Primary lithium batteries

LO 43 SHX

3.0 V Primary lithium-sulfur dioxide (Li-SO₂)
Very high drain and pulse capability
5/4 C-size spiral cell

Benefits
- High and stable discharge voltage
- Superior pulse capability
- Performance not affected by cell orientation
- Long storage possible before use
- Ability to withstand extreme temperature

Key features
- Low self-discharge rate
  (less than 3% after 1 year of storage at +20°C)
- Hermetic glass-to-metal sealing
- Built-in safety vent
  (at the negative end of the cell)
- Restricted for transport (class 9)
- UL Component Recognition
  (File Number MH 15076)
- Meets shock, vibration and other environmental requirements of military specifications
- Made in the USA

Main applications
- Radiocommunications and other military applications
- Beacons and Emergency Location Transmitters
- Sonobuoys
- Emergency car door opening system

Cell size references

<table>
<thead>
<tr>
<th>Cell size references</th>
<th>5/4 R14 – 5/4 C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical characteristics</td>
<td></td>
</tr>
<tr>
<td>(typical values for cells stored for one year or less)</td>
<td></td>
</tr>
<tr>
<td>Nominal capacity</td>
<td>5.0 Ah</td>
</tr>
<tr>
<td>(at 0.2 A + 20°C, 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)</td>
<td></td>
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<tr>
<td>Open circuit voltage (at +20°C)</td>
<td>3.0 V</td>
</tr>
<tr>
<td>Nominal voltage (at 0.6 A + 21°C/ +70°F)</td>
<td>2.8 V</td>
</tr>
<tr>
<td>Maximum recommended continuous current, (to avoid over-heating. Higher currents possible, consult Saft)</td>
<td>2.5 A</td>
</tr>
</tbody>
</table>

Pulse capability: Typically up to 10 A
(The voltage readings may vary according to the pulse characteristics, the temperature, and the cell’s previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)

Storage (recommended) (possible without leakage)
(+30°C [+86°F] max
−60°C/+85°C
(−76°F/+185°F)

Operating temperature range
−60°C/+70°C
(−76°F/+158°F)

Physical characteristics
| Diameter (max) | 26.0 mm (1.02 in) |
| Height (max; finish with radial tabs) | 59.2 mm (2.33 in) |
| Typical weight | 53 g (1.86 oz) |
| Li metal content | 1.7 g |

Standard cell comes with resin potting at the positive end and two radial 0.15 mm - thick nickel tabs

Other finish configurations available on request.

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Handling precautions

- Cell is pressurised at ambient temperature.
- Do not puncture, open or mutilate.
- Do not obstruct the safety vent mechanism.
- Do not short circuit or charge.
- Do not expose to fire or temperatures above +70°C (+158°F).

Restored Capacity versus Current and Temperature (2.0 V cut-off)

Typical discharge profiles at +20°C

Voltage plateau versus Current and Temperature