# MP 176065 xtd
# Rechargeable Li-ion cell

## 3.65 V high energy Li-ion cell with extended life and temperatures

Saft's MP 176065 xtd cell is ideally suited for applications requiring high energy and long operating life, either in calendar, cycling or floating conditions, with excellent performances in unregulated temperature environments from –40°C to +85°C.

### Benefits

- Excellent operating life in calendar, cycling and floating conditions
- Unrivalled operating temperature range from –40°C to +85°C
- High level of integrated safety
- Long shelf life with extremely low capacity loss under storage
- Easy integration into batteries
- Smaller environmental footprint than other technologies

### Key features

- High energy density (264 Wh/l, and 150 Wh/kg)
- Aluminium casing
- Hermetically sealed
- Operates in any orientation
- Maintenance free
- No memory effect
- Manufactured in EU

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

- Safety: UL 1642 and IEC62133 Ed. 2
- Transport: UN 3480, UN 3481
- Quality: ISO 9001, ISO 13485 Saft World Class program
- Environment: ISO 14001, RoHS and REACH compliant

### Typical applications

- Backup for industrial equipment
- Medical devices
- Tracking
- Oil & Gas applications
- Internet of Things, Wireless Sensor Networks
- Lighting & signalling
- Automotive


| 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 [ii] | Continuous | 11 A (~2C rate) |
| | Pulse | 22A (~4C rate) |
| **Physical characteristics (sleeved cell)** | | |
| Thickness [iii] | | 18.65 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 xtd |
| **Operating conditions** | | |
| Typical cut-off voltage | | 2.5 V |
| Charging method | | Constant current/Constant voltage |
| Charging voltage | | 4.2 V |
| Maximum continuous charge current [iv] | | 5.6 A (~1C rate) |
| Operating temperatures | Charge | -30°C to +85°C |
| | Discharge | -40°C to +85°C |
| Storage & transportation temperatures | Recommended | +15°C to +30°C |
| | Allowable | -40°C to +85°C |

[i] Can vary depending on temperature and discharge rate
[ii] Can vary depending on temperatures. Consult Saft
[iii] At beginning of life, 100% State-of-Charge. May increase with temperature and during battery life.
[iv] For optimised charging below 0°C and above 60°C, consult Saft

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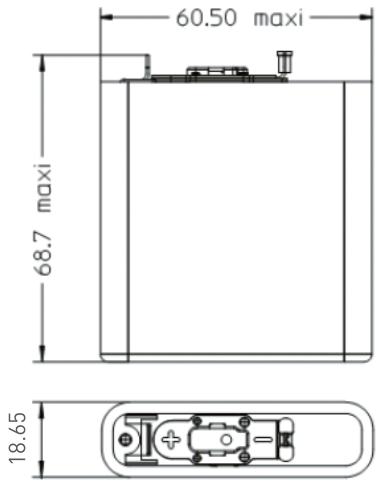
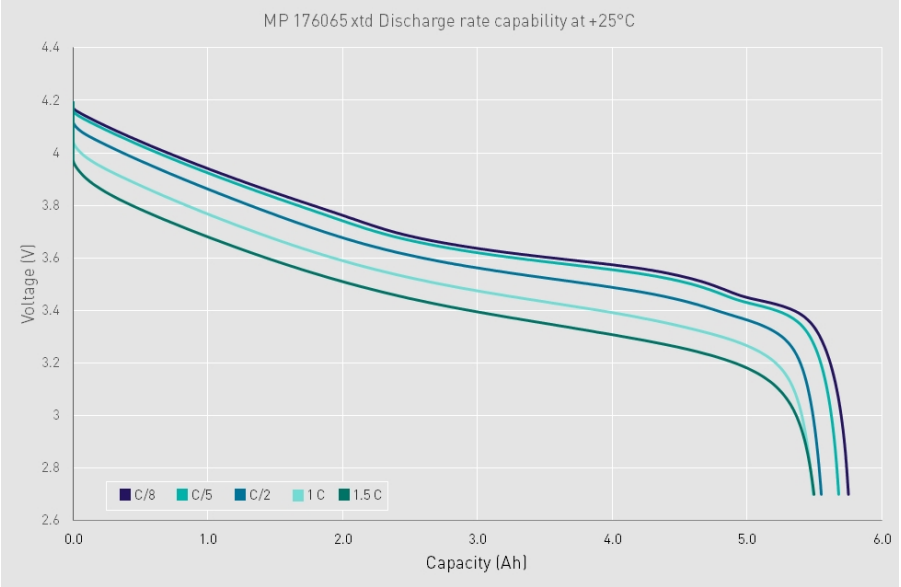
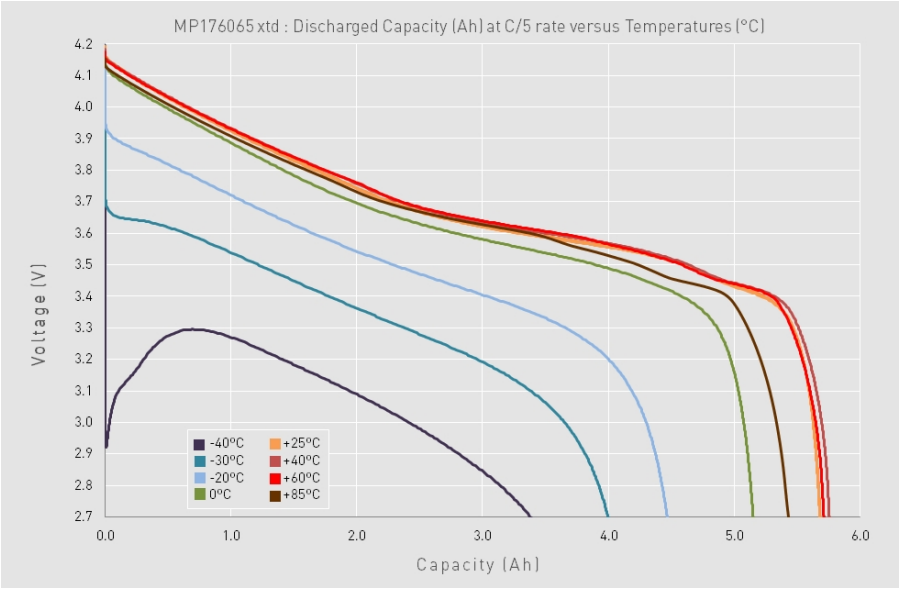



