

# Rechargeable lithium-ion battery

## SAI 2590

The battery consists of two independent strings of 4 VL 37570 cells connected in a series. The strings can be connected externally by the connector interface in either series or in parallel.

### Benefits

- Extended autonomy and life for mobile systems
- Wide operating temperature range
- Recommended for ruggedized designs
- Easy integration into compact and light systems
- Excellent low temperature performance
- Maintenance-free
- Light weight

### Key features

- Built in battery state of charge indicator (SOCi)
- Long cycle life (over 85% initial capacity after 225 cycles 100% DoD)
- Resettable electronic protection circuit on each string
- Cells include a circuit breaker, shut-down separator and safety vent
- In line current fuse short circuit protection: 15A slow blow in each section
- Excellent charge recovery after long storage, even at higher temperatures
- Restricted for transport (class 9)
- Made in the USA

### Typical applications

- Military and civil portable radio communications
- Robotics
- Unmanned underwater vehicles
- Unmanned aerial vehicles
- Remote control electronics
- Autonomous surveillance equipment
- Autonomous remote sensor devices



### Electrical characteristics

Nominal voltage (at 500mA) [V]	14.4 or 28.8
Typical Capacity [Ah] +21 °C / + 70 °F	11.6 or 5.8

### Mechanical characteristics

Typical Weight [kg/lbs]	1.36 / 2.99
Max. Width [mm/ in]	111.76 / 4.4
Max. Height [mm/ in]	127 / 5
Max. Depth [mm/ in]	62.23 / 2.45
Battery Case	Plastic

### Operating conditions

Charge method	constant current/constant voltage
Max. recommended charge current	5A / 10A
Charge temperature range +	0°C to +50°C
Max. discharge current*	8A / 16A
Discharge temperature range	-30°C to +60°C

### References

Connector	6 Female socket per SC-C-179495
Mating Connector	ITT CA1 10821-6

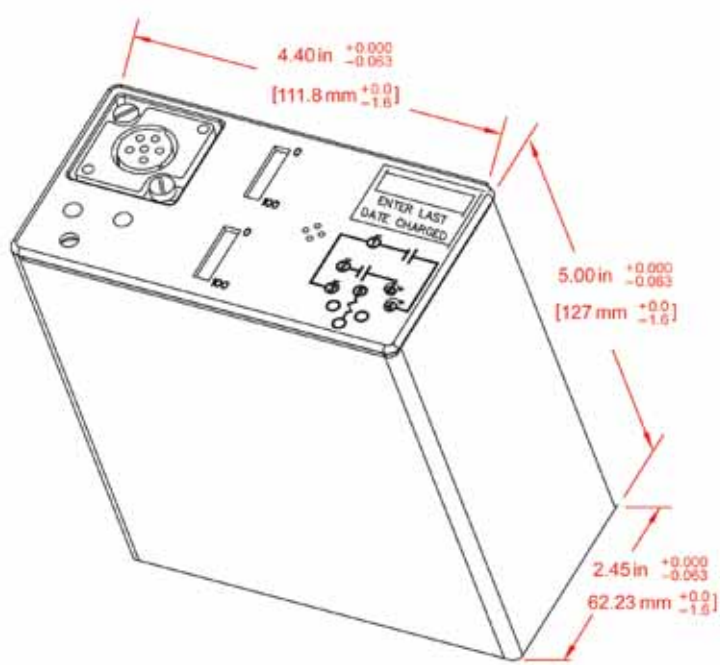
+ Consult Saft for optimized charging below 0°C

\* At current above 6A/string and depending on the ambient temperature, run time may be limited due to self-heating.

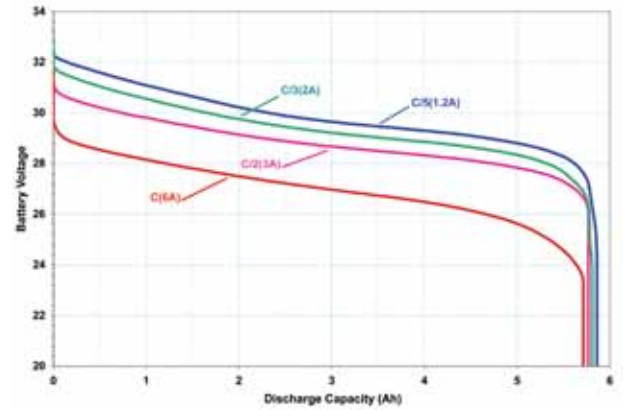


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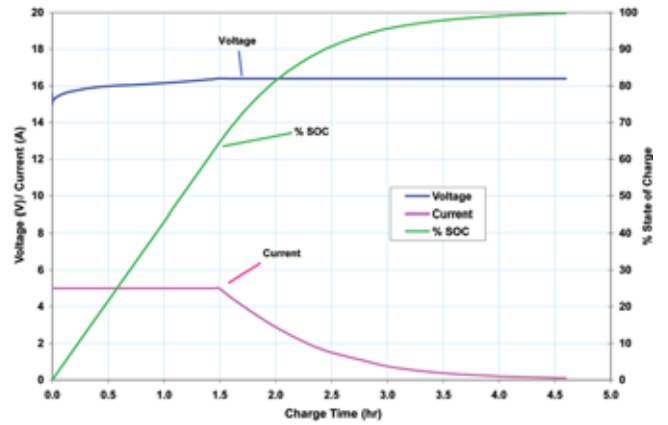
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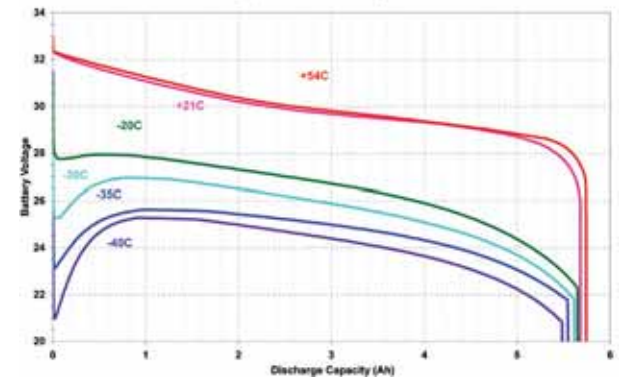
Typical discharge curves at 20°C



Typical charge profile - 5A (0.4C rate) charge input in parallel connection at 20°C



Typical curves: 1A discharge



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