indicate 1 Form B contact arrangement. Add suffix " E " for epoxy sealed version, suffix "A" for AgSnO (silver tin oxide) contacts. Add suffix "F" for Class F. Add suffix "136" for silver tin oxide small contacts. When suffix "E" is specified for Epoxy Seal, refer to AZ "Relay Technical Notes" on AZ website - Product Resources. Consult factory for other PCB process conditions that may apply.
**110V coil not TÜV approved.

## HARDWARE ORDERING DATA

| DESCRIPTION | ORDER NUMBER | DESCRIPTION | ORDER NUMBER |
| :---: | :---: | :---: | :---: |
| Socket | ST484-U1 | Retainer | ST482-2 |

## MECHANICAL DATA



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

