MP 176065 ise
Rechargeable Li-ion cell

3.65 V high energy Li-ion cell with high performance and **intrinsic safety**

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

Key features
- High energy density (264 Wh/l, and 150 Wh/kg)
- Cycle life more than 1000 tested (≥ 2250 expected) cycles at 100% DoD at C/2 discharge, C charge
- Aluminium casing
- Hermetically sealed
- Operates in any orientation
- Maintenance free
- No memory effect
- **Manufactured in the EU**

Designed to meet all major quality, safety and environmental standards
- Safety: UL 1642 and IEC62133-2:2017
- Transport: UN 3480, UN 38.3
- ATEX[v] IEC 60079-11 (10.5.2, 10.5.3 (b)) compatible component
- Quality: ISO 9001, 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

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]		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 [iv]		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

[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 the cells' calendar life.
[iv] For optimised charging below 0°C and +60°C, consult Saft
[v] 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.

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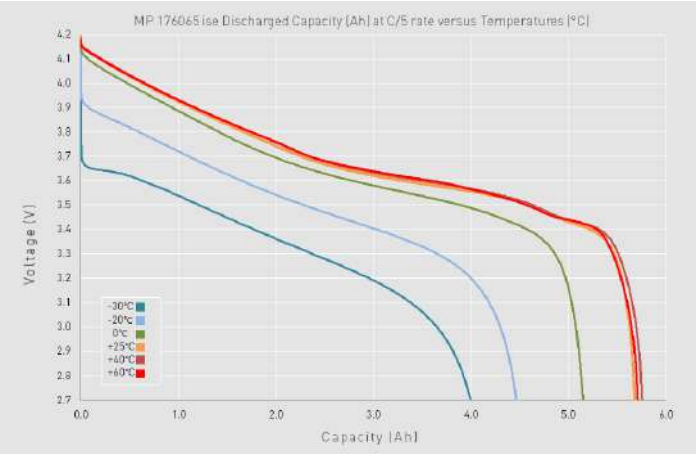
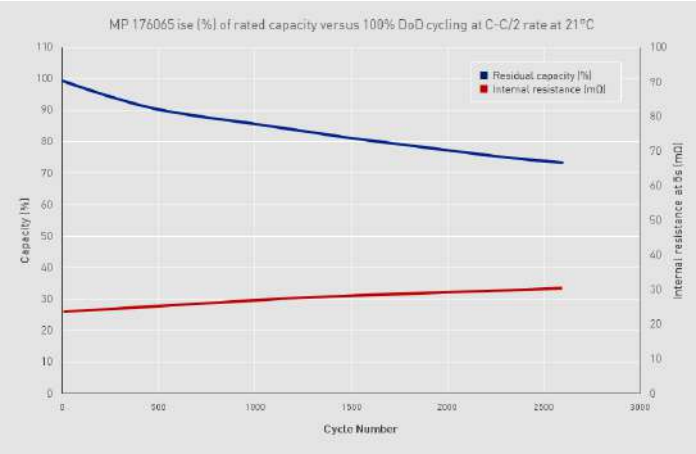




Battery assembly

- 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 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

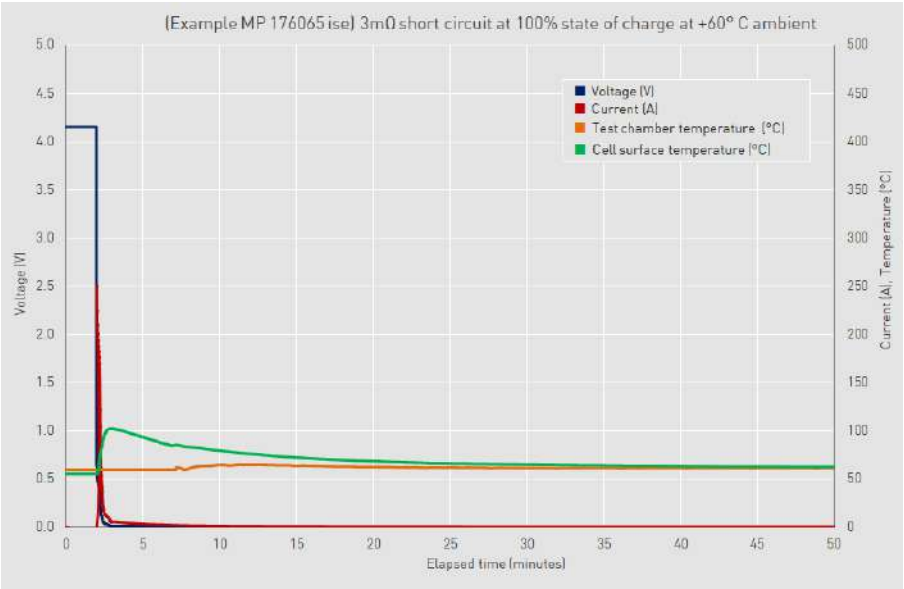
Warning

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

Pretest conditions	Value
Test chamber temperature	60 °C
Cell state of charge	100 %
Short circuit resistance	2.76 mΩ

Test data recorded	Value (max)
Maximum current	247.4 A
Cell maximum temperature	112.4 °C

Test results	Result
Temperature >100 °C and ≤135 °C	Temperature class T4
Externally visible electrolyte ≥24 h	No visible electrolyte
Discharge current interruption	No partial discharge
IECEx ExTR Reference No.	FR/INE/ExTR18.0024/00



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

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