

# SimplBox

MicroStorage Solution by **Simpl.**

SimplBox is an energy storage system designed to be installed underneath individual solar panels. SimplBox optimizes the financial value of the energy generated by a solar panel by storing the right portion of this energy for use later when electricity is more expensive.



## Applications

- Demand shaving
- Time-of-Use (TOU) arbitrage
- Solar self-supply
- Micro-grid
- Backup power
- Utility ancillary services

## Key Differentiators

- Easy installation directly under the solar panel
- Does not take up any additional space
- Same unit works with all solar panels with a wide variety of voltage ranges from 30-cell to 96-cell
- Using Simpl's patented Balanced Impedance technology, SimplBox is 15% to 25% more efficient than other solar + storage systems in the marketplace.
- Patent-pending, fault-tolerant, and self-healing mesh networking as the basis of the control system
- Lithium Iron Phosphate (LFP) battery cells for ultimate in safety and durability
- SimplWeb, remote, web-based controls allowing for continuously adjusting system algorithms and controls to optimize savings.
- Sealed construction with no mechanical relays or electrolytic capacitors provides state-of-the-art reliability.
- Batteries are kept cool by using an engineered, non-metallic, thermally insulated material which is certified to UL 94 5VA.
- Battery casing is sealed at IP67 rating.
- 10-year standard battery warranty with available 20-year warranty



## Battery Cell

25 Ah, LFP cells are procured by Simpl Global from two established, NASDAQ-listed battery manufacturers.

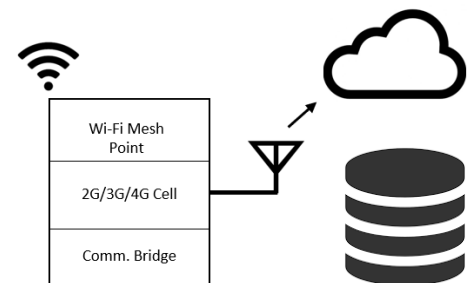
## SimplBox

is manufactured in the USA using the above cells, our proprietary battery management system (BMS), engineered casing and our patented Balanced Impedance Control System.

## System Configuration

Once a SimplBox is attached to a solar panel, it uses its mesh-networked core to wake up and automatically connect to the Simpl's web-hosted database and application, SimplWeb.

SimplWeb is designed to command and control your energy storage assets and to maximize its economic value.



SimplBox is equipped with fault-tolerant networking and SimplWeb which is a real-time database hosted by Simpl Global.

SimplBox	SimplBox Models
	SimplBox-Hub / SimplBox-4G / SimplBox-15
Battery Chemistry	Lithium Iron Phosphate (LFP)
Number of LFP Cells	18
Basic Ratings	25 Ah   59.99 V   Rated: 1.50 kWh / Exact: 1.44 kWh
Depth of Discharge	100% is allowed   80% recommended for 5,000+ cycles
DC to DC Round Trip Efficiency	95%
Solar Input Ratings:	
Max Solar Panel Rated Power (W)	450
Solar Panel Input Voltage Range	25V – 59.99V
Solar Max Input Current	15A
Inverter Output Ratings:	
Inverter Max Power	350W
Inverter Output Voltage Range	25V – 59.99V
Inverter Max Output Current	15A
Battery Ratings:	
Max Battery Charge Power	350W
Max Battery Discharge Power	350W
"C" Rating	0.20
Mechanical and Environmental:	
Dimensions (L x W x T)	30.5" x 8.0" x 2.6"
Weight (lbs.)	32
Charge Temperature Range	0 °C to 45 °C
Discharge Temperature Range	-20 °C to 55 °C
Storage Temperature Range	-30 °C to 60 °C
Noise Level	No Noise; No moving parts
Communication Protocol	4G wireless (SimplBox-4G), Wi-fi Mesh (SimplBox-Hub) Network based on Simpl Global's patent-pending technology, and Bluetooth
Battery Casing Outdoor Rating	IP67
Certificate of Compliance	<b>Battery Cells:</b> UL 1642 <b>Battery System:</b> UL 1973 (pending) <b>Battery Casing:</b> UL 94 5VA
Grid Connection	SimplBox does not connect to the grid directly. It connects to the microinverter, string inverter or DC optimizer used for connecting the PV panel to the Grid.