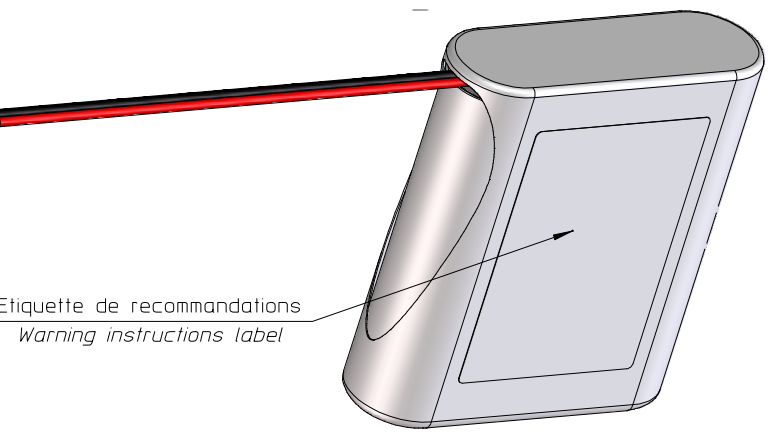
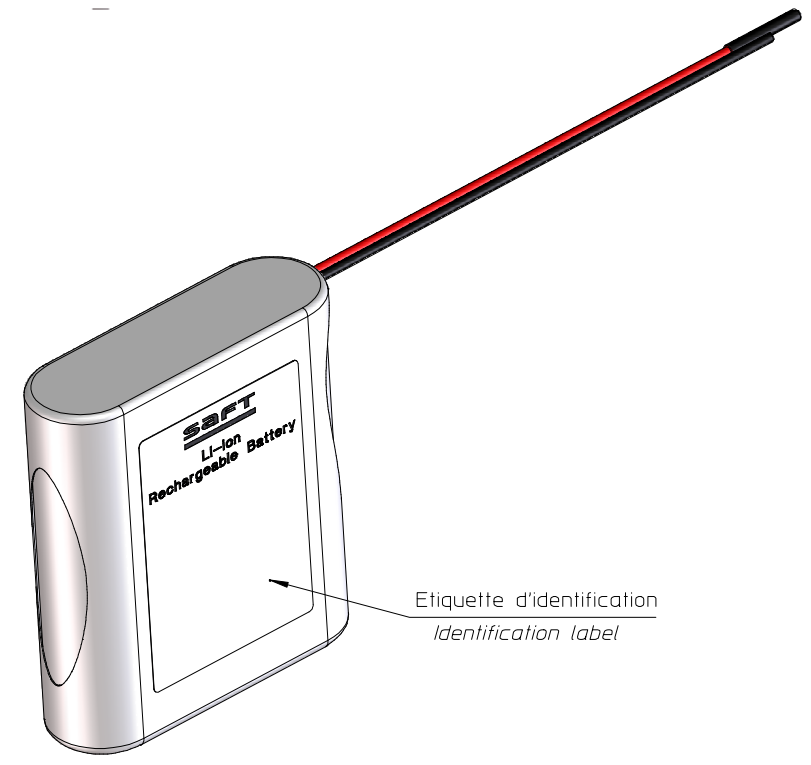
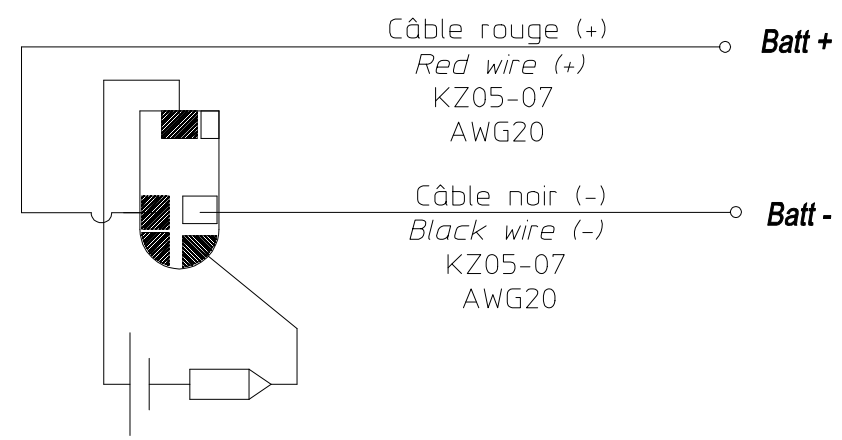
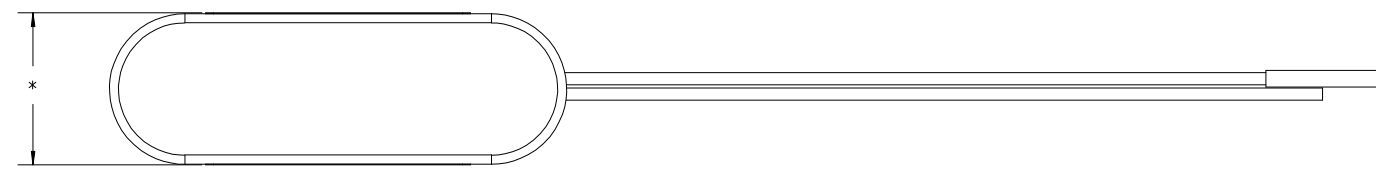


