

## PSL-FP-IFR18650PC 3.2V 1.1 AH POWER CELL

Rechargeable Lithium Cell  
PSL FP – Lithium Iron Phosphate Series

### CELL FEATURES

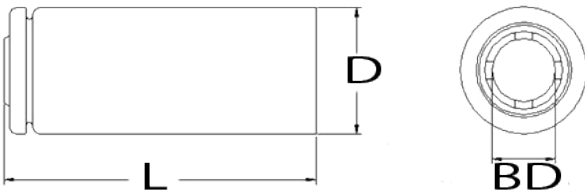
- Super safe lithium iron phosphate (LiFePO<sub>4</sub>) chemistry reducing the risk of explosion or combustion due to high impact, over-charging or short circuits
- Construct custom battery design by placing two or more cells in parallel and/or series
- Fast charging and low self-discharge rate
- Durable steel case material

### APPROVALS



- UL 1642 cell certificate
- UN 38.3 certified
- ISO9001:2015 - Quality management systems

### DIMENSIONS: inch (mm)



**L:** 2.60" (65.0mm)  
**D:** 0.72" (18.2mm)  
**BD:** 0.30" (7.5mm)

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

**Power-Sonic Corporation**  
365 Cabela Dr Suite 300,  
Reno, Nevada 89523  
USA  
**T:** +1 619 661 2020  
**E:** customer-service@power-sonic.com

#### POWER-SONIC EMEA (EMEA – EUROPE, MIDDLE EAST AND AFRICA)

Smitspol 4, 3861 RS Nijkerk,  
The Netherlands  
**T NL:** + 31 33 7410 700  
**T UK:** + 44 1268 560 686  
**T FR:** + 33 344 32 18 17  
**E:** salesEMEA@power-sonic.com

### POWER CELL

The PSL-FP-IFR18650PC is a Power cell. Power cells are designed to deliver high current loads over a short period of time, making them ideal for use in high rate and starter applications.

### PERFORMANCE SPECIFICATIONS

<b>Nominal Voltage</b>	3.2 V
<b>Rated Capacity</b>	1.1 AH
<b>Stored Energy</b>	3.5 Wh
<b>Cycle Life (@DOD100%)</b>	2000 Cycles
<b>Approximate Weight</b>	0.09 lbs (40g)
<b>Internal Resistance</b>	≤15.0 mΩ
<b>Max Charge Current</b>	1.1 A/2C
<b>Max Discharge Current</b>	33 A/30C
<b>Charge Cut-off Voltage</b>	3.65 V
<b>Recommended Discharge Cut-Off Voltage</b>	2.5 V
<b>Operating Temperature Range</b>	
Charge	32°F (0°C) to 113°F (45°C)
Discharge	-4°F (-20°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
<b>Temperature Limit</b>	Cell skin temperature cannot exceed 80°C
<b>Standard Charging Method</b>	1C constant current charge to 3.65V, then constant voltage charge until the charge current declines to 0.05C
<b>Life Expectancy (years)</b>	5 years at one cycle per day
<b>Dimensional Tolerances</b>	
Height	+/- 0.012" (+/- 0.3mm)
Width	+/- 0.01" (+/- 0.2mm)
<b>Terminal Type</b>	Button

### STORAGE SPECIFICATIONS

	1 Month	3 Months	6 Months
<b>Retention*</b>	90%	85%	80%
<b>Recovery*</b>	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.

# PSL-FP-IFR18650PC **3.2V 1.1 AH** **POWER CELL**

Rechargeable Lithium Cell  
PSL FP – Lithium Iron Phosphate Series

## CAPACITY SPECIFICATIONS

Item	Test Method and Condition	Result
<b>Rated Capacity 1C</b>	Capacity measured with discharge current of 1C with 2V cut-off voltage after the standard charge.	1100mAh
<b>Rated Capacity 10C</b>	Capacity measured with discharge current of 10C with 2V cut-off voltage after the standard charge.	1000mAh
<b>Rated Capacity 20C</b>	Capacity measured with discharge current of 20C with 2V cut-off voltage after the standard charge.	950mAh
<b>Rated Capacity 30C</b>	Capacity measured with discharge current of 30C with 2V cut-off voltage after the standard charge.	925mAh
<b>Cycle Life</b>	Temperature: 23+/-5°C Charge: 1C Constant Current to 3.65V, then Constant Voltage to 0.05C cut off Discharge: 1C discharge to 2V 80% or more of first cycle capacity at 1C discharge	2000 times
<b>Initial Impedance</b>	Internal resistance measured at AC 1KHz at 50% charge	≤15.0 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.