

Primary lithium battery

LO 40 SX

3.0 V Primary lithium-sulfur dioxide (Li-SO₂)
 High drain capability
 $\frac{2}{3}$ "Thin" D-size spiral cell



Benefits

- High and stable discharge voltage
- High pulse capability
- Performance not affected by cell orientation
- Long storage possible before use
- Ability to withstand extreme temperature

Key features

- Low self-discharge rate
(less than 3 % after 1 year of storage at +20°C)
- Hermetic glass-to-metal sealing
- Built-in safety vent
(at the negative end of the cell)
- UL Component Recognition
(File Number MH 15076)
- Meets shock, vibration and other environmental requirements of military specifications
- Restricted for transport (Class 9)
- Made in the USA

Main applications

- Radiocommunications and other military applications
- Automotive telematics

Cell size reference

$\frac{2}{3}$ "Thin" D

Electrical characteristics

(typical values for cells stored for one year or less)

Nominal capacity 3.50 Ah
 (under 120 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) 3.0 V

Nominal voltage (at 120 mA +20°C) 2.8 V

Maximum recommended continuous current 2.0 A
 (to avoid over-heating. Higher currents possible, consult Saft)

Pulse capability: Typically up to 5 A.
 (The voltage 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)

Storage (recommended) +30°C (+86°F) max.
 (possible without leakage) -60°C/+85°C
 [-76°F/+185°F]

Operating temperature range -60°C/+70°C
 [-76°F/+158°F]

(Short excursions up to +85°C possible at currents below 1 A)

Physical characteristics

Diameter (max) 28.95 mm (1.140 in)

Height (max; finish without radial tabs) 42.29 mm (1.665 in)

Typical weight 40 g (1.41 oz)

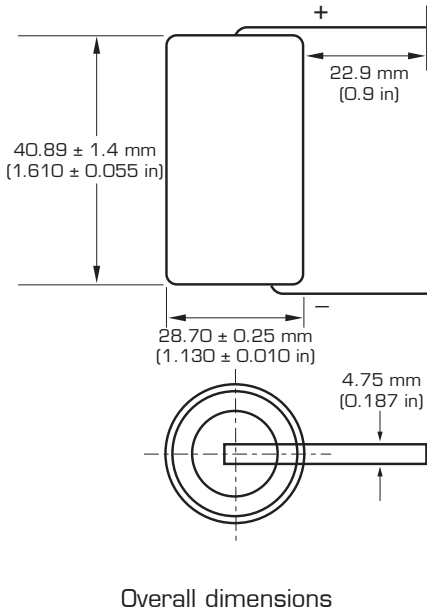
Li metal content 1.2 g

Standard cell comes with resin potting in the topshell area and two radial 0.15 mm - thick nickel tabs

Other configurations available on request.



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Handling precautions

- Cell is pressurised at ambient temperature.
- Do not puncture, open or mutilate.
- Do not obstruct the safety vent mechanism.
- Do not short circuit or charge.
- Do not expose to fire or temperatures above +70°C (+158°F).

Saft

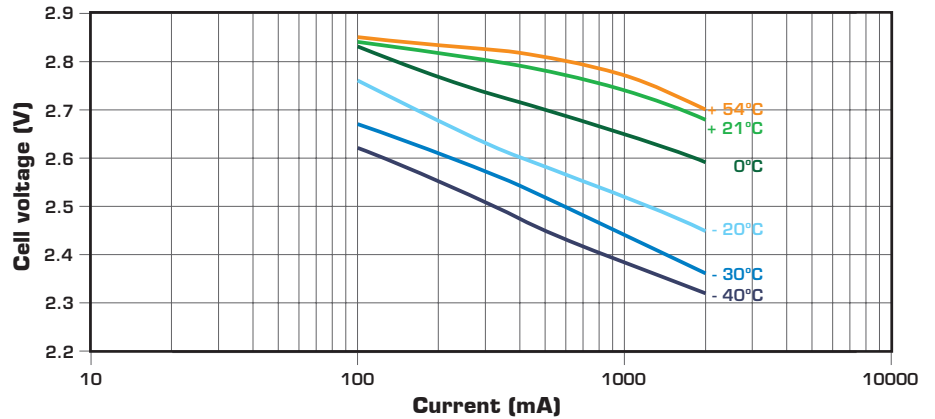
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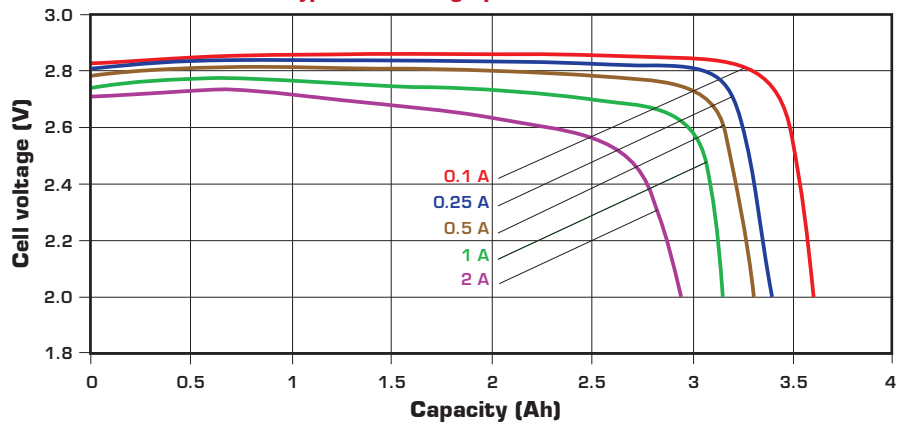
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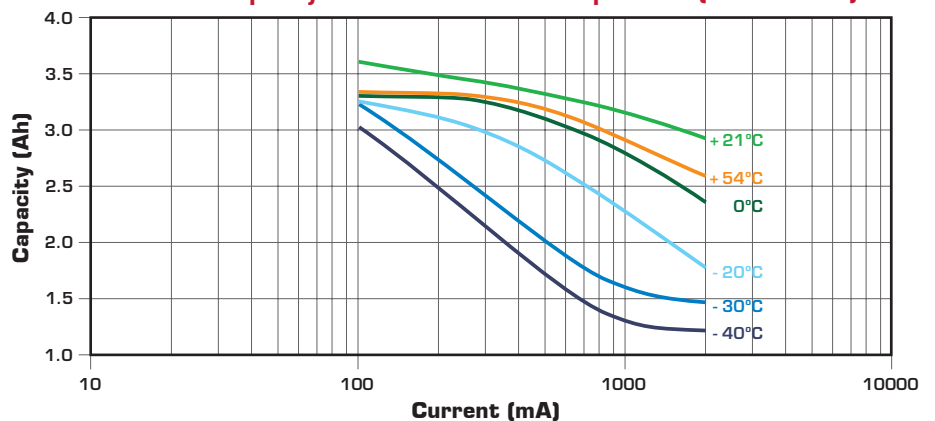
Voltage plateau versus Current and Temperature



Typical discharge profiles at +20°C



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



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For more details on primary lithium technologies please refer to Primary Lithium Batteries Selector Guide Doc N° 31048-2.

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