



## PSL-FP-IFR26650EC 3.2V 3.4 AH ENERGY CELL

Rechargeable Lithium Cell

PSL FP – Lithium Iron Phosphate Series

# **CELL FEATURES**

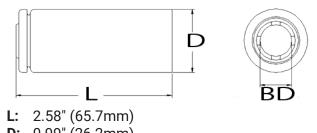
- Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging or short circuits
- Construct custom battery design by placing two or more cells in parallel and/or series
- Fast charging and low self-discharge rate
- Durable steel case material

## **APPROVALS**



- UL 1642 certificate
- IEC 62133 certificate
- IEC 62619 certificate
- UN 38.3 certified
- ISO9001:2015 Quality management systems

## **DIMENSIONS:** inch (mm)



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**D:** 0.99" (26.2mm) **BD:** 0.59" (15mm)

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#### **GLOBAL HEADQUARTERS** (USA AND INTERNATIONAL EXCLUDING EMEA)

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All data subject to change without notice. E&O.E

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# LITHIUM ENERGY CELL

The PSL-FP-IFR26650EC is an energy cell. Energy cells are designed to deliver sustained current over a long period of time, making them ideal for use in cyclic applications.

## **PERFORMANCE SPECIFICATIONS**

| Nominal Voltage  | 3.2 V   |
|--|---|
| Rated Capacity   | 3.4 AH  |
| Stored Energy  | 10.88 Wh  |
| Cycle Life (@DOD100%)  | 2000 Cycles   |
| Approximate Weight   | 0.19 lbs (85g)  |
| Internal Resistance  | ≤20.0 mΩ  |
| Max Charge Current   | 3.4 A /1C   |
| Max Discharge Current  | 10 A /3C  |
| Charge Cut-off Voltage   | 3.65 V  |
| Recommended Discharge Cut-<br>Off Voltage                                | 2.5 V   |
| <b>Operating Temperature Range</b><br>Charge<br>Discharge<br>Recommended | 32°F (0°C) to 113°F (45°C)<br>-4°F (-20°C) to 140°F (60°C)<br>59°F (15°C) to 95°F (35°C)                                |
| Temperature Limit  | Cell skin temperature cannot<br>exceed 80°C   |
| Standard Charging Method   | 0.5C constant current charge to<br>3.65V, then constant voltage charge<br>until the charge current declines to<br>0.05C |
| Life Expectancy (years)  | 5 years at one cycle per day  |
| <b>Dimensional Tolerances</b><br>Height<br>Width                         | +/- 0.012" (+/- 0.3mm)<br>+/- 0.01" (+/- 0.2mm)   |
| Terminal Type  | Button  |
|  |   |

## **STORAGE SPECIFICATIONS**

|            | 1 Month | 3 Months | 6 Months |
|------------|---------|----------|----------|
| Retention* | 90%     | 85%      | 80%      |
| Recovery*  | 95%     | 90%      | 85%      |
|            |         |          |          |

\*Cell stored at 77°F (25°C) with 50% SOC used to determine retention and recovery.

Long-term storage temperature should be 14°F (-10°C) to 95°F (35°C) with 45-85%RH. It is recommended to store cells at 25°C and between 3.3 and 3.4V for long term storage.

v1: 06/2



## PSL-FP-IFR26650EC 3.2V 3.4 AH ENERGY CELL

**Rechargeable Lithium Cell** 

**PSL FP – Lithium Iron Phosphate Series** 

## **CAPACITY SPECIFICATIONS**

| Item                | Test Method and Condition   | Result     |  |  |
|---------------------|---|------------|--|--|
| Rated Capacity 0.2C | Capacity measured with discharge current of 0.2C with 2V cut-off voltage after the standard charge.   | 3400mAh    |  |  |
| Rated Capacity 1C   | Capacity measured with discharge current of 1C with 2V cut-off voltage after the standard charge.   | 3350mAh    |  |  |
| Rated Capacity 2C   | Capacity measured with discharge current of 2C with 2V cut-off voltage after the standard charge.   | 3250mAh    |  |  |
| Rated Capacity 3C   | Capacity measured with discharge current of 3C with 2V cut-off voltage after the standard charge.   | 3050mAh    |  |  |
| Cycle Life          | Temperature: 23+/-5°C<br>Charge: 0.5C Constant Current to 3.65V, then Constant Voltage to 0.05C cut off<br>Discharge: 0.5C discharge to 2V<br>80% or more of first cycle capacity at 0.5C discharge | 2000 times |  |  |
| Initial Impedance   | Internal resistance measured at AC 1KHz at 50% charge   | ≤20.0 mΩ   |  |  |
|                     |   |            |  |  |

### Standard environmental test condition:

Unless otherwise specified, all tests stated in this Product Specification are conducted at: Temperature: 23+/-5°C Humidity: 65+/-20% RH

## **CHARGING SPECIFICATIONS**

## **Charging Current:**

Charging current should be less than the maximum charge current specified within this product specification. Charging with higher current than recommended may cause damage to the cell's electrical, mechanical, and safety performance, and could lead to heat generation or leakage of electrolyte.

### **Charging Voltage:**

Charging voltage should be less than the maximum charge voltage specified within this product specification. Charging beyond 3.7V, which is the absolute maximum voltage, is strictly prohibited. The charger shall be designed to comply with this condition. Charging with higher voltage than maximum may cause damage to the cell's electrical, mechanical, and safety performance, and could lead to heat generation or leakage of electrolyte.

### **Charging Temperature:**

The cell should be charged within 32°F (0°C) to 113°F (45°C).

## **Reverse Charging:**

Reverse charging is prohibited. The cell is required to be connected correctly. The polarity has to be confirmed prior to wiring. If the cell is not connected properly, the cell cannot be charged. Reverse polarity charging may cause degradation of the cell's performance, overall damage to the cell, which could lead to heat generation or leakage of electrolyte.