

Off-grid: ESS Inverter

SF1z1K12100/SF1-1K12100

ESS Hybrid Inverter is an integrated facility that helps your home develop a solar power system for your daily electricity needs, so you can rely less on the utility grid, no longer worry about unstable power suppliers, and use green power and your own PV system. The energy storage system allows you to store solar energy for later use. Its integrates DC ports and AC ports. Its box-type design is easy to place, and the top handle design makes it easy to move. It can be used anytime, anywhere, making your life more convenient and environmentally friendly.

Features

- Compact, reliable, and cost-effective design
- 3 times peak power with high loading capability
- 3 operating modes: AC first/Solar first / Energy-saving
- PV Input Current 40Amax; Grid+PV Input Current 55A
- Multiple output: AC sockets, 4 DC 12V ports, and 2 USB ports
- All-in-one combination of inverter, solar controller, and battery



Specifications

Model	SF1z1K12100	SF1-1K12100
Capacity		
Rated Power	1000VA /1000W	
Peak Power(20ms)	3000VA	
PV Charger Data		
Solar Charger Type	-	PWM
Max. PV Input Power	-	560Wp
Max. PV Input Voltage	-	50V
MPPT Voltage Range	-	15V~44V
Max. Solar Charging Current	-	40A
AC Input Data		
Input Voltage Waveform	Sinusoidal	
Rated Input Voltage	230Vac	
Selectable Voltage Range	170~285V (Computers) / 90~285V (Appliances)	
Rated Input Frequency	50Hz/60Hz	
Frequency Range	45-55Hz /55-65 Hz	
Max. Input Current	4.5A	
Output Data		
AC Output Waveform	Pure Sine Wave	
AC Start Motor	1HP	
AC Output Rated Voltage	220/230/240V±10%	
AC Output Typical Transfer Time	< 4ms	
AC Output Surge Power	100%~110%(Alarm), 110% ~ 120%(30sec), > 120%(2sec)	
AC Max. Efficiency (Battery Mode)	85%	
Rated Frequency	50Hz/60Hz	
Power Factor	1	
THDv, Rated Power[%]	<3%	
DC Output voltage	4*DC 12V; 2*USB(5V)	
Battery & Charger		
Inbuilt Battery Type	Lead-acid	
Inbuilt Battery Capacity	1*100AH	
Rated Battery Voltage	12V	
	Charge Voltage :14.2V; Float Voltage:13.8V (Single Battery Voltage)	
Charging Algorithm	3-Step (Constant Current, Constant Voltage, Floating Charge)	
Max. Charging Current	15A	55A(PV+AC)
Protection		
System Protection	Battery undervoltage alarm/protection, Battery overvoltage alarm/protection, Overload power protection, Inverter output short circuit protection, Temperature protection	
Working Mode		
Working Mode	Battery First/AC First/Saving Energy Mode/Solar Firrt(SF1-1K12100)	
General Data		
Protection Degree	IP21	
Cooling	Fan	
Operating Temperature Range	- 10 C ~ 40 C	
Display	LCD	
Communication	NTC/ RS485/Wi-Fi	
Dimension (W*H*D)	488*232*450 mm	
Net Weight (Without Battery)	16kg	
Packing Dimension (W*H*D)	550*295*625 mm	
Gross Weight (Without Battery)	21kg	
Packing Quantity/CTN	1pcs per Wooden case	