Primary lithium battery
LS 33600

3.6 V Primary lithium-thionyl chloride (Li-SOC12)
High energy
D-size bobbin cell

Benefits
- High voltage response, stable during most of the lifetime of the application
- Wide operating temperature range (-60°C/85°C)
- Easy integration in compact system
- Low self-discharge rate (less than 1% after 1 year of storage at +20°C)

Key features
- Stainless steel container
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Finish with or without flat positive end
- Non-flammable electrolyte
- Compliant with IEC 60086-4 safety standard and IEC 60079-11 intrinsic safety standard
- Underwriters Laboratories (UL) Component Recognition (File Number MH 12609)
- Restricted for transport (Class 9)

Main applications
- Utility metering
- Automatic meter readers
- Buoys
- Measuring equipment
- Industrial applications
- Professional electronics
- Marine equipment

Optional upon request
- Low magnetic version

Cell size references

Electrical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal capacity (at 5 mA + 20°C, 2.0 V cut-off)</td>
<td>17.0 Ah</td>
</tr>
<tr>
<td>Open circuit voltage (at +20°C)</td>
<td>3.67 V</td>
</tr>
<tr>
<td>Nominal voltage (at 0.7 mA + 20°C)</td>
<td>3.6 V</td>
</tr>
<tr>
<td>Nominal energy</td>
<td>61.2 Wh</td>
</tr>
</tbody>
</table>

Pulse capability: Typically up to 400 mA (400 mA/0.1 second pulses, drained every 2 min at + 20°C from undischarged cells with 10 µA base current, yield voltage readings above 3.0 V. The 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)

Maximum recommended continuous current: 250 mA (to maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft)

Storage range: +30°C (+86°F) max (for more severe conditions, consult Saft)

Operating temperature range: -60°C/+85°C (-76°F/+185°F) (Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)

Physical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (max)</td>
<td>33.4 mm (1.32 in)</td>
</tr>
<tr>
<td>Height (max)</td>
<td>60.2 or 61.6 mm (2.37 in or 2.42 in) depending on finish type</td>
</tr>
<tr>
<td>Typical weight</td>
<td>90 g (3.2 oz)</td>
</tr>
<tr>
<td>Li metal content</td>
<td>approx. 4.5 g</td>
</tr>
</tbody>
</table>

Available termination suffix:
- CN, CNR: radial tabs
- CNA (AX): axial leads
- FL: flying leads, etc.

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Storage
- The storage area should be clean, cool (preferably not exceeding +30°C), dry and ventilated.

Warning
- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).

Finished version with protruding positive end cap

Dimensions in mm.

Finished version with flat positive end cap

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Information in this document is subject to change without notice and becomes contractual only after written confirmation by Saft.

For more details on primary lithium technologies please refer to Primary Lithium Batteries Selector Guide Doc N° 31048-2.

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Saft
Specialty Battery Group
12, rue Sadi Carnot
93170 Bagnolet - France
Tel.: +33 (0)1 49 93 19 18
Fax: +33 (0)1 49 93 19 69

www.saftbatteries.com