



Specifications

SSE-HH3K-6K-P1-EU Hybrid Inverter

Model: SSE-HH3K-6K-P1-EU

Description: 3K-6K Hybrid Inverter

Rev: V01

Release Date: 2023-11-28

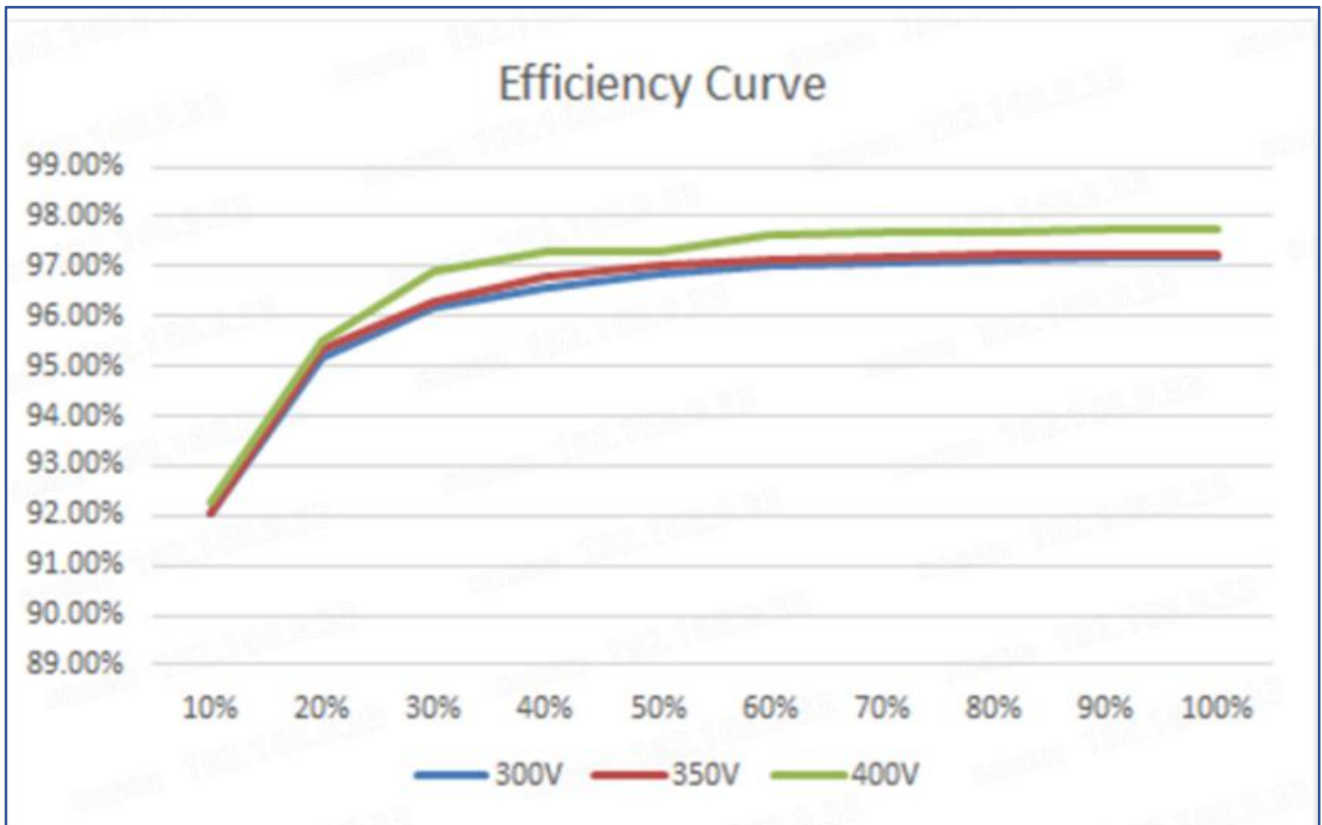
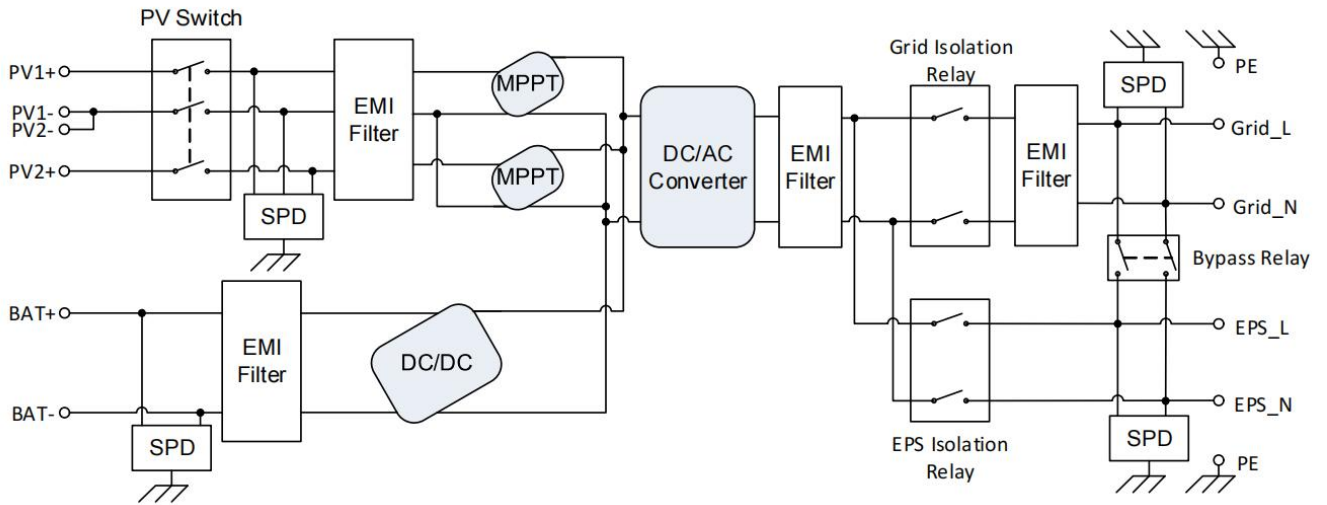
SSE-HH3K-6K-P1-EU Hybrid Inverter



