



SOLAR STIK®

Category: Storage with Management 12VDC BOS 500

Overview

All in One

The 12VDC Balance of Systems (BOS) 500 is a single-case, portable power solution designed to meet both AC and DC power needs. The BOS accepts 12 VDC and various other power generation sources (e.g., solar, wind, other) and grid or generator AC power to charge. The BOS stores 0.45 kWh of energy using lead-acid AGM chemistry and can be operated in one of three modes: autonomous mode—solar-only; hybrid mode—solar and fuel-driven generator; or uninterruptible power supply (UPS) mode—grid power.

How a BOS Works

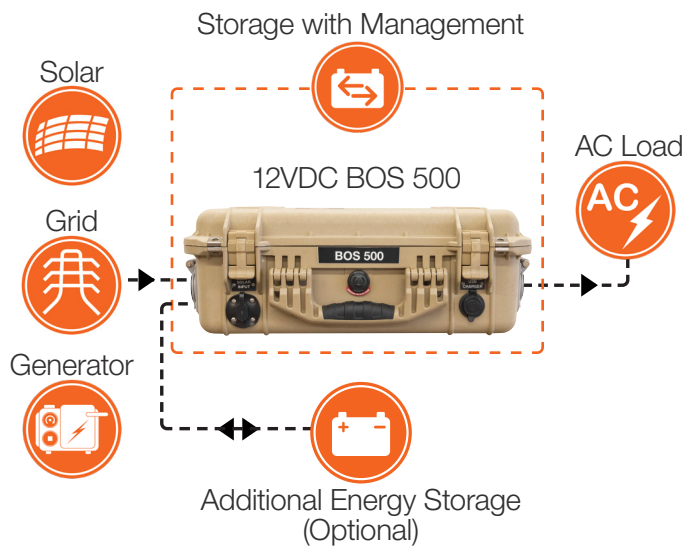
The BOS accepts power generation inputs (e.g., solar, wind, other) and 120 VAC or 230 VAC grid or generator power to charge. AC and DC power loads are connected directly to the BOS. Connect additional energy storage—lead-acid Expander Paks—using Plug & Play connections to increase capacity.



Right side



Left side



Features

- 0.45 kWh (37 Ah) of storage
- Capable of 500 charge/discharge cycles @ 80% depth of discharge
- Transportable by land, sea, and air (Class IX exempt)
- Solar input, AC input, DC output, and AC output ports
- Ruggedized for extreme conditions
- Open architecture

Why Solar Stik?

Modular, Scalable Architecture
Field-proven, Rugged Designs
Experienced Team
24/7 Tech Support





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12VDC BOS 500

General

| | |
|---------------------------|-------------------------------------|
| Nominal Operating Voltage | 12 VDC |
| Battery Chemistry | Non-Spillable Lead-Acid AGM |
| Storage Capacity | 37 Ah |
| Energy Storage | 0.45 kWh |
| Cycle Life* | 500 cycles (80% depth of discharge) |
| Battery Voltage Range | 10.8 - 14.5 VDC |
| Internal cooling | Forced cooling (2) fans |
| User Interface | LED display |
| Case | Pelican 1520 |
| Transportation | Class IX Exempt |
| Warranty | 1-year materials and workmanship |

*@ 77 °F (25 °C)

Inverter @ 77 °F (25 °C)

| | |
|-------------------------------|----------------|
| Nominal AC Output Voltage | 120 VAC ± 5.0% |
| Output Frequency and Accuracy | 60 Hz ± 0.1 Hz |
| Continuous Output | 250 W, 2.1 A |
| Efficiency | 87% |
| Waveform | Pure Sine Wave |

Charger @ 77 °F (25 °C)

| | |
|--------------------------|-------------|
| Nominal AC Input Voltage | 120 VAC |
| Input Frequency | 47-63 Hz |
| Max Charger Output | 144 W, 12 A |

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

| | |
|--------------------------|-------------------------------------|
| Maximum PV Input Voltage | 50 VDC |
| Maximum PV Output | 400 W, 30 A |
| Charge Control Method | Maximum Power Point Tracking (MPPT) |
| Charging Stages | Bulk, absorb, float |

Safety

| | |
|------------|---|
| Breaker(s) | <ul style="list-style-type: none"> • 50 A master power breaker • 20 A solar input breaker • 20 A 12 VDC input breaker • 5 A 120 VAC input breaker • 30 A 120 VAC output breaker (breaker on DC side of inverter) |
|------------|---|

Connections

| | |
|----------------|--|
| Inputs | <ul style="list-style-type: none"> • (1) NEMA L5-15P (120 VAC) • (1) Solar SAE (12VDC) |
| Outputs | <ul style="list-style-type: none"> • (1) NEMA L5-15R / 20R (120 VAC) • (1) 5 VDC USB (DC) |
| Inputs/Outputs | <ul style="list-style-type: none"> • (2) Inter-Connect ports (12 VDC) • (1) Interior DC terminal posts with ergo twist knobs |

Environmental

| | |
|-----------------------|-------------------------------------|
| Operating Temperature | -40 °F to 149 °F (-40 °C to +65 °C) |
| Storage Temperature | 22 °F to 158 °F (-30 °C to 70 °C) |

Weights and Dimensions (L x W x H)

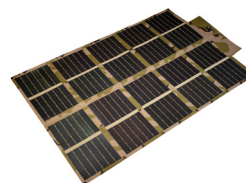
| | |
|------------|--|
| Weight | 55.8 lb (25.3kg) |
| Dimensions | 19.78 x 15.77 x 7.41 in (50.2 x 40.1 x 18.8 cm) |

Case Color Options

| | | |
|-----|---|--|
| Tan | <ul style="list-style-type: none"> Black Silver Orange Yellow OD Green | |
|-----|---|--|

Standard Color Optional Colors

Recommended Components and Accessories



125W Flexible Solar Panel
Item # 11-1402015



Cable, Solar, SAE, 12VDC, 15', 16AWG
Item # 13-1000291

