Engineering Data

**AAA Rechargeable 1.2V**

**Nickel-Cadmium**

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**Chemical System:** Nickel-Cadmium (NiCd)

**Designation:** ANSI / NEDA-10024, IEC-KR117/45

**Battery Voltage:** 1.2 Volts

**Average Weight:** 9.5 grams (0.3 oz.)

**Volume:** 3.8 cubic centimeters (0.23 cubic inch)

**Terminals:** Flat Contact

**Rated Capacity:** (to 1.0 Volt) 220 mAh
(Based on 44 mA (0.2C) discharge rate)

**Maximum Charge Rate:** 66 mA

**Jacket:** Plastic

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**Internal resistance**

The internal resistance of the cell varies with state of charge, as follows:

<table>
<thead>
<tr>
<th>State of Charge</th>
<th>Resistance (milliohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Charged</td>
<td>60</td>
</tr>
<tr>
<td>Cell 1/2 Discharged</td>
<td>65 (Tolerance of ±20% applies to above values)</td>
</tr>
</tbody>
</table>

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**AC Impedance (No Load)**

The impedance of the charged cell varies with frequency, as follows:

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Impedance (milliohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>23</td>
</tr>
<tr>
<td>1000</td>
<td>20</td>
</tr>
<tr>
<td>10000</td>
<td>18</td>
</tr>
</tbody>
</table>

Note: Above values based on AC current set at 1.0 ampere.

Value tolerances are ±20%

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**Operating and Storage Temperatures**

Ranges of temperature applicable to operation of the CH12 cells are:

- **Charge @ 0.1C:** 32°F to 122°F (0°C to 50°C)
- **Discharge @ 0.1C:** -4°F to 122°F (-20°C to 50°C)
- **Storage:** -40°F to 140°F (-40°C to 60°C) (6 Months Max.)
  -4°F to 95°F (-20°C to 35°C) (2 Years Max.)

Operating at extreme temperature will significantly effect service and cycle life.

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**Important Notice**

This data sheet contains information specific to batteries manufactured at time of its publication. Please contact your Energizer representative for most current information. Contents herein do not constitute a warranty.