SunSaver Base Unit

1.2kWh LiFePo4 with 1-400W panel (400W Array) and 3kW Inverter

Run LED Lights, Fan, 1/2HP Garage Door Opener, Charge Li Tool Batteries

*This Unit is best for adding convenience to traditional (periodic) shed use. Nighttime use ~3 hours from a full battery bank with **all** listed running at full tilt continuously. Longer runtimes during the day or if all listed appliances are not in play continuously. Recharge on an ideal solar day is approximately 3 hours with no appliances turned on.*

RUNTIMES WILL BE LONGER DURING CLEAR, SUNNY DAYTIME HOURS OR WHEN GENERATOR/SHORE IS IN PLAY FOR CHARGING.

APPLIANCE NIGHT TIME RUN TIME WITH FULL BATTERY BANK:

2- 8.5W LED light bulbs only = ~70.6 hours runtime 2- 20V 4.0A Li tool batteries = ~7.5 hours

1- 100W Fan only = ~12 hours runtime

1- 1/2 HP Garage Door Opener (running 15 mins continuous at a time) = ~12.9 hours

Fan and Lights = ~10 hours All listed running at once = ~3.2 hours

Min Shed Length: 7 foot

SunSaver Plus Unit

2.4kWh LiFePO4 with 2-400W panels (800W) Array and 3kW Inverter

Run LED Lights, Fan, Charge Li Tool Batteries, 1/2HP Garage Door Opener, a Mini fridge

This Unit is best for traditional (periodic) shed use. Nighttime use ~4 hours from a full battery bank with ***all*** listed running at full tilt continuously. Longer runtimes during the day or if all listed appliances are not in play continuously. Recharge on an ideal solar day is approximately 3 hours with no appliances turned on.

RUNTIMES WILL BE LONGER DURING CLEAR, SUNNY DAYTIME HOURS OR WHEN GENERATOR/SHORE IS IN PLAY FOR CHARGING.

APPLIANCE NIGHT TIME RUN TIME WITH FULL BATTERY BANK:

2- 8.5W LED light bulbs only = ~141 hours runtime 4- 20V 4.0A Li tool batteries = ~7.5 hours

1-100W Fan only = ~24 hours runtime

1- 1/2 HP Garage Door Opener (running 15 mins continuous at a time) = ~25 hours

Fan and Lights = ~20 hours All listed running at once = ~4.3 hours

Min Shed Length: 14 foot

SunSaver Extra Unit

4.8kWh LiFePO4 with 4-400W panels (1.6kW Array) and 3kW Inverter

Run LED Lights, Fan, Charge Li Tool Batteries, 1/2HP Garage Door Opener, a Mini fridge, a 600W Midea Minisplit for cooling. This Unit is best for traditional (periodic) shed use. Nighttime use ~4 hours from a full battery bank with ***all*** listed running at full tilt continuously. Longer runtimes during the day or if all listed appliances are not in play continuously. Recharge on an ideal solar day is approximately 3 hours with no appliances turned on.

RUNTIMES WILL BE LONGER DURING CLEAR, SUNNY DAYTIME HOURS OR WHEN GENERATOR/SHORE IS IN PLAY FOR CHARGING.

APPLIANCE NIGHT TIME RUN TIME WITH FULL BATTERY BANK:

2- 8.5W LED light bulbs only = ~282 hours runtime
4- 20V 4.0A Li tool batteries = ~15 hours
1- 100W Fan only = ~48 hours runtime
1- 600W Midea Minisplit window unit =~8 hours
1- 1/2 HP Garage Door Opener (running 15 mins continuous at a time) = ~51 hours
Fan and Lights = ~ 41 hours
All listed running at once = ~ 4.1 hours
Min Shed Length: 26 foot

SunSaver Ultra Unit

7.2kWh LiFePO4 with 4-400W panels (1.6kW Array) and 3kW Inverter

Run LED Lights, Fan, Charge Li Tool Batteries, 1/2HP Garage Door Opener, a Mini fridge, TV, a 600W Midea Minisplit for cooling. Other 120V appliances can be run as well (microwave, coffee pot, laptop, printer), but in small batch combinations. A custom system should be considered if your planned power use is this entire list, contact us for a custom designed system for full time use. Recharge on an ideal solar day is approximately 4 hours 30 mins. with no appliances turned on.

RUNTIMES WILL BE LONGER DURING CLEAR, SUNNY DAYTIME HOURS OR WHEN GENERATOR/SHORE IS IN PLAY FOR CHARGING.

APPLIANCE NIGHT TIME RUN TIME WITH FULL BATTERY BANK:

2- 8.5W LED light bulbs only = ~423 hours runtime
4- 20V 4.0A Li tool batteries = ~22 hours
1- 100W Fan only = ~72 hours runtime
1- 600W Midea Minisplit window unit =~12 hours
1- 1/2 HP Garage Door Opener (running 15 mins continuous at a time) = ~77 hours
1- 50W TV = ~144 hours
1- 34W 3.2 cu ft mini fridge = ~211 hours
1- 1500W Microwave = ~4.8 hours
1- 1kw Coffee Pot =~7.2 hours
1- 370W Printer =~19 hours
1- 140W Laptop = ~ 51 hours
Min Shed Length: 26 foot

A. 4 Li Battery charging, 2 LED lights, Fan, mini split, TV, mini fridge = ~6 hours
   (if more runtime is desired, contact EES for a custom system)
B. LED lights, mini split, TV, mini fridge, microwave, coffee pot = ~2.2 hours
   (custom system recommended, contact EES)
C. LED lights, mini split, TV, mini fridge =~10 hours
D. LED lights, mini split, mini fridge, printer, laptop = ~6 hours
   (if more runtime is desired, contact EES for a custom system)
E. Fan and Lights = ~ 61 hours

Special Notes about runtimes:

All runtimes are based on appliances operating continuously at maximum. Some appliances, such as microwaves and coffee pots are not typically run for more than a few minutes. Minisplit runtime assumes the unit is running at its coolest setting continuously and fighting ambient outdoor temperatures in a non-insulated shed. Lithium batteries may finish charging within 30 minutes. However, we assume continuous, full draw of appliances, so that we don't over promise to the customer. These runtime estimates also assume no active charging from solar, generator, or shore power. When the sun is shining or the generator is running, these runtimes will be extended.

To calculate runtime of appliances not listed, simply add up the total wattage of all appliance combinations that will run at once, then divide that into the total wh of the battery bank.

Ex. SunSaver Ultra has a 7.2 kWh LiFePO4 battery bank, so use 7,200Wh.
If running fans and lights:
1 Fan = 100W
*2 Lights = 8.5W*2 = 17W*
Total Appliance Load = 17W + 100W = 117W
Divided by battery bank watt hours
7,200Wh / 117W = 61 hours of runtime at night with no generator or shore power providing charging.

Special Note: *If needed, 2-200W panels can be requested instead of single 400W panels.*
200W panels measure 4.86' X 2.2' each
400W panels measure 6.5' X 3.25' each

Minimum Shed Length Requirements for SunSaver Ultra:

This is especially important if the customer wants to start with a smaller SunSaver Unit and expand later.
Using 8-200W panels: Panels mounted tall = 5' roof edge to pitch and 18' long
Panels mounted long = 2.2' roof edge to pitch and 39' long

Using 4-400W panels: Panels mounted tall = 6.5' roof edge to pitch and 13' long
Panels mounted long = 4' roof edge to pitch and 26' long