SOSEN

# SSE-HL8~24K-P3EU-S

## Three Phase | 2 MPPTs Hybrid Inverter (LV)

The SSE-HL8~24K-P3EU-S series is a leading three-phase low-voltage hybrid inverter designed for residential and small commercial applications, supporting 8~24kW systems. It features up to 415A charge/discharge current and three battery inputs for versatile energy storage solutions. Built with advanced SiC technology and a robust full aluminum IP66-rated enclosure, it delivers high efficiency, reliability, and durability. The inverter supports a wide voltage input range (154-286V per phase), automatic 50/60Hz frequency adaptation, strong surge resistance, and 150% unbalanced three-phase output.




### Extreme Climate Adaptability

Full-load operation, 45°C without derating

### High Battery Compatibility

Max. 415A charge/discharge, supports three battery inputs

### Wide Grid Adaptability

154V–286V per phase input, 50/60Hz autoadaptation, built-in SPD

### High Surge & Unbalanced Output

2× load surge for 10s, 150% three-phase unbalanced output

### Flexible System Expansion

Up to 8 units parallel, supports AC coupling for retrofit

### SiC + Full Aluminum + IP66

High efficiency, lightweight, IP66 protection

www.soseninverter.com
market@sosen.com

| TECHNICAL SPECIFICATION | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | SSE-HL8K-P3EU-S | SSE-HL10K-P3EU-S | SSE-HL12K-P3EU-S | SSE-HL15K-P3EU-S | SSE-HL18K-P3EU-S | SSE-HL20K-P3EU-S | SSE-HL24K-P3EU-S |
| **INVERTER INPUT / OUTPUT (GRID)** | | | | | | | |
| Rated Power (kW) | 8/8 | 10/10 | 12/12 | 15/15 | 18/18 | 20/20 | 24/24 |
| Rated Voltage (V a.c.) | 380 / 400, 3W+N+PE | | | | | | |
| Rated Frequency (Hz) | 50 / 60 | | | | | | |
| Power Factor Range | 0.8 leading ~ 0.8 lagging | | | | | | |
| Switch Time (ms) | < 20 | | | | | | |
| Current (Maximum / Continuous) (A a.c.) | 24/12 | 29/15 | 35/17 | 43/22 | 52/26 | 58/29 | 60/35 |
| Max Output Overcurrent Protection | 400 V a.c. / 100 A a.c. | | | | | | |
| **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.) | 180 | 220 | 250 | 315 | 375 | 390 | 415 |
| Max Discharge Current (A d.c.) | 180 | 220 | 250 | 315 | 375 | 390 | 415 |
| **PV INPUT** | | | | | | | |
| No. of MPPT Tracker / Strings | 2 / 2+2 | | | | | | |
| Max. PV Array Power (kW) | 16 | 20 | 24 | 30 | 36 | 40 | 48 |
| Max DC Voltage (V d.c.) | 1000 | | | | | | |
| MPPT Voltage Range (V d.c.) | 150 ~ 850 | | | | | | |
| Start-up Voltage (V d.c.) | 180 | | | | | | |
| Max. Input Current (A d.c.) | 4*20 | | | | | | |
| Isc PV (Absolute Maximum) (A d.c.) | 4*30 | | | | | | |
| **AC OUTPUT (EPS)** | | | | | | | |
| EPS Rated Output Voltage (V a.c.) | 380 / 400, 3W+N+PE | | | | | | |
| EPS Rated Output Frequency (Hz) | 50 / 60 | | | | | | |
| EPS Rated Output Active Power (kW) | 8 | 10 | 12 | 15 | 18 | 20 | 24 |
| EPS Rated Output Apparent Power (kVA) | 8 | 10 | 12 | 15 | 18 | 20 | 24 |
| EPS Rated Output Current (A a.c.) | 12 | 15 | 17 | 22 | 26 | 29 | 35 |
| Overload Capacity (Off Grid) | 110% 600s / 120% 300s / 150% 60s / 200% 10s | | | | | | |
| **EFFICIENCY** | | | | | | | |
| MPPT Efficiency | 99.90% | | | | | | |
| Euro-efficiency | 97.00% | | | 97.20% | | | |
| Max. Efficiency | 97.50% | | | 98.00% | | | |
| **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 61000-6-1/3、EN 50549-1&-10、NRS 097-2-1、Poland、IEC 61727、IEC 61683、IEC 62116 etc. | | | | | | |
| Other Protection | Output over voltage, Output over current, Short circuit, Surge, Temperature, Anti-Islandmg | | | | | | |
| **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) | <65 | | | | | | |
| Machine Dimension(W*H*D) (mm) | 448*660*265 | | | | | | |
| Machine Weight / N.W. (kg) | 40 | | | 45 | | | |
| **DISPLAY & COMMUNICATION** | | | | | | | |
| Display | LCD + APP | | | | | | |
| Interface | RS485 / WiFi / CAN / DRM (Optional:Bluetooth / 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.