

PSL-12200 12.8 Volt 20.0 AH

Lithium Iron Phosphate (LiFePO₄)
Rechargeable Battery

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



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.

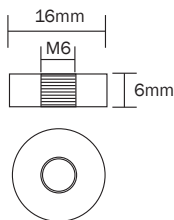
Power-Sonic is dedicated to continual product development to improve the performance and reliability of our product range. New batteries are constantly being introduced to meet the ever evolving needs of industry.

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

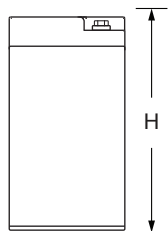
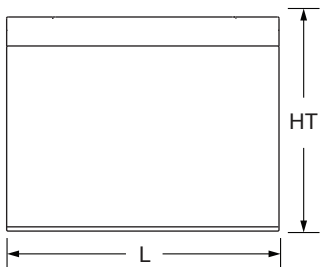
Providing our customers with reliable, yet economical, products is the corner stone of the Power-Sonic mission

Terminals (mm)

- Threaded insert w. 6 mm stud fastener



Physical Dimensions: in (mm)



L: 7.13 (181) W: 3.00 (76) H: 6.54 (166) HT: 6.54 (166)

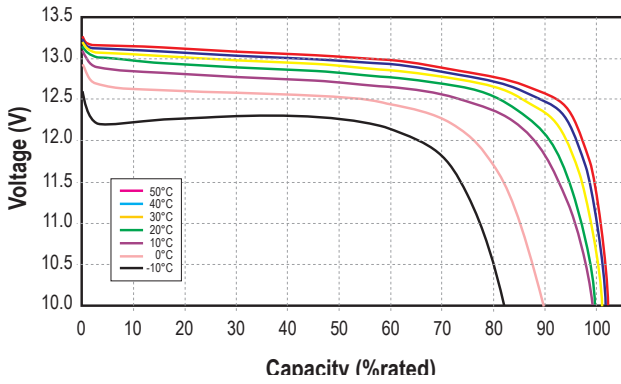
Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

About Lithium Iron Phosphate (LiFePO₄) Batteries

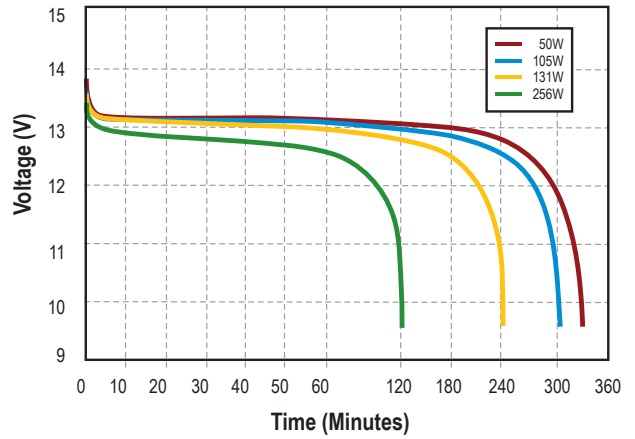
- Compact and only 40% of the weight of comparable capacity SLA batteries. Making it much easier to handle and transport.
- Extraordinary cycle life ~ 2,500.
- 2 ½ hours recharge time with 20A current charge.
- Safe and stable chemistry. The use of lithium iron phosphate greatly reduces the risk of combustion or explosion due to high impact, overcharging or short circuit situations.
- Compatible with SLA battery chargers
- Rugged plastic case and cover, flame retardant (FR) to UL94 V-0.
- The battery cells are manufactured with internationally patented lithium iron phosphate powder from Phostech, Canada.
- 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	12.8 volts	
Rated Capacity @ 2-hr Rate (77 ° F/25 ° C)	20.0 AH	Standard discharge 4A after standard charge 4A
Minimum Capacity @ 2-hr Rate (77 ° F/25 ° C)	19.0 AH	
Dimensions (in./mm)		
Length	7.12 / 181	
Width	3.00 / 76	
Height	6.53 / 166	
Cycle Life	Residual capacity is more than 60% of rated capacity	Charge CC@0.2C to 14.6V then CV until current to 0.05C; Rest 30 min., Discharge @ 0.2C to 10V. Temperature 68±9 ° F (20±5 ° C).
Approximate Weight lbs./kg.	6.16/2.80	
Internal Resistance at 50% SOC	<45mΩ	
Discharge Cut-Off Voltage	8.0V = 2.0 volts per cell	9.6V (Recommended)
Charging Cut-Off Voltage	15.6V = 3.9 volts per cell	14.6V (Recommended)
Terminals	M6 button (female threaded)	
Standard Charge	4A constant current (CC) charge to 14.6V, then constant voltage (CV) 14.6V charge until charge current declines to 1A	
Standard Discharge	Constant current 0.2 C. 10.0 volts cut offvoltage	
Cell Assembly	IFR26650EC - 3.3AH	4 in series and 6 parallel
Maximum Continuous Charge Current	10A @ 68 ° F (20 ° C)	
Maximum Continuous Discharge Current	20A @ 68 ° F (20 ° C)	
Operating Temperature Range Charge	32 ° F - 131 ° F (-0 ° C - 55 ° C)	
Discharge Temperature Range	14 ° F - 122 ° F (-10 ° C - 50 ° C)	
Storage Temperature Range	> 3 months 32~50 ° F (0~10 ° C) < 3 months 50~86 ° F (10~30 ° C)	60±25% Relative Humidity at Shipment Date
Specific Energy	112Wh/Kg	
Specific Density	112Wh/L	
Short Circuit Protection	>120A @ 68 ° F (20 ° C)	Replaceable 25A fuse
LED Indicator	N/A	Pure hardware PCM
Protocol	N/A	Pure hardware PCM
Over-temperature Protection	Discharge: 169 ° ±9 ° F (75 ° ±5 ° C)	
	Charge: 150 ° ±9 ° F (65 ° ±5 ° C)	

