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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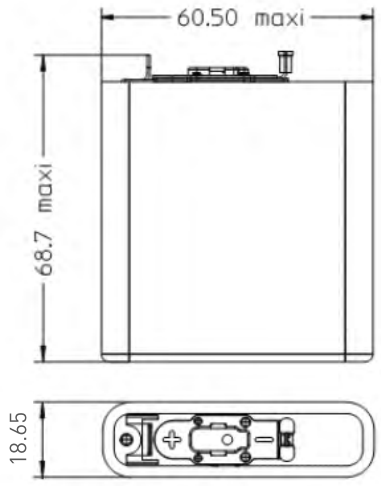
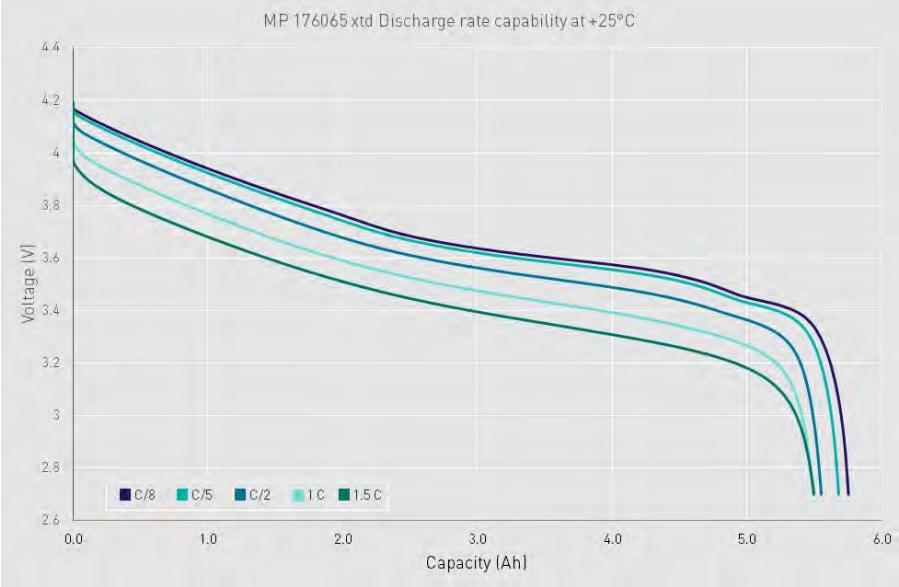
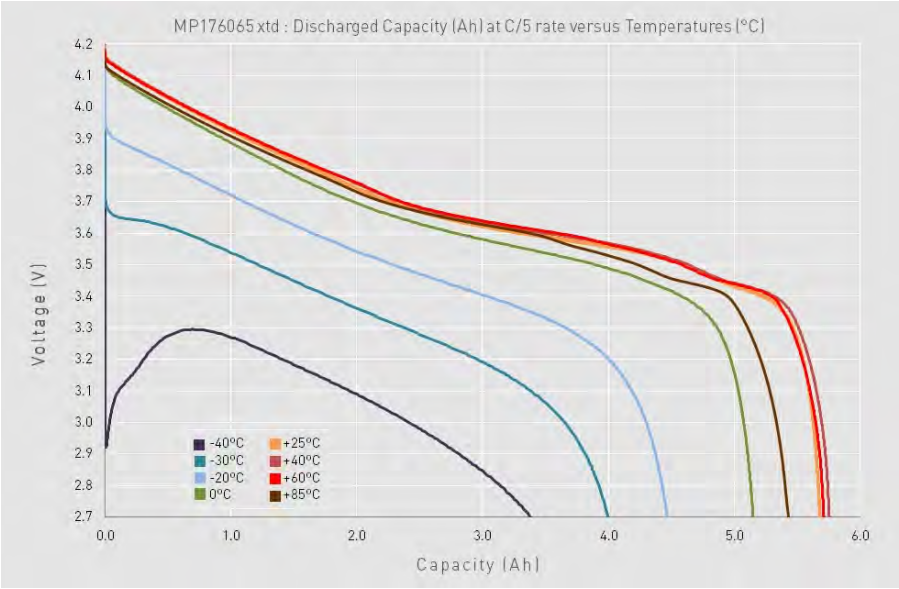




Battery assembly

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

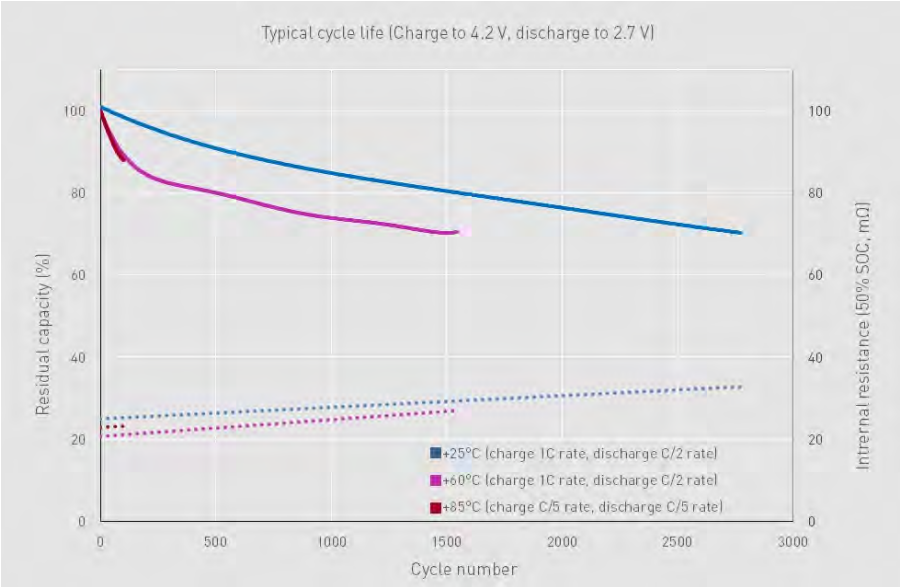
- Saft provides complete battery system designs
- Incorporating several levels of redundant safety features to prevent abuse conditions such as over-charge, over-discharge, and short circuits
- Incorporating electronics for performance and efficiency:
  - charge/floating/discharge management
  - cell 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



Saft
26, Quai Charles Pasqua,
92300 Levallois Perret -France
Tel.: +33 (0)1 49 93 19 18
Fax: +33 (0)1 49 93 19 69
www.saftbatteries.com

Saft America, Inc.
313 Crescent Street
Valdese, NC 28690—USA
Tel.: +1 (828) 874 41 11
Fax: +1 (828) 879 39 81
www.saftbatteries.com

Doc №: 31109-2-0819
Edition: August 2019
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Published by the Communication Department
Photo credit: Saft
Produced by CE Marketing Department

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