



### LMP063767

SolidEnergy Systems developed advanced high-energy lithium-metal rechargeable battery technology, which delivers best-in-class energy density characteristics and cycling performance. This product is ideally suited for applications requiring very high gravimetric and volumetric energy densities that have battery-weight and dimension constraints, such as aeronautics and space, consumer electronics, and EVs.

### Benefits

- World's lightest rechargeable battery
- Ultra-high volumetric energy Density of 1200 Wh/L
- Ultra-high gravimetric energy density of 450 Wh/kg
- High Voltage
- Flexible, customizable design
- Recommended for weight constraint applications

### Key Features

- Excellent capacity retention and long cycle life
- High pulse charge rate
- High continuous discharge rate
- Great high-altitude performance
- Practical operating temperature range
- High cycling efficiency

### Main Applications

- High-altitude drones
- Commercial drones
- Electric autonomous flying transportation
- Consumer electronics
- Power tools
- Small UPS
- Transportation

### Electrical Characteristics

Nominal Voltage	3.8 V
Typical Capacity (C10, 25°C)	3.4 Ah
Nominal Energy	13 Wh

### Mechanical Characteristics

Height	66 ± 1 mm
Width	37 ± 1 mm
Thickness	6.35 ± 0.3 mm
Typical Weight	29 g
Cell Volume	0.015 L

### Operating Conditions

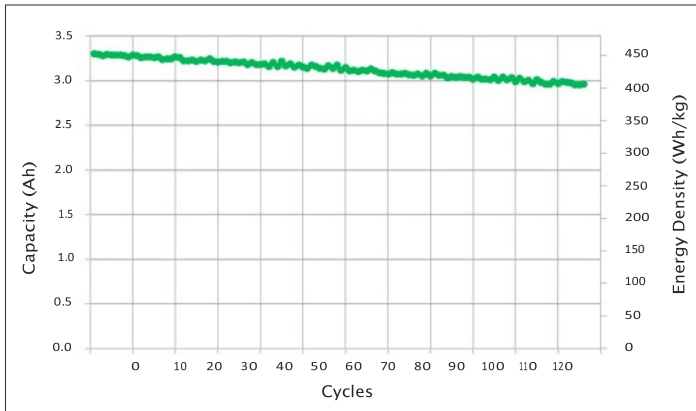
Charge Method	Constant Current / Constant Voltage
Charge Voltage	4.3 ± 0.05V
Maximum Recommended Charge Current	0.68 A (0.2 C Rate)
Charge Temperature Range	0°C to 45°C
Charge Time at 20°C	Function of the Charge Current C Rate → 1.5 – 2 Hr C/2 Rate → 2.5 – 3 Hr C/5 Rate → 6 – 7 Hr
Maximum Continuous Discharge Rate	6.8 A (2C Rate)
1kHz ACR, Ω (50% SOS, RT)	<18 mΩ
Pulse Discharge Rate	Up to 16 A (5C Rate)
Discharge Cut-off Voltage	3 V
Discharge Temperature Range	-20°C to 45°C

\*Electric protection circuits within battery packs may limit the maximum charge/discharge current available. Contact SES.

### Performance Characteristics

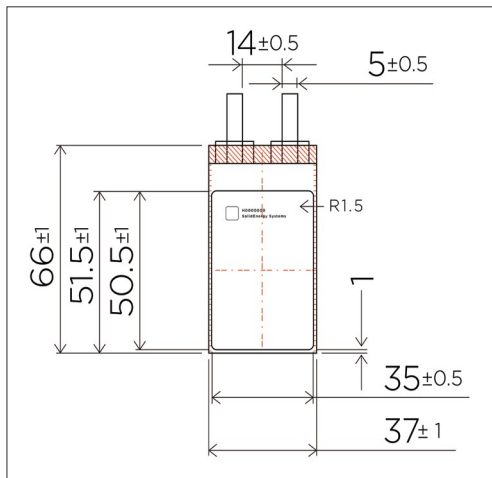
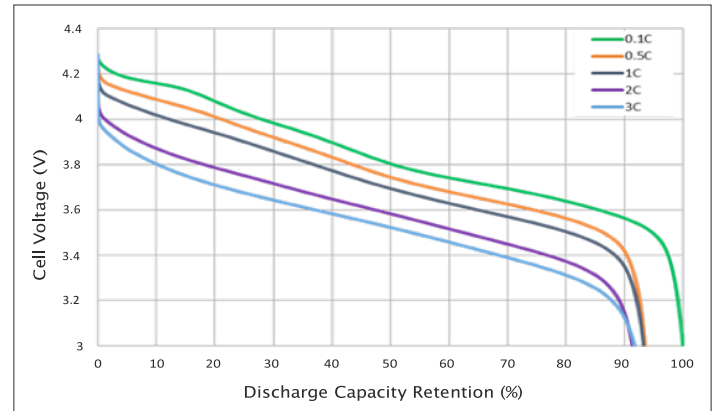
#### Cycle Life Characteristics

Charge: CC-CV 0.1C (std.) 4.3V, C/20A cut-off at 25°C  
 Discharge: CC 0.5C, 3V cut-off at 25°C



#### Discharge Rate Characteristics

Charge: CC-CV 0.1C(std.) 4.3V, C/20A cut-off at 25°C  
 Discharge: CC 0.1C/ 0.5C /1C/ 2C/ 3C, 3V cut-off at 25°C



Use dimensions for reference only.  
 For your cell/battery needs please contact SolidEnergy's application engineers.

Discharge Characteristics at 25°C	0.1 C	0.5 C	1.0 C	2.0 C	3.0 C
Capacity, Ah	3.4	3.2	3.2	3.1	3.1
Capacity Retention, %	100	93	93	91	92
Energy, Wh	13.0	12.0	11.8	11.2	11.0
Gravimetric Energy Density, Wh/kg	450	415	408	386	381
Volumetric Energy Density, Wh/L	1157	1068	1050	996	979

### Technology

- Ultra-thin lithium metal anode
- Proprietary ultra-light anode current collector
- High Ni content NMC cathode
- Ceramic-filled separator
- Solvent-in-salt electrolyte
- Flexible, customizable design

### Storage and Handling

- Store in a dry place at room temperature (preferably <30°C)
- Do not disassemble or incinerate
- Do not short terminals
- For long-term storage, keep the cell within a 30% state of charge



### SolidEnergy Systems Corporation

Product Development & Marketing  
 35 Cabot Road  
 Woburn, MA 01801 - USA  
 Tel. +1 339-298-8304  
 Web: www.solidenergysystems.com