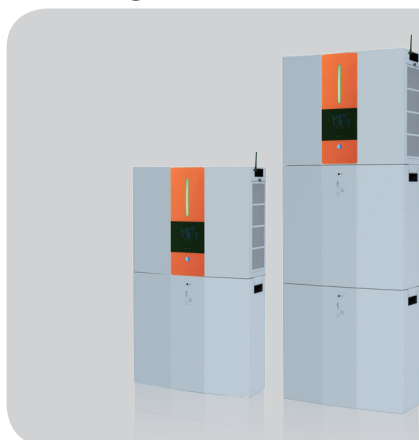


ESS810 Energy Storage System

8KW Off-grid inverter with 5KWh Lithium-ion battery

CE UK
UN 38.3 CA



- 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

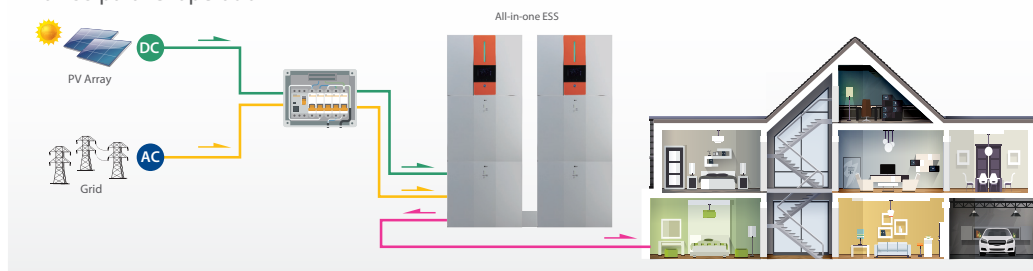
SOLAR ENERGY STORAGE SYSTEM

System Diagram

Only one ESS

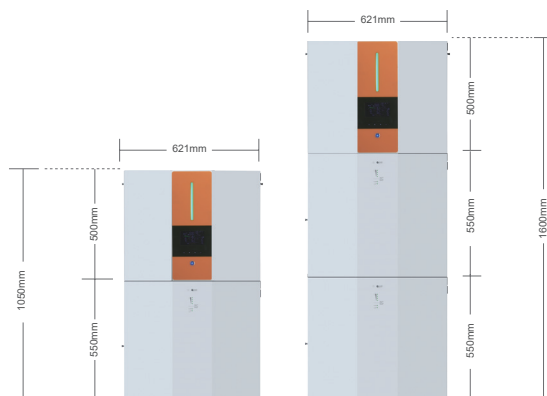
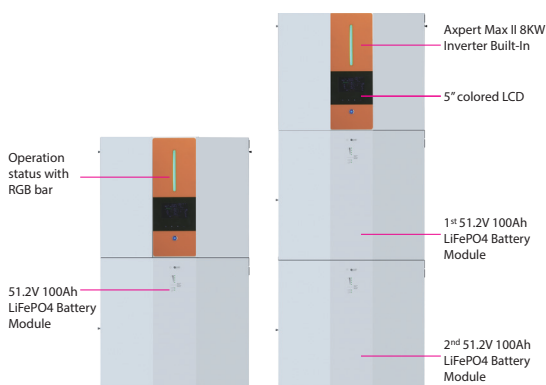


Two ESS parallel operation

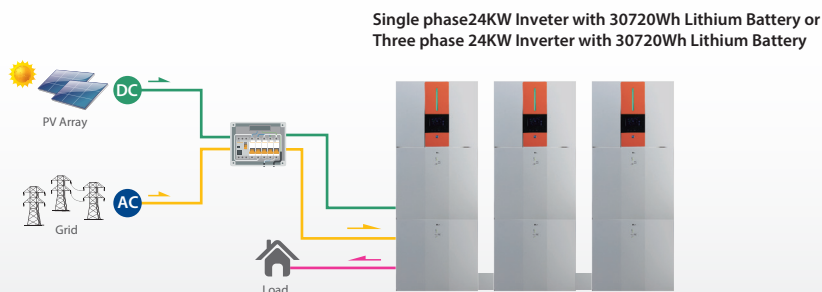
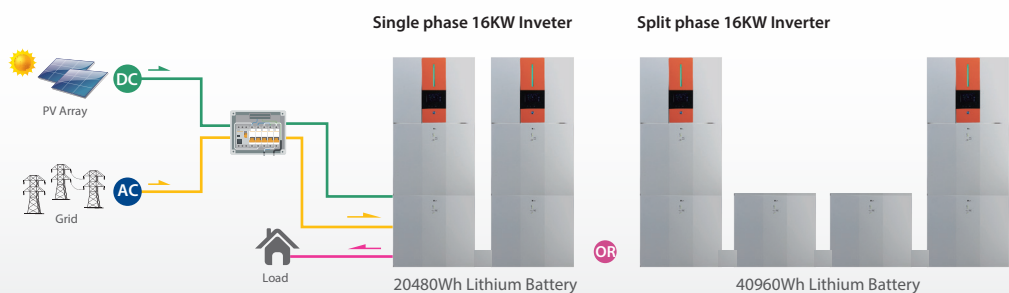
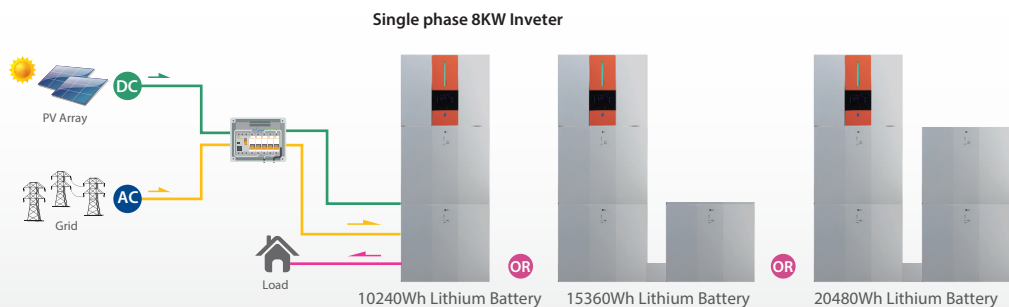


ESS810, 8kw off-grid inverter with 5KWh scalable lithium-ion battery module

DIMENSION



Configuration



Accessory



Maximum 10 pcs of battery modules



ESS Energy Storage System Specification

INVERTER MODEL	ESS 8KW
Rated Inverter Power	8000VA/8000W
INPUT	
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)
OUTPUT	
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
SOLAR CHARGER & AC CHARGER	
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
PHYSICAL	
Dimension, D x W x H (mm)	214 x 621 x 500
Net Weight (kgs)	25
STANDARD	
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

BATTERY MODULE	ESS II-4810
CAPACITY	5000Wh
PARAMETERS	
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
STANDARD	
Compliance Safety	IEC 62619, EN 61000-6-3, EN 61000-6-1, UKCA, UN38.3

Product specifications are subject to change without further notice.