2110A–2111A SPECIFICATIONS

1. General

This section contains accuracy, operating and environmental specifications for the Models 2110A, 2111A, and 2111A-20mA.

2. Range and Resolution Tables

<table>
<thead>
<tr>
<th>Model 2110A</th>
<th>CURRENT RANGES</th>
<th>VOLTAGE</th>
<th>.2000 A</th>
<th>2.000 A</th>
<th>20.00 A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>150.00 V</td>
<td>30.00 W</td>
<td>300.0 W</td>
<td>3000 W</td>
<td></td>
<td></td>
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<tr>
<td>300.0 V</td>
<td>60.00 W</td>
<td>600.0 W</td>
<td>6000 W</td>
<td></td>
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</tr>
<tr>
<td>600.0 V</td>
<td>120.00 W</td>
<td>1200.0 W</td>
<td>12000 W</td>
<td></td>
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</tbody>
</table>

| WATTS       |

<table>
<thead>
<tr>
<th>Model 2111A</th>
<th>CURRENT RANGES</th>
<th>VOLTAGE</th>
<th>.2000 A</th>
<th>2.000 A</th>
<th>20.00 A</th>
</tr>
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</tbody>
</table>

| WATTS       |

3. Accuracies

Specified accuracies are valid for a period of 1 year from the date of calibration at 25°C ±5°C, following a 30 minute warm-up.

**Voltage - AC+DC, DC Coupled**

DC and 40Hz - 5kHz: ±0.1% of reading ±6 digits
5kHz - 15kHz: ±0.5% of reading ±6 digits
15kHz - 20kHz: ±0.75% of reading ±6 digits
(Usable above 20kHz to 50kHz with typically an additional 1% error per 10kHz)

**Current - AC+DC, DC Coupled**

DC and 40Hz - 5kHz: ±0.1% of reading ±6 digits
5kHz - 15kHz: ±0.5% of reading ±6 digits
15kHz - 20kHz: ±0.75% of reading ±6 digits
(Usable above 20kHz to 50kHz with typically an additional 1% error per 10kHz)

**Watts - True Power (EI·cosφ)**
DC and 40Hz - 5kHz: ±0.25% of reading ±6 digits
5kHz - 10kHz: ±0.5% of reading ±6 digits
10kHz - 20kHz: ±1% of reading ±1% of range ±6 digits (2A maximum input current)

(Useable above 20kHz to 50kHz with typically an additional 1% error per 10kHz)

**Power Factor - (W+VA)**

Response: Unity to zero, leading or lagging
Resolution: .001 PF (1000 counts)

Accuracy (for inputs > 10% of selected voltage and current ranges):

DC and 40Hz - 1kHz: ±5 counts
1kHz - 5kHz: ±10 counts
5kHz - bandwidth: ±50 counts

**4. Operating Specifications**

Crest Factor Response: 50:1 for minimum RMS input, linearly decreasing to 2.5:1 for full scale RMS input

Minimum Inputs: 5% of voltage and current ranges for specified accuracies

Maximum Voltage Input: 600VDC or RMS, ±1500VPEAK (without damage)

Maximum Current Input: 
Models 2110A and 2111A = ±35APEAK, 20ADC or RMS continuous; 100ADC or RMS for 16 milliseconds without damage

Model 2111A-20mA = ±3.5APEAK, 2ADC or RMS continuous; 5ADC or RMS for 16 milliseconds without damage

Voltage Input Impedance: 600kΩ

Current Shunt Impedance:
Models 2110A and 2111A = .01Ω

Model 2111A-20mA = 0.1Ω

Max Common Mode: ±1500V peak, neutral to earth

Peak Indicators: Illuminate at 2.5 x full scale for voltage and current

Overrange: 150% of full scale for DC, up to "Maximum Input" specification above
2-5. **Environmental and Physical Specifications**

**Temperature Range:** 0°C to 50°C operating; -20°C to 70°C storage

**Temperature Coefficient:** ±0.025% of range per °C from 0°C-20°C and 30°C-50°C

**Power Consumption:** 105-125VAC or 210-250VAC, 50-400Hz; 25VA maximum

**Dimensions:** 25cm W x 27cm D x 10cm H (10" W x 10.5" D x 4" H)

**Weights:** 2.2kg (4.5 lbs) net, 4kg (8 lbs) shipping

**Source/Load Connections:** 4-terminal heavy-duty input jacks