



# 5 kW All-in-One Energy Storage System

## Technology

Solar Hybrid Inverter Model Specification	
<b>Parallel Mode</b>	
Max parallel number (Single or Split Phase)	6 PCs
<b>Invert Mode</b>	
Output Voltage Waveform	Pure Sine Wave
Rated Output Power	5000W
Rated Output Voltage	120VAC
Rated Battery Input Voltage	48V
Min Starting Voltage	44V
Bypass Breaker	63A
Peak Power	10000W
Maximum Efficiency	>92%
<b>AC Charging Mode</b>	
Rated Input Voltage	110/120VAC
Max Charge Current	60A
Efficiency	>95%
<b>PV Charging Mode</b>	
Max Input Power	5000W
Max Charge Current	80A
MPPT Voltage Range	120-450VDC
MPPT Max Tracking Efficiency	>99%
<b>General Data</b>	
Noise	≤60dB
Communication	USB/RS485/Dry contact control
Operating temperature range	-10 °C to 55 °C
Max mixed charging current	100A
Certification	CE(IE62109-1/2),EN6100,ROHS
<b>Battery Model Specification</b>	
Nominal Voltage	51.2V
Rated Capacity	100AH
Charge Method	CC/CV
Charge Voltage	58.4V
Bulk/Absorption Voltage	58.4V
BMS Balancing Voltage	Any cell voltage ≥3.45V Max Voltage difference between cells >30mV
Equalize Voltage	In Charging Not applicable
Float Voltage *	Not applicable
Temperature Compensation	No/Disable
Charge Cut-off Voltage	58.4V
Discharge Cut-off Voltage	40V
Recommended Charge Current	50A
Recommended Discharge Current	50A
Maximum Continuous Charge Current	100A
Maximum Continuous Discharge Current	100A
Peak Current	120A/2s
WiFi	Yes
Bluetooth	Yes
Communication	CAN/RS485/RS232
Self Heating	No
Protection Rating	IP30
BMS Protection	• Over and Low voltage • Charge and Discharge Over current • Short circuit • High and Low temperature
Internal Resistance	≤30mΩ
BMS Leakage Current	≤10mA
Charge Temperature Range	32°F (0°C) to 131°F (55°C)
Discharge Temperature Range	-4°F (-20°C) to 131°F (55°C)
Storage Temperature 1 week	-4(-20°C) to 149°F (65°C)
Storage Temperature 1 month	-4°F (-20°C) to 113°F(40°C)
Storage Temperature 1 year	-4°F (-20°C) to 77°F (25°C)
Humidity Operating:	5% to 90 % RH
Humidity Storage:	35% to 85% RH
Certifications: MSDS; UN38.3; CE; PSE	
Cycle Life	6000 cycles
Max connected in Parallel 8 units	Max connected in Series 1 units

## FEATURES:

### EASY TO INSTALL

- All-in-one stacking design, no need to purchase an additional inverter.

### Inverter Parallel Supportable

- Parallel support up to 6 units-30kw Max. It can be single phase or split phase parallel.

### Segmented Charging/Discharging

- 3 output modes: mains priority and, battery priority, PV priority; uninterrupted power supply.

### Available in 4 charging modes

- Only Solar, Mains Priority, Solar Priority and Mains & Solar hybrid charging.

### BMS Protection

Overcharge/Over-discharge Protection, Charge/Discharge Over-current Protection, Short-Circuit Protection, Battery Voltage

- Self-Balancing,  
High and Low Discharge Cut-off.

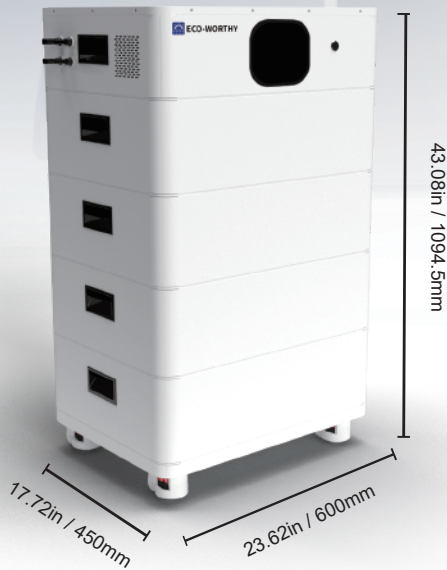
### Long life span

- Can be recycled up to 6000 times, life span up to 10 years.

