

PHI 1.4™ BATTERY



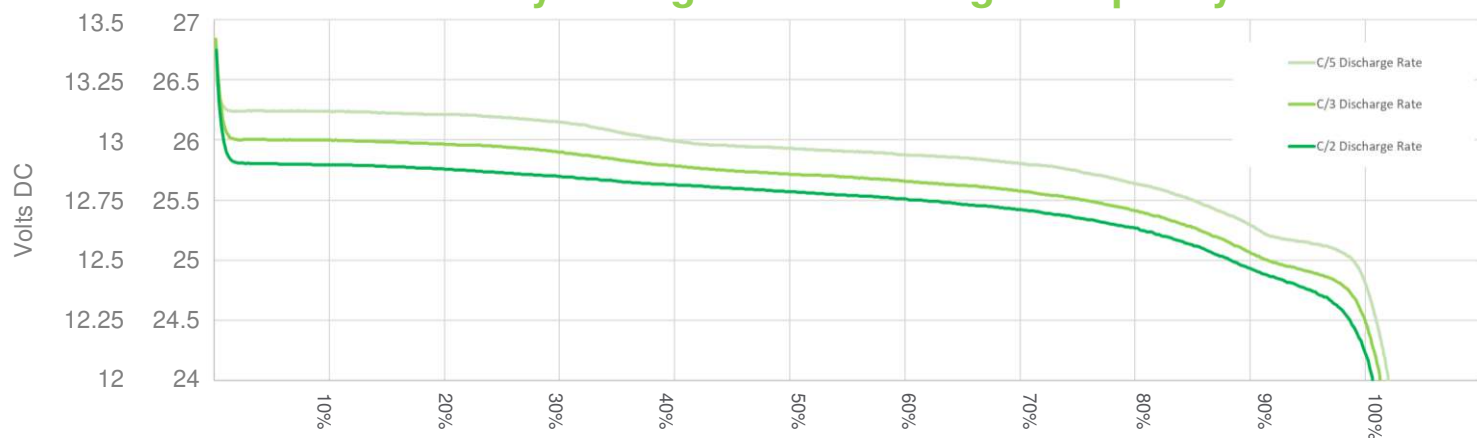
CHEMISTRY	Lithium Ferro Phosphate (LFP) The safest Lithium Ion chemistry available No cobalt or risk of thermal runaway
BMS	Built-in Battery Management System
CONNECTORS	Built-in SB50 Anderson Connector
COMPATIBILITY	Compatible with all industry standard inverters and charge controllers Battery bank-to-inverter output sizing must adhere to a 2:1 ratio: $\text{battery quantity} = \frac{\text{inverter } kW_{AC} \text{ rating} \div \text{inverter efficiency}}{\text{battery MAX Continuous Discharge Rate (} kW_{DC} \text{)}}$
MAINTENANCE	Maintenance-free No ventilation, cooling or thermal regulation required

PHI 1.4™	12V	24V
DC Voltages - Nominal	12.8 VDC	25.6 VDC
Amp-Hours	115 Ah	57 Ah
Rated kWh Capacity	1.4 kWh DC @ 100% DOD 1.12 kWh DC @ 80% DOD	1.4 kWh DC @ 100% DOD 1.12 kWh DC @ 80% DOD
MAX Discharge Rate (10 minutes)	60 Amps DC (0.76 kW DC)	60 Amps DC (1.53 kW DC)
MAX Continuous Discharge Rate	40 Amps DC (0.51 kW DC)	28.5 Amps DC (0.73 kW DC)
MAX Continuous Charge Rate	40 Amps DC (0.51 kW DC)	28.5 Amps DC (0.73 kW DC)
DC Voltage Range ¹	12 VDC to 14 VDC	24 VDC to 28 VDC
Depth of Discharge ¹	up to 100%	
Operating Efficiency	98%	
Charging Temperature ¹	32° to 120° F (0° to 49° C)	
Operating Temperature ¹	-4° to 140° F (-20° to 60° C)	
Storage Temperature	6 months: 14° to 77° F (-10° to 25° C) 3 months: -4° to 113° F (-20° to 45° C)	
Self-Discharge Rate	< 1% per month	
Cycle Life	10,000+ cycles (@ 80% DOD)	
Memory Effect	None	
Warranty	10 years	
Weight	33.28 lbs. (15.1 kg)	
Dimensions (W x H x D)	11.25 x 9.25 x 6.25 in. / 0.37 ft ³ (23.495 x 28.575 x 15.875 cm / 0.010 m ³)	