Projet / Project  
 Pour approbation client.  
 For client approval.  
 Version 1 du 18/08/2017.  
 Création du plan.  
 Drawing creation.



- \* 19.55 : Epaisseur en début de vie (chargé à 30%)  
 Thickness beginning of life (30% state of charge)
- 19.85 : Epaisseur en fin de vie  
 (800 cycles C-C/2 avec tension de fin de charge à 4.2V)  
 Thickness at end of life  
 (800 cycles C-C/2 with end of charge voltage 4.2V)
- 20.55 : Epaisseur en floating à 60°C (4.2V - 6 mois)  
 Thickness floating life 60°C (4.2V - 6 months)



VERIFICATEUR / AUDITOR : . Responsable qualité / Quality manager		APPROBATEUR / APPROVER : . Responsable technique / Technical manager	
<b>Accord par Courriel le / Agreement by Email on **/**/****</b>			
Créé par / Created by : BELLIN F. Le 18/08/2017		Modifié par / Review by : . Le .	
Designation : Interface 1S1P MP176065 xlr SAS			
Echelle / Scale : 1/1		Ensemble concerné / Concerned product	Code produit / Product code
Tolérance générale : / General tolerance :			GP 30991
Etat de surface générale : / General surface roughness :			70186P
Matière / Material :	Nota:		BLOC REFERENCE
Masse / Weight :			M A C
(XX) = Côte valable pour information / Dimensions only for information			Création
XX = Côte non représentée à l'échelle / Dimensions not shown at scale			Justificatif / Justificatory
		<b>SAFT</b>	
		Rue GEORGES LECLANCHE B.P. 1039 86060 POITIERS cedex 9 Tél. +33(0)5 - 49 - 55 - 48 - 48	

# MP 176065 xlr

## Rechargeable Li-ion cell

3.65 V high energy Li-ion cell with robust performance and cycle life

Saft's MP 176065 xlr cell is ideally suited for applications requiring high energy, long operating life under cycling conditions and offers excellent performance in temperature environments from -35°C to +60°C.

### Benefits

- Excellent operating lifetime in calendar and cycling with a very stable internal resistance
- Long shelf life with extremely low capacity loss under storage
- Easy connection and assembly into batteries
- Smaller environmental footprint than other technologies

### Key features

- High energy density (364 Wh/l, and 165 Wh/kg)
- Cycle life more than 1800 cycles at 100% DoD at C/2 discharge, C/ charge
- Stainless steel casing
- Hermetically sealed
- 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
- Medical: ISO 13485
- Quality: ISO 9001, Saft World Class
- Environment: ISO 14001, RoHS and REACH compliant

### Typical applications

- Industrial equipment
- Medical devices
- Tracking
- Oil & Gas applications
- Internet of Things devices
- Wireless Sensor Networks
- Military equipment



