

VL 34570

Rechargeable Li-ion cell

3.75 V high energy Li-ion D-size cell

Saft's VL 34570 cell is ideally suited for applications requiring high energy, extended autonomy, with excellent performances even when exposed to unregulated temperature environments from -50°C to +60°C.

Benefits

- Extended autonomy and life for mobile systems
- Wide operating temperature range
- Unrivalled low temperature performances
- Recommended for ruggedized designs
- Easy integration into compact and light systems

Key features

- High energy density (370 Wh/l, 160 Wh/kg)
- Hermetically sealed
- Operates in any orientation
- Maintenance-free
- No memory effect
- Built-in safety vent and circuit breaker
- Manufactured in EU

Designed to meet all major quality, safety and environment standards

- Safety: UL 1642 (File MH 12609)
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class continuous program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications

- Soldier equipments
- Portable radios
- Professional portable tools
- Oil & Gas applications
- Professional video



Electrical characteristics

Typical capacity [at C/5 rate, + 25°C, 2.5 V cut-off] ⁽¹⁾	5.4 Ah
Nominal voltage	3.75 V
Nominal energy	20.3 Wh
Recommended maximum discharge current ⁽²⁾	Continuous 11 A [-2C rate] Pulse 21 A [-4C rate]

Physical characteristics (sleeved cell)

Diameter (max)	34.20 mm
Height (max)	59.43 mm
Typical weight	125 g
Volume (including terminals)	0.054 l

Operating conditions

Typical cut-off voltage	2.5 V
Charging method	Constant current/Constant voltage
Charging voltage	4.20 ± 0.05 V
Maximum continuous charge current ⁽³⁾	5.4 A [-1C rate]
Operating temperatures ⁽⁴⁾	Charge - 20°C to + 60°C Discharge - 50°C to + 60°C
Storage & transportation temperatures	Recommended + 15°C to + 30°C Allowable - 50°C to + 60°C

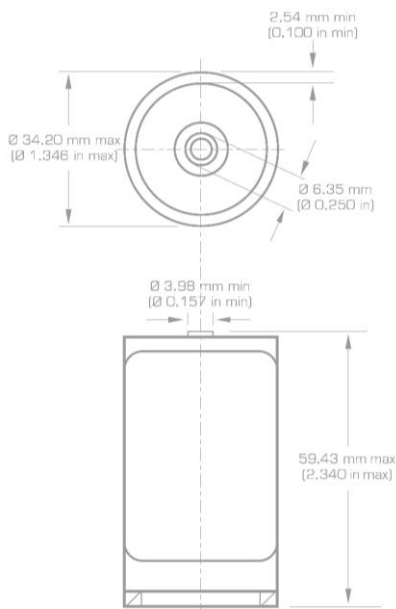
⁽¹⁾ Can vary depending on temperatures and discharge rate.

⁽²⁾ Can vary depending on temperatures. Consult Saft.

⁽³⁾ For optimized charging below 0°C, consult Saft.



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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 for your specific applications requirements.

Battery level features

- Saft provides complete battery system designs
- Incorporating 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:
 - charge/floating/discharge management
 - cell balancing
 - temperature monitoring
- Battery protection controller at system level
- Communication for State-of-Charge and State-of-Health

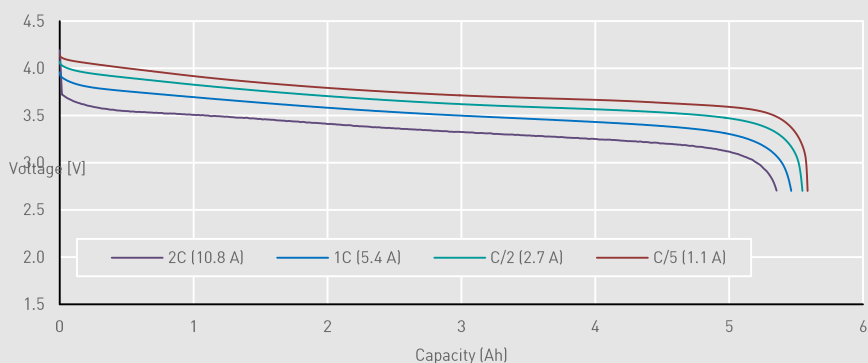
Storage

- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated
- For long-term storage, keep the battery preferably at a 30 % state of charge

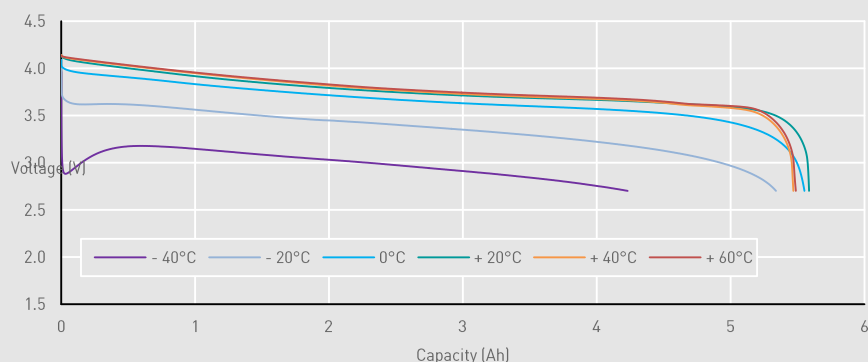
Warning

- Do not crush, short-circuit, incinerate, dismantle, immerse in any liquid, heat above +60°C
- Observe charging conditions
- Do not solder directly to the cell (use tabbed cell versions instead)

Capacity versus current at +20°C



Typical discharge profiles (1.1 A - C/5 rate)



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