

LM 17500

Primary Li-MnO₂ cell

3 V lithium manganese dioxide A-size spiral cell

Saft's LM 17500 cell is ideally suited for applications requiring high energy and long operating life, with stable voltage under high discharge rates in -40°C / +85°C environment.



Benefits

- High drain/ high pulse capability
- High voltage response, stable during most of the lifetime of the application even after long dormant periods
- High capacity at high current and low temperature
- Low self discharge compatible with long operating life (less than 1% after 1 year of storage at +20°C)
- Superior resistance to corrosion
- Low magnetic signature

Key Features

- Spiral construction
- Hermetic construction with glass to metal seal
- Stainless steel container
- Integrated safety vent
- Non corrosive electrolyte
- Non pressurized at room temperature
- Non restricted for transport
- RoHS and REACH compliant
- Made in USA

Designed to meet all major quality, safety and environment standards

- Safety: UL 1642 and IEC 60086-4
- ATEX: Compliant with IEC 60079-11 (T4 rating at +70°C)
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class Continuous program

Typical Applications

- Utility metering
- Alarms and security
- Tracking systems
- GSM/GPRS communication
- Radio communications systems
- Medical devices

Electrical characteristics

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

Nominal capacity (at 30mA +20°C 2.0V cut-off) ¹	3.0 Ah
Open circuit voltage (at +20°C)	3.2 V
Nominal voltage (under 1mA at +20°C)	3.0 V
Nominal energy (at 30mA +20°C 2.0V cut-off)	8.7 Wh
Pulse capability ²	up to 2.0 A
Recommended maximum continuous current	1.5 A

Operating conditions

Operating temperature range ³	-40°C to +85°C
Storage temperatures	
Recommended	+30°C
Allowable ⁴	-55°C to +90°C

Physical characteristics

Diameter (max)	17.5 mm
Height (max)	51.5 mm
Typical weight	approx. 28 g
Li metal content	1.0 g max

Termination

Available termination suffix	
CN, CNR	radial tabs
3 PF, 3 PF RP, 4 PF, 2 PF	radial pins
FL	flying leads
Other configurations upon request	

¹Dependent upon current drain, temperature and cut-off.

²Dependent upon pulse characteristics, temperature, cell history and application. Higher rates are available under certain circumstances

³To maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may require specific thermal protection. Consult Saft.

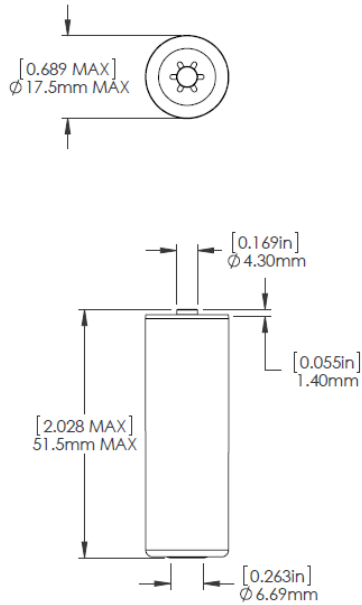
⁴Long time storage at high temperature may affect performances. Consult Saft.



SAFT

LM 17500

LM 17500 dimensions



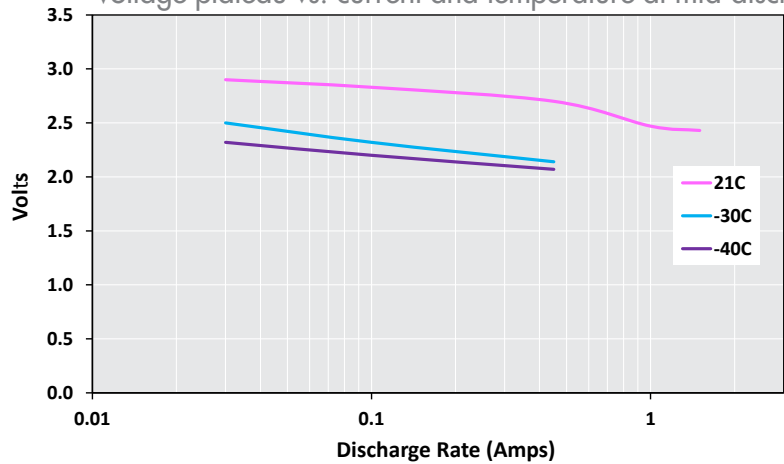
Storage

- The storage area should be clean, cool (preferably not exceeding +30°C), dry and ventilated.

