Primary lithium battery
LST 14500

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$)
High energy density
AA-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
- Excellent behavior in humid environment

Key features

- Stainless steel container and end-caps *(corrosion-free and low magnetic signature)*
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Compliant with EN 50020 intrinsic safety standard
- Low self-discharge rate *(less than 1% after 1 year of storage at +20°C)*
- Underwriters Laboratories *(UL)* Component Recognition *(File Number MH 12802)*
- Non-restricted for transport
- Made in UK

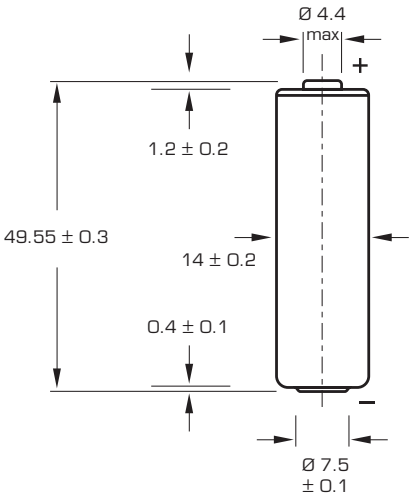
Main applications

- Utility metering
- Automatic meter reading
- Alarms and security devices
- Tollgate systems
- Memory back-up
- Tracking systems
- Automotive electronics
- Professional electronics

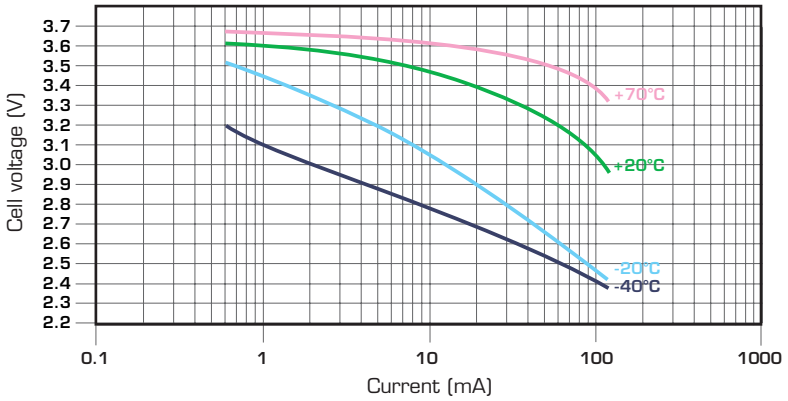
Cell size references	**UM3 - R6 - AA**
Electrical characteristics	
(typical values relative to cells stored for one year or less at +30°C max.)	
Nominal capacity *(at 1 mA +20°C 2.0 V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off)*	2.45 Ah
Open circuit voltage (at +20°C)	3.67 V
Nominal voltage (at 0.2 mA +20°C)	3.6 V
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 3.0 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)*	
Continuous current permitting 50% of the nominal capacity to be achieved at +20°C with 2.0 V cut off. *(Higher currents possible, consult Saft)*	45 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)*	14.2 mm (0.56 in)
Height *(max)*	49.85 mm (1.96 in)
Typical weight	16.3 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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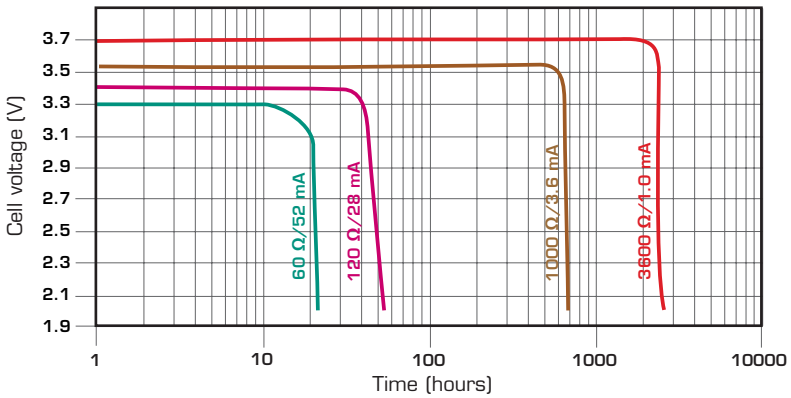
LST 14500



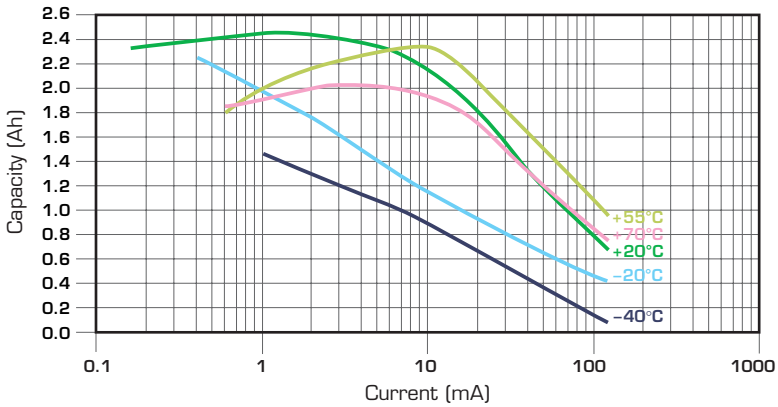
Dimensions in mm.



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



Typical discharge profiles at +20°C



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

Storage

- The storage area should be clean, cool (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 versions instead.

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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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