APPLICATIONS
Open circuit protection for relay classes through C400
and all classes through C400 and Metering classes.
Frequency .................................................. 50-400Hz
Ambient Temperature Range ...................... -30°C to +55°C
Normal Secondary Current ........................... 5Aac
Short Time Overcurrent... 100A for 1 Sec (80A for 2 Sec.)
Max. Continuous Current.............. 10A through one element
or 7.5A through all three independent elements.
Terminals... Copper with brass slotted pan head screws.
No 8-32 x 1/4, with cupped washers.
Weight ....................................................... 1.2 Lbs.

### 1 ELEMENT OPEN CIRCUIT PROTECTOR

<table>
<thead>
<tr>
<th>CATALOG #</th>
<th>RECOMMENDED CT RELAY CLASS</th>
<th>CLAMPING PEAK VOLTAGE LIMIT (V PEAK NOM)</th>
<th>STANDARD RELAY BURDEN (Ω)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-OCP-100</td>
<td>Thru C100</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>1-OCP-200</td>
<td>C200</td>
<td>400</td>
<td>2</td>
</tr>
<tr>
<td>1-OCP-400</td>
<td>C400</td>
<td>800</td>
<td>3</td>
</tr>
</tbody>
</table>

### 3 ELEMENT OPEN CIRCUIT PROTECTOR

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<tr>
<th>CATALOG #</th>
<th>RECOMMENDED CT RELAY CLASS</th>
<th>CLAMPING PEAK VOLTAGE LIMIT (V PEAK NOM)</th>
<th>STANDARD RELAY BURDEN (Ω)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-OCP-100</td>
<td>Thru C100</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>3-OCP-200</td>
<td>C200</td>
<td>400</td>
<td>2</td>
</tr>
<tr>
<td>3-OCP-400</td>
<td>C400</td>
<td>800</td>
<td>3</td>
</tr>
</tbody>
</table>

### DIMENSIONS

**ONE ELEMENT CURRENT TRANSFORMER OPEN CIRCUIT PROTECTOR**

- Model: 1-OCP-400
- All Terminals: Cu only
- Dimensions: 2.25 x 3.70
- (2) MTG Holes: 0.312 Dia

**THREE ELEMENT CURRENT TRANSFORMER OPEN CIRCUIT PROTECTOR**

- Model: 3-OCP-400
- All Terminals: Cu only
- Dimensions: 2.25 x 3.70
- (2) MTG Holes: 0.312 Dia

**Open Dimensions In Inches**

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**FAX #** (614) 876-8538

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A current transformer secondary should never be open circuited while the current transformer primary circuit is energized. If this situation should occur there is a possibility of developing extremely high voltages which could be dangerous to personnel or cause an insulation breakdown.

The OCP series of open circuit protectors are voltage sensing devices using high speed shorting SCR switches. When the secondary peak voltages exceeds the clamping voltage value, the SCR operates, shorting the C.T. secondary and reducing the voltage to about 2 volts in less than 1/4 cycle. This process repeats each current polarity reversal. The protection is activated each half cycle.

The single element open circuit protector is provided with two terminals and the three element open circuit protector is provided with six terminals for connection across the secondary of the C.T.s and parallels with burden. It can also be connected across the current terminals of a protective relay, meter, or other current operated device without affecting the operation of the device. Secondary polarity of the C.T.s is not critical to the OCP.

The OCP also provides protection against high secondary voltage transients, which may damage the burden or secondary winding. If the transient voltage exceeds the voltage clamping limit, the Open Circuit Protector will trigger. After triggering, the voltage will fall to about 2 volts and remain there until the next zero crossing of the current waveform, at which time the device resets and the cycle repeats as necessary. In the transient mode of protection, triggering will occur only on the half cycle where the transient appears. The leakage current of the OCP is insignificant and will not cause a ratio or phase angle error in the current transformer accuracy.

Metering class C.T.s with a rating factor of 2 could operate up to 10 amps on a continuous basis. Relaying class C.T.s are designed to withstand short time overloads up to 20 times normal (100 amps RMS) for 2 seconds. The OCP is designed to tolerate both this condition and overload conditions of 80 amps RMS for 2 seconds.