Balanced-Force Design
Hermetically sealed
Designed to the performance standards of MIL-PRF-6106

PRINCIPLE TECHNICAL CHARACTERISTICS
Contacts rated at 28 Vdc and 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz, 3Ø
Weight 15.0 oz.
Special units available upon request, including models with auxiliary contacts.

APPLICATION NOTES:
101
102
007

CONTACT ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Contact rating per pole and load type [4]</th>
<th>Load current in Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>28 Vdc</td>
</tr>
<tr>
<td>Resistive</td>
<td></td>
</tr>
<tr>
<td>Motor</td>
<td></td>
</tr>
<tr>
<td>Lamp</td>
<td></td>
</tr>
<tr>
<td>Transfer load [7]</td>
<td></td>
</tr>
</tbody>
</table>

| Motor          | 15 | 30     | 30     |
| Lamp           | 10 | 15     | 15     |
| Transfer load [7] | -  | 12.5   | 12.5   |

Featuring LEACH© power and control solutions
www.esterline.com

Date of issue: 01/07

Data sheets are for initial product selection and comparison. Contact Esterline Power Systems prior to choosing a component.
COIL CHARACTERISTICS (Vdc)  

<table>
<thead>
<tr>
<th>CODE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>F Vac 400Hz</th>
<th>N [4] Vdc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal operating voltage</td>
<td>28</td>
<td>12</td>
<td>6</td>
<td>115</td>
<td>28</td>
</tr>
<tr>
<td>Maximum operating voltage</td>
<td>29</td>
<td>14.5</td>
<td>7.3</td>
<td>124</td>
<td>29</td>
</tr>
<tr>
<td>Pick-up voltage, at +71° C maximum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Nominal</td>
<td>18</td>
<td>9</td>
<td>4.5</td>
<td>90</td>
<td>18</td>
</tr>
<tr>
<td>- High temp test</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>- Continuous current test</td>
<td>21</td>
<td>10.5</td>
<td>5.3</td>
<td>105</td>
<td>21</td>
</tr>
<tr>
<td>Drop-out voltage, maximum</td>
<td>7</td>
<td>4.5</td>
<td>2.5</td>
<td>45</td>
<td>7</td>
</tr>
<tr>
<td>Coil resistance in ohms ±10% at +25° C</td>
<td>175</td>
<td>44</td>
<td>11</td>
<td>-</td>
<td>200</td>
</tr>
<tr>
<td>Coil current max. milliampere at +25° C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100</td>
<td>-</td>
</tr>
</tbody>
</table>

GENERAL CHARACTERISTICS

Temperature range -55°C to +71°C
Minimum operating cycles (life) at rated resistive load 50,000
Minimum operating cycles (life) at 25% rated resistive load 200,000
Dielectric strength at sea level
- All circuits to ground and circuit to circuit 1500 Vrms[9]
- Coil to ground and aux. contacts 1000 Vrms
Dielectric strength at altitude:50,000 feet
- Main contacts 700 Vrms
- Coil and aux. contacts 500 Vrms
Insulation resistance
- Initial 100 M Ω min
- After environmental tests 50 M Ω min
Sinusoidal vibration 10 G / 70 to 2000 Hz
Shock (6 ms duration) 50 G
Maximum contact opening time under vibration and shock 10 µs
Operate time at nominal voltage (Including bounce)
- DC 35 ms max.
- AC 60 ms max
Release time at nominal voltage (Including bounce)
- DC 25 ms max
- AC 80 ms max
Contact bounce at nominal voltage 3 ms max
Weight 15.0 oz. max.
Power requirements:
- at nominal D.C voltage 4.35 watt
Overload - 115/200 Vac, 400Hz @ 28 Vdc 400 Amp 100 Amp
Rupture - 115/200 Vac, 400Hz @ 28 Vdc 400 Amp 125 Amp

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### NUMBERING SYSTEM

<table>
<thead>
<tr>
<th>HC</th>
<th>X</th>
<th>0</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>[5]HCD</td>
<td>X</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>[6]HCP</td>
<td>X</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

- Relay family______________________________________|    |   |   |
- 1-Mounting Style(A,B,Etc.)____________________________|   |   |
- 2-Terminal & Circuit (1,2,3,Etc.)_________________________|   |
- 3-Coil Voltage(A,B,C,F & N)___________________________________|

### NOTES

1. Inductive load life: 20,000 cycles.
2. Applicable military specification: MS27750.
3. Alternate contact configurations and other special models available upon request; Please contact factory.
4. Suppressed "N" coil has back EMF suppression to 42 volts max. Consult factory.
5. Non hermetic, gasket sealed version.
6. Non hermetic, not metallic cover, gasket sealed version. (Not available with mounting style C).
7. Suitable for transfer between unsynchronized AC power sources at ratings indicated.
8. These values are 30, for AC coil models.
9. 1250 VRMS for auxiliary contacts.
CONFIGURATION STYLES

SERIES HC, HCD, HCP

STANDARD TOLERANCE: XX ± .03, XXX ± .010

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TERMINAL CONFIGURATION AND CIRCUIT DIAGRAMS

SERIES HC, HCD, HCP

TERMINAL TYPE 1

TERMINAL TYPE 2

TERMINAL TYPE 3

TERMINAL TYPE 9
IS A GENERAL CATEGORIZATION USED FOR ALL
TERMINAL TYPES NOT ILLUSTRATED
FOR OTHER VARIATIONS OF TERMINAL
CONFIGURATIONS
PLEASE CONTACT FACTORY.

COIL CONFIGURATION

STANDARD COIL
"A, B, C & F"

SUPPRESSED COIL "N"

NOTE: Although all configuration and/or terminal type options are available, some combinations may require a setup charge and be
subject to minimum order size.