### Capacity expansion

Up to 8 units Battery in parallel, expandable to 40.96kWH.

# Unit Dimensions



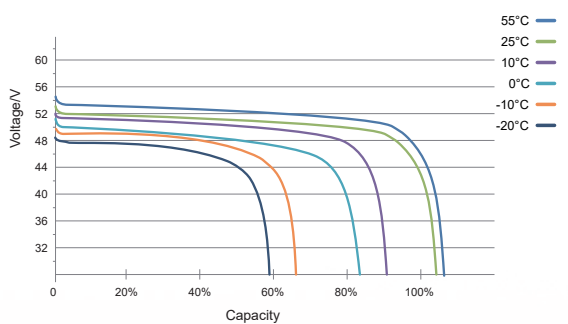
## Mechanical

Inverter and one Battery		One Battery	
Length	23.62in / 600mm	Length	23.62in / 600mm
Width	17.72in / 450mm	Width	17.72in / 450mm
Height	17.52in / 445mm	Height	8.52in / 216.5mm
Weight	154.32lbs / 70kg	Weight	110.23lbs / 50kg
Terminals	M8 insert	Terminals	M8 insert

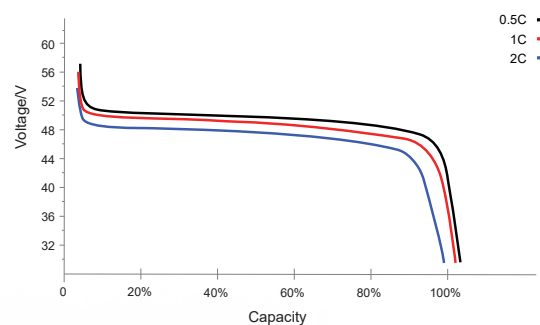
## Materials

Case and Cover	METAL
Color	WHITE

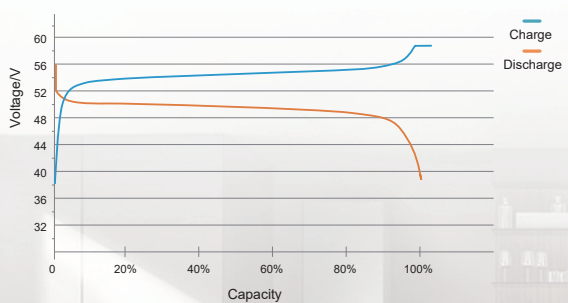
Discharge Characteristics At Various Temperatures



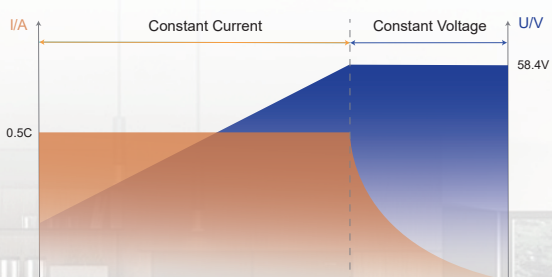
Discharge Characteristics At Various Rates



Charge & Discharge Voltage Characteristics



LiFePO4 Battery Charging Logic @0.5C



## PLEASE NOTE

- ★ Lithium batteries ship under Class 9 Dangerous Goods PI 965 Section IA. Please contact your carrier company to determine their requirements for shipping. MSDS Sheets are available upon request.
- ★ Float charging is not applicable to lithium iron phosphate batteries, long-term float charging will accelerate battery aging or damage. If you have to set the float voltage for MPPT/PWM charge controller in solar system, we suggest to set it to (12V Battery)13.2V-13.6V, (24V Battery)26.4V-27.2V, (36V Battery)39.6V-40.8V, (48V Battery)52.8V-54.4V.