Saft’s 1S2P.M20 battery is based on D size Li-MnO₂ cells with spiral electrode design. It is ideally suited for applications requiring high energy and capacity with stable voltage under very high discharge rate in -40 °C / +72 °C environment.

Benefits
- High drain and pulse capability
- High voltage response, stable even after long dormant periods
- High capacity even at high current and low temperature
- High energy density
- No voltage delay
- Low self-discharge compatible with long shelf-life of 10+ years (less than 1% after 1 year of storage at +20 °C)
- Superior resistance to corrosion

Key features
- Two M20 cells in 1S2P configuration and side-to-side orientation
- Safe, hermetic and non-pressurized cell construction with glass-to-metal seal, safety vent and stainless steel container
- Alternative versions with M20 CV cells having nickel-plated steel containers available on request
- Integrated protection elements (e.g. polyswitch) available on request
- Restricted for transport (class 9)
- Manufactured in Germany

Designed to meet all major quality, safety and environment standards
- Safety: UL 1642 (File MH 61234), IEC 60086-4
- Transport: UN 3090 and UN 3091
- Military: VG94915 parts 2 and 154
- Quality: ISO 9001, Saft World Class continuous program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications
- Data loggers
- Metering

Electrical characteristics
<table>
<thead>
<tr>
<th>Typical values related to batteries stored up to one year at +30 °C max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical capacity [at 300 mA, +20 °C, 4.0 V cut-off]^(1)</td>
</tr>
<tr>
<td>Open circuit voltage</td>
</tr>
<tr>
<td>Nominal voltage [under 1 mA, at +20 °C]</td>
</tr>
<tr>
<td>Nominal energy [at 300 mA, +20 °C, 4.0 V cut-off voltage]</td>
</tr>
<tr>
<td>Pulse capacity [^1]</td>
</tr>
<tr>
<td>Recommended maximum continuous discharge current[^2]</td>
</tr>
</tbody>
</table>

Operating conditions
| Operating temperature range[^3] | -40 °C / +72 °C (-40 °F / +161 °F) |
| Storage temperatures           | Recommended 30 °C (86 °F) max       |

Physical characteristics
- Length (max) 70.0 mm / 2.76 in
- Width (max) 34.5 mm / 1.36 in
- Height (max) 64.5 mm / 2.55 in
- Battery case Shrink sleeve
- Terminals Cables with optional connectors
- Battery weight 248 g
- Li metal content 7.0 g

References
- Saft part numbers[^5] with JST PHR-5 connector 4423080151

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[^1]: Can vary depending on current drain, temperature and cut-off voltage.
[^2]: Depend upon pulse characteristics, temperature, cell history and application. Higher rates are available under certain circumstances.
[^3]: To maintain cell heating within safe limits.
[^4]: Operating temperatures up to +85 °C can be achieved. Consult Saft.
[^5]: Long-time storage at high temperature may affect performance. Consult Saft.
[^6]: Other versions with different part numbers are available on request. Consult Saft.