Saft’s MP 176065 ise cell is compatible with applications requiring intrinsic safety, long operating life under cycling conditions and offers excellent performance in temperature environments from -30°C to +60°C.

**Benefits**
- Excellent operating lifetime in cycling with a very stable internal resistance
- High level of safety, compatible with potentially explosive atmospheres
- Long shelf life with extremely low capacity loss in storage
- Easy connection and assembly into batteries
- Smaller environmental footprint than other technologies

**Electrical characteristics**
- Typical capacity (at C/5 rate, +25°C, 2.5V cut-off)**(i)**: 5.6 Ah
- Nominal voltage: 3.65 V
- Nominal energy: 20.4 Wh
- Recommended maximum discharge current**(iii)**: Continuous 11 A [-2C rate], Pulse 22 A [-4C rate]

**Physical characteristics [sleeved cell]**
- Thickness**(ii)**: 19.05 mm
- Width: 60.5 mm
- Height (including terminals): 68.7 mm
- Typical weight: 135 g
- Volume (including terminals): 0.077 l
- IEC cell designation: INP/19/61/69
- Saft internal designation: INT 176065 ise
- Saft part number: 70374V
- Saft model / type reference: MP 176065 ise GP31591

**Operating conditions**
- Typical cut-off voltage: 2.5 V
- Charging method: Constant current/Constant voltage
- Charging voltage: 4.2 ± 0.05 V
- Maximum continuous charge current**(iii)**: 5.6 A [-1C rate]
- Operating temperatures:
  - Charge: -30°C to +60°C
  - Discharge: -30°C to +60°C
- Storage & transportation temperatures:
  - Recommended: +10°C to +30°C
  - Allowable: -40°C to +60°C

**Notes**
- 1. Can vary depending on temperature and discharge rate.
- 2. Can vary depending on temperatures. Consult Saft.
- 3. At beginning of life, 100% State-of-Charge: May increase with temperature and the cells’ calendar life.
- 4. For optimised charging below 0°C and +60°C, consult Saft.
- 5. Compatible with a temperature classification T4 for an ambient temperature of 60°C. The temperature classification shall be verified during the assessment of the intrinsically safe apparatus in which the cell will be used.
Battery assembly
- Individual lithium-ion cells need to be mechanically and electrically integrated into battery systems to operate properly.
- The battery system includes electronic devices for performance, thermal and safety management specific to each application.
- Please contact Saft for your specific application requirements.

Cell surface temperature and spark ignition
- The cell can be compatible with the temperature classification T4 at an ambient temperature of +60°C.
- The temperature classification shall be verified during the assessment of the intrinsic safety apparatus in which the cell will be used.
- The spark ignition risk shall be verified during the assessment of the intrinsic safety apparatus in which the cell will be used.

Storage
- The storage area should be clean, cool (preferably not exceeding +30°C), dry and ventilated. For long term storage, keep the cell within a 30 ± 15% state of charge.

Warning
- Do not crush, short-circuit, incinerate, dismantle, immerse in any liquid or heat above +60°C.
- Observe charging conditions at all times.

<table>
<thead>
<tr>
<th>Pretest conditions</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test chamber temperature</td>
<td>60 °C</td>
</tr>
<tr>
<td>Cell state of charge</td>
<td>100 %</td>
</tr>
<tr>
<td>Short circuit resistance</td>
<td>2.76 mΩ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test data recorded</th>
<th>Value (max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum current</td>
<td>247.4 A</td>
</tr>
<tr>
<td>Cell maximum temperature</td>
<td>112.4 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test results</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature &gt; 100 °C and &lt;135 °C</td>
<td>Temperature class T4</td>
</tr>
<tr>
<td>Externally visible electrolyte &lt;24 h</td>
<td>No visible electrolyte</td>
</tr>
<tr>
<td>Discharge current interruption</td>
<td>No partial discharge</td>
</tr>
<tr>
<td>IECEx ExTR Reference No.</td>
<td>FR/INE/ExTR18.0024/00</td>
</tr>
</tbody>
</table>

![Graph showing discharge capacity and internal resistance over temperature](image1)

![Graph showing discharge capacity and internal resistance over cycle number](image2)