PRINCIPLE TECHNICAL CHARACTERISTICS

- **Contacts rated at**
  28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz, 3Ø

- **Weight**
  0.088 lbs. max

- **Dimensions**
  1.01 in x .51 in x 1.12 in

- **Special models available upon request**

- **Hermetically sealed, corrosion resistant metal can**

CONTACT ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Contact rating per pole and load type [1]</th>
<th>@28 Vdc</th>
<th>@115 Vac 400 Hz</th>
<th>Load current in Amps</th>
<th>@115/200 Vac 400 Hz, 3Ø</th>
<th>@115/200 Vac 60 Hz, 3Ø [8]</th>
<th>@230/400 Vac 400 Hz, 3Ø [8]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resistive</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>2.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Inductive [5]</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>2.5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Motor</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lamp</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Overload</td>
<td>40</td>
<td>60</td>
<td>60</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Rupture</td>
<td>50</td>
<td>80</td>
<td>80</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**COIL CHARACTERISTICS (Vac)**

<table>
<thead>
<tr>
<th>CODE</th>
<th>E</th>
<th>F</th>
<th>J</th>
<th>K</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal operating voltage</td>
<td>28</td>
<td>115</td>
<td>28</td>
<td>115</td>
<td>230</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>30</td>
<td>122</td>
<td>30</td>
<td>122</td>
<td>248</td>
</tr>
<tr>
<td>Maximum pickup voltage</td>
<td>- Cold coil at +125° C</td>
<td>22</td>
<td>90</td>
<td>23</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>- During high temp test at +125° C</td>
<td>24.4</td>
<td>95.4</td>
<td>24.6</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>- During continuous current test at +125° C</td>
<td>25.6</td>
<td>103.5</td>
<td>25.9</td>
<td>105</td>
</tr>
<tr>
<td>Maximum drop-out voltage</td>
<td>10</td>
<td>30</td>
<td>10</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Coil current max milliAmperes at +25° C</td>
<td>240</td>
<td>40</td>
<td>100</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>

**GENERAL CHARACTERISTICS**

- **Temperature range**: -70°C to +125°C
- **Minimum operating cycles (life) at rated load**: 100,000
- **Minimum operating cycles (life) at 25% rated load**: 400,000
- **Dielectric strength at sea level**: - All circuits to ground and circuit to circuit 1250 Vrms
  - Coil to ground 1000 Vrms
- **Dielectric strength at altitude 80,000 ft**: 500 Vrms [2]
- **Insulation resistance**: - Initial (500 Vdc) 100 MΩ min
  - After environmental tests (500 Vdc) 50 MΩ min
- **Sinusoidal vibration (A, D and J mounting)**: 0.12 d.a. / 10 to 70 Hz
  - 30G / 70 to 3000 Hz
- **Sinusoidal vibration (G mounting)**: 0.12 d.a. / 10 to 57 Hz
  - 20G / 57 to 3000 Hz
- **Random vibration**: MIL-STD-202
- **Shock (A, D and J mounting)**: 200G / 6 ms
- **Shock (G mounting)**: 100G / 6 ms
- **Maximum contact opening time under vibration and shock**: 10 μs
- **Operate time at nominal voltage@25°C**: 15 ms max
- **Release time at nominal voltage@25°C**: 50 ms max
- **Contact make bounce at nominal voltage@25°C**: 1 ms max
- **Contact release break bounce at nominal voltage@25°C**: 0.1 ms max
- **Weight maximum**: 0.088lb

Unless otherwise noted, the specified temperature range applies to all relay characteristics.
SERIES JA
RELAY – NONLATCH – AC COIL
2PDT, 10 AMP

MOUNTING STYLES

Dimensions in inches
Tolerances, unless otherwise specified, ± 0.03 in
TERMINAL TYPES

TERMINAL TYPE 1
FINISH: TIN/LEAD PLATE

TERMINAL TYPE 2
FINISH: TIN/LEAD PLATE

TERMINAL TYPE 4
FINISH:
CASE: TIN/LEAD PLATE
PINS: GOLD PLATE
POLARIZING PIN: TIN/LEAD PLATE
SERIES JA
RELAY – NONLATCH – AC COIL
2PDT, 10 AMP

SCHEMATIC DIAGRAM

STANDARD TOLERANCE: = ±0.010
[1] COIL POLARITY NOT APPLICABLE TO AC VERSIONS.

NUMBERING SYSTEM

Basic series designation
1. Mounting styles (A, D, G, J)
2. Terminal types (1, 2, 4)
3. Coil voltage, see coil characteristics (E, F, J, K, or T)
4. XXX Designators

Example: JA-A1F-XXX
JA-A1F (Commercial)
JA-A1F-300 L,M (MIL)
JA-A1F-123 (Customer Part)

NOTES

1. Standard Intermediate current test applicable.
2. 500 Vrms with silicone gasket compressed, 350 Vrms all other conditions.
4. Special models available: Dry circuit, established reliability testing, etc.
5. Inductive load life, 20,000 cycles for AC and 10,000 cycles for DC.
6. 60 Hz load life, 10,000 cycles.
7. Time current relay characteristics per MIL-R-83536
8. Temperature range: Non-operating -62° C to +95° C Operating -54° C to +71° C

For any inquiries, please contact your local Esterline Power Systems representative