The technical information provided by Esterline Power Systems is to be used as a guide only, and is not meant for publication or as documentation for altering any existing specification. Dimensions are in inches unless otherwise specified. Rev. 3/2016. Export Control Regulation : EAR 99 - These commodities, technology or software are exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited.
**SERIES YC**
**RELAY – NONLATCH**
**3PDT, LOW LEVEL TO 10 AMP**

**COIL CHARACTERISTICS (Vdc)**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Nominal operating voltage</td>
<td>28</td>
<td>12</td>
<td>6</td>
<td>48</td>
<td>28</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>29</td>
<td>14.5</td>
<td>7.3</td>
<td>50</td>
<td>29</td>
<td>14.5</td>
<td>7.3</td>
</tr>
<tr>
<td>Maximum pickup voltage</td>
<td>- Cold coil at +125°C</td>
<td>18</td>
<td>9</td>
<td>4.5</td>
<td>36</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>- During high temp test at +125°C</td>
<td>19.8</td>
<td>9.9</td>
<td>5</td>
<td>38</td>
<td>19.8</td>
<td>9.9</td>
</tr>
<tr>
<td></td>
<td>- During continuous current test at +125°C</td>
<td>22.5</td>
<td>11.25</td>
<td>5.7</td>
<td>42</td>
<td>22.5</td>
<td>11.25</td>
</tr>
<tr>
<td>Maximum drop-out voltage</td>
<td>7</td>
<td>4.5</td>
<td>2.5</td>
<td>14</td>
<td>7</td>
<td>4.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Coil resistance in Ω ±10% at +25°C except types &quot;C&quot; and &quot;V&quot; +20%, - 10% ± 20%</td>
<td>400</td>
<td>100</td>
<td>25</td>
<td>1275</td>
<td>400</td>
<td>100</td>
<td>25</td>
</tr>
</tbody>
</table>

**GENERAL CHARACTERISTICS**

- **Temperature range**: -70°C to +125°C
- **Minimum operating cycles (life) at rated load**: 50,000
- **Minimum operating cycles (life) at 25% rated load**: 200,000
- **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 [6]
- **Insulation resistance**
  - Initial (500 Vdc): 100 MΩ min
  - After environmental tests (500 Vdc): 50 MΩ min
- **Sinusoidal vibration (A and D mounting)**
  - 0.12 d.a. / 10 to 70 Hz
  - 30G / 70 to 3000 Hz
- **Sinusoidal vibration (E mounting in track)**
  - 0.06 d.a. / 10 to 57 Hz
  - 10G / 57 to 500 Hz
- **Sinusoidal vibration (G and J mounting)**
  - 0.12 d.a. / 10 to 57 Hz
  - 20G / 57 to 3000 Hz
- **Random vibration**
  - Applicable specification: MIL-STD-202
  - Method: 214
  - Test condition - A and D mounting: 1G (0.4G²/Hz, 50 to 2000 Hz)
  - Test condition - E, J and G mounting (E in track): 1E (0.2G²/Hz, 50 to 2000 Hz)
  - Duration: 15 minutes each plane
- **Shock (A and D mounting)**
  - 200G / 6 ms
- **Shock (E mounting in track)**
  - 50G / 11 ms
- **Shock (G and J mounting)**
  - 100G / 6 ms
- **Maximum contact opening time under vibration and shock**: 10 µs
- **Operate time at nominal voltage@25°C**: 6 ms max
- **Release time at nominal voltage@25°C**: 6 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 [7]
- **Weight maximum**: 0.062lb

Unless otherwise noted, the specified temperature range applies to all relay characteristics.
SERIES YC
RELAY – NONLATCH
3PDT, LOW LEVEL TO 10 AMP

MOUNTING STYLES

MOUNTING STYLE A

MOUNTING STYLE D

MOUNTING STYLE C

MOUNTING STYLE J

Dimensions in inches
Tolerances, unless otherwise specified, ± 0.03 in
SERIES YC
RELAY – NONLATCH
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TERMINAL TYPES

TERMINAL TYPE 1
FINISH:
BODY: TIN/LEAD (all M83536 qualified relays)
BLUE PAINT (upon request)

TERMINALS: TIN/LEAD

TERMINAL TYPE 2
FINISH:
BODY: TIN/LEAD (all M83536 qualified relays)
BLUE PAINT (upon request)

TERMINALS: TIN/LEAD

TERMINAL TYPE 4
FINISH:
BODY: TIN/LEAD (all M83536 qualified relays)
BLUE PAINT (upon request)

TERMINALS: TIN/LEAD

TERMINAL TYPE 7
FINISH:
BODY: TIN/LEAD (all M83536 qualified relays)
BLUE PAINT (upon request)

TERMINALS: TIN/LEAD
SERIES YC
RELAY – NONLATCH
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DIAGRAM(S)

SCHEMATIC DIAGRAM

STANDARD TERMINAL LAYOUT

TOL: .XX ±.03; .XXX ±.010

NUMBERING SYSTEM

Basic series designation
1. Mounting styles (A, D, E, G, J)
2. Terminal types (1, 2, 4)
3. Coil voltage, see coil characteristics (A, B, C, M, N, R, V)
4. XXX Designators

Example: YC-A1A-XXX
YC-A1A (Commercial)
YC-A1A-300 L,M (MIL)
YC-A1A-123 (Customer Part)

NOTES

1. Standard Intermediate current test applicable. Relay can also switch low level load while switching any of the other rated loads on adjacent contacts.
2. Inductive load life, 10,000 cycles.
3. Low level endurance test: contact load of 10 to 50 millivolt, 10 to 50 microamp, 100 Ohm max. contact resistance.
4. Refer to MIL-PRF-6106 for details.
5. "N," "R," & "V" coil have back EMF suppression to 42 volts maximum.
6. 500 Vrms with silicone gasket compressed, all other conditions 250 Vrms coil to case, 350 Vrms all other points.
7. Applicable to Type "N," "R" & "V" coils.
8. Reference MIL-PRF-6106
9. Relay will not operate, but will not be damaged by application of reverse polarity to coil.

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