



# Specifications

## SSE-HH8-12K-P3EU Hybrid Inverter

Model: SSE-HH8-12K-P3EU

Description: 8K-12K Hybrid Inverter

Rev: V01

Release Date: 2023-11-28

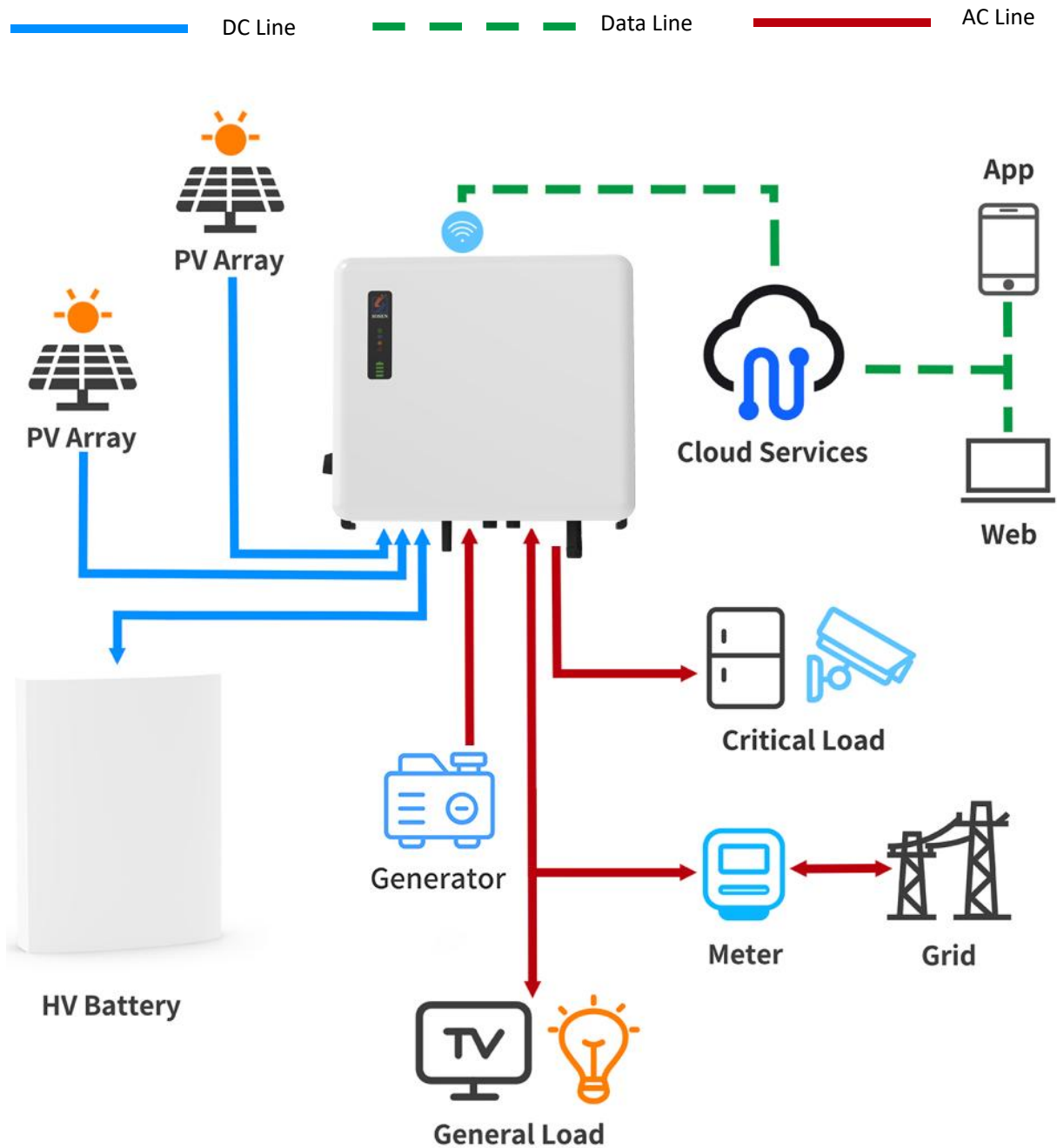
# SSE-HH8K-12K-P3EU Hybrid Inverter



## Key Features

1. Supports a wide battery voltage range of 80-800V, compatible with BMS protocols from mainstream manufacturers, and can also customize BMS protocol docking according to customer needs.
2. Supports multiple starting methods. A single battery, PV or power grid can be started independently. Supports off-grid black start.
3. Using advanced digital control technology and TI's latest DSP, the MPPT dynamic response speed and accuracy are greatly improved. The harmonic current and voltage are less than 3%, reducing damage to the power grid and equipment.
4. Integrate local and remote EMS functions and support multiple working modes: self-use, TOU, backup power mode, generator mode, economic mode, balance mode, special weather mode, etc.
5. Support functions such as remote OTA and online diagnosis, online fault data recording and analysis, saving labor costs and fault location time.
6. The entire machine structure and wiring terminals adopt IP65 protection level, which can adapt to a variety of harsh environments and ensure reliable operation of the equipment.
8. Supports up to 12 parallel machines, and supports SOC balancing function under parallel machines. It can adjust multiple battery packs to keep SOC consistent and improve battery availability and consistency.
9. Supports multiple communication methods, Ethernet, 4G, WiFi, Bluetooth, dry contact, DRM, 485 and CAN, etc.
10. Supports diesel generator and intelligent load functions, and the working mode can be freely defined.
10. Integrated UPS function, and off-grid switching time is less than 10ms, ensuring uninterrupted power supply to important household loads.
11. Supports single-phase 100% unbalanced load operation under off-grid conditions, adapting to various load scenarios.

## Residential Photovoltaic and Storage Integration Platform



SMART MANAGEMENT  
VIA WEB & APP



EMERGENCY POWER  
SUPPLY



'PLUG & PLAY'  
INSTALLATION



IP65 RATED



EMS INTEGRATED



COMPATIBLE WITH  
