Rechargeable lithium-ion battery
7s2p MP 176065 BLF
Extreme performance

The battery consists of the assembly of two parallel branches of seven MP 176065 Saft lithium-ion cells in series (7s2p configuration) and connected by a specifically designed electronic protection circuit.

Benefits
- Extended autonomy and life for mobile systems
- Wide operating temperature range
- Easy integration into compact and light systems
- Several batteries can be connected in parallel to make very large batteries
  ([Consult Saft for details])
- Unrivalled low temperature performance
- Maintenance-free
- Light weight

Key features
- Electronic protection against charger faults
- Very high energy density (385 Wh/l and 180 Wh/kg)
- Excellent charge recovery after long storage, even at high temperature
- Long cycle life (over 70 % initial capacity after 800 cycles 100 % DoD)
- Made and designed in the EU
- Restricted for transport ([class 9])

Main applications
- Large mobile power supplies
- Man-portable field radar
- Training simulator
- VLF/UHF radio base stations
- Remote sensors

Electrical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal voltage</td>
<td>25.20 V</td>
</tr>
<tr>
<td>(2.8 A rate at 20°C)</td>
<td></td>
</tr>
<tr>
<td>Typical capacity</td>
<td>12.2 Ah</td>
</tr>
<tr>
<td>(under 2.8 A at 20°C 19 V cut-off)</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length max</td>
<td>130 mm</td>
</tr>
<tr>
<td>Width max</td>
<td>122 mm</td>
</tr>
<tr>
<td>Height max (including contacts)</td>
<td>81 mm</td>
</tr>
<tr>
<td>Typical weight</td>
<td>2500 g</td>
</tr>
</tbody>
</table>

Operating conditions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge method</td>
<td>Constant Current/Constant Voltage</td>
</tr>
<tr>
<td>Max. recommended charge current</td>
<td>10.0 A at 20°C</td>
</tr>
<tr>
<td>Charge voltage</td>
<td>28.70 V (± 1%)</td>
</tr>
<tr>
<td>Charge temperature range*</td>
<td>-20°C to +60°C</td>
</tr>
<tr>
<td>Time at 20°C</td>
<td>5 hours under 6.1 A constant</td>
</tr>
<tr>
<td>Max. recommended continuous discharge current</td>
<td>13 A at 20°C</td>
</tr>
<tr>
<td>Discharge cut-off voltage</td>
<td>19 V</td>
</tr>
<tr>
<td>Discharge temperature range</td>
<td>-30°C to +55°C</td>
</tr>
</tbody>
</table>

References

- Electrical interface**
  - Modex connector type 5557
    - ref. 39-01-2065
- Saft's Part Number
  - 08001B

* Consult Saft for optimized charging below 0°C and at 60°C
** Custom connectors available: consult Saft
7s2p MP 176065 BLF

Technology
- Graphite-based negative electrode
- Lithium Cobalt oxide-based positive electrode
- Electrolyte: organic solvents
- Built-in redundant safety protections
- Battery comprises two parallel branches of seven MP 176065 cells in series and features an electronic protection circuit

Built-in protection devices ensure safety in case of:
- Exposure to heat
- Exposure to direct sunlight for extended periods of time
- Short circuit
- Overcharge
- Overdischarge
- Shrapnel penetration

When handling Saft MP batteries:
- Do not disassemble
- Do not remove the protection circuit
- Do not incinerate

Transportation and storage
- Store in a dry place at a temperature preferably not exceeding 30°C
- For long-term storage, keep the battery within a (30 ± 15) % state of charge

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