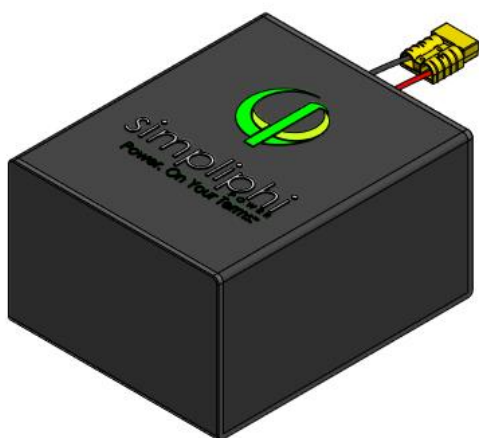
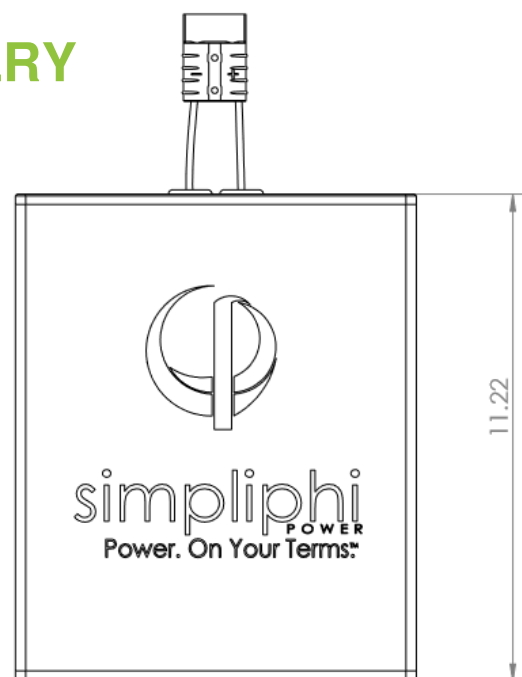
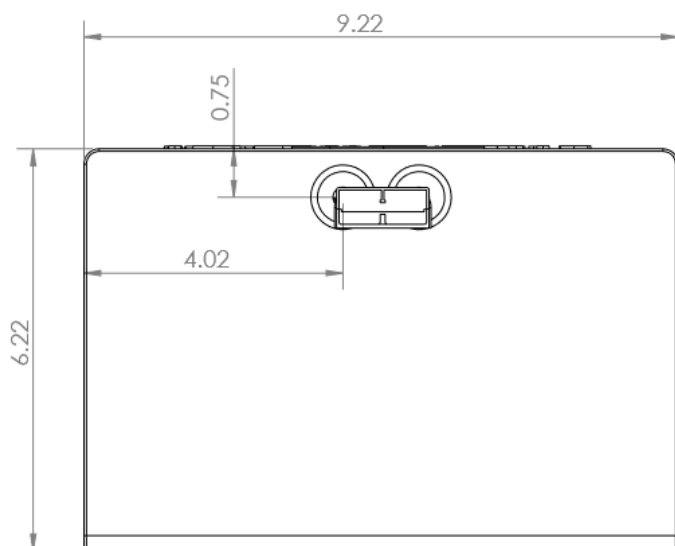
1. Max operating ranges. Refer to Warranty for recommended conditions.

- All specifications listed are typical/nominal and subject to change without notice.
- UN 3480, Lithium ion batteries, 9, II
- UL, CE, UN/DOT and RoHS compliant components
- Designed and manufactured in California, USA

Battery Voltage VS. Discharged Capacity



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PHI 1.4™	12V	24V
Bulk & Absorb Charge	13.6 VDC	27.2 VDC
Absorb Time	1 HR	1 HR
Charge Controller Float Charge	13.5 VDC	27 VDC
Inverter Charging	2 STAGE NO FLOAT	
Equalization Charge	NONE	
Temperature Compensation	NONE	

PHI 1.4™	12V	24V
Connector	SB 50 Yellow	SB 50 Red
Battery Cables	6 AWG	
See Installation Manual for detailed wiring instructions.		

Refer to the Integration Guide section of SimpliPhi's [Product Documentation](#) web page for inverter and/or charge controller specific settings. Must be followed to maintain PHI Warranty.