# LM 33600 Primary Li-MnO<sub>2</sub> cell

### 3 V lithium manganese dioxide D-size spiral cell

Saft's LM 33600 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
- Restricted for transport (Class 9)
- RoHS and REACH compliant
- Made in USA

### Designed to meet all major quality, safety and environment standards

- Safety: UL 1642 and IEC 60086-4
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class Continuous program

### Typical Applications

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



Electrical characteristics	
(Typical values relative to cells stored for one year or less at +3	80°C max)
Nominal capacity (at 250mA +20°C 2.0V cut-off) <sup>1</sup>	13.4 Ah
Open circuit voltage (at +20°C)	3.2 V
Nominal voltage (under 1mA at +20°C)	3.0 V
Nominal energy (at 250mA +20°C 2.0V cut-off)	37 Wh
Pulse capability <sup>2</sup>	up to 8.0 A
Recommended maximum continuous current	4.0 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)	33.7 mm
Height (max)	61.3 mm
Typical weight	113 g
Li metal content	approx. 4.4 g
Termination	
Available termination suffix	
CNR	radial tabs
3 PF, 3 PF RP, 4 PF	radial pins
FL	flying leads
Other configurations upon request	
<sup>1</sup> Dependent upon current drain, temperature and cut-off.	

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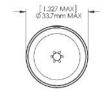
<sup>&</sup>lt;sup>2</sup>Dependent upon pulse characteristics, temperature, cell history and application. Higher rates are available under certain circumstances

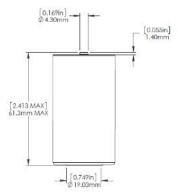
<sup>&</sup>lt;sup>3</sup>To maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may require specific thermal protection. Consult Saft.

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

## LM 33600

### LM 33600 dimensions





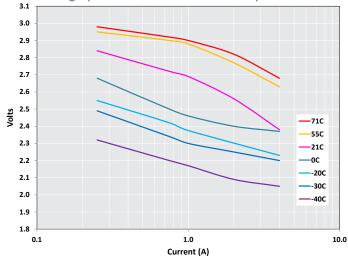
### Storage

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

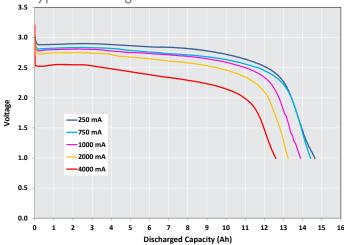
### Warning

- 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.

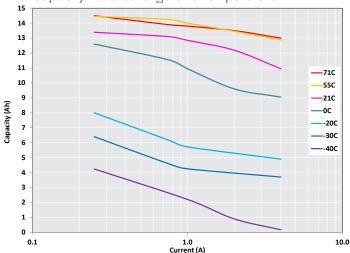




Typical discharge curves at 21°C at various discharge currents



Capacity vs. discharge and temperature





### Saft

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