

# 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 ( <b>0.51 kW DC</b> )	28.5 Amps DC ( <b>0.73 kW DC</b> )
MAX Continuous Charge Rate	40 Amps DC (0.51 kW DC)	28.5 Amps DC (0.73 kW DC)
DC Voltage Range <sup>1</sup>	12 VDC to 14 VDC	24 VDC to 28 VDC
Depth of Discharge <sup>1</sup>	up to 100%	
Operating Efficiency	98%	
Charging Temperature <sup>1</sup>	32° to 120° F (0° to 49° C)	
Operating Temperature <sup>1</sup>	-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 <sup>3</sup> (23.495 x 28.575 x 15.875 cm / 0.010 m <sup>3</sup> )	

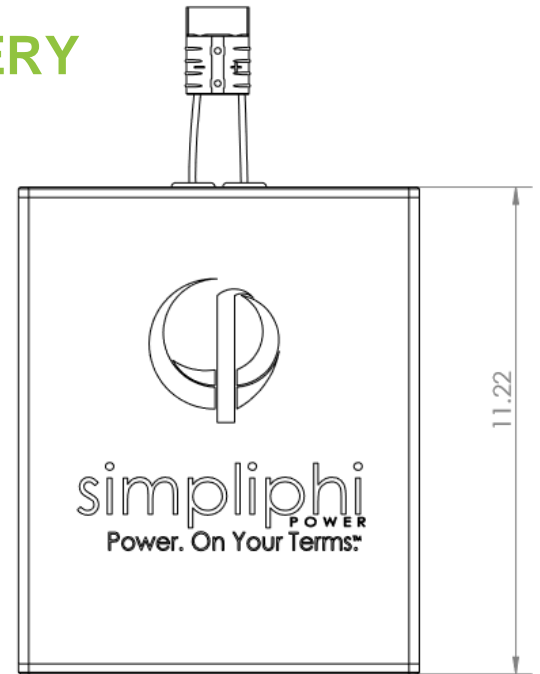
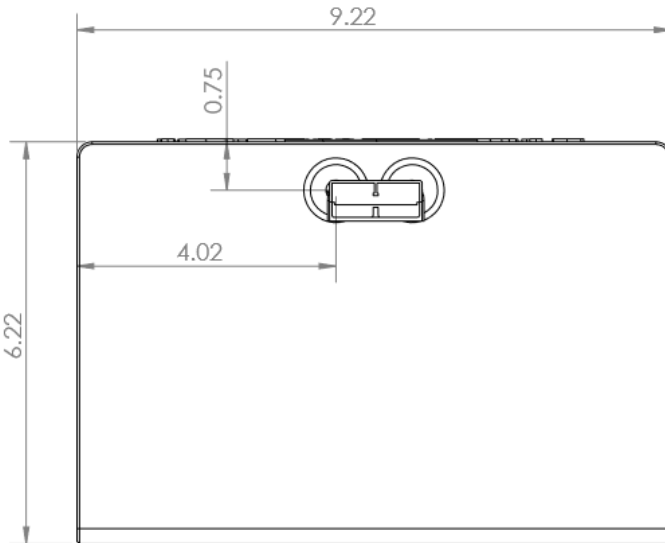
1. Max operating ranges. Refer to Warranty for recommended conditions.

- 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



## PHI 1.4™ BATTERY



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.