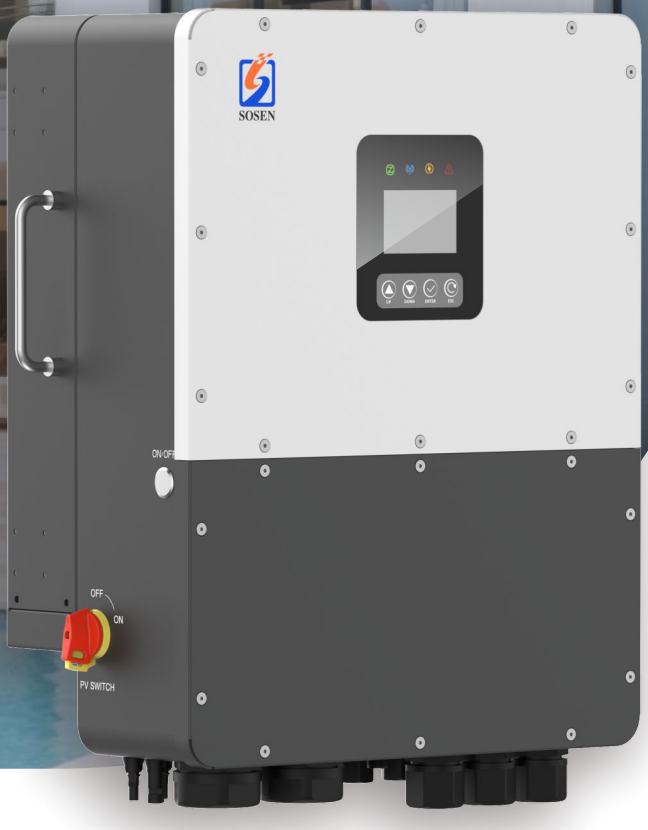
SOSEN

SSE-HL10~16K-P1EU-S

Single Phase | 3 MPPTs Hybrid Inverter (LV)

SSE-HL10~16K-P1EU-S is a powerful 10~16kW low-voltage hybrid inverter for homes and microgrids, featuring 275A battery current for large lithium systems and peak loads, 3 MPPTs, and 150% PV oversizing. It supports AC coupling, generators or smart load control, and parallel operation (up to 6 units), with IP66 protection for tough conditions.



- Max. 275A Charge/Discharge for High-Rate Battery Support
- 3 MPPTs with 150% PV Oversizing for Higher Yield
- Wide MPPT Range (120–520V) for Complex Rooftop Design
- Supports Generator & Smart load, Parallel up to 6 Units
- <10ms UPS-Level Switching for Critical Load Continuity
- AC Coupling Ready for Easy Retrofit and System Upgrade

www.soseninverter.com
market@sosen.com

TECHNICAL SPECIFICATION				
Model	SSE-HL10K-P1EU-S	SSE-HL12K-P1EU-S	SSE-HL14K-P1EU-S	SSE-HL16K-P1EU-S
INVERTER INPUT/OUTPUT (GRID)				
Rated Power (kW)	10	12	14	16
Rated Voltage	220 / 230 / 240 V a.c., L+N+PE			
Rated Frequency (Hz)	50 / 60			
Power Factor Range	0.8 leading ~ 0.8 lagging			
Switch Time (ms)	< 10			
Current (Maximum Continuous) (A a.c.)	43.5	52.2	60.9	69.6
Max Output Overcurrent Protection	100			
BATTERY				
Battery Type	Lithium / Lead-acid			
Battery Voltage Range (V d.c.)	40 ~ 60			
Rated Battery Voltage (V d.c.)	51.2			
Max Charge Current (A d.c.)	220	250	275	275
Max Discharge Current (A d.c.)	220	250	275	275
Reverse Connect Protection	Yes			
PV INPUT				
No. of MPPT Tracker / Strings	3 / 2+2+2			
Max. PV Array Power	15	18	21	22.5
Max DC Voltage (V d.c.)	550			
MPPT Voltage Range (V d.c.)	120~520			
Start-up Voltage (V d.c.)	120			
Max. Input Current (A d.c.)	3*26			
Isc PV (Absolute Maximum) (A d.c.)	3*39			
AC OUTPUT (EPS)				
EPS Rated Output Voltage	220 / 230 / 240 V a.c., L+N+PE			
EPS Rated Output Frequency (Hz)	50 / 60			
EPS Rated Output Active Power (kW)	10	12	14	16
EPS Rated Output Apparent Power (kVA)	10	12	14	16
EPS Rated Output Current (A a.c.)	43.5	52.2	60.9	69.6
Overload Capacity (Off Grid)	200% (<10s) / 150% (<60s)			
EFFICIENCY				
MPPT Efficiency	99.90%			
Euro-efficiency	96.50%			
Max. Efficiency	97.30%			
PROTECTION & FEATURE				
Insulation Monitoring	Yes			
Residual Current Monitoring	Yes			
Parallel Function	Yes			
Protection Degree	IP66			
Certifications	EN IEC 62109-1/2、EN IEC 62477-1、EN IEC 61000-6-1、EN IEC 61000-6-3、EN 50549-1&-10、IEC 61727,IEC 61683,IEC 62116 etc.			
Other Protection	Output over voltage, Output over current, Short circuit, Surge, Temperature			
GENERAL PARAMETER				
Storage Temperature	-25°C ~ +60°C			
Operating Temperature	-25℃ ~ +60℃ (Linely derating to 60% when exceed +45℃ ~ +60℃)			
Humidity	0-100% (Non-condensing)			
Altitude (m)	4000 (>2000 Derating)			
Noise (dB)	<50			
Machine Dimension(W*H*D) (mm)	472*606*252			
Machine Weight / N.W. (kg)	38.5			
DISPLAY & COMMUNICATION				
Display	LCD + APP			
Interface	RS485 / WiFi / CAN / Bluetooth (Optional: LAN / Meter)			

- The AC voltage and frequency range can differ according to the grid standards of each country.
- Please note that all specifications are subject to change without prior notice.