

# **PSL-CP-12500**

# **PSL-CP - Communications Protocols Lithium PSL-CP Series**

Long cycle life and dependable performance with advanced connectivity. Integrated communications protocols allow seamless communication with external systems, providing real-time data on voltage, current, temperature, and state of charge. With built-in BMS protection these batteries are ideal for energy storage, telecom, UPS, and other applications where system integration and monitoring are critical.

#### **Engineering Drawing**

**L:** 7.68in (195.0mm)

W: 5.12in (130.0mm)

**H:** 7.2in (183.0mm)

HT: 7.2in (183.0mm)

+/- 0.04 in. (+/- 1mm) for length and width +/- 0.08 in. (+/- 2mm) for height dimensions

#### **Available Terminals**







Torque: 2.0~3.0 Nxm

#### **Features**

- BMS Optimization
- Communication Port
- Lightweight Lithium
- Lithium 2X Power
- Lithium 40% Lighter
- Lithium Cycle Life
- Lithium Maintenance Free
- Lithium Powersport Performance
- Lithium Safety
- Not For Starting

## **Performance Specs**

Nominal Voltage	12.8V
Nominal Capacity	50.0Ah
20-hr Rate	50.0Ah
10-hr Rate	50.0Ah
5-hr Rate	50.0Ah
1-hr Rate	50.0Ah
Weight	5.85kg
Internal Resistance	30.0 milliohms
Max Discharge Current	35.0A
<b>Charge Temp Range</b>	32°F (0°C) to 113°F (45°C)
Discharge Temp Range	-4°F (-20°C) to 140°F (60°C)
Case Material	ABS Plastic Rated to UL94:V0





## **Available options**

• PSL-CP-12500 M6

# **Applications**







Medical



Mobility



Transport



Utility

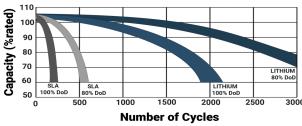


Wind

## **Graphs**

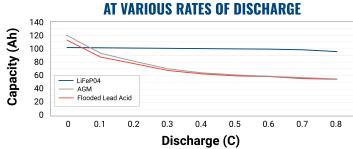
#### 1. Cycle Life Lithium vs. SLA

#### CYCLE LIFE VS. DEPTH OF DISCHARGE (DoD) @25°C



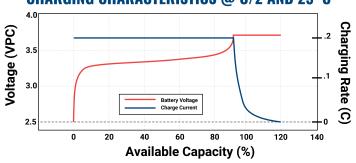
#### 2. Discharge Rates Lithium vs. SLA

CAPACITY OF LIFEPO4 vs. LEAD ACID

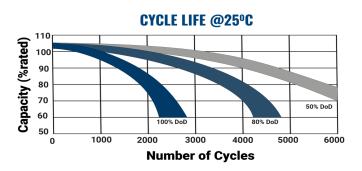


#### 3. Lithium Charging

#### CHARGING CHARACTERISTICS @ C/2 AND 25°C

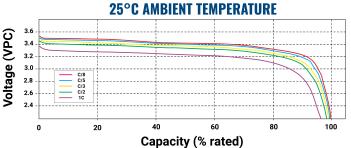


#### 4. Lithium Cycle Life

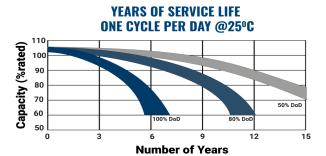


#### 5. Lithium Discharge Rates

# VOLTAGE PROFILES AT VARIOUS DISCHARGE RATES 25°C AMBIENT TEMPERATURE

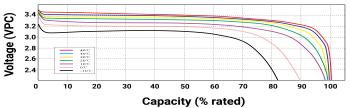


#### 6. Lithium Service Life



## 7. Lithium Temperature Discharge

# VOLTAGE PROFILES AT VARIOUS AMBIENT TEMPERATURES C/2 DISCHARGE RATE







#### **Lithium Protections**

Condition Nominal Voltage Delay Release

#### 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.

#### **Approvals**



