

#### PSL-SC-12120

# Series Capable Rechargeable Lithium (LiFePO4)

**PSL-SC - Series Capable Lithium** 



PSL-SC series lithium batteries can be connected in series or parallel for greater voltage or capacity. They deliver constant power, fast charging without the need for float, and long cycle life even at higher temperatures, making them a reliable, flexible solution for applications such as renewable energy systems, telecom, UPS, and industrial equipment.

## **Configuration Options**

• PSL-SC-12120 F2

#### **Performance Specifications**

Nominal Voltage 12.8 Volts, (4.0 cells)

Nominal Capacity 12.0Ah

2-hr. (6.0A to 10.0 Volts)

Stored Energy 153.6Wh

Cycle Life (@100% Depth of

Discharge)

Series Connection

Parallel Connection Contact Power-Sonic to connect

more than 4 in parallel

15.0A

**Approximate Weight** 3.64lbs, (1.65kg)

 Dimensions
 L: 5.94in, 151.0mm

 +/- 0.04 in. (+/- 1mm) for length and width +/- 0.08 in. (+/- 2mm) for
 W: 3.9in, 99.0mm

 H: 3.74in, 95.0mm

height dimensions **TH:** 3.98in, 101.0mm

Internal Resistance (approx.) m $\Omega$  80.0m $\Omega$ 

Operating Temperature

**Max Continuous Discharge Current** 

Range

Charge 32°F (0°C) to 113°F (45°C)
Discharge -4°F (-20°C) to 140°F (60°C)

Case ABS Plastic Rated to UL94:V0

Recommended Power-Sonic Charger PSC-124000-LIFE

### **Available Terminals (mm)**



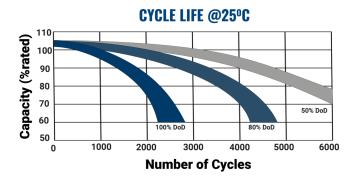


#### **Graphs**

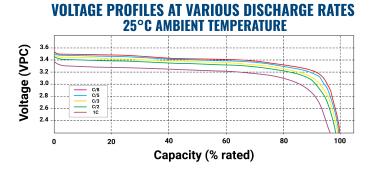
#### Discharge Rates Lithium vs. SLA

#### **CAPACITY OF LiFeP04 vs. LEAD ACID** AT VARIOUS RATES OF DISCHARGE 140 Capacity (Ah) 120 100 80 60 LiFeP04 - AGM 40 - Flooded Lead Acid 20 0 0.1 0.2 0.3 0.4 0.5 0.7 8.0 0.6 Discharge (C)

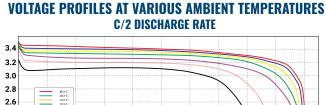
#### **Lithium Cycle Life**

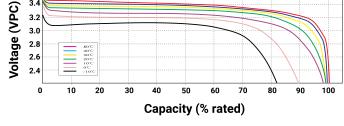


#### **Lithium Discharge Rates**



#### **Lithium Temperature Discharge**





#### **Protections Circuit Characteristics**

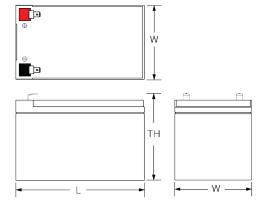
Parameter	Condition	Delay	Release
1st Over Discharge Current	А	S	s
2nd Over Discharge Current	А	s	s
Over Charge Current	А	s	s
Cell Over Voltage Protection	V	s	V
Cell Under Voltage Protection	V	s	V
Short Circuit Protection Current	А	ms	S



#### **Charging**

Cycle Applications: Apply constant voltage charge at 3.60VPC – 3.65VPC (14.4 to 14.6 volts for 12V Monobloc) at 20°C. The initial charging current should be set at less than C/4 Amps. Terminate the charge when the current falls to a 3% capacity rate to avoid overcharging. Stand-By or "Float" Service: Apply constant voltage charge of 3.35VPC – 3.45VPC (13.4 to 13.8 volts for 12V Monobloc) at 20°C. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charged condition. For further charging and maintenance information see the lithium resource center on Power-Sonic.com.

### **Engineering Drawing**



#### For Further Information

Please refer to our website, **www.power-sonic.com**, for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

#### **Approvals**



Extended mineral reporting meets global supply chain transparency standards for responsible and ethical sourcing practices.



IEC 62133 certification ensures lithium battery safety, quality, and reliability for industrial and consumer use.



ISO 9001:2015 certification ensures consistent quality management and manufacturing standards for energy storage products.



Manufactured with UL 1642 certified lithium cells ensuring battery safety, durability, and regulatory compliance.



REACH compliant with EU chemical safety standards ensuring restricted substances are controlled in all battery components.



RoHS compliance ensures restriction of hazardous substances in electrical, electronic, and battery-powered products.



SVHC compliant with EU REACH regulations for Substances of Very High Concern used in electrical and energy storage products.



UN 38.3 certification ensures lithium batteries meet global transport safety standards for air, sea, and ground.

