

4.9  
kWh

**SIMPLI PHI™**  
Battery



The **SimpliPHI™ 4.9 kWh Battery** utilizes advanced Lithium Ferro Phosphate (LFP) chemistry to deliver more efficient, safer and reliable energy storage. Designed and built with versatility in mind, the SimpliPHI 4.9 kWh Battery seamlessly integrates with all leading inverters, making it an ideal solution for battery replacement, expansion of existing systems or as a new installation. This leading-edge power storage solution is also at the core of the Energy Storage System (ESS): the most advanced, safety-certified ESS available for homes and businesses.

**FEATURES**



**Long battery life**

10,000 cycles at 80% depth of discharge (DoD), 96% round-trip efficiency, 26.8 MWh of energy throughput, with 80% retained capacity.



**Scalable for any energy need**

Battery can scale to allow for expansion up to 358 kWh for longer-duration storage.



**Flexible to pair with leading inverters**

Ready to be integrated with SimpliPHI, Sol-Ark and SMA. Other inverters pending.



**LFP battery chemistry**

Provides peace of mind by reducing cobalt, risk of thermal runaway with fire propagation, operating temperature constraints and toxic coolants.



**Broad operating temperature**

Ability to be used in a variety of temperature ranges.



**Maintenance-free**

No ventilation, cooling or thermal regulation required; 10-year limited warranty.<sup>1</sup>



**Versatile installation options**

IP65 rating supports all weather conditions for both indoor or outdoor installations.



**Validated to industry's toughest safety standards**

UL 1642, UL 1973, UN 3480 and UN DOT 38.3.



**Closed-loop communication**

Optimizing the inverter performance with ongoing feedback between the elements of the system.



**Proven overcurrent protection**

Integrated BMS and 100A DC breaker on/off switch protects the battery from overcharge and discharge, increasing safety during installation and operation.

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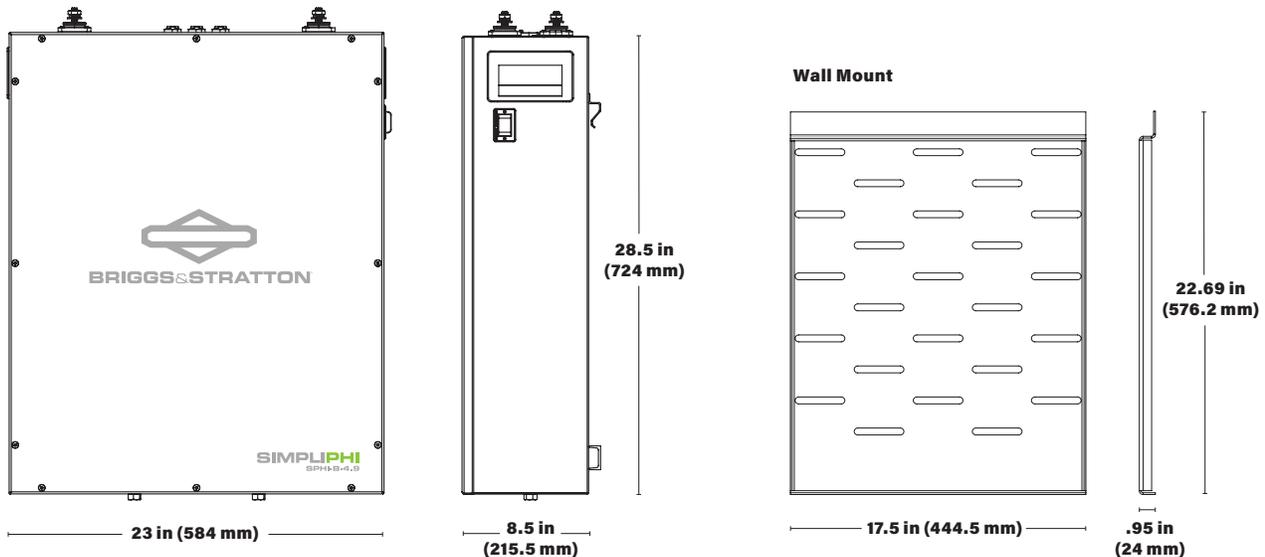
Battery Specifications	
<b>Model Number</b>	SPHIB-4.9
<b>DC Voltage - Nominal</b>	51.2 VDC
<b>Amp-Hours</b>	97 Ah
<b>Rated kWh Capacity</b>	4.9 kWh DC @ 100% DOD 3.9 kWh DC @ 80% DOD
<b>Max. Surge Discharge Rate (10 minutes)</b>	100 amps DC (5.1 kW DC)
<b>Max. Continuous Discharge Rate</b>	48.5 amps DC (2.48 kW DC)
<b>Max. Continuous Charge Rate</b>	48.5 amps DC (2.48 kW DC)
<b>DC Voltage Range<sup>1</sup></b>	48 VDC to 56 VDC
<b>Depth of Discharge<sup>1</sup></b>	up to 100%
<b>Charging Temperature<sup>1</sup></b>	32° to 120° F (0° to 49° C)
<b>Operating Temperature<sup>1</sup></b>	-4° to 140° F (-20° to 60° C)
<b>Storage Temperature</b>	6 months: 14° to 77° F (-10° to 25° C) 3 months: -4° to 113° F (-20° to 45° C)

Product Dimensions	
<b>Dimensions (W x H x D)</b>	23 x 28.5 x 8.5 in (30 in H w/terminals) / 3.2 ft <sup>3</sup> (584 x 724 x 215.5 mm / 0.10 m <sup>3</sup> )
<b>Weight</b>	160 lb (73 kg)
<b>Wall Mount Dimensions (W x H x D)</b>	17.5 x 22.69 x .95 in (444.5 x 576.2 x 24 mm)

Battery Specifications	
<b>Self-Discharge Rate</b>	< 1% per month (when off)
<b>Cycle Life</b>	10,000+ cycles (@ 80% DOD)
<b>Memory Effect</b>	None
<b>IP Rating</b>	IP65
<b>Warranty</b>	10 years
<b>Mounting</b>	Wall mount only
<b>Efficiency Rating</b>	96%
<b>Communications</b>	CANBUS
<b>Certifications</b>	UL 1642, UL 1973, UN 3480 and UN DOT 38.3

Capabilities	
<b>Terminals</b>	3/8 in (10 mm)
<b>Battery Cables</b>	4/0 Parallel Connections - Up to 4 batteries per string

Refer to the Integration Guide section of the [SimpliPHI Product Documentation](#) web page for specific wiring instructions, inverter and/or charge controller settings. Must be followed to maintain warranty.



<sup>1</sup>Maximum operating ranges. Refer to Installation Manual for recommended conditions. All specifications listed are typical/nominal and subject to change without notice.