

# 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

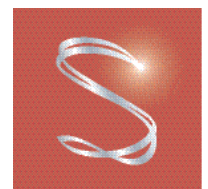
|                                   |              |
|-----------------------------------|--------------|
| Available termination suffix      |              |
| CN, CNR                           | radial tabs  |
| 3 PF, 3 PF RP, 4 PF, 2 PF         | radial pins  |
| FL                                | 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.

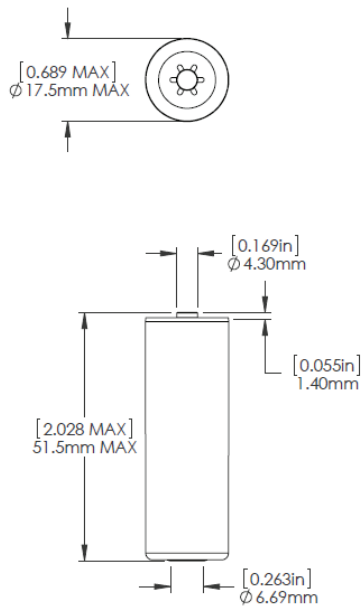
<sup>4</sup>Long time storage at high temperature may affect performances. Consult Saft.



**Saft**

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## LM 17500 dimensions



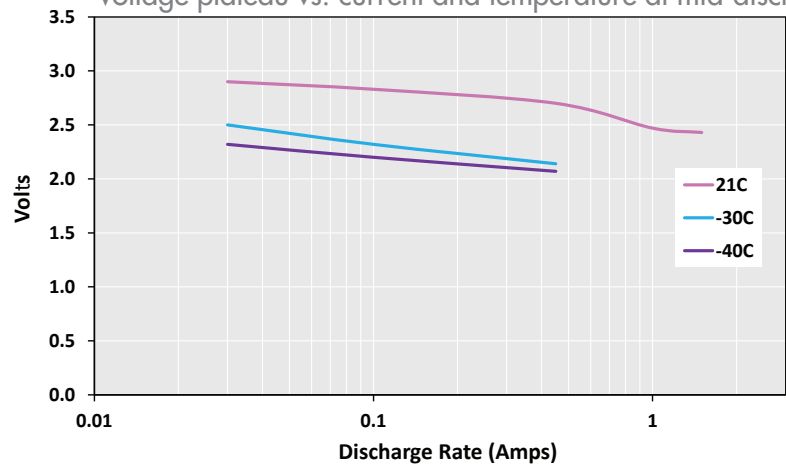
## Storage

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

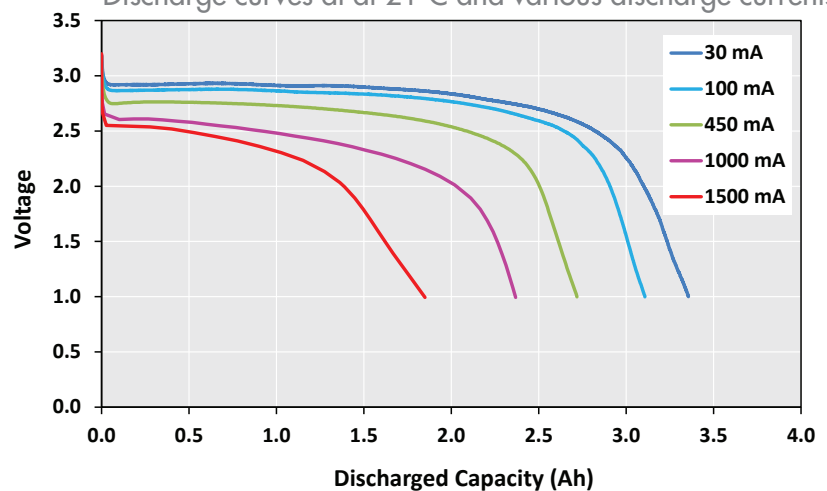
## Warning

- 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).

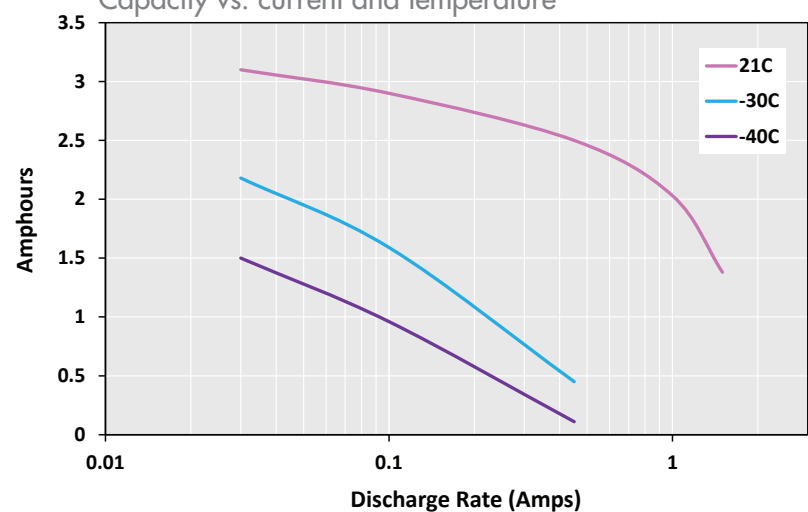
Voltage plateau vs. current and temperature at mid-discharge



Discharge curves 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](http://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](http://www.saftbatteries.com)

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