

Primary lithium batteries

LS 14500 LST 14500

3.6V Primary lithium-thionyl chloride (Li-SOCl₂)

High energy density

AA-size bobbin cells

For 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 container and end caps (low magnetic signature) for LS 14500
- 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
- LS 14500 File Number MH 12609
- LST 14500 File Number MH 12802
- Non-restricted for transport

Main applications

- Utility metering
- Automatic meter reading
- Alarms and security devices
- Tollgate systems
- Memory back-up
- Tracking systems
- Automotive electronics
- 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 2 mA + 20°C 2.0V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off).</i>	2.25 Ah
Open circuit voltage (at +20°C)	3.67V
Nominal voltage (at 0.2 mA +20°C)	3.6V
Pulse capability: Typically up to 280 mA (280 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>	100 mA
Storage <i>(recommended)</i> <i>(for more severe conditions, consult Saft)</i>	+30°C (+86°F) max
Operating temperature range <i>(Operation above ambient T may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)</i>	-60°C/+85°C (-76°F/+185°F)

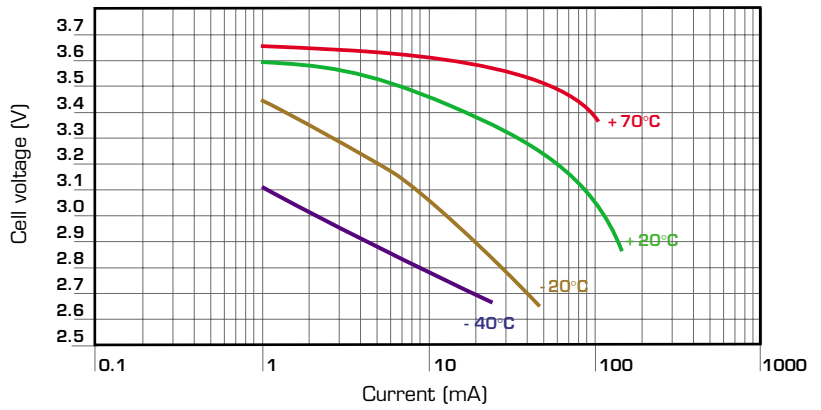
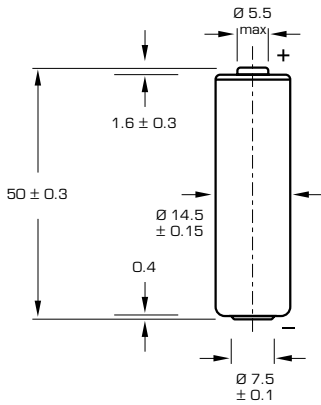
Physical characteristics

	LS 14500	LST 14500
Diameter (max)	14.65 mm (0.58 in)	14.4 mm (0.57 in)
Height (max)	50.3 mm (1.98 in)	49.8 mm (1.97 in)
Typical weight	16.2 g (0.5 oz)	17.4 g (0.6 oz)
Li metal content	approx. 0.6 g	approx. 0.6 g

Available termination suffix

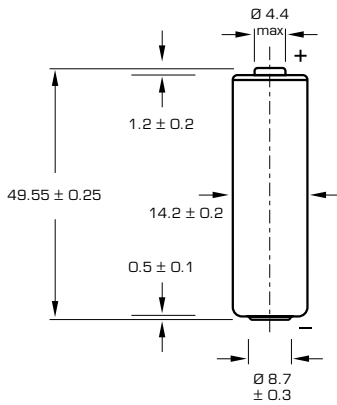
CN, CNR	radial tabs
2 PF, 3 PF, 3 PF RP, 4 PF	radial pins
CNA (AX)	axial leads
FL	flying leads ...etc.

LS 14500

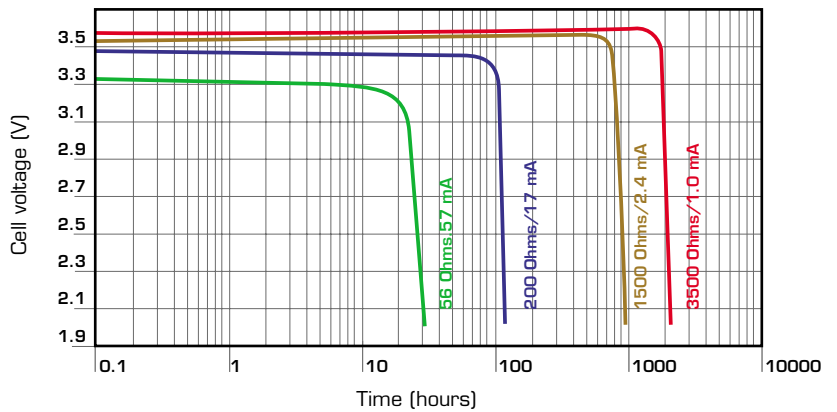


LS 14500 - Voltage plateau versus Current and Temperature (at mid-discharge)

LST 14500



Dimensions in mm.



Typical discharge profiles at +20°C

Storage

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

Warning

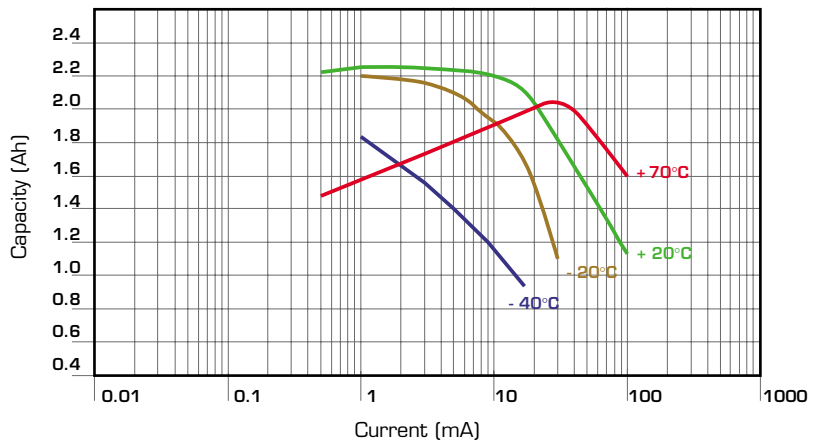
- Fire, explosion and severe burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 100°C (212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell.

Saft

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LS 14500 - Restored Capacity versus Current and Temperature (2.0V cut off)

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