Key Features

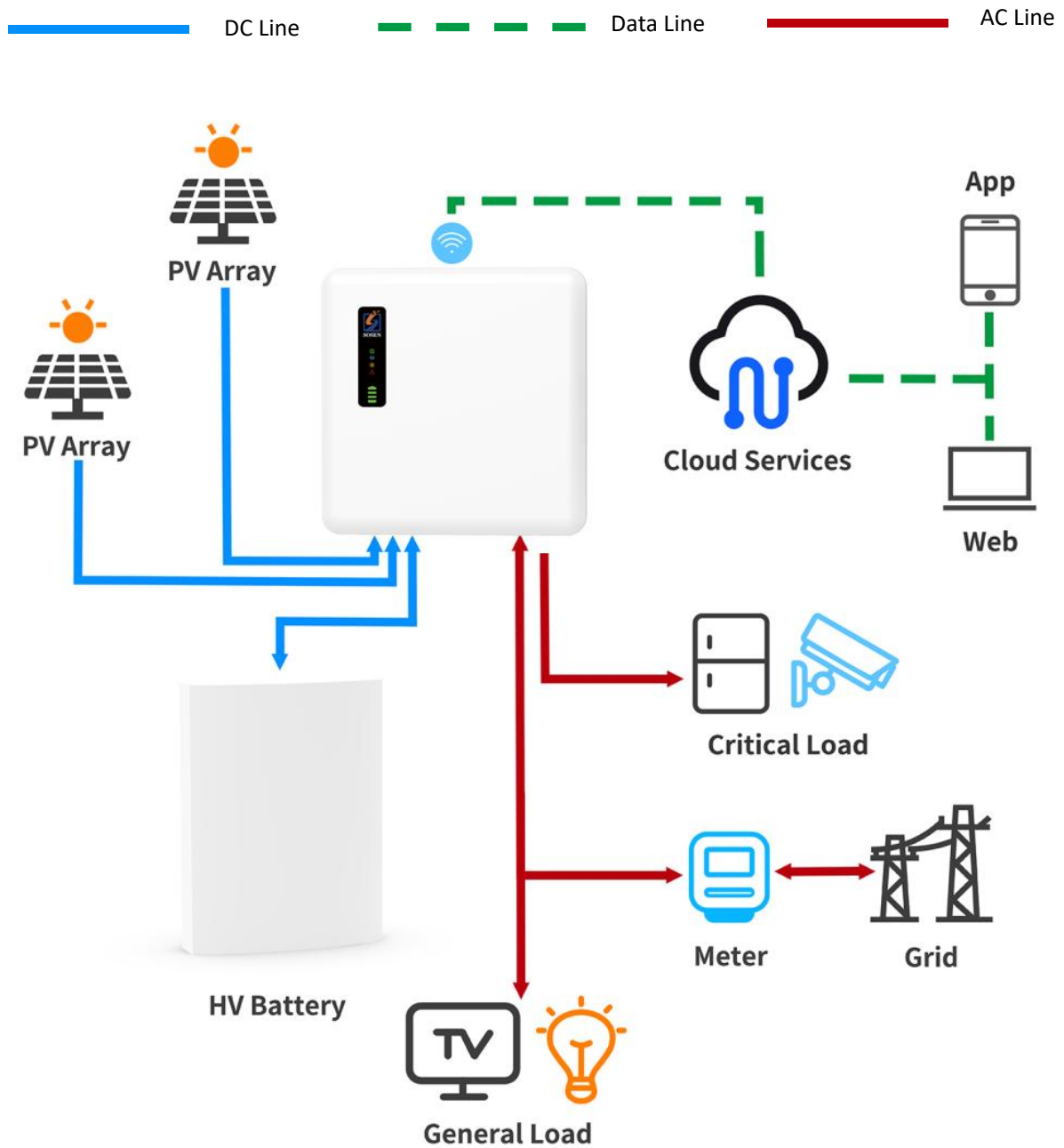
1. Supports a wide battery voltage range of 80-460V, compatible with BMS protocols from mainstream manufacturers, and can also customize BMS protocol docking according to customer needs.
2. Supports multiple starting methods. A single battery, PV or power grid can be started independently. Supports black start off-grid.
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.
7. 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.
8. Equipped with UPS function and off-grid switching <math>< 10\text{ms}</math>, ensuring uninterrupted power supply to important loads.

