



Rechargeable lithium-ion battery

MP 176065 HD Integration™

Very high drain
Medium Prismatic cell

Saft always supplies MP cells in assemblies or as customized battery system constructions



Benefits

- w Enhanced power
- w Extended backup time for telecom systems
- w Recommended for ruggedized designs
- w Easy integration into compact and light systems
- w Aluminium casing
- w High reliability
- w Light weight

Key features

- w High specific power (1200 W/kg, up to 45 A of current capability)
- w Long cycle life
> 1500 cycles under 107 Watts
- w Maintenance-free
- w Underwriters Laboratories (UL) Component Recognition (File Number MH 12609)
- w Non-restricted for transport

Main applications

- w Rack-mount telecom backup power (Intensium™)
- w Automated External Defibrillators
- w Small Uninterrupted Power Supplies (UPS)
- w Power tools
- w Electric actuators

Electrical characteristics

Nominal voltage (0.72 A rate at 20 °C)	3.6 V
Capacity (under 0.72 A at 20 °C 2.5 V cut-off)	3.6 Ah

Mechanical characteristics (Sleeved 100 % charged cell)

Thickness (after floating discharge at 40 °C, end of life (At beginning of life 17.5 mm))	19.8 mm
Width (max)	60.0 mm
Height (max including terminals)	68.35 mm
Typical weight	132 g
Lithium equivalent content	1.08 g
Volume	68 cm ³
Nominal energy	13 Wh

Operating conditions

Charge method	Constant Current/Constant Voltage
Charge voltage	4.00 +/- 0.05 V
Maximum recommended charge current*	3.6 A (C rate)
Charge temperature range**	0 °C to + 60 °C
Maximum continuous discharge current	45 A (12.5C rate)

Backup time Under discharge (at 20 °C, 2.5 V cut-off)	C rate	→	> 50 mn
	5C rate	→	10 mn
	10C rate (~107 W)	→	5 mn
Pulse discharge current	up to 65 A (~18C rate)		
Discharge cut-off voltage	2.5 V		
Discharge temperature range	-10 °C to + 60 °C		

* Consult Saft for extended charge rate

** Consult Saft for optimized charging below 0 °C and above 60 °C



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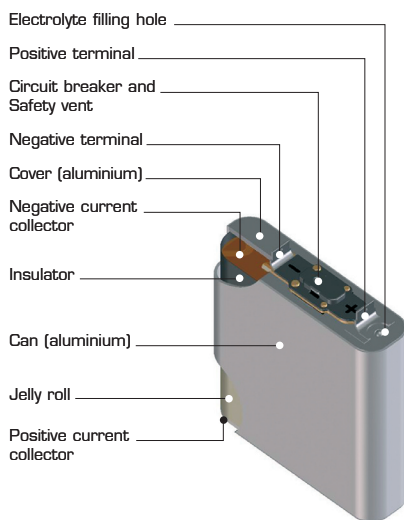
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Battery assembly

In order to operate properly, individual Li-ion cells are mechanically and electrically integrated in battery assemblies specific to each application. The battery assembly incorporates electronics for performance, thermal and safety management.

Technology

- Graphite-based negative electrode
- Nickel oxide-based positive electrode
- Electrolyte: organic solvents
- Built-in redundant safety features
- Batteries assembled from MP cells feature an electronic protection circuit



Built-in protection devices ensure safety in case of:

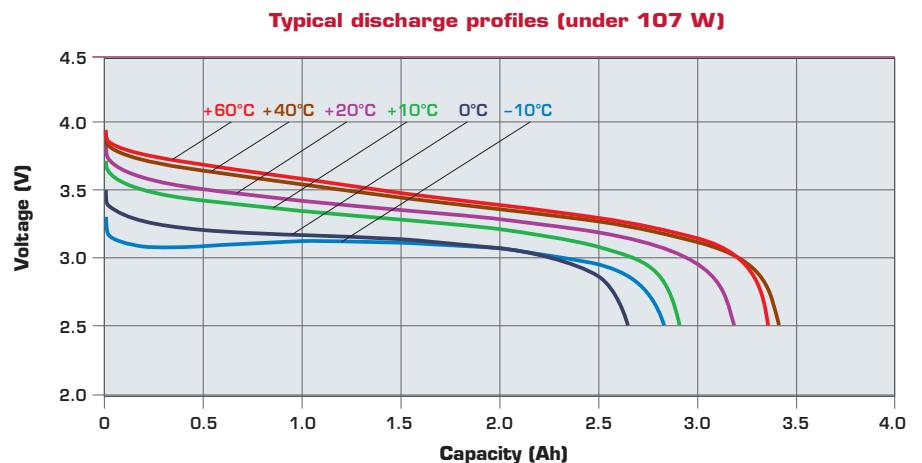
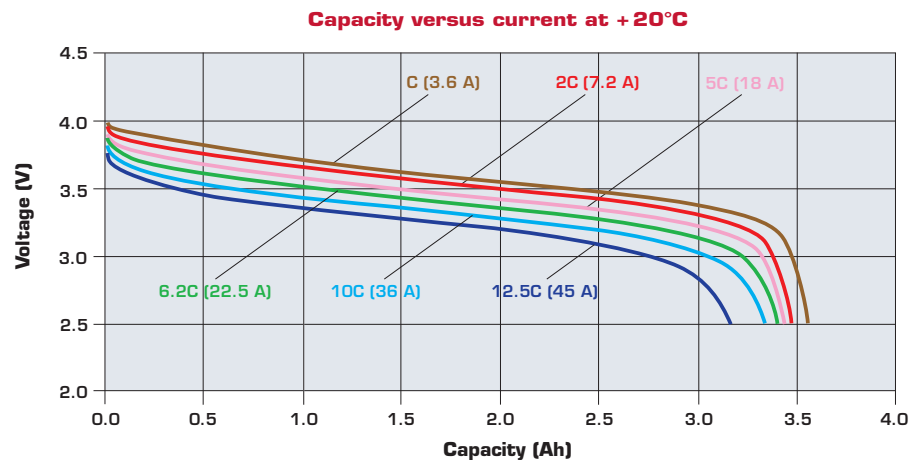
- Exposure to heat
- Exposure to direct sunlight for extended periods of time
- Short circuit
- Overcharge
- Overdischarge

When handling Saft MP batteries:

- Do not 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



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