

Rechargeable lithium-ion battery

BA 684A (Non Class 9)

Extreme performance

The battery is assembled from MP 174565 Integration™ Saft lithium-ion cells connected in series (2s1p configuration) and protected by a specific electronic monitoring circuit.



Benefits

- Extended autonomy and life
- High reliability
- Broad operating temperature range
- Recommended for ruggedized designs
- Easy integration into compact and light systems
- Unrivalled low temperature performance
- Maintenance-free
- Light weight

Key features

- Electronic protection against charger faults
- Built-in LED fuel gauge – visible at night – without any capacity loss during storage
- Compatible with Saft and other military chargers
- Excellent charge recovery after long storage, even at high temperature
- Long cycle life
(over 70% initial capacity after 600 cycles, C charge rate, C/2 rate 100% DoD at 20°C)
- Non-restricted for transport/
Non-assigned to Class 9 according to the UN Recommendations on the transport of dangerous goods – Model Regulations
- Made in the EU

Main applications

- Combat net radios
- Tactical radios

Electrical characteristics

Nominal voltage (under 1 A at 20°C)	7.5 V
Typical capacity at 20°C (under 1 A 5.4 V cut-off)	4.8 Ah (when charged up to 8.4 V)
Nominal energy	36 Wh

Mechanical characteristics

Length (max)	67.4 mm (2.654 in)
Width (max)	37.1 mm (1.461 in)
Height (max including contacts)	89 mm (3.504 in)
Typical weight	350 g (12.34 oz)

Operating conditions

Charge method	Constant Current/Constant Voltage
Maximum recommended charge current**	4.8 A (C rate) at 20°C
Charge temperature range*	- 20°C to +60°C (- 4°F to +140°F)
Charge time at 20°C	3 hours under 4.8 A max rate, CC/CV
Maximum recommended continuous discharge current**	4.8 A (C rate) at 20°C
Pulse discharge current	up to 7 A
Discharge cut-off voltage	5.4 V
Discharge temperature range*	- 40°C to +60°C (- 40°F to +140°F)

References

High Temperature	MIL-STD 810E, 501.3 (+ 60°C)
Low Temperature	MIL-STD 810E, 502.3 (- 20°C)
Vibration	MIL-STD 810C 514.2 H
Shock	MIL-STD 810E 516.4
Salt Fog	MIL-STD 810E 509.3 I
Immersion	MIL-STD 810E 512.3
Saft's Part Number	08379V

Compliance with military specification

* For optimized charging below 0°C, 60°C and discharging at -40°C, consult Saft.

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



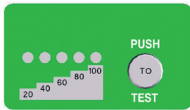
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Technology

- Graphite-based anode
- Lithium Cobalt oxide-based cathode
- Electrolyte: organic solvents
- Built-in redundant safety protections
- Battery comprises two MP 174565 Integration™ cells in series and features an electronic protection circuit

Independent 5 segment fuel gauge

- Assess the battery state of charge while in storage
- Check your spare battery during or prior to use
- Make full use of available battery



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
- Shrapnel penetration

When handling Saft MP batteries:

- Do not solder directly to battery terminals
- 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

Protection circuit

- Protection against over voltage (*resettable*)
- Protection against under voltage (*resettable*)
- Protection against over current during discharge
- End of discharge equalising

Saft

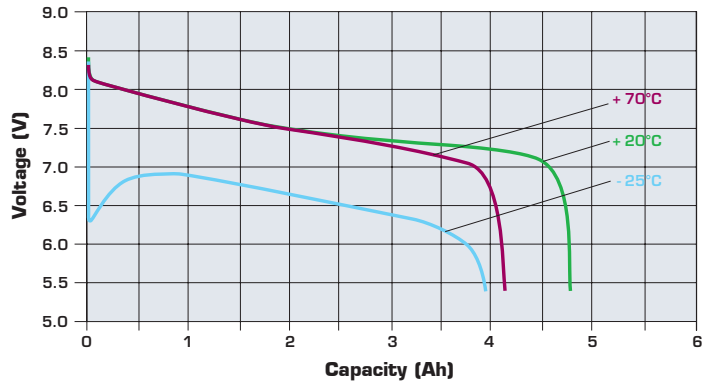
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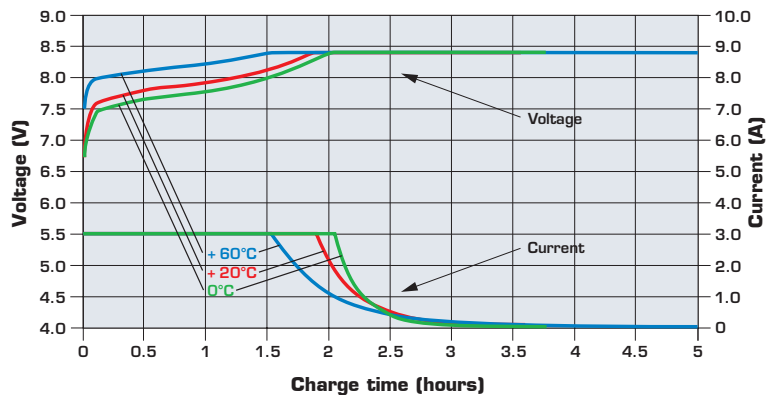
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www.saftbatteries.com

Typical discharge profile (1 A - C/5 rate - charge 8.4 V)



Charge characteristics to 8.4 V versus temperature (3 A rate)



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