

# Lion Energy™ Sanctuary Energy Storage System

12K Hybrid Solar Inverter with and  
13.5kWh Energy Storage



The Sanctuary is a multi-functional Energy Storage System (ESS), which incorporates the functions of an inverter, solar charger, battery charger, generator (not included), and lithium iron phosphate battery. The Sanctuary is commissioned and monitored by way of app, available on smart phone and PC.

Before sizing, you must review the Sanctuary technical specifications.

To size the system, you first need to consider the loads you would like the Sanctuary to cover. Typical essential loads are refrigeration, furnace, lights, internet, and garage door. Review your existing load center. Identify the breaker size for each of the loads you would like to cover. Any load larger than a 30 amp breaker will require multiple inverters to cover.

## Technical Specifications

**Model #99990514**

12K Hybrid Solar Inverter with  
13.5kWh Energy Storage

**Model #99990516**

12K Hybrid Solar Inverter with  
27.0kWh Energy Storage

**Model #99990517**

12K Hybrid Solar Inverter with  
40.5kWh Energy Storage

## Major System Components

**Model #50170132**

Sanctuary 13.5kWh Battery

**Model #50170168**

Sanctuary 12K Hybrid Solar Inverter

# Lion Energy™

## Sanctuary Energy Storage System

### Model #50170132 - Sanctuary 13.5kWh Battery

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Battery Type	Lithium Iron Phosphate
Voltage Range	40 - 55.6VDC
Capacity	13,875.2Wh
Parallelable Capacity	41,625.6Wh Max
Quantity	3 Max
Charging Temperature Range / Current	32° to 86° F / 150A
Discharging Temperature Range / Current	-4° to 86° F / 160A
Weight	277lbs.
Dimensions	39.75" H x 18.5" W x 10" D
Compliance	UL1973, UL9540, UL9540A

### Model #50170168 12K Hybrid Solar Inverter Grid Support Interactive Inverter

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#### PV Input

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Max PV Input	12kW
MPPT Input Voltage	120-500V
Max Input Current	12A*4
Max Short Circuit Current	15A

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#### AC Output (On Grid)

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Rated Output Power	8kVA
Rated Output Current	33.3A
Grid Voltage	120V/240V Split phase
Grid Frequency (Optional)	60Hz
Power Factor Range	-0.8~+0.8

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#### Battery

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Battery Voltage Range	40V~60V
Max Charging Current	190A
Max Discharging Current	190A

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#### System

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Ingress Protection	IP65
Dimensions (W*D*H)	430*710*220mm
Weight	41Kg
Max Efficiency	97.8%