HV LI-ION BATTERY

# SSE-HH8K-12K-P3EU Hybrid Inverter

Model	SSE-HH8K-P3EU	SSE-HH10K-P3EU	SSE-HH12K-P3EU
Product Type	Hybrid Inverter		
<b>Battery</b>			
Battery type	Li-ion/Lead-acid		
Battery voltage range	125-800Vd.c.		
Full power Battery voltage range	200-800V d.c	250-800V d.c	300-800V d.c
Max.charge/discharge Power	8000W	10000W	12000W
Rated battery voltage	200Vd.c.	250Vd.c.	300Vd.c.
Rated charge/discharge current	40Ad.c		
Max. charge/discharge current	40Ad.c		
Reverse Connect Protection	Yes		
Communication interface	CAN/RS485		
<b>Input (PV)</b>			
Recommended Max. PV array power for each input	6000	7500	9000
Max. operating PV input current ( PV 1 /PV 2)	16/16A d.c		
Max. I <sub>sc</sub> PV ( PV 1 /PV 2)	24/24 A d.c		
V <sub>max</sub> PV (Max. PV input voltage)	1000V d.c		
MPPT Voltage Range	150-950V d.c		
Full power MPPT voltage range	250-850V d.c	312-850V d.c	375-850V d.c
Start-up Voltage	200V d.c		
Number of MPP Trackers	2		
Strings per MPP Tracker	1		
Number of PV input	2		
W <sub>ax</sub> .inverter backfeed current to the array	0A		
<b>Grid AC input and AC output</b>			
Grid rated voltage	400/230 a.c, 3W+N+PE		
Grid rated frequency	50Hz		
Grid rated input active power	12000W	15000W	16000W
Grid rated input apparent power	12000VA	15000VA	16000VA
Grid Max. input active power	12000W	15000W	16000W
Grid Max. input apparent power	12000VA	15000VA	16000VA
Grid rated output active power	8000W	10000W	12000W
Grid rated output apparent power	8000VA	10000VA	12000VA
Grid Max. output active power	8000W	10000W	12000W
Grid Max. output apparent power	8000VA	10000VA	12000VA
Grid rated input current	18.1A a.c	22.7A a.c	24.2A a.c
Grid Max. input current	18.1A a.c	22.7A a.c	24.2A a.c
Grid rated output current	12.1A a.c	14.5A a.c	18.1A a.c
Grid Max. output current	12.1A a.c	15.9A a.c	18.1A a.c
Grid power factor	0.8 leading to 0.8 lagging		
Grid input and output Inrush current	96A a.c @ 3μs		
Max. Grid output fault current	96A a.c @ 3μs		
Max. Grid output overcurrent protection	250V a.c /60 A a.c		
Grid input I <sub>cc</sub> (Rated conditional short-circuit current)	500A a.c		
Grid input I <sub>cw</sub> (Rated short-time withstand current)	500A a.c		
Total Harmonic Distortion(THDi, rated power)	<3%		

