SOSEN

SSA-HL4~5K-P1US Series

120V Single Phase | Hybrid Inverter (Off-Grid)

The SSA-HL4~5K-P1US series is a off-grid hybrid inverter with 110V/120V single-phase output, specifically designed for residential applications across the Americas. With up to 500Vdc PV input and a 100A built-in MPPT controller, it ensures high solar conversion efficiency. The inverter supports 200% (10s) overload capacity and is compatible with solar, utility, diesel generator, and battery sources.Optional WiFi enables remote monitoring and control via mobile app or web portal.



- Max. 500V PV Input for Longer and Flexible Strings
- Operates with or without Battery for Flexible System
- Supports PV, Battery, Grid and Diesel Generator Input
- Built-in MPPT Controller for Efficient Solar Charging
- Optional WiFi for Real-time Remote Monitoring
- Multiple Operating Modes for Diverse Off-Grid Needs

TECHNICAL SPECIFICATION		
Model	SSA-HL4K-P1US_DO	SSA-HL5K-P1US
AC INPUT		
Rated Voltage (V a.c.)	110 / 120 , L+N+PE	
Rated Frequency (Hz)	50 / 60	
Current (Maximum Continuous) (A a.c.)	40	50
INVERTER OUTPUT		
Rated Power (kW)	4	5
Rated Voltage (V a.c.)	100/110/120/127, L1+N1+L2+N2+PE	100/110/120, L+N+PE
Power Factor	1	
Wave Form	Pure Sine Wave	
Switch Time (ms)	<10 (Typical Value)	10 (APP/UPS mode) / 20 (GEN mode)
Inverter Efficiency (Peak)	92%	
Current (Maximum Continuous (A a.c.)	33.3	41.7
Maximum Output Overcurrent Protection	1min@102%-120%load, 10s@120%-200%load	
BATTERY		
Battery Type	Lithium / Lead-acid	
Rated Battery Voltage (V d.c.)	24	48
Battery Voltage Range (V d.c.)	21~30.2	42~56.4
Max.Charge Current (A d.c.)	100	
PV INPUT		
No.of MPPT Tracker / Strings	1 / 1	
Max.PV Array Power (kW)	5	5.5
Max.Dc Voltage (V d.c.)	500	
MPPT Voltage Range (V d.c.)	60 ~ 450	120 ~ 450
Start-up Voltage (V d.c.)	70	150
MPPT Maximum Charge Current (A d.c.)	100	100
Max.Input Current (A d.c.)	18	22
Isc PV (Absolute Maximum) (A d.c.)	22	26
PROTECTION & FEATURE		
Parallel Function	NO	
Protection Degree	IP20, Indoor Only	
Other Protection	Overload, Over temperature, Short circuit	
GENERAL PARAMETER		
Storage Temperature	-15℃~+60℃ (+5°F~+140°F)	
Operating Temperature	-10℃~+60℃ (+14°F~+140°F)	
Humidity	5% ~ 95% (Non-condensing)	
Operating Altitude (m)	4000 (>2000 Derating)	
Noise (dB)	<50	
Machine Dimensions (W*H*D) (mm)	350*440.6*124.6 (13.78*17.35*4.91in)	
Machine Weight / N.W. (kg)	13 (28.66 lbs)	
DISPLAY AND COMMUNICATION		
Display	LCD Display (Display Running Mode,Loads / Input / Output etc.)	
Interface	RS485 / CAN / Dry Contact / WiFi (Optional)	

- Please note that all specifications are subject to change without prior notice.