

Primary lithium battery

LS 14500W

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

AA-size bobbin cell

For demanding environments up to +95°C

For applications requesting superior voltage response and operating life in **W**idely fluctuating temperature environments up to +95°C.



Benefits

- High voltage, stable during most of the application's lifetime
- Superior voltage readings after exposure at elevated temperature
- Voltage readings during pulsing moderately affected by T fluctuations
- Low self-discharge rate (*less than 1 % per year of storage at +20°C*)
- Easy integration into compact systems
- Superior resistance to atmospheric corrosion

Key features

- Stainless steel container (*low magnetic signature*)
- Hermetic glass-to-metal sealing
- Non-flammable electrolyte
- Underwriters Laboratories (UL) Component Recognition
- Compliant with IEC 60086-4 safety standard
- Non-restricted for transport/ Non-assigned to Class 9 according to the UN Recommendations on the transport of dangerous goods - Model Regulations
- Manufactured in France, China

Main applications

- Electronic toll collection
- Identification and tracking systems
- Professional electronics
- Utility metering
- Automotive electronics
- Alarms and security devices

Cell size references

R6 - AA

Electrical characteristics

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

Nominal capacity 2.6 Ah

(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)

Open circuit voltage (at +20°C) 3.67 V

Nominal voltage (at 0.2 mA +20°C) 3.6 V

Nominal energy 9.36 Wh

Pulse capability: Typically up to 250 mA (250 mA/D.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)

Maximum recommended continuous current 30 mA
(Higher currents are possible. Consult Saft)

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

Operating temperature range -60°C/+95°C
(Operation above ambient may lead to reduced capacity and lower voltage readings at the beginning of pulses. Consult Saft)
(-76°F/+203°F)

Physical characteristics

Diameter (max) 14.55 mm (0.57 in)

Height (max) 50.3 mm (1.98 in)

Typical weight 16.7 g (0.6 oz)

Li metal content approx. 0.7 g

Available termination suffix

CN, CNR

radial tabs

2PF, 3PF, 3PF RP, 4PF

radial pins

CNA (AX)

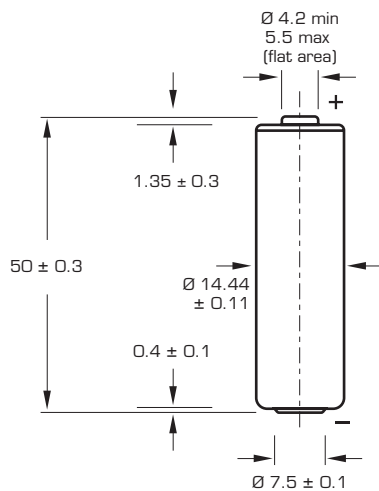
axial leads

FL

flying leads ...etc.

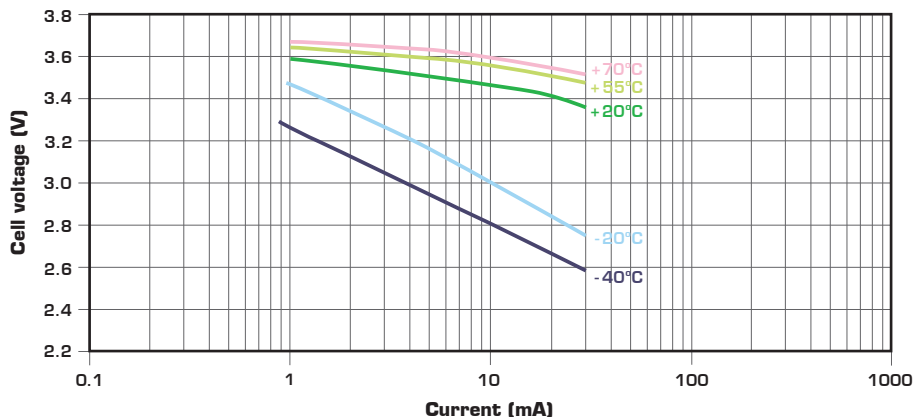


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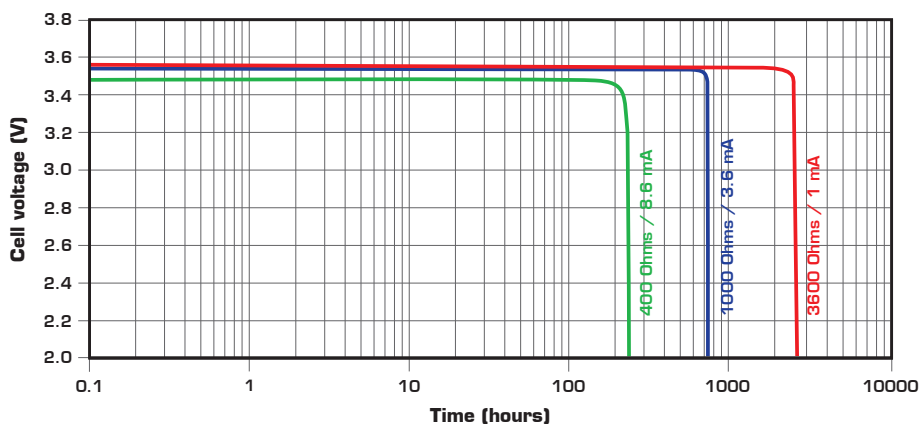


Dimensions in mm.

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



Typical discharge profiles at +20°C



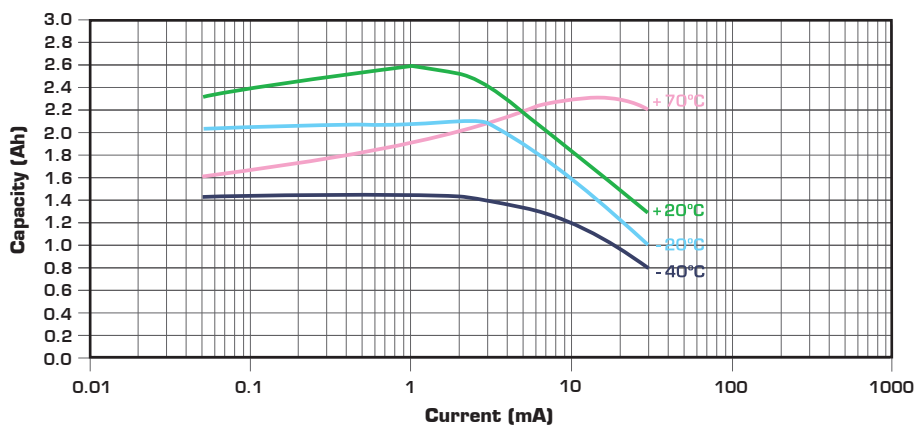
Storage

- 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).

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



Saft

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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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