Circuit Diagram



SSE-HH3K-6K-P1-EU Hybrid Inverter

Residential Photovoltaic and Storage Integration Platform



SMART MANAGEMENT
VIA WEB & APP



EMERGENCY POWER
SUPPLY



'PLUG & PLAY'
INSTALLATION



IP65 RATED

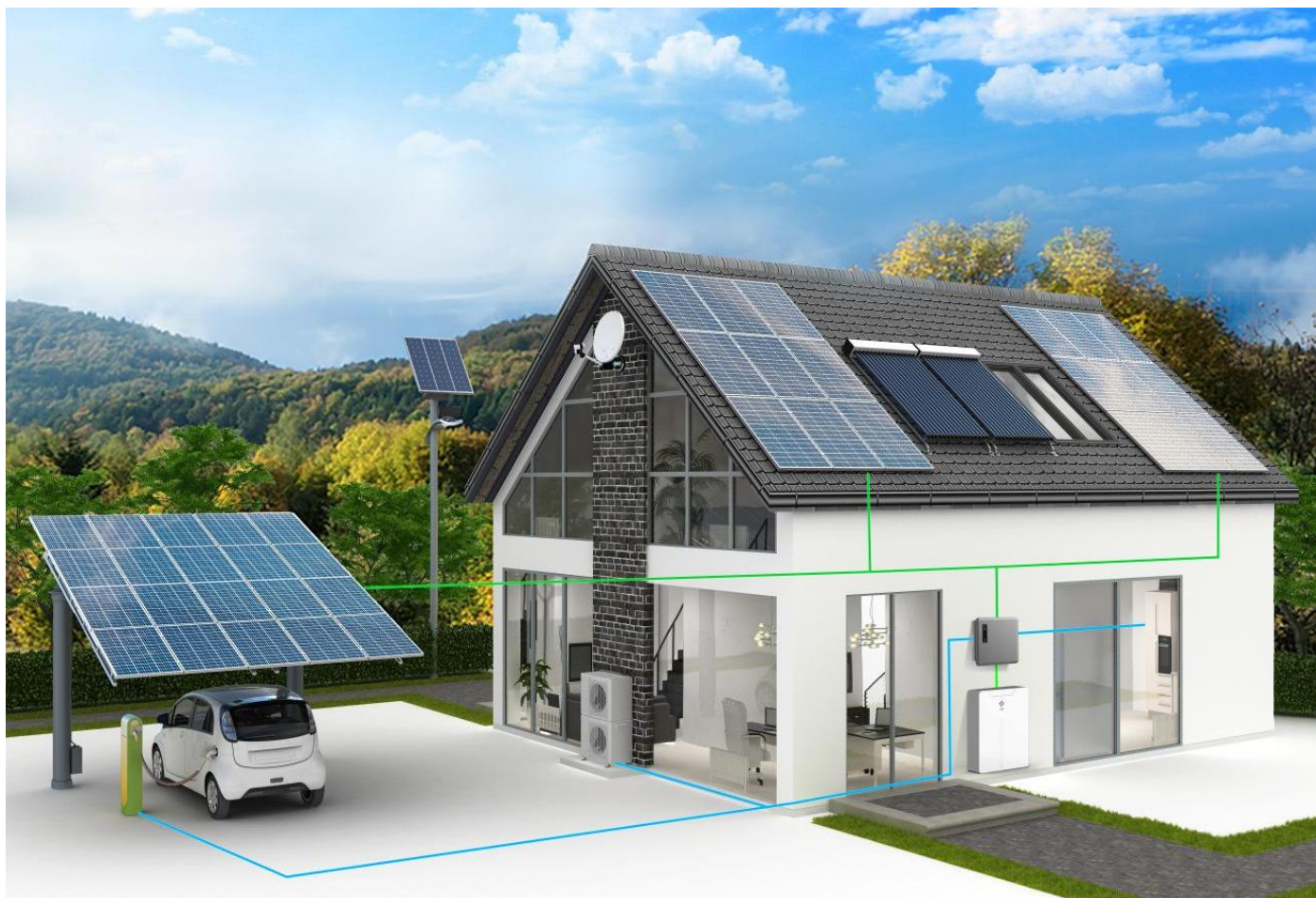


EMS INTEGRATED



COMPATIBLE WITH
HV LI-ION BATTERY

SSE-HH3K-6K-P1-EU Hybrid Inverter



Project Cases



Australia - North Gawler



Australia - Redhill South

SSE-HH3K-6K-P1-EU Hybrid Inverter

Model for EU	SSE-HH3K-P1-EU	SSE-HH3K7-P1-EU	SSE-HH4K6-P1-EU	SSE-HH5K-P1-EU	SSE-HH6K-P1-EU
Battery Type	Li-ion	Li-ion	Li-ion	Li-ion	Li-ion
Battery Voltage range	85-460V d.c	85-460V d.c	85-460V d.c	85-460V d.c	85-460V d.c
Full Power Battery Voltage Range	92-460V d.c	112-460V d.c	190-460V d.c	190-460V d.c	190-460V d.c
Rated Battery Voltage	300V d.c	300V d.c	300V d.c	300V d.c	300V d.c
Max.charge/discharge Power	3000W	3680W	4600W	5000W	6000W
Max Charge Current	35A d.c	35A d.c	35A d.c	35A d.c	35A d.c
Max Discharge Current	35A d.c	35A d.c	35A d.c	35A d.c	35A d.c
BMS Communication Interfaces	CAN/RS485				
Reverse Connect Protection	Yes	Yes	Yes	Yes	Yes