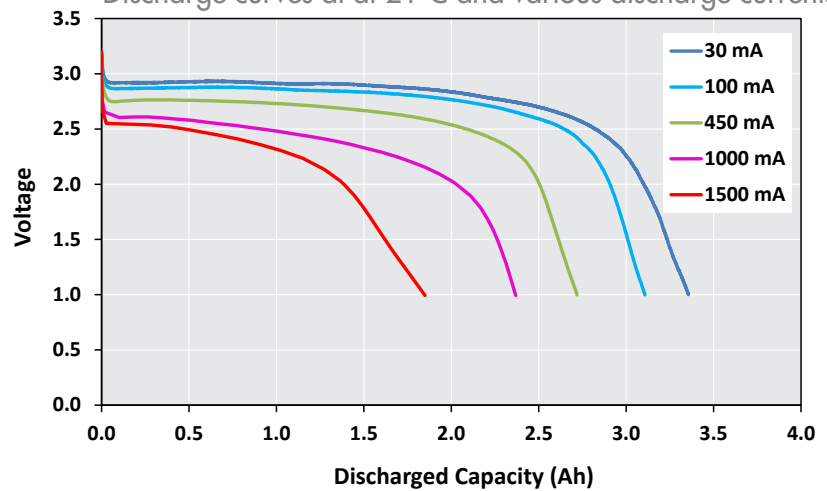
Warning

- Fire, explosion and burn hazard.
- Do not recharge, short circuit, crush, disassemble, heat above 85°C, incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).
- Do not obstruct venting mechanism.
- Minimum clearance 2 mm (0.08 in) at negative end of cell.

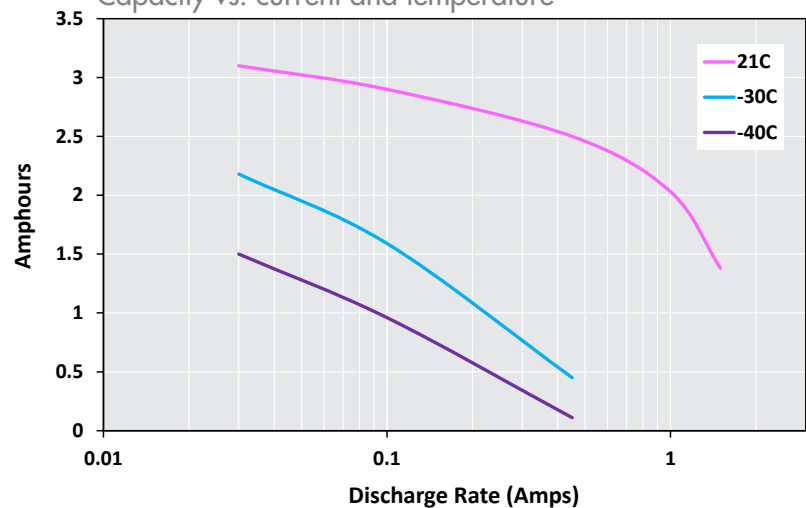
Voltage plateau vs. current and temperature at mid-discharge



Discharge curves at at 21°C and various discharge currents



Capacity vs. current and temperature



Saft

12, rue Sadi Carnot
93170 Bagnolet France
Tel.: +33 (0)1 49 93 19 18
Fax: +33 (0)1 49 93 19 69
www.saftbatteries.com

Saft America, Inc.

313 Crescent St.
Valdese, NC 28690 - USA
Tel.: +1 (828) 874 4111
Fax: +1 (828) 874 3981
www.saftbatteries.com

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