

Primary lithium battery

LM 33600

3 V Primary lithium-manganese dioxide

High power

D-size spiral cell

For applications requesting excellent voltage response and operating life in -40°C/+70°C environments.



Benefits

- High voltage response, stable during most of the lifetime of the application
- High drain/pulse capability
- Minimum voltage delay after long dormant periods
- Competitive capacity at high current and low temperature
- Easy integration into compact system
- Low self-discharge rate
(less than 3% after 1 year of storage at +20°C)

Key features

- Stainless steel container
- Hermetic glass-to-metal sealing
- Built-in safety vent
- Non-corrosive electrolyte
- Restricted for transport *(Class 9)*

Main applications

- Radiocommunication
- Buoys
- Measuring equipment
- Industrial applications
- Professional electronics
- Marine equipment
- ELTS, EPIRBS, etc...

Cell size references

UM1 - R20 - D

Electrical characteristics

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

Nominal capacity		10.5 Ah
<i>(at 250 mA +20°C 2.0V cut off. The capacity restored by the cell varies according to current drain, temperature and cut off)</i>		
Open Circuit Voltage	(at +20°C)	approx. 3.2 V
Nominal voltage	(under 1 mA at +20°C)	3.0 V
Pulse capability		4 A
Maximum recommended continuous current		2.5 A
<i>(to maintain cell heating within safe limits)</i>		
Storage	<i>(recommended)</i> <i>(for more severe conditions, consult Saft)</i>	+30°C (+86°F) max
Operating temperature range		-40°C/+70°C <i>(Operation below ambient T may lead to reduced capacity and lower voltage readings)</i>

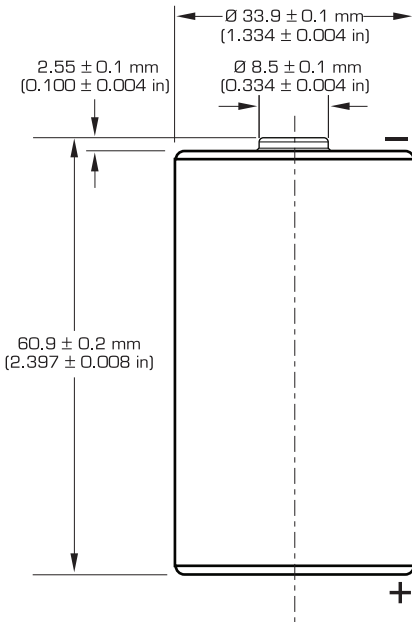
Physical characteristics

Diameter <i>(max)</i>	34 mm (1.338 in)
Height <i>(max)</i>	61.1 mm (2.405 in)
Typical weight	116 g (4.09 oz)
Li metal content	approx. 3.6 g

Available termination suffix	
CN, CNR	radial tabs
CNA (AX)	axial leads
FL	flying leads... etc.



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Storage

- The storage area should be clean, cool, dry and ventilated.

Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 70°C (158°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).

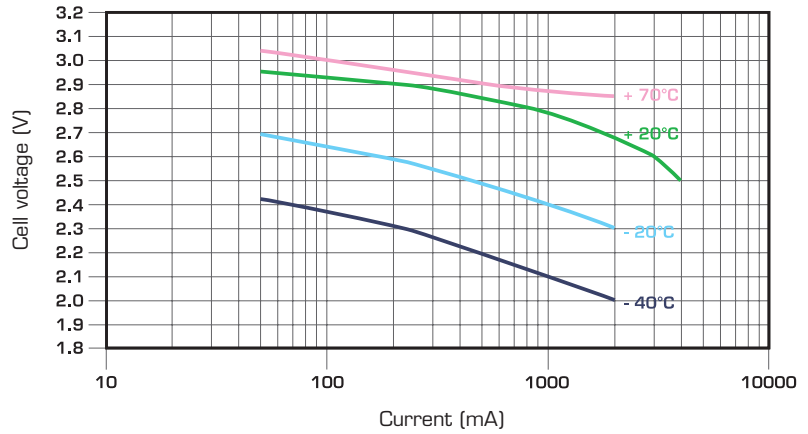
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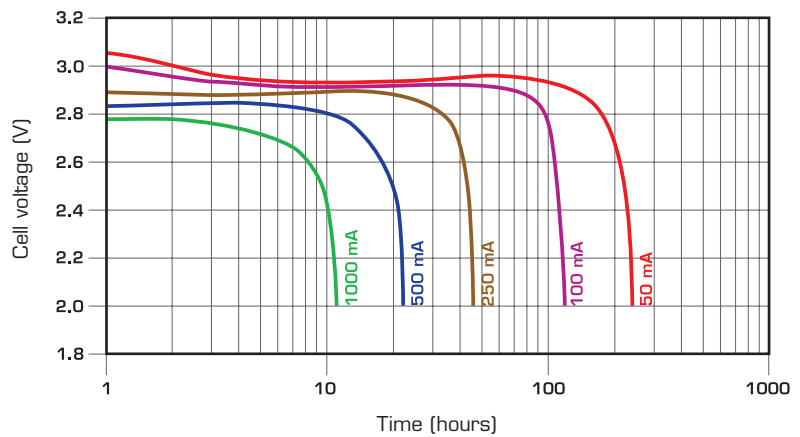
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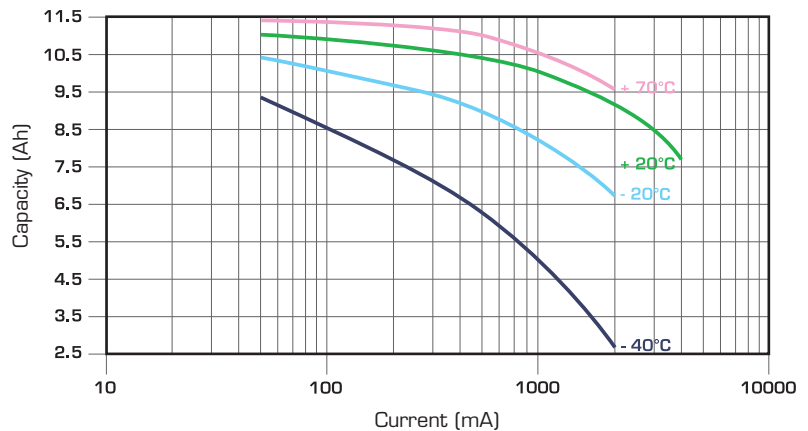
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Voltage plateau versus Current and Temperature (at mid-discharge)



Typical discharge profiles at +20°C



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

Doc. N° 31078-2-1006

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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