## Battery assembly

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 applications requirements.




## Battery-level features

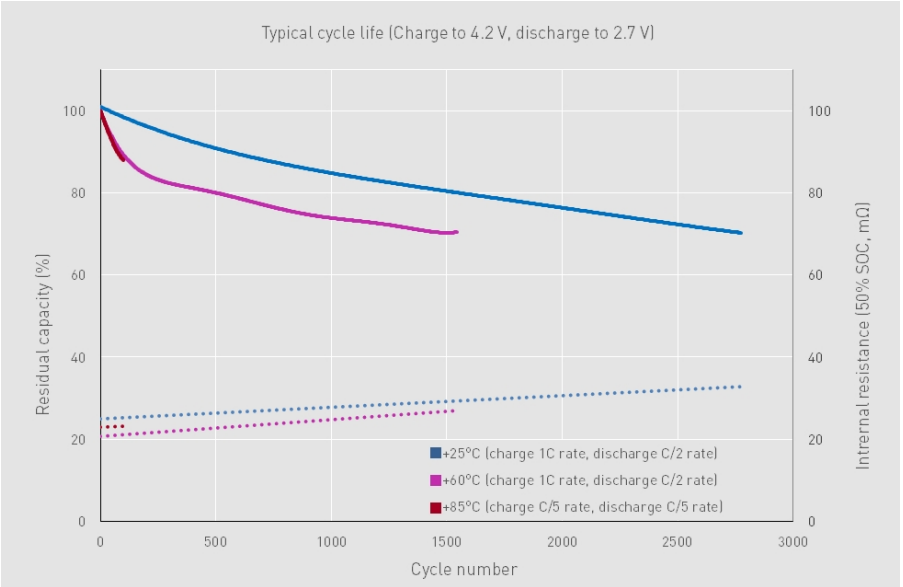
- Saft provides complete battery system designs
- Incorporating several levels of redundant safety features to prevent abuse conditions such as over-charge, over-discharge, and short circuits
- Incorporating electronics for performance and efficiency:
  - charge/floating/discharge management
  - cell balancing
  - temperature monitoring
- Battery protection controller at system level
  Communication for State-of-Charge and State-of-Health

## Storage

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

## Warning

- Do not crush, short-circuit, incinerate, dismantle, immerse in any liquid, heat above +85°C
- Observe charging conditions

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