M 62
Primary Li-MnO\(_2\) cell

3 V lithium manganese dioxide Fat DD-size spiral cell

Saft’s M 62 cell is ideally suited for applications requiring high energy and long operating life, with stable voltage under high discharge in \(-40^\circ\text{C} / +72^\circ\text{C}\) environment. It is specially designed to sustain high vibration levels.

**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 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
- Ruggedized mechanical design to sustain high shocks and high vibration levels
- Restricted for transport (Class 9)
- Made in Germany

**Designed to meet all major quality, safety and environmental standards**
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class Continuous program
- Environment: ISO 14001

**Typical applications**
- Space applications
- Applications with high vibration levels
- Oil and gas applications
- Pipeline Inspection Gauges (PIGs)
- Oceanography

**Electrical characteristics**
(Typical values relative to cells stored up to one year at +30°C max)
- Nominal capacity (at 1.6 A, +20°C, 2.0 V cut-off) \((1)\) 33.0 Ah
- Open circuit voltage (at +20°C) 3.2 V
- Nominal voltage (under 1 mA at +20°C) 3.0 V
- Nominal energy (at 1.6 A, +20°C, 2.0 V cut-off) 91 Wh
- Pulse capacity \((2)\) up to 12.0 A
- Recommended maximum continuous discharge current \((3)\) 6.0 A

**Operating conditions**
- Operating temperature range \((4)\) \(-40^\circ\text{C} / +72^\circ\text{C}\) (-40°F / +161°F)
- Storage temperatures
  - Recommended +30°C (+86°F) max
  - Allowable \((5)\) \(-55^\circ\text{C} to +85^\circ\text{C}\) (-67°F / +185°F)

**Physical characteristics**
- Diameter (max) 42.5 mm (1.67 in)
- Height for the tabbed version (max) 133.0 mm (5.24 in)
- Typical weight 355 g
- Li metal content approx. 11.6 g

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

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

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

\(4\) Operating temperatures up to +85°C can be achieved. Consult Saft.

\(5\) Long time storage at high temperature may affect performances. Consult Saft.
Termination & part numbers

1. +/- tab on top: 4104090503
2. C tab (radial tab on positive & negative terminals): 4104090203

Other configuration available on request

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 +100°C (+212°F), incinerate, or expose contents to water.
- Do not solder directly to the cell (use tabbed cell versions instead).
- Do not obstruct venting mechanism.

Mid-discharge voltage vs. current at various temperatures

Discharge curves at 1.6 A at various temperatures

Capacity vs. current at various temperatures

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