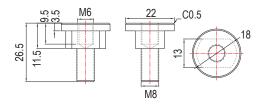
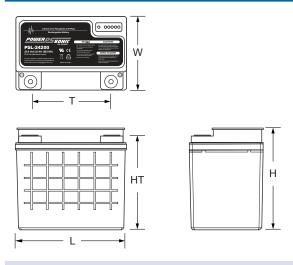
## **Power-Sonic Batteries Engineered With Vision. Built With Care.**



### **Terminals**



### **Physical Dimensions: in (mm)**



L: 7.70 (195) W: 5.20 (130) H: 7.20 (183) HT: 7.20 (183) T: 5.51 (140mm) Power-Sonic Corporation has been a leading force since 1970 in the supply of high quality cost effective batteries.

We market an extensive range of rechargeable batteries worldwide. These batteries envelop a broad spectrum of electronic and industrial applications, either as the prime or standby power source.

Power-Sonic is dedicated to continual product development to improve the performance and reliability of our product range. New batteries are constantly being introduced to meet the ever evolving needs of industry.

We are a 100% US owned private company. The corporation has an enviable record of growth and financial stability.

Providing our customers with reliable, yet economical, products is the corner stone of the Power-Sonic mission.

## About Lithium Iron Phosphate (LiFePO<sub>4</sub>) Batteries

- Compact and only 40% of the weight of comparable capacity SLA batteries. Making it much easier to handle and transport.
- Extraordinary cycle life
   2,500 cycles.
- 2½ hours recharge time (C/5) under recommended conditions with 20A charging current.
- Compatible with SLA battery chargers
- Same size as U1 SLA battery

- 22.0 AH capacity, allowing for a 10% longer runtime than an equivalent 20 AH LiFePO<sub>4</sub> battery.
- Safe and stable chemistry. The use of lithium iron phosphate greatly reduces the risk of combustion or explosion due to high impact, overcharging or short circuit situations.
- UN 38.3, UL1642, UL2054, IEC62133, FCC and CE approved. Certified compliant with EU Battery Directive 2006/66/EC.



Performance Specifications	General Parameters	Comments
Nominal Voltage	25.6 volts	
Rated Capacity (77°F/25°C)	22.0 AH	Standard discharge (0.5C) after Standard charge (0.5C)
Minimum Capacity (77°F/25°C)	21.0 AH	
Dimensions (in./mm)		
Length	7.70 / 195	
Width	5.20 / 130	
Height	7.20 / 183	
Battery Life	Residual capacity is more than 60% of rated capacity	Charge CC @ 0.2C to 29.2 V then CVCV until current to 0.05C. Rest 30 min.  Discharge 0.2C to 20V. Temperature 60 ± 9°F (20±5°C). Carry out 2,500 cycles
Approximate Weight lbs./kg.	13.0/5.9	
Internal Resistance Fully Charged (77°F/25°C)	18 mΩ	
Discharge Cut-Off Voltage	19.8V	
Charging Cut-Off Voltage	30.0V	
Terminals	M6 button (female-threaded)	
Standard Charge	0.2C Constant Current (CC) charge to 29.2V, then Constant Voltage (CV) 29.2V charge until charge current declines to 0.05 C	
Standard Discharge	Constant Current 0.2 C, Cut-off Voltage 20.0V	
Assembly Method	IFR 18650EC - 1.5AH	8S15P
Maximum Continuous Charge Current	10A	@ 68°F (20°C)
Maximum Continuous Discharge Current	16A	@ 68°F (20°C)
Operating Temperature Range Charge	32-130°F (0-55°C)	60±25% Relative Humidity at Shipment Date
Operating Temperature Range Discharge	14-140°F (10-60°C)	
Storage Temperature Range	Less than 1 year 32~77°F ( 0~25°C) Less than 3 months 23~95°F (-5~35°C)	60±25% Relative Humidity at Shipment Date
Specific Energy	42Wh/lb (92Wh/kg)	
Specific Density	121Wh/L	

# Discharge Voltage Profiles @ 20A Discharge Rate

13.5

13.0

12.5

12.0

11.0

10.5

0 10 20 30 40 50 60 70 80 90 100

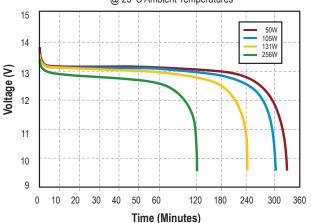
50°C 40°C 30°C 20°C 10°C 0°C

Voltage (V)

Various Ambient Temperatures

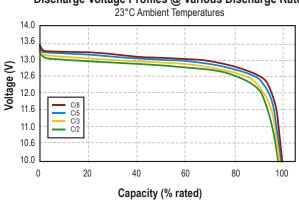
# **Constant Power Discharge Characteristice**

@ 23°C Ambient Temperatures

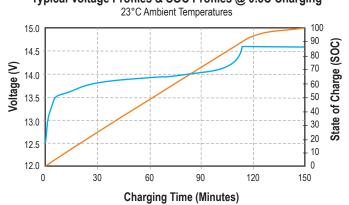


# Discharge Voltage Profiles @ Various Discharge Rate

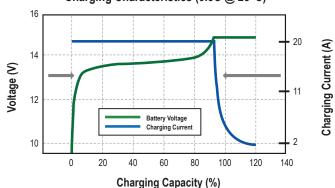
Capacity (%rated)



# Typical Voltage Profiles & SOC Profiles @ 0.5C Charging

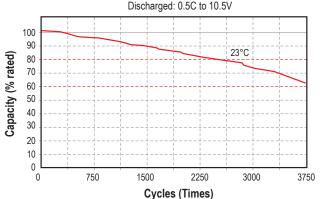


# Charging Characteristics (0.5C @ 25°C)



### **Discharge Capacity Performance**

Charged: 0.5C to 14.6V, CV@14.6 to 1A Discharged: 0.5C to 10.5V



## **Contact Information**

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