

# Primary lithium batteries

## LS 14500C

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

High energy density

AA-size bobbin cell

(recommended for cool temperature environments)

Preferably for moderate temperature uses (i.e. indoor applications with occasional T excursions up to +55°C) requesting superior voltage response and operating life.



### Key features

- High and stable operating voltage
- Superior voltage response during pulsing at ambient T
- Up to 20% more capacity than the standard version
- Low self-discharge rate (*less than 1% after 1 year of storage at +20°C*)
- Stainless steel container and end caps (low magnetic signature)
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Compliant with IEC 86-4 safety standard and EN 50020 intrinsic safety standard
- Underwriters Laboratories (UL) Component Recognition (File Number MH 12609)
- Non-restricted for transport

### Main applications

- Utility metering
- Alarms and security devices
- Memory back-up
- Tracking systems
- Professional electronics

etc...

### Cell size references

UM3 - R6 - AA

### Electrical characteristics

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

Nominal capacity <i>(at 1 mA + 20°C 2.0V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off).</i>	2.7 Ah
Open circuit voltage (at +20°C)	3.67V
Nominal voltage (at 0.5 mA + 20°C)	3.6V

Pulse capability: Typically up to 150 mA (150 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. <i>(Higher currents possible, consult Saft)</i>	25 mA
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Storage <i>(recommended for more severe conditions, consult Saft)</i>	+ 30°C (+ 86°F) max
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Operating temperature range <i>(Operation at T different from ambient may lead to reduced capacity and lower voltage plateau readings. Consult Saft)</i>	- 60°C/+ 70°C (- 76°F/+ 158°F)
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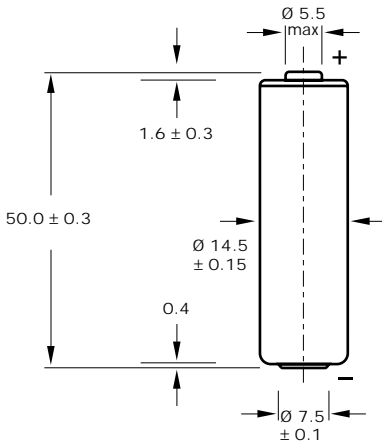
### Physical characteristics

Diameter (max)	14.65 mm (0.58 in)
Height (max)	50.3 mm (1.98 in)
Typical weight	16.2 g (0.6 oz)
Li metal content	approx. 0.7 g

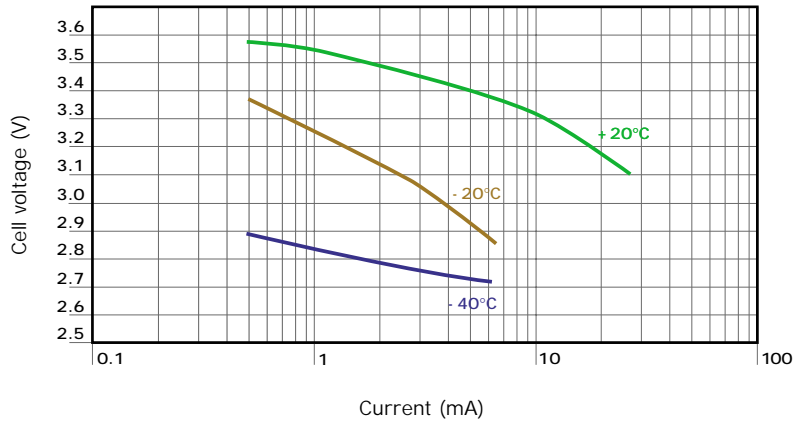
Available termination suffix

CN, CNR	radial tabs
2 PF, 3 PF, 3 PF RP, 4 PF	radial pins
CNA (AX)	axial leads
FL	flying leads ...etc.

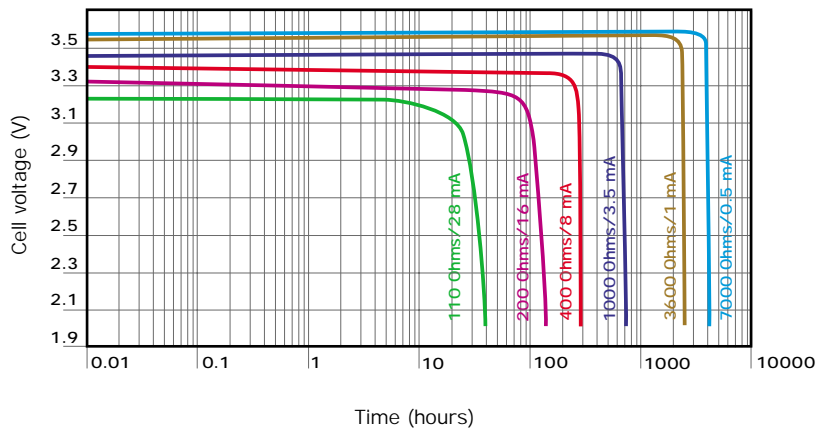
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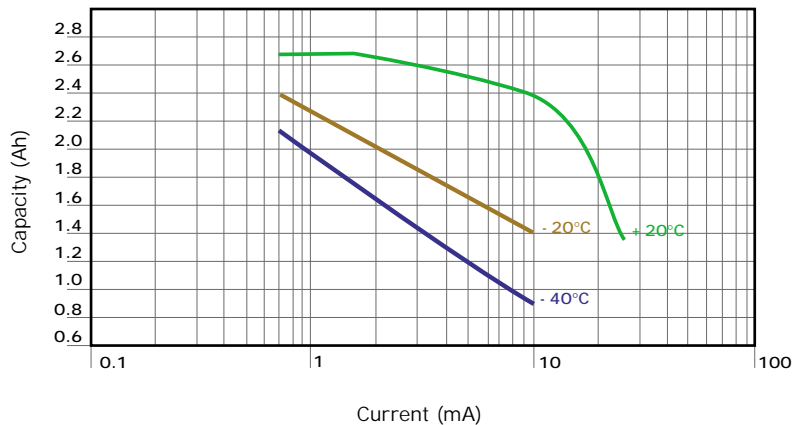
Dimensions in mm.



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)

## 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

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