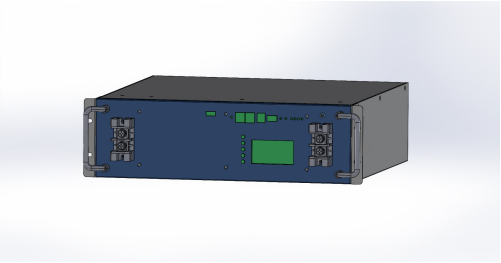
PSL-ES-481000

Energy Storage Lithium
PSL-ES - Energy Storage Lithium



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.

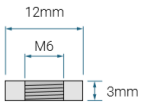
Configuration Options

- PSL-ES-481000-3U M6
- PSL-ES-481000-4U M6

Performance Specifications

Nominal Voltage	48.0 Volts, (15.0 cells)
Nominal Capacity	Ah
2-hr. (A to Volts)	
Stored Energy	4800.0Wh
Cycle Life (@100% Depth of Discharge)	6000
Series Connection	No series connections
Parallel Connection	15
Approximate Weight	94.8lbs, (43.0kg)
Dimensions +/- 0.08 in. (+/- 2mm) for all dimensions	**L:** 19.0in, 482.0mm **W:** 18.1in, 460.0mm **H:** 5.2in, 133.0mm **TH:** 5.2in, 133.0mm
Internal Resistance (approx.) mΩ	mΩ
Max Continuous Discharge Current	100.0A
Operating Temperature Range	
Charge	32°F (0°C) to 113°F (45°C)
Discharge	-4°F (-20°C) to 140°F (60°C)
Case	Steel UL94:V0
Recommended Power-Sonic Charger	-

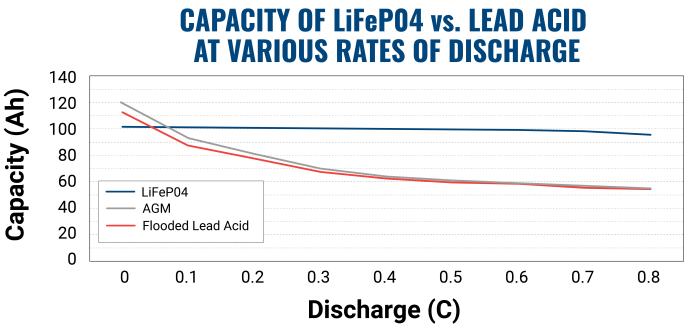
Available Terminals (mm)



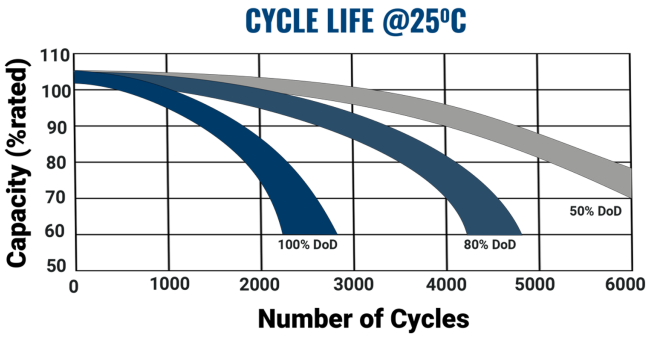
Torque: 2.0~3.0 Nxm

Graphs

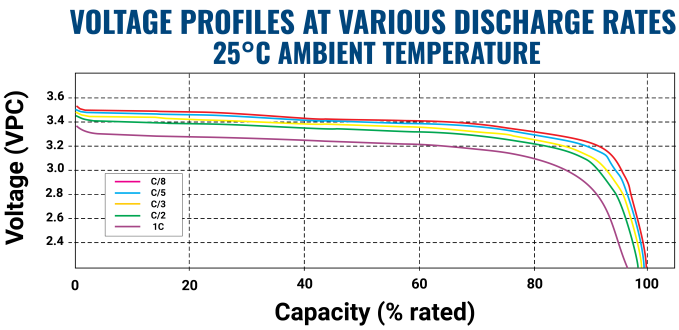
Discharge Rates Lithium vs. SLA



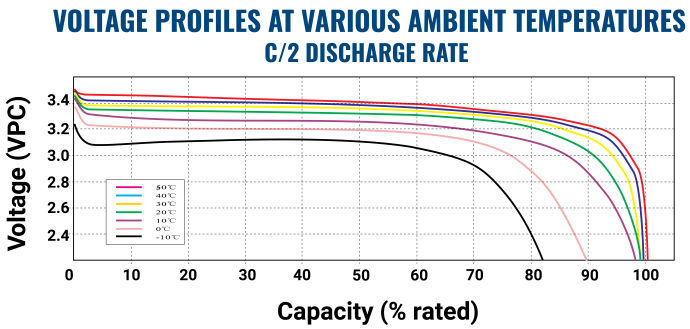
Lithium Cycle Life



Lithium Discharge Rates



Lithium Temperature Discharge



Protections Circuit Characteristics

Parameter	Condition	Delay	Release
1st Over Discharge Current	N/A	N/A	N/A
2nd Over Discharge Current	N/A	N/A	N/A
Over Charge Current	N/A	N/A	N/A
Cell Over Voltage Protection	N/A	N/A	N/A
Cell Under Voltage Protection	N/A	N/A	N/A
Short Circuit Protection Current	N/A	N/A	N/A

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.

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.

UL Recognized mark certifies safety-tested components for electrical reliability in battery and energy storage systems.

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

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