# **Battery Specifications**

SPECIFICATIONS		
Technology	Lithium Iron Phosphate	
Nominal Voltage	12.8 V	
Rated Capacity 77°F (25 ±5 °C)	100 Ah @ 20A (5hr run time); 92 Ah @ 50A (1hr 54 min run time; 92 Ah @ 100A (55 mir run time)	
Capacity Correction for Temperature Variations	-4 °F (-20°C) 60% 131°F (55°C) 95%	
Maximum Discharge Current	100A (continuous) 120A (30 minutes) 150A (5 seconds)	
Specific Energy Density	121.9 Wh/kg	
Volumetric Energy Density	96.1 Wh/L	
Internal Resistance	$\leq 7.5 \text{ m}\Omega$	
Terminals	M8 insert Torque: 11-14.7 Nm (97.3 - 130 lbs)	
Cycle Life - 77°F (25°C)	≤1500 @ 100% Depth of Discharge; ≥3000 @ 80%; ≥4500 @ 30%	
Charge Voltage	14.6V	
Maximum Charge Current	100A	
Certifications	UN 38.3; CE; ETL	
Charge Cut-off Voltage	14.6V	
Discharge Cut-off Voltage	8.4V	
	Charge: 32°F (0°C) to 131°F (55°C	
Operating Temperature	Discharge: -4°F (-20°C) to 131°F (55°C)	
	1 Week: -4°F (-20°C) to 122°F (50°C)	
Storage Temperature	1 month: -4°F (-20°C) to 113°F (45°C)	
	6 months <sup>1</sup> : -4°F (-20°C) to 104°F (40°C)	
Humidity	Operating: 5% to 90 % RH	
Trairliaity	Storage: 45% to 85% RH	
BMS Leakage Current	3mA	

<sup>&</sup>lt;sup>1</sup>Max storage time before recharge is 6 months.



#### $\mathsf{GP\text{-}LiFePO}_4\text{-}100$ Lithium Battery Quick Start Guide



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$\triangle$	Only wire 4 batteries maximum in parallel
<u>^</u>	Do not wire in series
<u> </u>	Do not get wet
<u> </u>	Only suitable for 12-volt applications

Length	12.9 in / 328 mm
Width	7 in / 178 mm
Height	9.2 in / 233.7 mm
BCI Group #	31
Weight	36 lbs / 16.33 kg
Carrying	Nylon Strap

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### Wiring Guide

The illustrations below show how to properly wire lithium batteries. Batteries should be installed upright for mobile applications.

# **Battery Bank Terminal Connections**

All battery interconnects, busbar and device connections to resist vibration by using nylon insert lock nuts, thread locking fluid, or lock washers (split lock or external tooth).



External tooth

lock washer

Ensure correct strip length and that stripped wires are completely inserted into terminal before crimping

-Do NOT stack smaller terminals under large ones

# 100Ah Lithium Battery Bank Parallel Connection

Note: Up to a maximum 4x 100Ah lithium batteries may be connected in parallel. Lithium batteries may not be connected in series. New batteries should never be connected to old batteries. All batteries should be charged to a minimum of 13V before connecting them together.

