



SOLAR STIK®

*Preliminary*

Category: Storage with Management

# 24VDC Li BOS 2000 AGS

Item # 20-0205200

## Power Balance

The 24VDC Lithium Balance of Systems (BOS) 2000 provides a single case solution for energy storage and power management. It employs a 6T format LiFePO<sub>4</sub> battery to supply 2.0 kWh of energy storage while also satisfying both AC and DC power needs. The Li BOS 2000 comes equipped with DC and Solar, and universal AC input as well as AC, DC, and USB output connections. The Li BOS can be operated in any of 3 modes, depending on available input power sources: autonomous mode—solar only; hybrid mode—solar and fuel-driven generator; or uninterruptible power supply (UPS) mode—grid power.

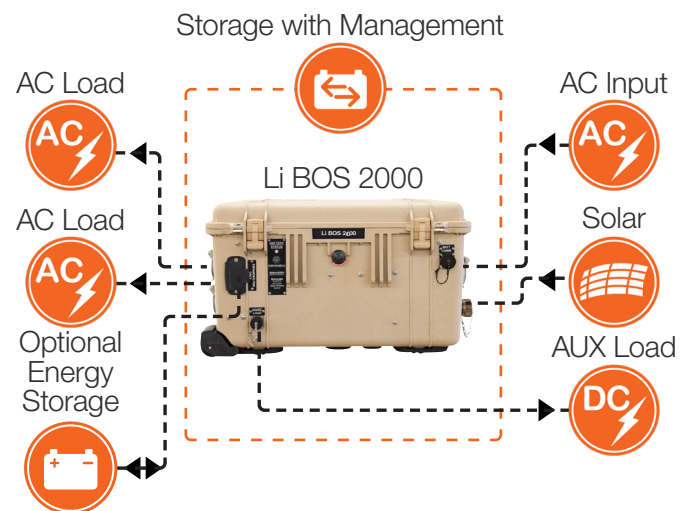
## How a BOS Works

The Li BOS 2000 accepts AC, DC, or Solar power input to charge the internal battery. It can include Auto-Generator Start/Stop capability to automatically turn on/of various generators for battery recharge based on programmable settings. After bringing power into the battery, the Li BOS then converts battery power to usable 120 VAC or 24 VDC power for distribution to electric loads. The Li BOS provides up to 400 W of DC power and 2000 W continuous, 4,000 W surge of AC power meaning it can power almost any electronic load that has a standard AC “wall outlet” connection. With over 82 Ah of energy storage that can cycle up to 3000 times, the Li BOS can power loads for several hours from battery power alone. The Li BOS can plug and play with additional energy storage modules (ESMs) for increased battery only runtime.



## Features

- 2.0 kWh (82 Ah) of storage
  - Capable of over 3000 charge/discharge cycles
  - 100% discharge capable for full usable capacity (LiFePO<sub>4</sub> chemistry)
- Transportable by land, sea, and cargo aircraft
- 2000 W continuous AC output, 4,000 W surge AC output
- Accepts solar, DC, and universal AC (grid or generator) power
- Ruggedized for extreme conditions
- Open Architecture, Plug and Play



## Compatible auto-start generators

- Novatio 1kW
- Novatio 2kW
- Honda 1kW
- Honda 2kW





SOLAR STIK®

Preliminary

Category: Storage with Management

# 24VDC Li BOS 2000 AGS

Item # 20-0205200

## General

Nominal Operating Voltage	24 VDC
Battery Chemistry	(1) 24 VDC LiFePO <sub>4</sub> battery
Capacity*	82 Ah
Energy Storage*	2.0 kWh
Energy Density*	40 Wh/kg
Max Charge Rate	100 A (Continuous)
Max Discharge Rate	100 A (Continuous)
Self-discharge Rate	<5% per month
Cycle Life*	≥ 3000 Cycles to 80% State of Health
Shelf Life*	<ul style="list-style-type: none"> <li>• 5.6 years to 80% State of Health</li> <li>• 7.0 years to 75% State of Health</li> </ul>
Internal cooling	Forced convections with internal fans (Qty 3)
User Interface	E-Ink Display
Built-in Test (BIT)	Soft 6T-E Built in Tests (Displayed by E-Ink)
Case	Pelican 1620
Transportation	UN 3481
Warranty	1-year materials and workmanship

\*@ 77 °F/ 25 °C

## Inverter Specifications (@77 °F/25 °C)

Nominal AC Output Voltage	120 VAC ± 5%
Rated Current	16.7 A
Output Frequency and Accuracy	60 Hz ± 0.1 Hz
Continuous Output Power	2000 W
Efficiency	>90%
Transfer Time	Zero
Waveform	Pure sine wave
3-second Surge Power	4000W for 3 seconds

## Charge Controller Specifications (@77 °F/25 °C)

Maximum PV Input Voltage	100 V
Maximum PV Input Current	20 A
Maximum PV Power	580 W
Efficiency	98% (peak)
Charging Stages	Bulk, absorb, float
Charge Control Method	Maximum Power Point Tracking (MPPT)

## DC Output

Output Voltage	29.0 VDC
Efficiency	95%
Output Power Rating	600 W
Max Output Ripple	<150 mV
Input Voltage Range	12-29 VDC

## Safety

Breaker(s)	(1) Battery Breaker 2P 100 A, (1) AC Input 15 A, (1) Solar Input 20 A, (1) DC Input 40 A, (1) AC Output 50 A, (1) DC Output Unregulated 50 A
Fuse(s)	USB Output 2A Fuse

## Connections

Input(s)	<ul style="list-style-type: none"> <li>• (1) DC input 12-29 VDC, 50A (Canon 4P bayonet CB2-18-10PC)</li> <li>• (1) Solar input 24 VDC, 30 A (Amphenol bayonet CB2-22-2SC)</li> <li>• (1) AC Input, Universal AC</li> </ul>
Output(s)	<ul style="list-style-type: none"> <li>• (1) AC output 120 VAC, 5.0 A (NEMA 5-15/20R)</li> <li>• (1) DC NATO output, 50 A (Unregulated)</li> <li>• (1) USB output 5V, 2.1 A (type-A)</li> </ul>
Input/Output(s)	<ul style="list-style-type: none"> <li>• (1) Inter-Connect port 24 VDC, 100 A (Deltran 224-0061-BK)</li> <li>• (1) Gen Comm Port</li> <li>• (1) Tech port for battery communication</li> </ul>

## Environmental

Operating Temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Storage Temperature	-50.8 °F to +159.8 °F (-46 °C to +71 °C)

## Weights and Dimensions (L x W x H)

Weight	110 lb (50 kg)
Dimensions	24.64 x 19.39 x 13.78 in (62.6 x 49.2 x 35 cm)

## Recommended Components and Accessories



Li ESM 2000  
Item # 21-0202317



Solar Venture 320W  
Hard Case Item # 19-1000012  
Soft Case Item # 19-1000013

