

Rechargeable lithium-ion battery

MP 176065

High performance
Medium Prismatic cell



Benefits

- Extended autonomy and life for mobile systems
- Recommended for ruggedized designs
- Easy integration into compact and light systems

Key features

- Very high energy density (375 Wh/l and 165 Wh/kg)
- Unrivalled low temperature performance
- Excellent charge recovery after long storage, even at high temperature
- Maintenance free
- Long cycle life (over 70% initial capacity after 500 cycles, C/2 rate 100% DoD)

Main applications

- Mobile asset tracking
- Rack-mount telecom batteries
- Small UPS
- Future soldier equipment
- Portable radios
- Portable defibrillators
- Professional portable lighting
- Electric bikes and personal mobility

Electrical characteristics

Nominal voltage (1.4 A rate at 20°C)	3.75 V
Typical capacity 20°C (at 1.4 A 20°C 2.5 V cut off)	6.8 Ah (when charged at 4.2 V) 6.1 Ah (when charged at 4.1 V)

Mechanical characteristics (Unsleeved 100% charged cell)

Thickness max	19.6 mm
Width max	60 mm
Height max	65 mm
Typical weight	153 g
Lithium equivalent content	2.0 g
Volume	68 cm ³
Nominal energy	26 Wh

Operating conditions

Charge method	Constant Current/Constant Voltage	
Charge voltage	4.20 +/- 0.05 V	
Maximum recommended charge current**	6.8 A (C rate)	
Charge temperature range*	-20°C to +60°C	
Time at 20°C	To be set as a function of the charge current:	
	C rate	→ 2 to 3 h
	C/2 rate	→ 3 to 4 h
	C/5 rate	→ 6 to 7 h
Maximum continuous discharge current*	14 A (~2C rate)	
Pulse discharge current	up to 27 A (~4C rate)	
Discharge cut off voltage	2.5 V	
Discharge temperature range	-50°C to +60°C	

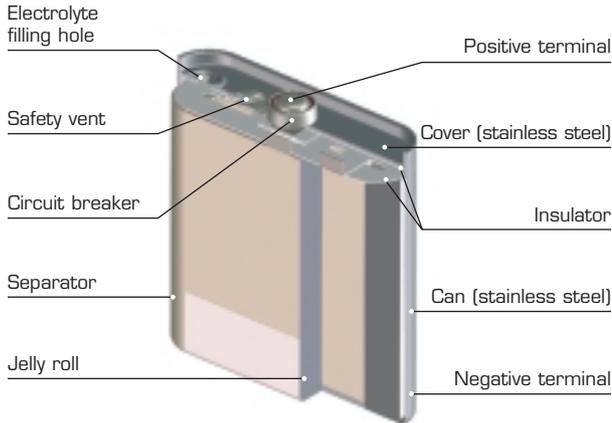
* Consult Saft for optimized charging below 0°C

** Electronic protection circuits within battery packs may limit the maximum charge/discharge current allowable. Consult Saft.

MP 176065

Technology

- Graphite-based anode
- Lithium Cobalt oxide-based cathode
- Electrolyte: organic solvents
- Built-in redundant safety protections
- Batteries assembled from MP cells feature 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

When handling Saft MP batteries:

- Do not solder directly to cell terminal
- 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

Saft

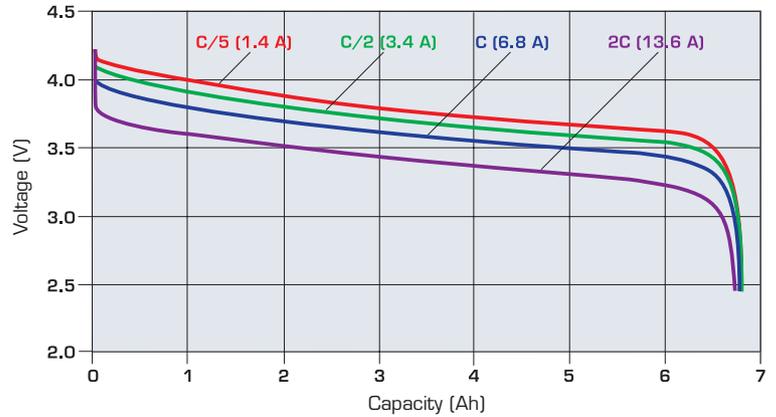
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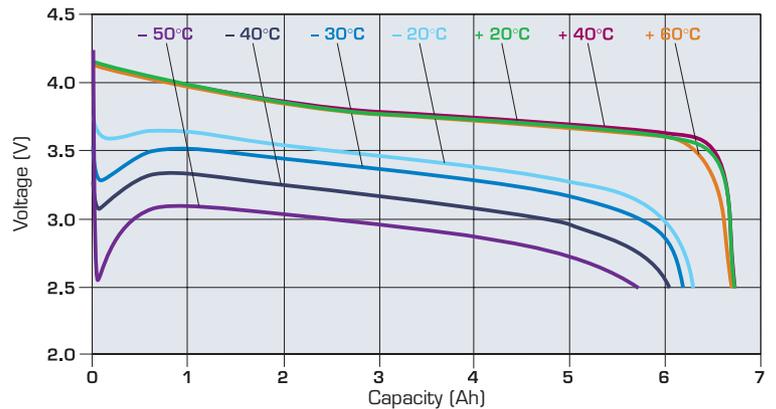
313, Crescent Street
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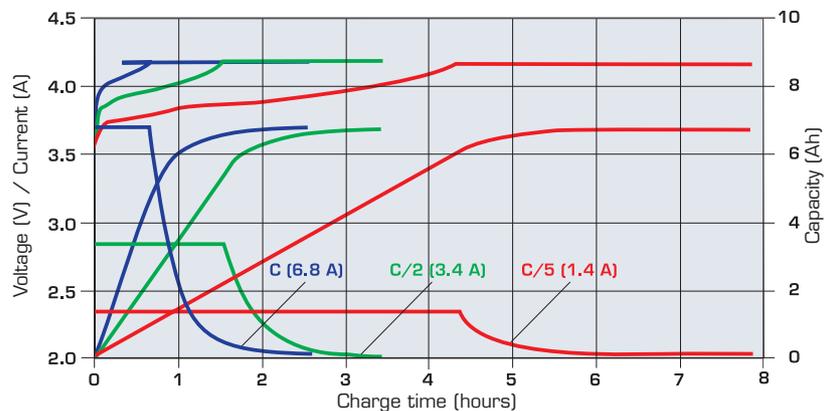
Capacity versus current at 20°C



Typical discharge profiles (1.4 A - C/5 rate)



Charge characteristics to 4.2 V at +20°C at C, C/2 and C/5 rates



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