

# LM 17500

## Primary Li-MnO<sub>2</sub> 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) <sup>1</sup>	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 <sup>2</sup>	up to 2.0 A
Recommended maximum continuous current	1.5 A

### Operating conditions

Operating temperature range <sup>3</sup>	-40°C to +85°C
Storage temperatures	
Recommended	+30°C
Allowable <sup>4</sup>	-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	

<sup>1</sup>Dependent upon current drain, temperature and cut-off.

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

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

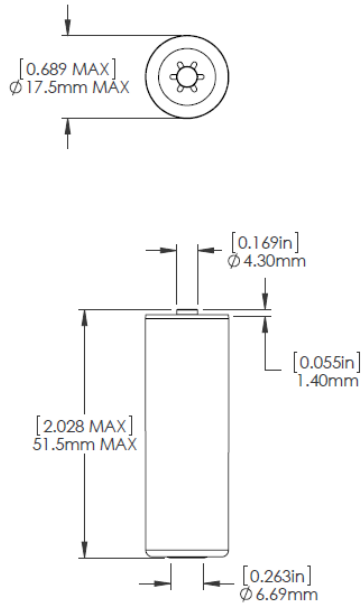
<sup>4</sup>Long time storage at high temperature may affect performances. Consult Saft.



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## LM 17500 dimensions



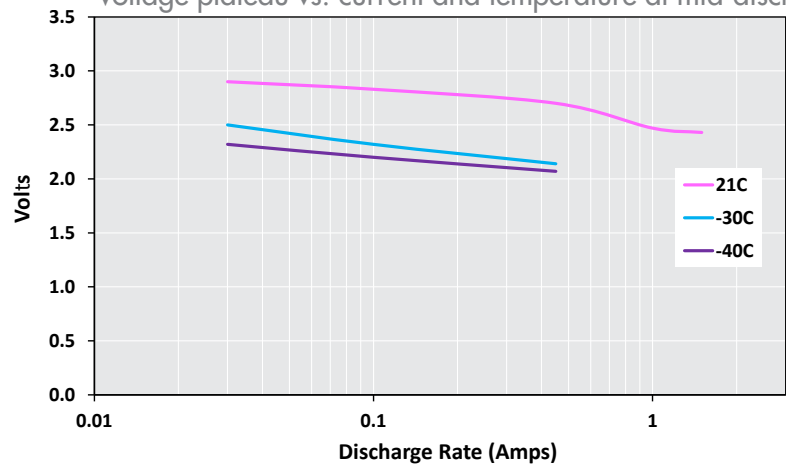
## Storage

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

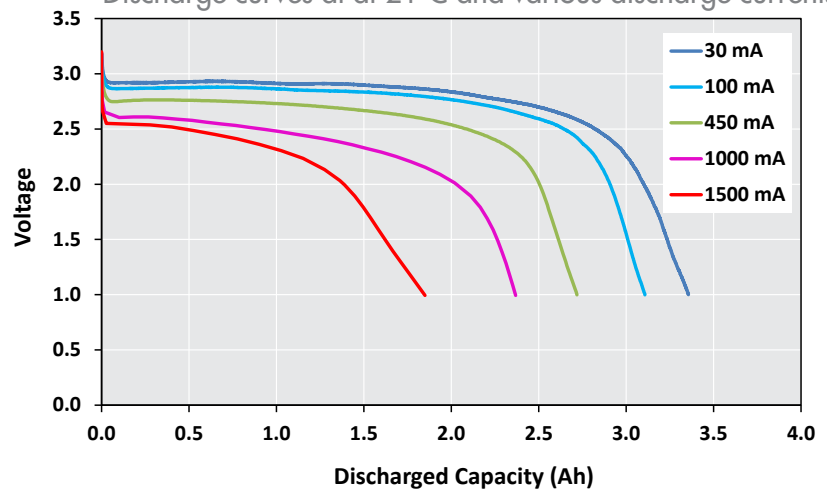
## Warning

- 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

