

Primary lithium batteries

LO 29 SHX

3.0 V Primary lithium-sulfur dioxide (Li-SO₂)
 Very high drain and pulse capability
 C-size spiral cell



Benefits

- High and stable discharge voltage
- Superior 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)
- Restricted for transport *(class 9)*
- UL Component Recognition
(File Number MH 15076)
- Meets shock, vibration and other environmental requirements of military specifications
- Made in the USA

Main applications

- Radiocommunications and other military applications
- Rescue devices (PLBs, EPIRBs)
- Sonobuoys

Cell size reference

R14 - C

Electrical characteristics

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

Nominal capacity <i>(at 0.25 A +20°C 2.0 V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off)</i>	3.75 Ah
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Open circuit voltage (at +20°C)	3.0 V
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Nominal voltage (at 0.4 A +20°C)	2.8 V
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Maximum recommended continuous current <i>(to avoid over-heating. Higher currents possible, consult Saft)</i>	2.5 A
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Pulse capability : Typically up to 6 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 <i>(recommended possible without leakage)</i>	+30°C (+86°F) max -60°C / +85°C (-76°F / +185°F)
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Operating temperature range <i>(Short excursions up to +85°C possible at currents below 1 A)</i>	-60°C / +70°C (-76°F +158°F)
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Physical characteristics

Diameter <i>(max)</i>	25.6 mm (1.00 in)
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Height <i>(max; finish without radial tabs)</i>	50.4 mm (1.98 in)
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Typical weight	40 g (1.4 oz)
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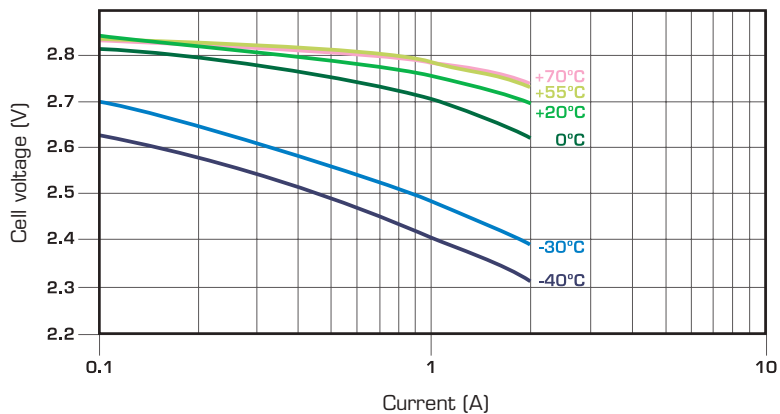
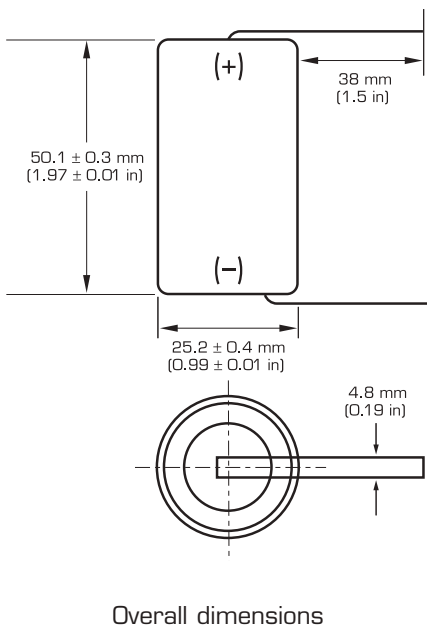
Li metal content	1.2 g
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Standard cell comes with resin potting in the topshell area and two radial 0.15 mm - thick nickel tabs

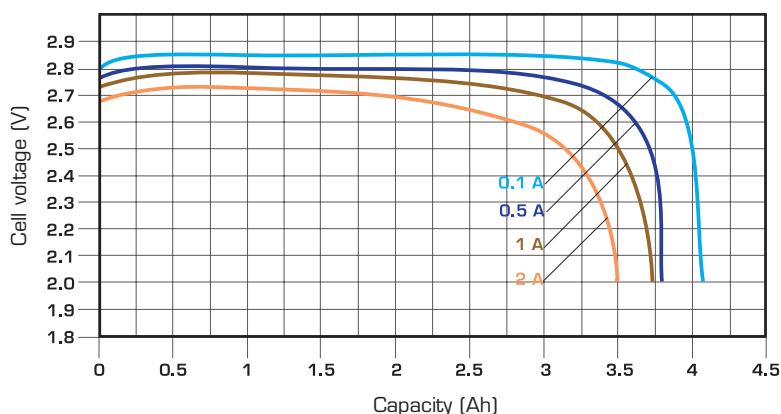
Different configurations available on request.



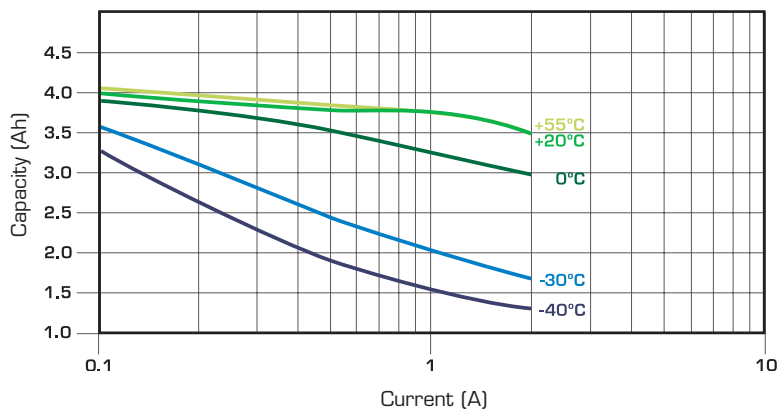
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Voltage at mid-discharge versus Current and Temperature (2.0 V cut off)



Typical discharge profiles at +20°C



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

Handling precautions

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

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