### Electrical characteristics

Typical capacity (at C/5 rate, +25°C, 2.5V cut-off) <sup>(1)</sup>	6.8 Ah
Nominal voltage	3.65 V
Nominal energy	24.8 Wh
Recommended maximum discharge current <sup>(2)</sup>	Continuous 14.0 A (~2C rate)
	Pulses 27.0 A (~4C rate)

### Physical characteristics (sleeved cell)

Thickness <sup>(3)</sup>	19.6 mm
Width	60.1 mm
Height (including terminals)	65.2 mm
Typical weight	~150 g
Volume (including terminals)	0.068 l
IEC cell designation	INP20/61/66

### 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 <sup>(4)</sup>	6.8 A (1C rate)
Operating temperatures <sup>(4)</sup>	Charge -30°C to +60°C
	Discharge -35°C to +60°C
Storage & transportation temperatures <sup>(4)</sup>	Recommended +10°C to +30°C
	Allowable -40°C to +60°C

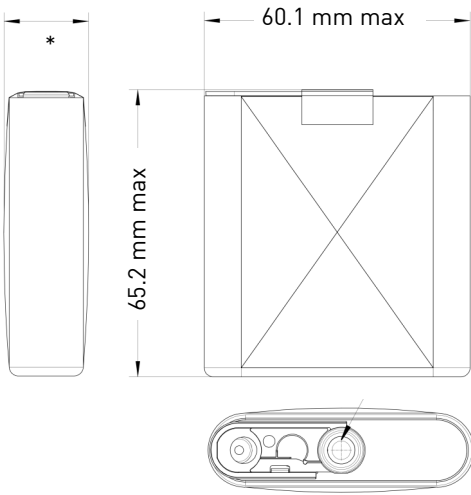
<sup>(1)</sup> Can vary depending on temperature and discharge rate.

<sup>(2)</sup> Can vary depending on temperatures. Consult Saft.

<sup>(3)</sup> At beginning of life, 100% State-of-Charge. Can increase with temperature during battery lifetime.

<sup>(4)</sup> For optimised operation below 0°C consult Saft.





### Cell dimensions\*

During the lifetime of the cell, in different applications some dimensions may alter slightly. Please consult with Saft for further details.

