SOSEN

SSE-HL8~15K-P2US Series

Split Phase | 3 MPPTs Hybrid Inverter (LV)

The SSE-HL8～15K-P2US series is a split-phase, low-voltage hybrid inverter for residential use. It delivers 275A max charge/discharge, <10ms switching, and supports AC-coupled retrofits. With dual AC inputs for grid and generator, it enables direct diesel-to-battery charging. Featuring smart load with programmable control, a 200A bypass current for safe peak load handling, A rugged **NEMA 4X** enclosure, and 150% PV over-paneling, it is ideal for whole-home backup and future expansion.



- 275A Max Charge/Discharge for Heavy Loads
- <10ms UPS-Level Switching for Backup Power
- Dual AC Ports: Grid & Generator / Smart Load with Programmable Control
- AC-Coupling Ready Retrofit Without Rebuild
- 3-Phase Support Parallel up to 6 Units
- 200A Bypass Current Ensures Safe Peak Load Use

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TECHNICAL SPECIFICATION				
Model	SSE-HL8K-P2US/ SSE-HL8K-P2US-S	SSE-HL10K-P2US/ SSE-HL10K-P2US-S	SSE-HL12K-P2US/ SSE-HL12K-P2US-S	SSE-HL15K-P2US/ SSE-HL15K-P2US-S
INVERTER INPUT / OUTPUT (GRID)				
Rated Power (kW)	8	10	12	15
Rated Voltage	120 V a.c. / 240 V a.c. (Split Phase),208 V a.c. (2/3Phase)			
Rated Frequency (Hz)	60			
Power Factor Range	0.8 leading~0.8lagging			
Switch Time (ms)	<10			
Max. Input Current (A a.c.)	200			
Max. Output Current (A a.c.)	33.4	41.7	50	62.5
Max Output Overcurrent Protection	250 V a.c / 250A a.c			
GEN Max. Input Current (A a.c.)	80			
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.)	167	210	250	275
Max Discharge Current (A d.c.)	167	210	250	275
Reverse Connect Protection	Yes			
PV INPUT				
No. of MPPT Tracker / Strings	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2	3 / 2+2+2
Max. PV Array Power (kW)	12	15	18	22.5
Max DC Voltage (V d.c.)	550			
MPPT Voltage Range (V d.c.)	100~500			
Start-up Voltage (V d.c.)	120			
Max. Input Current (A d.c.)	26+26+26			
Isc PV (Absolute Maximum) (A d.c.)	39			
AC OUTPUT (EPS)				
EPS Rated Output Voltage	120 V a.c. / 240 V a.c. (Split Phase),208 V a.c. (2/3Phase)			
EPS Rated Output Frequency (Hz)	60			
EPS Rated Output Active Power (kW)	8	10	12	15
EPS Rated Output Apparent Power (kVA)	8	10	12	15
EPS Rated Output Current (A a.c.)	33.4	41.7	50	62.5
Overload Capacity (Off Grid)	200% 10s			
Smart Load Rated Output Power (kW)	8	10	12	15
EFFICIENCY				
MPPT Efficiency	99.50%			
California-eficiency	96.50%			
Max.Eficiency	97.50%			
PROTECTION & FEATURE				
Insulation Monitoring	Yes			
Residual Current Monitoring	Yes			
Parallel Function	Yes			
Protection Degree	NEMA 4X			
Certifications	UL1741, FCC Part 15B, UL1547, UL1998, UL1699B, HECO SRD 2.0, CEC efficiency			
Other Protection	Overload, Over temperature, Short circuit, Anti-islanding			
GENERAL PARAMETER				
Storage Temperature	-25℃~+60℃ (-13°F~+140°F)			
Operating Temperature	-25℃~+60℃ (-13°F~+140°F), >+45℃ (+113°F) Derating to 60%			
Humidity	0~95% (Non-condensing)			
Operating Altitude (m)	4000 (>2000 Derating)			
Noise (dB)	<45			
Machine Dimensions(W*H*D) (mm)	522*826*265.5			
Machine Weight / N.W. (kg)	55			
DISPLAY & COMMUNICATION				
Display	App+ LED / LCD (-S version)			
Interface	RS485 / WiFi / CAN (Optional: Bluetooth / LAN / 4G / 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.