

# 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

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

### Key features

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

### Main applications

- Rack-mount telecom backup power (Intensium™)
- Automated External Defibrillators
- Small Uninterrupted Power Supplies (UPS)
- Power tools
- 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 cm³
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

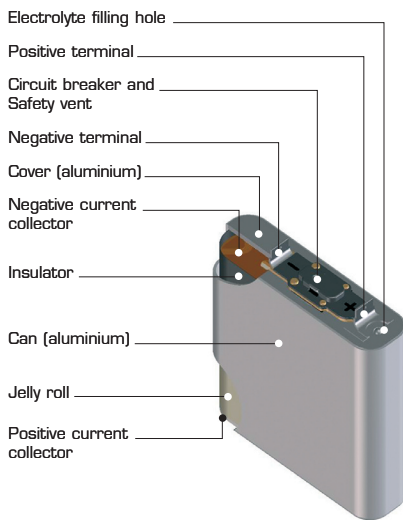
# MP 176065 HD Integration™

## 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

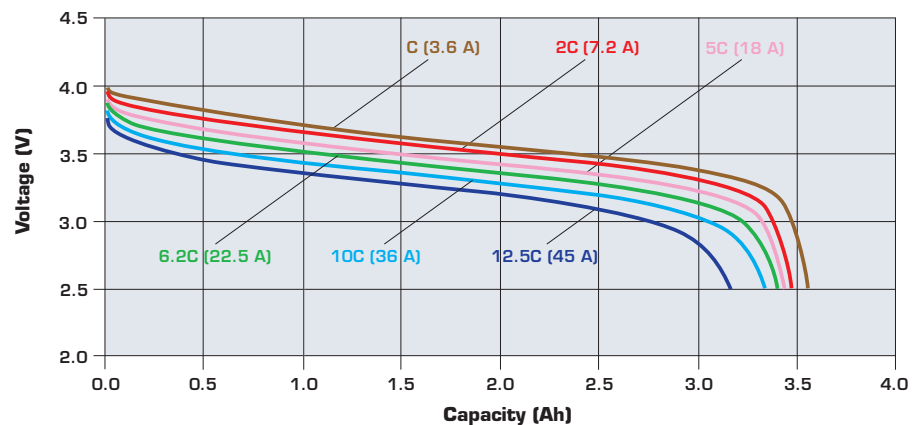
## When handling Saft MP batteries:

- Do not disassemble
- Do not remove the protection circuit
- Do not incinerate

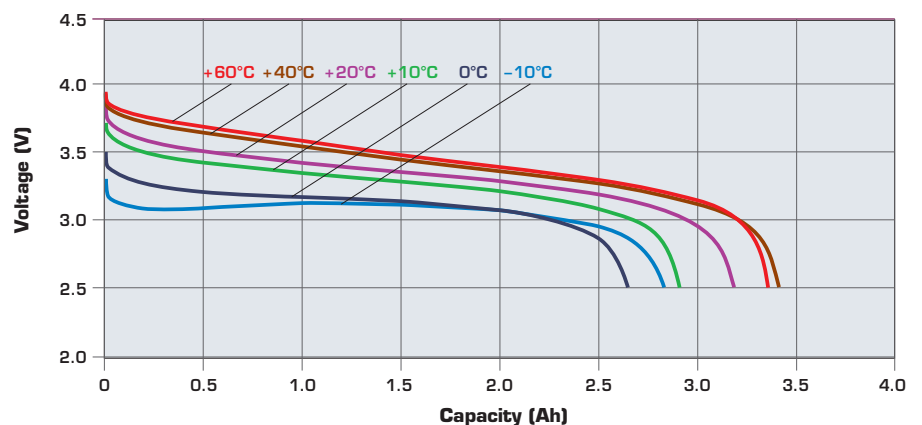
## Transportation and storage:

- 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

Capacity versus current at +20°C



Typical discharge profiles (under 107 W)



## Saft

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