### 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 with your specific application requirements.

### Battery-level features

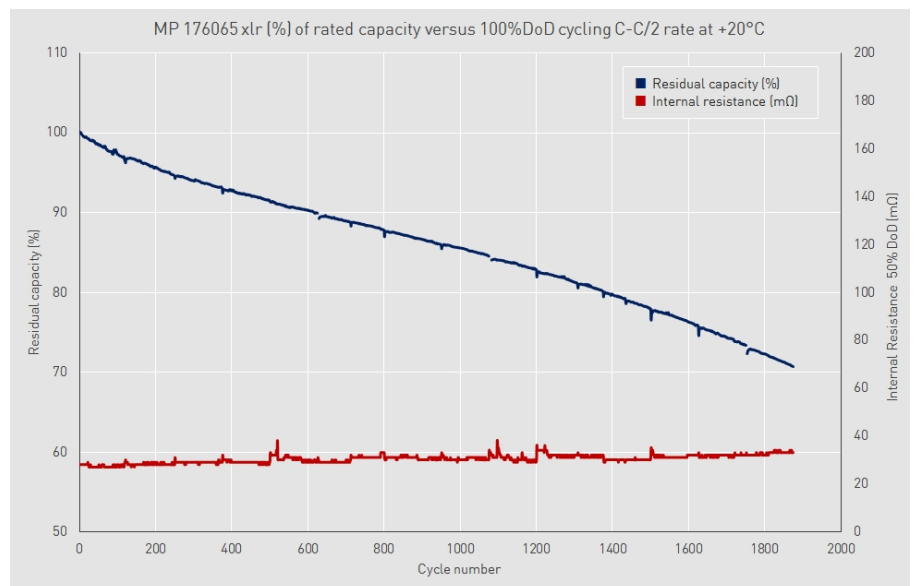
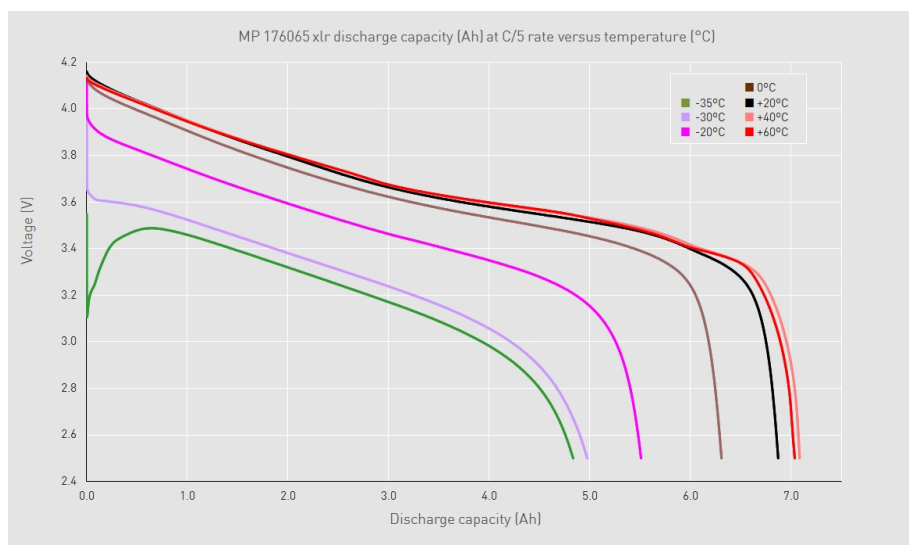
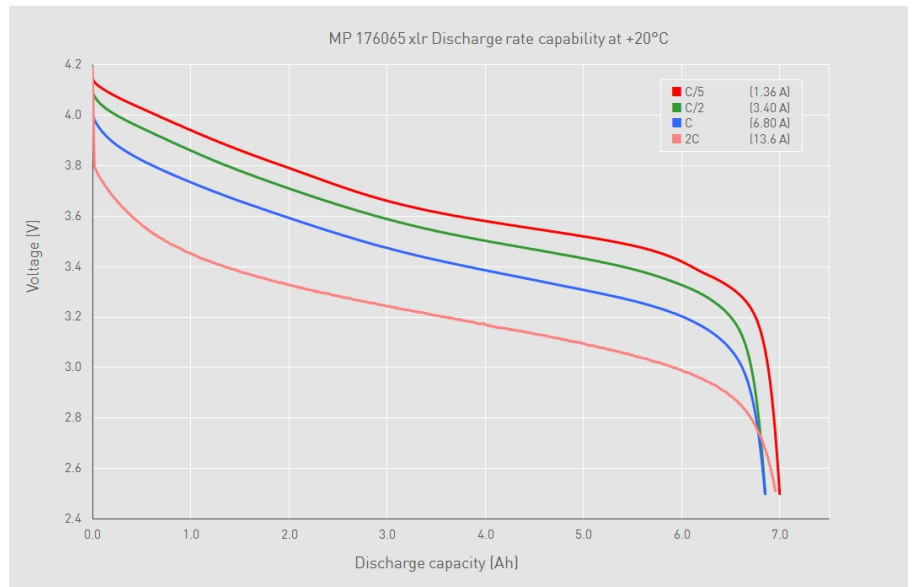
- Saft provides complete battery system designs
- Integrating several levels of redundant safety features to prevent abuse conditions such as over-charge, over-discharge, and short circuits
- Incorporating electronics for performance and efficiency in charging, floating, discharging as well as cell balancing and temperature monitoring
- Battery protection controller at system level for larger batteries
- 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 +60°C
- Observe charging conditions
- Refer to our Li-ion Battery User manual for further information on the use and handling of Saft products.



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Doc N°: 31157-2-0418  
Edition: April 2018  
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Published by the Communication Department  
Photo credit: Saft  
Produced by CE Marketing Department