

ESSA510 Energy Storage System

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



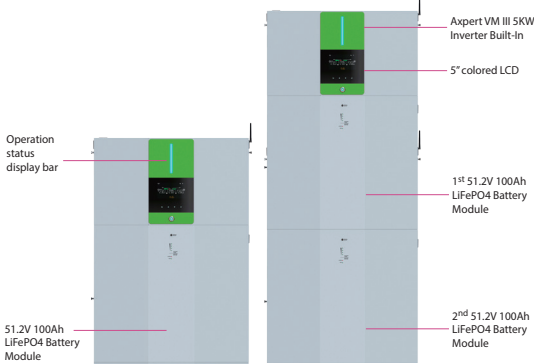
- Pure Sine wave output
- Built-in Wi-Fi for mobile monitoring (Android/iOS App is available)
- Supports USB On-the-Go function
- Reserved communication port for BMS (USB/RS232/RS485/WiFi/Dry-contact)
- Congurable AC/PV output usage timer and prioritization
- Selectable high power charging current
- Selectable input voltage range for home appliances and personal computers
- Compatible to Utility Mains or generator input
- Built-in anti-dust kit
- Lithium Iron Phosphate (LFP) cell
- Scalable Li-Ion battery expansion
- Supports wall mounted and standalone installation

SOLAR ENERGY STORAGE SYSTEM

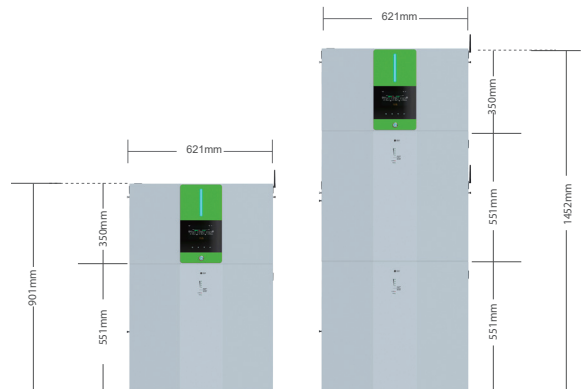
System Diagram



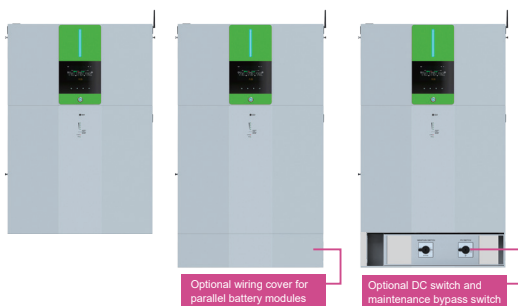
ESSA510, 5kw off-grid inverter with 5KWh lithium-ion scalable battery module



DIMENSION



Accessory



Maximum 10 pcs of battery modules



ESS Energy Storage System Specification

INVERTER MODEL	ESS-A510
Rated Output Power	5000VA/5000W
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	10000VA
Efficiency (Peak)	93%
Transfer Time	15 ms (For Personal Computers), 20 ms (For Home Appliances)
Waveform	Pure Sine Wave
SOLAR CHARGER & AC CHARGER	
Solar Charger type	MPPT
Maximum PV Array Power	5000W
MPPT Range @ Operating Voltage	120~ 450 VDC
Maximum PV Array Open Circuit Voltage	500 VDC
Maximum Solar Charge Current	100A
Maximum AC Charge Current	100A
Maximum Charge Current	100 A
PHYSICAL	
Dimension, D x W x H (mm)	210 x 621 x 350
Net Weight (kgs)	15
STANDARD	
Compliance Safety	IEC/EN 62109-1/-2, EN 61000-6-4, EN 61000-6-2

BATTERY MODULE	ESS II-4810
CAPACITY	5120Wh
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
PARAMETERS	
Dimension, D X W X H (mm)	210 x 621 x 551
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.