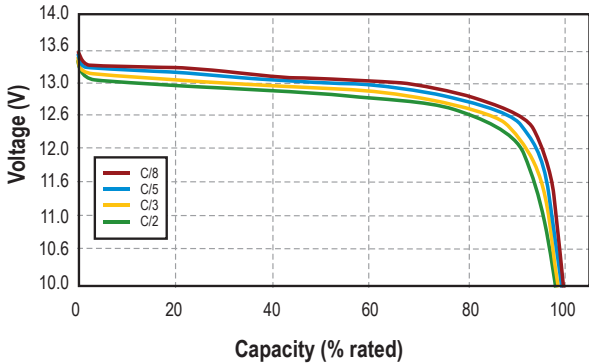
Discharge Voltage Profiles @ 20A Discharge Rate
Various Ambient Temperatures



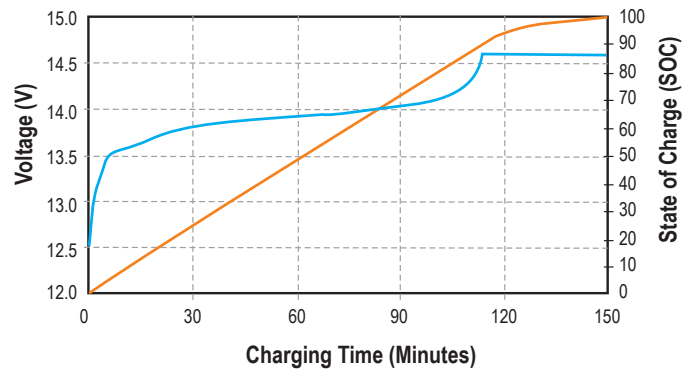
Constant Power Discharge Characteristic
@ 23°C Ambient Temperatures



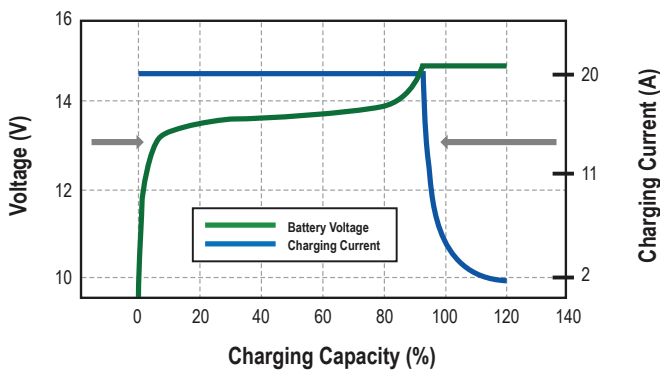
Discharge Voltage Profiles @ Various Discharge Rate
23°C Ambient Temperatures



Typical Voltage Profiles & SOC Profiles @ 0.5C Charging
23°C Ambient Temperatures

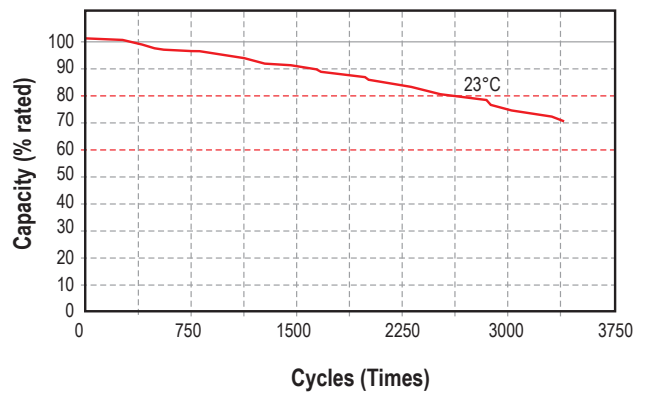


Charging Characteristics (0.5C @ 25°C)



Discharge Capacity Performance

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



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