SOSEN

SSE-HH30~70K-P3US Series

Three Phase | 4 MPPTs Hybrid Inverter | US Standard (HV)

The SSE-HH30~70K-P3US series is a high-performance hybrid inverter line built for North America commercial and industrial applications. It supports seamless on/off-grid switching, dual high-current battery ports up to 200A, and intelligent energy management. With models designed for standard three-phase four-wire systems, it suits both light commercial and large-scale facilities. Featuring advanced SiC technology, IP66 protection, and up to 2× bypass current, it ensures reliable performance in demanding conditions.



Native Compatibility with US Grids

- 120/208V & 277/480V for all commercial needs
- Supports mixed single and three-phase loads
- Simplifies wiring and lowers cost

Seamless On/Off-Grid Operation

- Smooth grid/off-grid switching
- Operates reliably with or without batteries
- Grid & generator inputs, 2× bypass current

Dual Battery Ports, 200A Total Output

- 2 high-voltage battery inputs, 100A per port
- Up to 200A total charge/discharge current
- Flexible with high-capacity battery systems

Exceptional Energy Conversion

- 100% unbalanced three-phase output
- 4 MPPTs with up to 99.9% efficiency
- 2× PV oversizing, up to 100kW

Durable & All-Weather Ready

- Advanced SiC for peak efficiency
- IP66-rated for harsh outdoor use
- Compact, plug-and-play installation

Scalable & Smart Energy Control

- Up to 6 in parallel for system expansion
- AC-coupling for easy system upgrades
- Built-in EMS and cloud monitoring & OTA

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TECHNICAL SPECIFICATION					
Model	SSE-HH30K-P3US SSE-HH30K-P3US-S	SSE-HH40K-P3US SSE-HH40K-P3US-S	SSE-HH50K-P3US SSE-HH50K-P3US-S	SSE-HH60K-P3US SSE-HH60K-P3US-S	SSE-HH70K-P3US SSE-HH70K-P3US-S
INVERTER INPUT / OUTPUT(GRID)					
Rated Power (Input/Output) (kW)	30	40	50	60	70
Rated Voltage (V a.c.)	120 / 208, 3W+N+PE	277 / 480, 3W+N+PE			
Rated Frequency (Hz)	50 / 60				
Power Factor Range	0.8 leading~0.8 lagging				
Switch Time (ms)	<20				
Max.Continuous Current (Input/Output) (A a.c.)	166.6 / 83.3	96.2 / 48.1	120.2 / 60.1	144.4 / 72.2	168.6 / 84.3
Max.Output Overcurrent Protection (A a.c.)	124.9	72.2	90.2	108.3	126.3
BATTERY					
Battery Type	Lithium / Lead-acid				
Battery Voltage Range (V d.c.)	150 ~ 850				
Rated Battery Voltage (V d.c.)	150	200	250	300	350
Max.Charge Current (A d.c.)	2*100				
Max.Discharge Current (A d.c.)	2*100				
Reverse Connect Protection	Yes				
PV INPUT					
No.of MPPT Tracker / Strings	4 / 2+2+2+2				
Max.PV Input Power (kW)	60	80	100		
Max.DC Voltage (V d.c.)	1000				
MPPT Voltage Range (V d.c.)	150~850				
Start-up Voltage (V d.c.)	200				
Max.Input Current / sring (A d.c.)	8*20				
Isc PV (Absolute Maximum) / sring (A d.c.)	8*30				
AC OUTPUT(EPS) / GENERATOR					
EPS Rated Output Voltage (V a.c.)	120 / 208, 3W+N+PE	277 / 480, 3W+N+PE			
EPS Rated Output Frequency (Hz)	50 / 60				
EPS Rated Output Active Power (kW)	30	40	50	60	70
EPS Rated Output Apparent Power (kVA)	30	40	50	60	70
EPS Rated Output Current (A a.c.)	83.3	48.1	60.1	72.2	84.2
Overload Capacity (Off Grid)	110% 30s / 120% 10s / 150% 0.2s				
EFFICIENCY					
MPPT Efficiency	99.90%				
Euro-efficiency	97.00%				
Max.Efficiency	98.00%				
PROTECTION & FEATURE					
Insulation Monitoring	Yes				
Residual Current Monitoring	Yes				
Parallel Function	Yes,up to 6pcs				
Protection Degree	IP66				
Certifications	UL1741, FCC Part 15B, UL1547,UL1998,UL1699B,HECO SRD 2.0,CEC efficiency				
Other Protection	Ground fault current monitoring, Earth fault detection, Residual current(RCD)Detection etc.				
GENERAL PARAMETER					
Storage Temperature	-25℃~+60℃				
Operating Temperature	-25℃~+60℃ (>+45℃ Derating)				
Humidity	0%~95% (Non-condensing)				
Max.operating altitude (m)	4000 (>2000 Derating)				
Noise (dB)	<75				
Machine Dimensions(W*H*D) (mm)	544*880*278				
Machine Weight / N.W. (kg)	88				
DISPLAY & COMMUNICATION					
Display	App+ LED / LCD (-S version)				
Interface	RS485 / WiFi / CAN / DRM / 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.