

# Primary lithium batteries

## LS 33600LM

3.6V Primary lithium-thionyl chloride (Li-SOCl<sub>2</sub>)

High energy

D-size bobbin cell

with low magnetic signature

For magnetism-sensitive applications requesting good voltage response and operating life in -60°C/+85°C environments.



### Key features

- High and stable operating voltage
- Low self-discharge rate  
(less than 1% after 1 year of storage at +20°C)
- Stainless steel construction
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Non-flammable electrolyte
- Restricted for transport (Class 9)
- Typical magnetic signatures:  
200 nT (2 mGauss) at 6 mm  
10 nT (0.1 mGauss) at 127 mm  
3 nT (0.03 mGauss) at 300 mm

### Main applications

- Seismic surveying
- Oceanographic instrumentation
- Buoys
- Scientific equipment

etc...

### Optional upon request

- Specific cell terminations
- Multi-cell battery packs

### Cell size references

UM1 - R20 - D

### Electrical characteristics

(typical values relative to cells stored for one year or less at +30°C max.)

Nominal capacity (at 5 mA +20°C 2.0V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off).	17.0 Ah
Open circuit voltage (at +20°C)	3.67V
Nominal voltage (at 0.7mA +20°C)	3.6V

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

Continuous current permitting 50% of the nominal capacity to be achieved at +20°C with 2.0V cut off. (Higher currents possible, consult Saft)	250 mA
--	--------

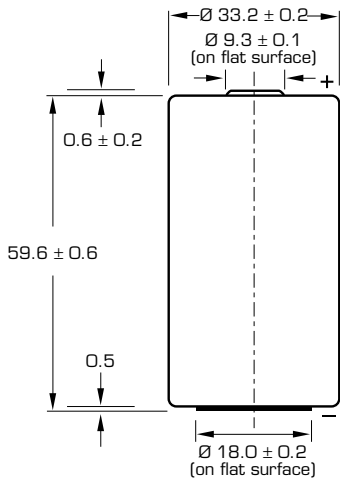
Storage (recommended) (for more severe conditions, consult Saft)	+30°C (+86°F) max
---	-------------------

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

### Physical characteristics

Diameter (max)	33.4 mm (1.32 in)
Height (max)	60.2 mm (2.37 in)
Typical weight	90 g (3.2 oz)
Li metal content	approx. 4.5 g

# LS 33600LM



Dimensions in mm.

## Storage

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

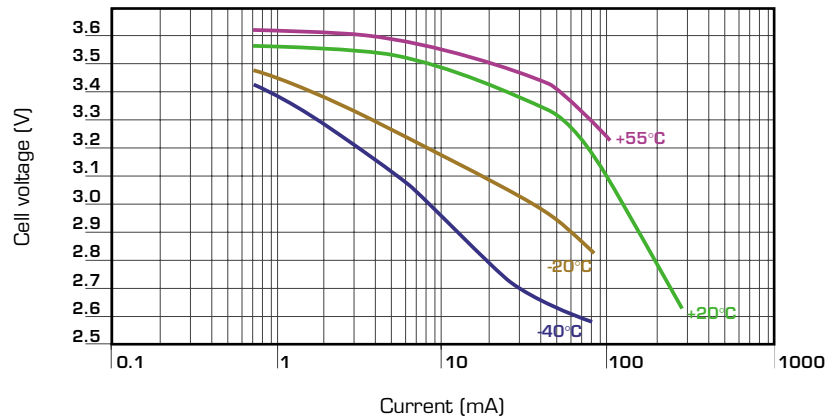
## Warning

- Fire, explosion and severe 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.

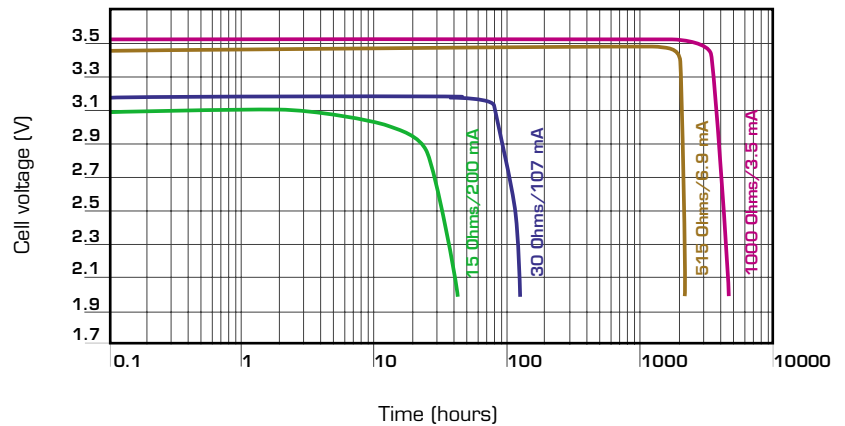
## Saft

12, rue Sadi Carnot  
93170 Bagnolet - France  
Tel +33 1 49 93 19 18  
Fax +33 1 49 93 19 69

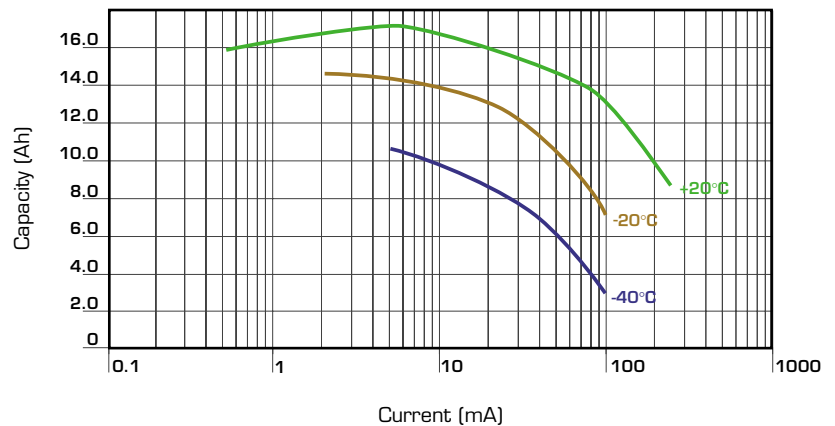
[www.saftbatteries.com](http://www.saftbatteries.com)



Voltage plateau versus Current and Temperature (at mid-discharge)



Typical discharge profiles at +20°C



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

Doc. N° 31039-2-0904  
Published by the Communications Department

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° 31048-2-0604. Photo credit: Saft. Produced by Arthur Associates

Société anonyme au capital de 31 944 000 €  
RCS Bobigny B 383 703 873

