SOSEN

SSA-HL5~12K-P1EU_DO Pro

Single Phase | Dual AC | IP54 | Off-Grid

The SSA-HL5~12K-P1EU_DO Pro is a compact off-grid hybrid inverter series with up to 12 kW PV input and 500V max voltage. It features dual AC outputs, supports battery or battery-free operation, and is compatible with grid or generator input. Equipped with smart MPPT, configurable priorities, WiFi monitoring, and an intuitive LCD, it offers flexible, easy system control. Its rugged IP54 enclosure provides dust and splash resistance for reliable outdoor performance.



High PV Input Capacity

Supports up to 12kW solar input, with 500V max voltage and 27A max current

Multi-Power & Dual AC Output

Supports grid, generator, battery or battery-less operation; features dual AC output ports

Intelligent MPPT & Priority

Smart MPPT control with configurable PV/grid priority settings

Remote Monitoring & Display

Built-in WiFi for remote monitoring and 5-inch LCD for easy (operation)

Compact Size with Higher Power

12kW output in a smaller, lighter chassis for flexible installation

Rugged IP54 Design

Dust- and splash-resistant for long-lasting outdoor performance

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TECHNICAL SPECIFICATION			
Model	SSA-HL5K-P1EU_DO Pro	SSA-HL6.5K-P1EU_DO Pro	SSA-HL12K-P1EU_DO Pro
AC INPUT			
Rated Voltage (V a.c.)	208 / 220 / 230 / 240, L+N+PE		220 / 230 / 240, L+N+PE
Rated Frequency (Hz)	50 / 60		
Current (Maximum Continuous) (A a.c.)	40 (Bypass mode)		70 (Bypass mode)
INVERTER OUTPUT			
Rated Power (kW)	5	6.5	12
Rated Voltage (V a.c.)	208 / 220 / 230 / 240, L1+N1+L2+N2+PE		220 / 230 / 240, L1+N1+L2+N2+PE
Power Factor	1		
Wave Form	Pure Sine Wave		
Switch Time (ms)	<10		
Inverter Efficiency (Peak)	93.5% (Max)	94% (Max)	94% (Max)
Current (Maximum Continuous (A a.c.)	22.7	27.3	52
Maximum Output Overcurrent Protection	102%~120% 60s, >120% 10s		102%~125% 60s, >125% 10s
BATTERY			
Battery Type	Li-ion / Lead-acid		
Rated Battery Voltage (V d.c.)	24	51.2	
Battery Voltage Range (V d.c.)	21~30.2	42~56.4	
Max.Charge Current (A d.c.)	160	120	160
PV INPUT			
No.of MPPT Tracker / Strings	1		2 / 2
Max.PV Array Power (kW)	9		Using One MPPT 9KW Using Two MPPTs: 15KW/Total
Max.Dc Voltage (V d.c.)	500		
MPPT Voltage Range (V d.c.)	60～450		
Start-up Voltage (V d.c.)	80		
MPPT Maximum Charge Current (A d.c.)	160	120	160
Max.Input Current (A d.c.)	27		Using One MPPT:27A Using Two MPPTs:22.5A/PerMPPT
Isc PV (Absolute Maximum) (A d.c.)	30		
PROTECTION & FEATURE			
Parallel Function	NO	Yes	Yes
Protection Degree	IP54		
Certifications	EN IEC 62109-1、EN IEC 62109-2		\
Other Protection	Over voltage Protection; Over load protection; Short circuit protection; Over temperature protection; Surge protection		
GENERAL PARAMETER			
Storage Temperature	-15°C ~ +60°C		
Operating Temperature	-10°C ~ +60°C		
Humidity	5%～95% (Non-condensing)		
Operating Altitude (m)	4000 (>1000 Derating)		
Noise (dB)	<60		
Machine Dimensions (W*H*D) (mm)	347*487*122		480*618*130
Machine Weight / N.W. (kg)	12.1		20.45
DISPLAY AND COMMUNICATION			
Display	LCD Display		5-inch LCD Display
Interface	RS485 / RS232 / CAN / WiFi (Optional)		

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