PV Input					
Recommended Max. PV array power for each input	3000W	3680W	4140W	4500W	4500W
Max. operating PV input current (PV 1 /PV 2)	16/16 A d.c				
Max. Isc PV (PV 1 /PV 2)	24/24 A d.c				
Vmax PV (Max. PV input voltage)	600V d.c				
PV input operating voltage range	80-550V d.c				
MPPT Voltage Range	80-550V d.c				
Start-up Voltage	120V d.c				
Number of MPP Trackers	2				
Strings per MPP Tracker	1				
Number of PV input	2				
Grid AC input and AC output					
Grid rated voltage	220/230/240V a.c, 1W+N+PE				
Grid rated frequency	50/60Hz				
Grid rated input active power	3000W+3000W (bypass)	3680W+3680W (bypass)	4600W+4600W (bypass)	5000W+5000W (bypass)	6000W+6000W (bypass)
Grid rated input apparent power	3000VA+3000VA (bypass)	3680VA+3680VA (bypass)	4600VA+4600VA (bypass)	5000VA+5000VA (bypass)	6000VA+6000VA (bypass)
Grid Max. input active power	3300W+3300W (bypass)	4048W+4048W (bypass)	4600W+4600W (bypass)	5500W+5500W (bypass)	6600W+6600W (bypass)
Grid Max. input apparent power	3300VA+3300VA (bypass)	4048VA+4048VA (bypass)	4600VA+4600VA (bypass)	5500VA+5500VA (bypass)	6600VA+6600VA (bypass)

