

Primary lithium battery

G 54/3

3.0 V Primary lithium-sulfur dioxide (Li-SO₂)
 High drain capability
⁵/₄ C-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 2 % 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)*
- Meets shock, vibration and other environmental requirements of military specifications
- Made in UK

Main applications

- Radiocommunications and other military applications
- Beacons and Emergency Location Transmitters
- Sonobuoys
- Life jacket lights
- Professional electronics
- Missiles

Cell size reference

⁵/₄ R14 - ⁵/₄ C

Electrical characteristics

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

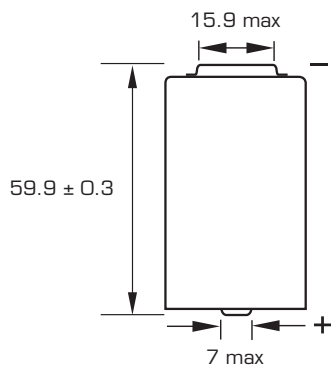
Nominal capacity <i>(at 0.2 A +20°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)</i>	5.0 Ah
Open circuit voltage (at +20°C)	3.0 V
Nominal voltage (at 0.5 A +20°C)	2.8 V
Nominal energy	14 Wh
Maximum recommended continuous current <i>(to avoid over-heating)</i>	2.5 A
Pulse capability: Typically up to 5 A. <i>(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)</i>	
Storage (recommended) (possible without leakage)	+30°C (+86°F) max +85°C (+185°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/+70°C (-76°F/+158°F)

Physical characteristics

Diameter (max)	25.6 mm (1.01 in)
Height (max)	60.2 mm (2.37 in)
Typical weight	58 g (2.05 oz)
Li metal content	1.5 g

Standard cell comes with protruding positive end-cap.
 Finish with tabs available on request.

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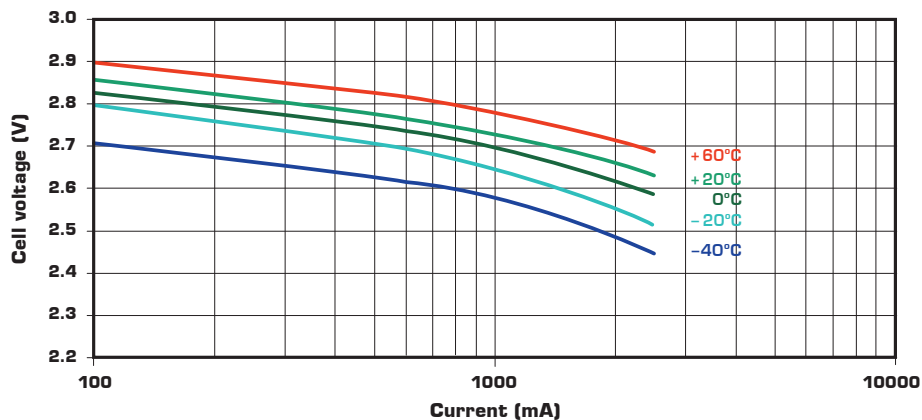


Overall dimensions in mm

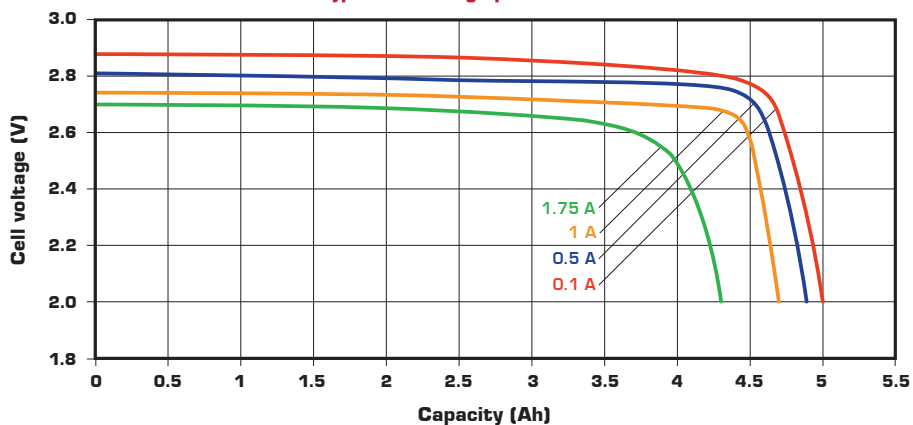
Handling precautions

- 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 $+70^{\circ}\text{C}$ ($+158^{\circ}\text{F}$).

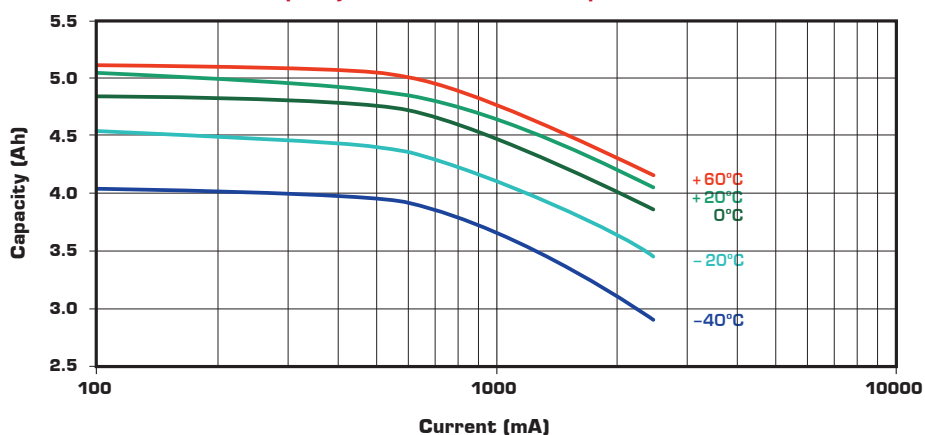
Voltage at mid-discharge versus Current and Temperature (2.0 V cut-off)



Typical discharge profiles at $+20^{\circ}\text{C}$



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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