



ST90N 40 Amp PCB Mount Relay

Applications:

- Transportation
Recreation & Off-Road
Trucking / Trailers
- Appliance Controls
- HVAC
- Industrial Control
- Security Alarm Systems

Features:

- 40 Amp SPST or SPDT Relay
- PCB Mountable
- Class F Relay Version Available
- Form A Version UL / cUL Approved @ 15A / 120V Tungsten Load
- Open Frame, Epoxy Base Dust Cover, or Washable Enclosures
- UL 94V-O Flammability Plastics Rating
- UL / cUL Approved E236205
- Meets Spacing Requirements of UL 508A and UL873A

Contact Characteristics

| | |
|---|---|
| Arrangements | 1A, 1B, or 1C |
| Material | Silver Tin Oxide or Silver Cadmium Oxide (Rated for 20A @ 240V _{AC} Only) or Silver Tin Oxide Indium |
| Ratings (contact Stetron for available horsepower ratings) | 40A @ 250V _{AC} / 30V _{DC} (N/O) 30A @ 250V _{AC} / 30V _{DC} (N/C) |
| Max. Switching Power | 1100W or 7200VA |
| Max. Switching Voltage | 110V _{DC} or 250V _{AC} |
| Max. Switching Current | 40A |
| Initial Resistance | ≤50mΩ |

General Characteristics

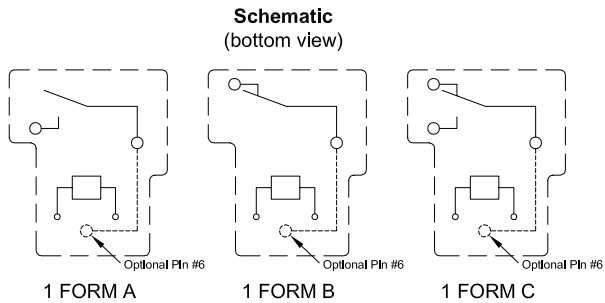
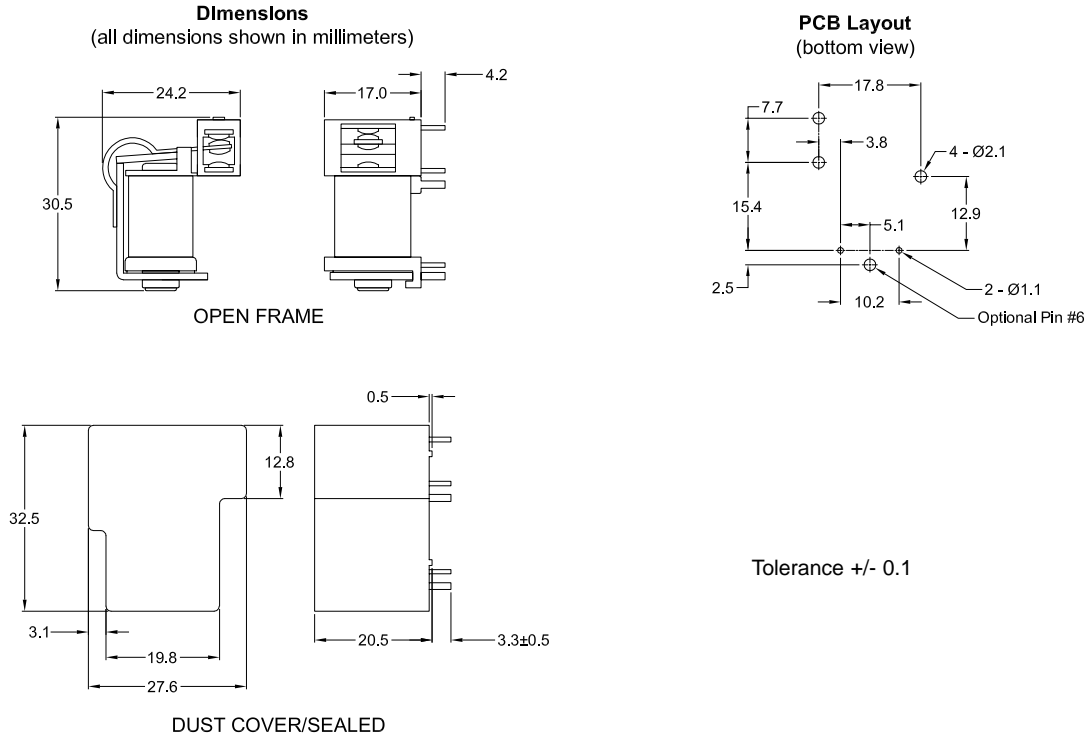
| | |
|------------------------------|---------------------------------------|
| Life | |
| Mechanical | 10,000,000 ops |
| Electrical | 100,000 ops |
| Insulation Resistance | 1000MΩ @ 500V _{DC} (Minimum) |
| Dielectric Strength | |
| Contact-Contact | 1500V _{AC} |
| Contact-Coil | 2500V _{AC} |
| Shock | |
| Functional | 200m/s ² (11ms) |
| Vibration | |
| Functional | 1.5mm (2x Ampl. @ 10-55Hz) |
| Terminal Strength | 10N |
| Operating Temperature | -55 to +100°C |
| Storage Temperature | -55 to +125°C |
| Operating Humidity | 85%RH @ 40°C |
| Weight | 30g (27g for Open Type) |
| Operate Time | ≤15ms |
| Release Time | ≤10ms |

Coil Characteristics Measured @ 25°C

| Coil Voltage [V _{DC}] | | Coil Resistance [Ω ±10%] | Pull-In [V _{DC} max] | Drop-Out [V _{DC} min] |
|---------------------------------|---------|--------------------------|-------------------------------|--------------------------------|
| Rated | Maximum | | | |
| 3.0 | 3.9 | 10 | 2.4 | 0.3 |
| 5.0 | 6.5 | 27 | 4.0 | 0.5 |
| 6.0 | 7.8 | 40 | 4.8 | 0.6 |
| 9.0 | 11.7 | 90 | 7.2 | 0.9 |
| 12.0 | 15.6 | 160 | 9.6 | 1.2 |
| 15.0 | 19.5 | 250 | 10.25 | 1.5 |
| 18.0 | 23.4 | 350 | 13.5 | 1.8 |
| 24.0 | 31.2 | 640 | 18.0 | 2.4 |
| 48.0 | 62.4 | 2560 | 36.0 | 4.8 |
| 110 | 143 | 13445 | 82.5 | 11 |



Mechanical Data



PART NUMBER CODE

Example: **ST90N** **A** **D** **003** **S** **B**

1 - Series Code _____

2 - Footprint: _____
R = Pin #6 Removed; Blank = Standard

3 - Contact Arrangement: _____
A = 1 Form A; B = 1 Form B;
C = 1 Form C

4 - Enclosure Style: O = Open; S = Washable;
D = Epoxy Base Dust Cover

5 - Coil Voltage: DC 003, 005, 006, 009, 012,
015, 018, 024, 048, or 110V

6 - Contact Material:
S = AgSnO₂; C = AgCdO*; I = AgSnO₂In₂O₃

7 - Insulation Class:
B = Class B; F = Class F

*Rated for 20A @ 240V_{AC} only



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