# SSE-HH8K-12K-P3EU Hybrid Inverter

EPS output	SSE-HH8K-P3EU	SSE-HH10K-P3EU	SSE-HH12K-P3EU
EPS rated output Voltage	400/230a.c, 3W+N+PE		
EPS rated output frequency	50Hz		
EPS rated output active power	8000W	10000W	12000W
EPS rated output apparent power	8000VA	10000VA	12000VA
EPS Max. output active power	8800W	11000W	13200W
EPS Max. output apparent power	8800VA	11000VA	13200VA
Max. output current	13.3	16.6	20.0
EPS output power factor	0.8 leading to 0.8 lagging		
EPS output peak power	18000VA(<10s)		
EPS output Inrush current	96A a.c @ 3μs		
EPS Max. output fault current	96A a.c @ 3μs		
EPS Max. output overcurrent protection	250V a.c /50 A a.c		
Switch Time	<10ms		
Total Harmonic Distortion(THDv, linear Load)	<3%		
Compatible with the Generator	Optional		
<b>Efficiency</b>			
MPPT Efficiency	99 .90%		
Euro-efficiency	97.50%		
Max.efficiency	98.00%		
<b>Standard</b>			
Safety	EN/IEC 62109-1/2, EN/IEC 60529, EN/IEC 62040-1		
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3, EN IEC 61000-3-12, EN IEC 61000-3-11, EN IEC 61000-3-2,EN 61000-3-3		
Grid-interactive	CEI 0-21, EN 50549-1, VDE-AR-N 4105, UNE 217002, NTS TYPEA, G99, AS/NZS 4777.2 and so on		
<b>General Parameter</b>			
Degree of ingress protection	IP65		
Protection class	I		
Environment category	Outdoor		
Wet location classification	Yes		
Pollution degree	PD3		
Operating altitude	4000 m(>2000 Derating)		
Operating ambient temperature	-25 - +60 °C (linely derating to 60% when exceed +45 to +60 °C)		
Operating relative Humidity	0-100% (non-condensing)		
Storage Temperature	-25- +60 °C		
Storage relative Humidity	0-100% (non-condensing)		
Noise Emission(typical)	<35 db		
Overvoltage Category	AC: III, PV: II		
Electrical supply system	TN, TT		
Degree of ingress protection	IP65		
Dimension (WxHxD)	600x530x210mm		
Net Weight	32kg		
Cooling Mode	Natural Cooling		
Topology	Non-isolated		
Active anti-islanding method	Active frequency drift		
Communication	RS485/Wifi/Bluetooth/LAN/CAN/DRM/Meter, Yes/ Yes/ Opt/Opt/ Yes/ Yes/ Opt		
LED indicator	8 led		
Warranty	10 years		