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Grid AC input and AC output	SSE-HH3K-P1-EU	SSE-HH3K7-P1-EU	SSE-HH4K6-P1-EU	SSE-HH5K-P1-EU	SSE-HH6K-P1-EU
Grid rated output active power	3000W	3680W	4600W	5000W	6000W
Grid rated output apparent power	3000VA	3680VA	4600VA	5000VA	6000VA
Grid Max. output active power	3300W	4048W	4600W	5500W	6600W
Grid Max. output apparent power	3300VA	4048VA	4600VA	5500VA	6600VA
Grid rated input current	13+13A a.c (bypass)	16+16A a.c (bypass)	20+20A a.c (bypass)	21.7+21.7A a.c (bypass)	26.1+26.1A a.c (bypass)
Grid rated output current	13A a.c	16A a.c	20A a.c	21.7A a.c	26.1A a.c
Grid power factor	0.8 leading to 0.8 lagging				
Grid input and output Inrush current	96A a.c @ 3 μ s				
Max. Grid output fault current	96A a.c @ 3 μ s				
Max. Grid output overcurrent protection	250V a.c /60 A a.c				
Grid input Icc (Rated conditional short-circuit current)	500A a.c				
Grid input Icw (Rated short-time withstand current)	500A a.c				
Total Harmonic Distortion (THDi, rated power)	<3%				
EPS output					
EPS rated output Voltage	220/230/240V a.c, 1W+N+PE				
EPS rated output frequency	50/60Hz				
EPS rated output active power	3000W	3680W	4600W	5000W	6000W
EPS rated output apparent power	3000VA	3680VA	4600VA	5000VA	6000VA
EPS rated output current	13A a.c	16A a.c	20A a.c	21.7A a.c	26.1A a.c
EPS output power factor	0.8 leading to 0.8 lagging				
EPS output peak power	6600VA(<10s)				
EPS output Inrush current	96A a.c @ 3 μ s				
EPS Max. output fault current	96A a.c @ 3 μ s				
EPS Max. output overcurrent protection	250V a.c /60 A a.c				
Switch Time	<20ms				

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EPS output	SSE-HH3K-P1-EU	SSE-HH3K7-P1-EU	SSE-HH4K6-P1-EU	SSE-HH5K-P1-EU	SSE-HH6K-P1-EU
Total Harmonic Distortion (THDv, linear Load)	<2%				
Compatible with the Generator	Optional				
Efficiency					
MPPT Efficiency	99.90%				
Euro-efficiency	97.00%				
Max. efficiency	97.80%				
Standard					
Safety	EN/IEC 62109-1/2, EN/IEC 60529, EN/IEC 62477-1				
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3, EN IEC 61000-3-12, EN IEC 61000-3-11				
Grid-interactive	CEI 0-21, EN 50549-1, VDE-AR-N 4105, UNE 217002, NTS TYPEA, G99, AS/NZS 4777.2 and so on				
Environment					
Degree of ingress protection	IP65				
Protection class	I				
Environment category	Outdoor				
Wet location classification	Yes				
Pollution degree	PD3				
Operating altitude	<2000 m				
Operating ambient temperature	-25 - +60 °C (linely derating to 80% 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)	<25dB				
Overvoltage Category	AC: III, PV: II				
Electrical supply system	TN, TT				
Environment					
Dimension (WxHxD)	480x480x180mm				
Net Weight	20kg				
Cooling Mode	Natural Cooling				
Topology	Non-isolated				
Active anti-islanding method	Active frequency drift				
Communication with Meter	RS485				
Communication with Portal	Bluetooth/WIFI (Optional)				
LCD Display	8 led				