

LVP 10

Lithium ion battery for Aerospace and Aircraft applications

Overview

The LVP10 Lithium ion Rechargeable cell is optimized for high reliability and low maintenance use in Aircraft battery systems. The cell design is based on our state of the art technology and extensive experience in manufacturing cells for space applications and large-scale industrial batteries.

Applications

- Aircraft Auxiliary Load and Flight Control Backup.
- Other high reliability applications

Features and Benefits

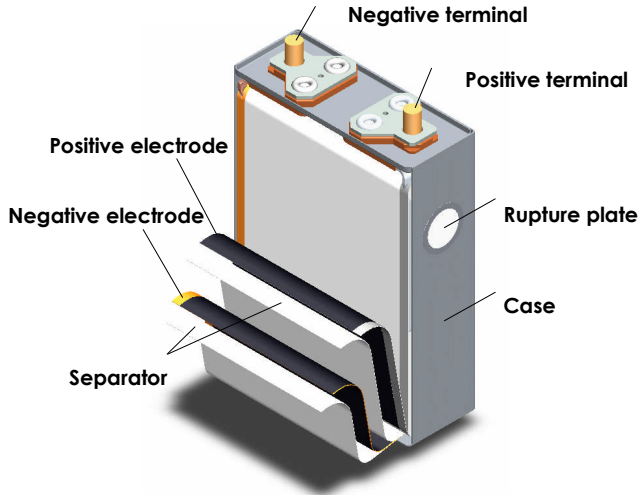
- High energy density
- Excellent discharge characteristics
- Sealed structure
- Low self discharge
- No need for maintenance such as electrolyte filling or conditioning cycles.



Specification		
Rated capacity (Ah)		10
Nominal capacity (Ah)		11.5
Nominal voltage (V)		3.7
Dimensions (mm)	Width	21
	Length	130
	Height	80
Weight (kg)		0.49
Specific Energy (Wh/Kg)		87
Energy Density (Wh/l)		195
Max. Charge Current (A)		1 CA
Max. Discharge Current (A)		5 CA
Internal resistance (mΩ) at 25°C 1kHz*		1.4
Charge temperature (°C)		10 - 35
Discharge temperature (°C)		0 - 65

*Reference value for AC impedance at Beginning of Life (BOL) and 25°C. Impedance increases with age and with decreased ambient temperature.

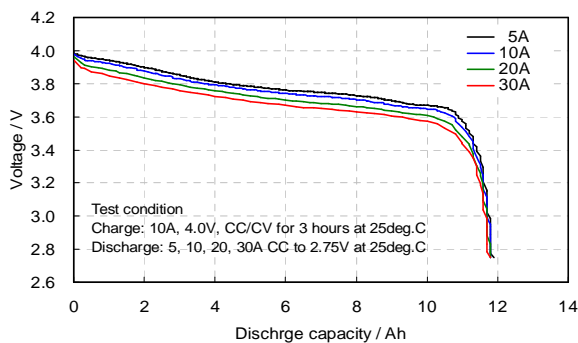
Structure of cell



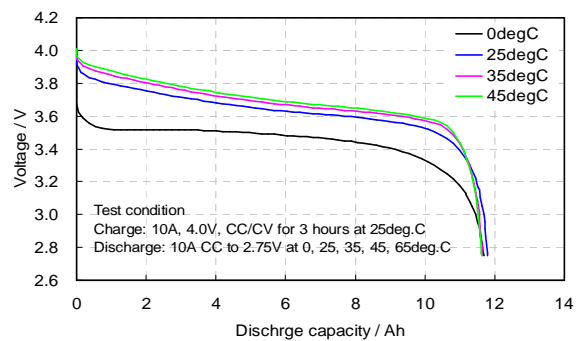
The LVP10 cell element consists of a lithium cobalt dioxide positive electrode and a graphitic carbon negative electrode wound with a micro-porous film separator. The wound assembly is contained in a stainless steel casing. This design results in very low internal resistance, and excellent energy and power.

Charge and Discharge characteristics

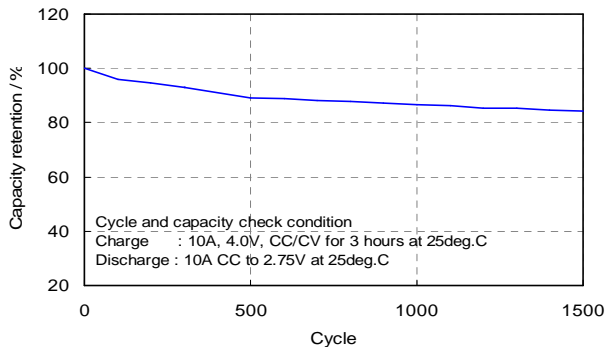
Discharge Capacity vs. Rate.



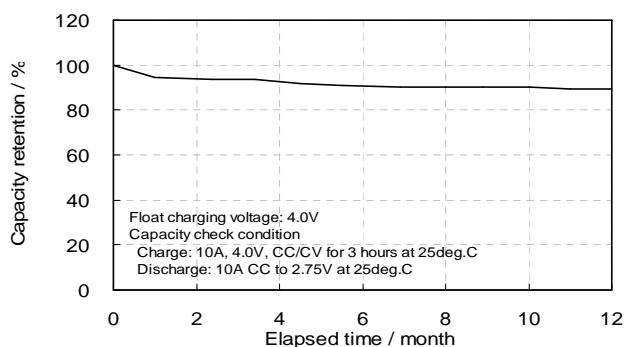
Discharge Capacity vs. Temperature



Cycle Life



Calendar Life



MODULE Information

The LVP10 can be designed into battery systems complete with cell balancing and protection electronics. GS Yuasa recommends that all LVP cells be utilized with protective battery management electronics. Contact us for information

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