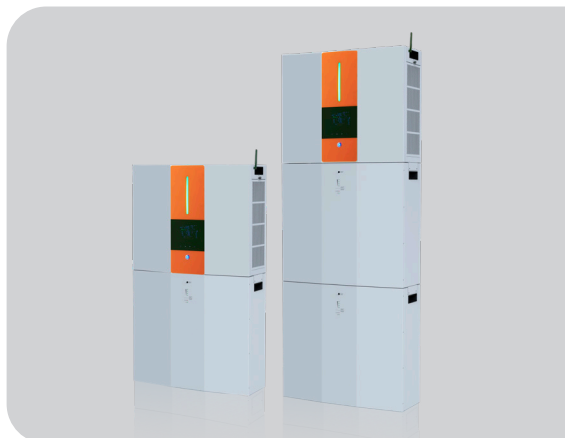


# ESS810 Energy Storage System

8kw Off-grid inverter with 5kwh Lithium-ion battery



SOLAR ENERGY STORAGE SYSTEM



- Integrated 8kw off-grid inverter and lithium-ion battery module
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (RS485, CAN-BUS or RS232)
- Configurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Scalable Li-Ion battery expansion
- IP20

## System Diagram

Only one ESS

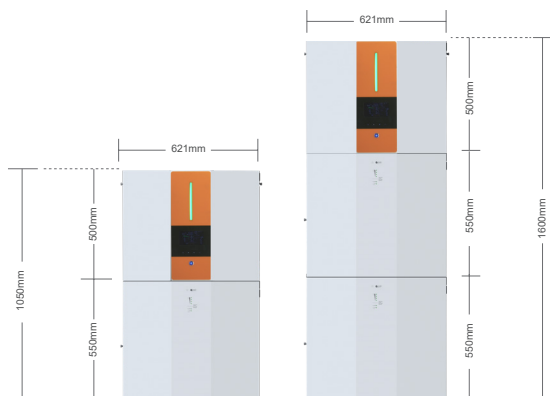
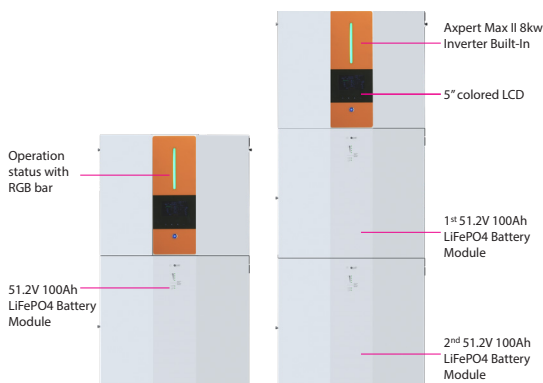


Two ESS parallel operation



ESS810, 8kw off-grid inverter with 5kwh scalable lithium-ion battery module

## DIMENSION



## ESS Energy Storage System Specification

<b>INVERTER MODEL</b>		<b>ESS 8kw</b>
Rated Inverter Power	8000VA/8000W	
<b>INPUT</b>		
Voltage	230 VAC	
Selectable Voltage Range	170-280 VAC (For Computers); 90-280 VAC (For Home Appliances)	
Frequency Range	50 Hz/60 Hz (Auto sensing)	
<b>OUTPUT</b>		
AC Voltage Regulation (Batt. Mode)	230VAC $\pm$ 5%	
Surge Power	16000VA	
Efficiency (Peak)	93%	
Transfer Time	15 ms (For Personal Computers), 20 ms (For Home Appliances)	
Waveform	Pure Sine Wave	
No Load Power Consumption	<75W	
<b>SOLAR CHARGER &amp; AC CHARGER</b>		
Solar Charger type	MPPT	
Maximum PV Array Power	8000W (4000W x 2)	
MPPT Range @ Operating Voltage	90 ~ 450 VDC	
Maximum PV Array Open Circuit Voltage	500 VDC	
Maximum Solar Charge Current	150 A	
Maximum AC Charge Current	120 A	
Maximum Charge Current	150 A	
<b>PHYSICAL</b>		
Dimension, D x W x H (mm)	214 x 621 x 500	
Net Weight (kgs)	25	
<b>STANDARD</b>		
Compliance Safety	IEC/EN 62109-1/-2, IEC/EN IEC 61000-6-4, IEC/EN IEC 61000-6-2, IEC/EN IEC 61000-3-11, IEC/EN 61000-3-12, IEC 61683	

<b>BATTERY MODULE</b>		<b>ESS II-4810</b>
<b>CAPACITY</b>	5000Wh	
<b>PARAMETERS</b>		
Nominal Voltage	51.2VDC	
Full Charge Voltage (FC)	56V	
Full Discharge Voltage (FD)	42V	
Typical Capacity	100Ah	
Max Continuous Discharging Current	150A	
Max Discharging Current	192A at 1min	
Protection	BMS, breaker	
Charge Voltage	56V	
Charge Current	20A (0.2C)	
Maximum Charge Current	50A (0.5C)	
Standard Charge Method	0.2C CC (Constant current) charge to FC, CV (Constant voltage FC) charge till charge current decline to <0.05C	
Inner Resistance	<20m ohm	
Dimension, D X W X H (mm)	214 x 621 x 550	
Net Weight (kgs)	55	
<b>STANDARD</b>		
Compliance Safety	IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3	

Product specifications are subject to change without further notice.