











Features

- Pure sine wave solar inverter (on/ off grid)
- Output power factor 1.0
- IP65 degree protection
- WIFI&GPRS available for IOS and Android
- One-key restoration to factory settings
- Dual output
- Built-in lithium battery automatic activation
- Built-in anti-dusk kit for harsh environment
- Integrated design
- Built-in 120A MPPT solar charger
- High PV input voltage range (60~500VDC)
- Smart battery charge design to optimize battery life

 Built-in Lithium battery automatic activation	 BMS protection	 Integrated design	 Receptacle
 RGB lights	 Universal wheel	 Constant voltage technology protects the circuit	 Dustproof

Data Sheet

Model	ESS-4K2-200AH	ESS-6K2-100AH	
Phase	1-phase		
Max. PV Input Power	6200W	6500W	
Rated Output Power	4200W/4200VA	6200W/6200VA	
Max. Solar Charging Current	120A		
GRID-TIE OPERATION			
PV Input (DC)			
Nominal DC Voltage / Max. DC Voltage	360/500VDC		
Start-up Voltage / Initial Feeding Voltage	60VDC/90VDC		
MPPT Voltage Range	60-450VDC		
Number of MPPT Trachers / Max. Input Current	1/18A	1/22A	
Grid Output (AC)			
Nominal Output Voltage	220/ 230/ 240VAC		
Output Voltage Range	195.5 - 253VAC		
Nominal Output Current	18.2A	27.0A	
Power Factor	> 0.99		
Efficiency			
Max. Conversion Efficiency (DC/AC)	98%		
Two Load Output Power			
Full Load	4200W	6200W	
Max. Main Load	4200W	6200W	
Max. Second Load (Battery Mode)	1400W	2067W	
Main Load Cut Off Voltage	26VDC	52VDC	
Main Load Return Voltage	27VDC	54VDC	
OFF-GRID OPERATION			
AC Input			
AC Start-up Voltage / Auto Restart Voltage	120-140VAC / 180VAC		
Acceptable Input Voltage Range	90 - 280VAC or 170 - 280VAC		
Nominal Operating Frequency Range	49-51 ± 1Hz		
Max. AC Input Current	24.7A	36.4A	
PV Input (DC)			
Nominal DC Voltage / Max. DC Voltage	360/ 500VDC		
MPPT Voltage Range	60-450VDC		
Number of MPPT Trachers / Maximum Input Current	1/18A	1/22A	
Battery Mode Output (AC)			
Nominal Output Voltage	220V/ 230V/ 240VAC		
Output Waveform	Pure sine wave		
Efficiency (DC to AC)	94%		
Battery & Charger			
Nominal DC Voltage	24VDC	48VDC	
Max. Solar Charging Current	120A/ 140A	120A	
Max. AC Charging Current	100A/ 100A	100A	
Max. Solar + AC Charging Current	120A/ 140A	120A	
HYBRID OPERATION			
PV Input (DC)			
Nominal DC Voltage / Max. DC Voltage	360/500VDC		
Start-up Voltage / Initial Feeding Voltage	90VDC/ 120VDC		
MPPT Voltage Range	60-450VDC		
Max. Input Current	1/18A	1/22A	
Grid Output (AC)			
Nominal Output Voltage	220V/ 230V/ 240VAC		
Output Voltage Range	195.5 - 253VAC		
Nominal Output Current	18.2A	27.0A	
AC Input			
AC Start-up Voltage / Auto Restart Voltage	120-140VAC/ 180VAC		
Acceptable Input Voltage Range	90-280VAC or 170-280VAC		
Max. AC Input Current	24.7A	36.4A	
Max. AC Charging Current	100A		
Battery			
Type	25.6V 100AH	25.6V 200AH	48V 100AH
Nominal Charging Voltage	29.2V		54.74V
Max. Charging Current	100A	100A (recommended)/ 200A	100A
Discharging Termination Voltage	20V		37.5V
Recommended Discharge Termination Voltage	22.4V		42V
Max. Discharge Current	100A	100A/ 200A	100A
Single Cell Charging Overvoltage Protection	3.65V		3.65V
Overvoltage Protection for the Whole Battery	29.2V		54.75V
Low Voltage Protection for Single Cell Discharge	2.5V		2.5V
Low Voltage Protection for Whole Group Discharge	20V	20V	37.5V
Charge Overcurrent Protection	110A	110A/ 220A	110A
Discharge Overcurrent Protection	110A	110A/ 220A	110A
BMS Features			
High accuracy level voltage current measuring			
Over-charge, over-discharge protection			
Short-circuit protection			
Self-learning intelligent SOC calculation			
Cell level active equalization			
Multiple communication type			
Parallel connect function			
Working Temperature	- 20°C ~ 65°C		
Storage Temperature	0°C ~ 65°C		
Physical			
Dimension (DxWxH) mm	701*441*231		
Net Weight (KGS)	42.0	59.0	58.0
Gross Weight (KGS)	45.0	62.0	60.0
Environment			
Humidity	5% to 95% relative humidity (Non-condensing)		